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1 Procurement of medicines from external suppliers

1.1 Company medical representatives
1.1.1 Company medical representatives must observe the ABPI (Association of British Pharmaceutical Industry) Code of Practice for the Pharmaceutical Industry in the promotion of medicines.

1.1.2 The presence of medical representatives must not disrupt work in clinical areas or in general practice.

1.1.3 NHS Lothian staff may not be approached directly by medical representatives. Only appropriate appointed staff for example consultants, specialist registrars, charge nurses, nurse specialists and pharmacy staff should see representatives by appointment only.

1.1.4 Offers of hospitality (including the payment of travelling or accommodation expenses) from medical representatives for meetings or events for professional or scientific purposes, or for the promotion of a medicinal product may only be accepted if the hospitality is strictly limited to the main purpose of the meeting or event, and the person accepting the hospitality is a health professional. NHS Lothian employees must follow relevant guidance and policies regarding business conduct.

1.1.5 The Director of Pharmacy or delegated deputy is involved in all negotiations with suppliers for agreements and contracts for medicines used in hospitals, including companies that deliver medicines directly to a patient’s home. Representatives must not negotiate agreements or contracts for medicines without involving the Director of Pharmacy or delegated deputy.

1.1.6 Hospital staff must not disclose information on medicine costs to representatives. Information on hospital medicine costs and prices is confidential within NHS Lothian and is only referred to in the most general terms to non-NHS Lothian personnel, except during direct negotiations of agreements and contracts which should only be undertaken by authorised staff.

1.2 Medicine samples
1.2.1 NHS Lothian staff must not accept any product, including medicines or dressings, from medical representatives.

1.3 Defective medicines
1.3.1 Official notification of a defective medicine is issued from the Scottish Executive as a Drug Alert, or from the manufacturer or supplier. Scottish Government Drug Alerts include the required timescale for action.

1.3.2 The Director of Pharmacy must ensure that there are systems in place to check if the defective medicine has been issued for use in NHS Lothian, and to withdraw from use any defective medicine that has been issued, within the required timescale for action.

1.3.3 Defective medicines or potentially defective medicines must be withdrawn from use in an appropriate timescale to minimise risk to patients.
1.3.4 If any member of staff or contractor has reason to believe that a medicine is defective, he or she must inform a pharmacist immediately. The pharmacist is responsible for taking appropriate action including completion of an incident form if applicable.

1.3.5 The person who discovers the defect must ensure that the product, container and other packaging are retained. If the defect has been discovered following reconstitution or mixing with another preparation, then the mixture, remaining unmixed constituents, and all containers and other packaging must also be retained. All retained materials must be placed in a sealed container, clearly marked ‘Do not use’, and returned to the pharmacy as soon as possible.

1.3.6 The Director of Pharmacy must ensure that there are systems in place to investigate local reports of defective medicines, to withdraw from use other affected stock if appropriate, and to inform the Scottish Government, Pharmacy Division, if there are implications for the rest of the health service.

1.3.7 If there is a reason to believe that a device is defective then the guidance from Clinical Governance must be followed.

http://intranet.lothian.scot.nhs.uk/Directory/ClinicalGovernance/Pages/ClinicalGovernanceinNHSLothian.aspx

1.4 Unlicensed medicines

1.4.1 Licensed medicines are medicines that have a UK Marketing Authorisation, formerly called a Product Licence, issued by the Medicines and Healthcare products Regulatory Agency (MHRA).

1.4.2 Wherever possible licensed medicines must be used to treat patients.

1.4.3 Appropriate risk management arrangements must be followed for the procurement of medicines that do not have a Marketing Authorisation.

1.4.4 Unlicensed medicines are medicines that do not have a Marketing Authorisation. They include:

- Medicines not for sale in the UK, for example awaiting a UK Marketing Authorisation, undergoing clinical trial, withdrawn from the market, or manufactured out of the UK. These medicines are usually available on a ‘named patient’ or ‘individual patient’ basis.
- Medicines prepared by a hospital or commercial manufacturer under a specials licence. These medicines are termed ‘pharmaceutical specials’.
- Medicines prepared for a specific patient in accordance with an individual prescription. These medicines are termed extemporaneously dispensed medicines.
- Licensed medicines repacked from their original containers in batches rather than for an individual patient.

1.4.5 Doctors and non-medical prescribers can prescribe unlicensed medicines, pharmacists can dispense them, and nurses and midwives can administer them to patients. If the medicine is to be used to treat an individual patient, and it has not been approved for use by the Area Drug and Therapeutics Committee, the policy for prescribing non-approved medicines must be followed.
• If a prescriber wishes to initiate new treatments for groups of patients using an unlicensed medicine, a request must be submitted to the Area Drug and Therapeutics Committee. See separate section - Policy for the use of unlicensed (and off-label) medicines in NHS Lothian.

http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx

1.4.7 The prescriber is responsible for ensuring that the use of an unlicensed medicine is clearly justified and that the benefits are considered to outweigh the risks.

1.4.8 The pharmacist is responsible for ensuring, as far as possible, that the medicine he or she supplies is used safely, effectively and appropriately, and is suitable for the patient.

1.4.9 The Director of Pharmacy must ensure that there are systems in place to procure unlicensed medicines of the required quality.

1.5 Medicines used for research and clinical trial

1.5.1 See section 20 – Medicines used for research and clinical trials.
2 Ordering and stock control in clinical areas in hospitals

2.1 Stock lists
2.1.1 The charge nurse and the responsible pharmacist must agree a stock list that reflects the needs of the patient group in each clinical area, and is in line with agreed formularies.

2.1.2 Staff who are trained and competent to handle and administer all the medicines on the agreed stock list must be available in the clinical area.

2.1.3 The stock list must contain a list of the names and forms of all medicines required, and the minimum stock level that must be held.

2.1.4 The stock list must be reviewed and updated regularly, at least once every year.

2.1.5 Arrangements must be in place to encourage patients to bring their own medicines for use during the hospital stay.

2.1.6 Arrangements must be in place to ensure that medicines that are not included in the agreed stock list, or where the patient’s own supply is not available or suitable, are obtained timeously, so that doses are not missed or delayed.

2.1.7 Medicines that are not on the agreed stock list are only prescribed and ordered if there are staff available in the clinical area who are trained and competent to handle and administer them.

2.2 Procedure for ordering medicines
2.2.1 The charge nurse, the responsible pharmacist or technician, and the porters’ manager must agree a schedule for ordering and delivery of medicines.

2.2.2 Medicines included in the stock list must be ordered so that they may be delivered according to the schedule.

2.2.3 Ward staff must arrange delivery for items that are ordered outwith the delivery schedule.

2.2.4 The charge nurse must ensure that medicines are only ordered by registered nursing staff or other relevant professionals that he or she has authorised, and that authorised staff are trained and competent in the processes involved in ordering medicines.

2.2.5 Staff who order medicines must make all the checks that are needed to ensure that required medicines are ordered, and that unnecessary medicines are not ordered. Patients should use their own medicines during the hospital stay where they are suitable, and where the patient consents to do so. See separate section 4 – Use of patient's own medicines in hospital.

2.2.6 Medicines must be ordered from the pharmacy on approved ordering documents.

2.2.7 All required information must be written clearly on the ordering document.
2.2.8 An authorised prescriber must write an order for controlled drugs (that are subject to specific prescription requirements) that require to be labelled with instructions for inpatient and/or discharge use, to comply with legal requirements (see BNF for legal requirements).

2.2.9 The charge nurse must monitor medicines ordering practice to ensure that it is carried out efficiently, so that doses are not missed or delayed unnecessarily, medicines are not wasted, and medical, nursing, pharmacy and portering time is used efficiently.

2.2.10 If a medicine is not available, this must be recorded clearly on the prescription record, documented in the patient’s medical record, and the responsible doctor informed.

2.3 Procedure for receipt of medicines

2.3.1 Medicines must be issued from the pharmacy in a tamper evident package, clearly labelled with the destination, and accompanied by a note of what has been supplied. Tamper evident packaging and a note of what has been supplied are not required when medicines are collected by the patient.

2.3.2 The messenger or porter who collects the completed order from the pharmacy must sign for receipt of the sealed package.

2.3.3 A registered nurse must sign for receipt of the sealed package in the ward, theatre or department.

2.3.4 If the order cannot be checked immediately, the registered nurse is responsible for ensuring that the package is stored in the conditions necessary to maintain security and quality (for example, in a locked area or under surveillance or in a fridge if required).

2.3.5 A registered nurse in the ward, theatre or department, must check the received order, as follows.
- The package is sealed and has not been tampered with.
- The items listed on the note of what has been supplied match the items that were ordered.
- The items listed on the note of what has been supplied match the items that have been received.

2.3.6 If a discrepancy is found it must be reported to the pharmacy immediately so that it can be investigated and an incident form completed.

2.3.7 The note of what has been supplied must be retained in the ward, theatre or department for 2 years, or for prescriptions, in the patient’s medical notes.

2.3.8 The registered nurse is responsible for ensuring that all medicines that are not required for immediate administration are placed at the correct location in a suitably secure storage area immediately on receipt.

2.3.9 Receipt of controlled drugs. See section 27.1.6 Management of CDs in wards, theatres and departments.
2.4 **Arrangements for the supply of medicines when the pharmacy is closed**

2.4.1 The charge nurse is responsible for ensuring that all required medicines are available so that doses are not missed or delayed unnecessarily. There must be a system in place to ensure that adequate supplies of required medicines are ordered during the pharmacy opening hours.

2.4.2 The responsible lead pharmacist must ensure that an on-call pharmacist is available to provide advice on availability and safe use of medicines when the pharmacy is closed, and to provide urgently required medicines from the pharmacy if necessary.

2.4.3 The on-call pharmacist must be able to be available in the site pharmacy if required within one hour of a call being received.

2.4.4 The responsible lead pharmacist must ensure that an adequate supply of the agreed list of medicines that may be required in an emergency is maintained in an emergency cupboard on each hospital site where patients may be treated, when the pharmacy is closed. The senior nurse responsible for the site, or Hospital at Night co-ordinator must have access to the emergency cupboard.

2.4.5 If a prescribed medicine is not available in the clinical area when the pharmacy is closed, the charge nurse must take action as follows.

- consult with the doctor to agree whether the dose may be missed or delayed without compromising patient care, until the pharmacy is open. If not,
- consult with the doctor to agree whether an alternative medicine that is available can be prescribed and administered, without compromising patient care. If not,
- contact the senior nurse responsible for the site, or Hospital at Night co-ordinator via the hospital switchboard

2.4.6 Depending on the arrangements at the site concerned, the senior nurse responsible for the site, or Hospital at Night co-ordinator must contact the on-call pharmacist. The senior nurse responsible for the site, or Hospital at Night co-ordinator is the first point of contact for ward staff before the on-call pharmacist is contacted.

2.4.7 If the medicine is for a patient being discharged, or on pass, the charge nurse must take the following steps before contacting the senior nurse responsible for the site, or Hospital at Night co-ordinator.

- Check if the patient already has an adequate supply on the ward or at home.
- Check when the next dose is required after the patient leaves the ward. If it is not required until after the pharmacy next opens, and the patient lives within a reasonable distance of the hospital, arrange for the patient or representative to collect the medicines from the ward the next day, or inform the patient that the medicines will be delivered to his/her home the next day.
- If the patient is being discharged and some or all of the medicines are to be delivered to the patient's home, give the patient a copy of the Immediate Discharge Summary. This is in case the GP has to be contacted before the medicines are delivered with the copy of the prescription.
- If the medicines are to be collected, or are to be delivered to the patients home, inform the clinical pharmacist or dispensary manager when the pharmacy opens.

2.4.8 The senior nurse responsible for the site, or Hospital at Night Co-ordinator must check ward and emergency cupboard stock lists that are available and arrange for medicines to be borrowed if appropriate. If the medicine is not available to borrow, or if it is not appropriate to borrow the medicine, and if the medicine is required before the pharmacy opens, the senior nurse responsible for the site or Hospital at Night Co-ordinator must contact the on-call pharmacist.
2.4.9 The on-call pharmacist must take action as follows.

- If the medicine is not stocked in another ward or department and another medication is not appropriate, and the medicine is stocked in the pharmacy, if deemed clinically appropriate, the on-call pharmacist will attend the hospital to supply.
- If the medicine is not stocked in the pharmacy, discuss with the prescriber and agree appropriate action.

2.5 Borrowing medicines between wards, theatres and departments

2.5.1 Medicines may only be borrowed between wards, theatres and departments when the pharmacy is closed or in a clinical emergency.

2.5.2 A pharmacy order form or medicines transfer record book (from pharmacy), whichever is used at the particular site, must be completed for all medicines borrowed whether full packs or single doses, clearly stating the issuing and receiving wards, theatres or departments, and signed by the nurses issuing and receiving. There is a separate procedure for controlled drugs, See separate section – Standard operating procedures for controlled drugs in hospitals. A copy of the form must be retained in the borrowing area, and lending area, so that replacement or further supplies may be ordered when the pharmacy opens. A copy must also be sent to the pharmacy so that costs may be re-charged and a record held.

2.5.2 For borrowing of schedule 2 controlled drugs see section 27.4.6
3 One Stop Dispensing

3.1 Introduction
3.1.1 One Stop Dispensing refers to the practice of combining inpatient and discharge dispensing into a single supply labelled for discharge.

3.2. Supplying medicines from the clinical area
3.2.1 Patients will use their own medicines brought in from home if they are in a suitable condition and they will be assessed for use using the suitability criteria (Use of Patients Own Medicines policy).

3.2.2 It may be necessary to supply medicines for inpatient use for the following reasons;
- Patients’ Own Medicines are unsuitable
- Patients’ Own Medicines have not been brought in
- A further supply of a Patients’ Own Medicine is required
- A new medicine has been started

3.2.3 Supplying a medicine for inpatient use can be done in one of three ways:
- As an over-labelled medicine from the ward pre-labelled medicine supply
- As an Individual Patient Supply (IPS) ordered from pharmacy
- As an unlabelled medicine from ward stock

3.3 Over-labelled medicines
3.3.1 The clinical pharmacist for each ward will agree a list of medicines that are commonly used in the clinical area. Pharmacy will then supply these medicines to the ward as over-labelled medicines (pre-packs).

3.3.2 All over-labelled medicines will have blank spaces for the patients’ name and date. They may have a hospital pharmacy label attached to them with either blank spaces for instructions to be added or a standardised instruction, or the instructions may be printed on the container. The patient name, date and instruction (where appropriate) are completed on discharge, pass, transfer or if the patient is self-administering.

3.4 Individual Patient Supply (IPS) medicines
3.4.1 Medicines that are not supplied to the ward as an over labelled medicine (pre-pack), but are required for a patient must be ordered from pharmacy. They must be ordered using the ‘Request for Individual Patient Supply’ order form. A registered nurse, pharmacist or pharmacy technician can transcribe prescription details from the prescription and administration chart on to the Individual Patient Supply form. This transcription must be checked and signed by a second person who may be a registered nurse, pharmacist, or pharmacy technician except in those areas where the Medicines Policy Subcommittee and the Chief Nurse has agreed for only one nurse to sign and this is only when two nurses are not available.
3.5 **Unlabelled medicines**

3.5.1 All wards will have a supply of unlabelled medicines. Unlabelled medicines can be used when:
- An over-labelled medicine supply is unavailable
- An individual patient supply is ordered but has not yet arrived
- As an as required or once only dose

3.5.2 They can be placed in the patients’ medicine cabinet temporarily. Unlabelled medicines must never be sent home with a patient.

3.6 **Controlled Drugs**

3.6.1 If a supply of controlled drugs is required for a patient, they can be ordered for ward stock from pharmacy in the usual manner, or they can be ordered individually for the patient. Controlled drugs ordered for the individual patient must be ordered by the prescriber and requires the prescribers hand written signature.

3.7 **Length of supply**

3.7.1 Over-labelled medicines (Pre-Pack) and Individual Patient Supply (IPS) medicines will be issued as a 28 day supply or the nearest original pack size. If the medicine regime requires a lesser supply these can be issued in one of two ways:
- By contacting the clinical pharmacist to arrange the correct supply
- By issuing a full pack and giving the patient clear instructions on the length of supply to be administered. The patient should also be advised to return any excess medicine/s to their community pharmacy.

3.8 **Re-labelling of Patients’ Own Medicines and Individual Patient Supply Medicines (IPS)**

3.8.1 The instructions on the label should always correspond to those on the prescription and administration chart. If a dose on a prescription and administration chart is altered the correct dose should be supplied by using a pre-labelled medicine from the ward or by ordering from pharmacy as an IPS. If re-labelling of an IPS medicine is required this can only be done by clinical pharmacy staff who should be contacted.

3.8.2 Administration of medicines on the ward may still be carried out in accordance with instructions on the prescription and administration chart, even if the directions on the label are incorrect as long as the drug is suitable for use and the appropriate dose can be administered.

3.8.3 All patients own drugs and medicines issued by the hospital may be re-labelled. If re-labelling patients own medicines the name of the original dispensing pharmacy must remain visible. Re-labelling must be done by a member of pharmacy staff.
3.9 Discontinued medicines
3.9.1 Patients Own Medicines no longer prescribed must be removed from the patients’ medicine cabinet. If it is suspected that the patient may re-start the medicine, it may be stored in the medicine cabinet for a short period of time before being returned to pharmacy for destruction (with consent).

3.9.2 Over-labelled medicines may be considered for return to ward supply if they have not previously left the hospital, and have not been endorsed with the patient's name, date of issue or instructions. Any discontinued IPS medicines must be returned to pharmacy for destruction.

3.10 Transfer of patients’ medicines
3.10.1 Within a ward - If a patient is being transferred to a different bed within the same ward, nursing staff are responsible for ensuring that all medicines are removed from the patients’ medicine cabinet, taken to the new bedside and locked in the appropriate patient medicine cabinet. Areas that use an integrated locker system should move the locker with the patient to the new bed space.

3.10.2 Within the same hospital - All medicines must be removed from a patient's cabinet, by the escort, and taken to the new ward or bed in the designated green medicine bag. Nursing staff at the receiving ward are responsible for ensuring medicines are received and must check them against the patients’ prescription and administration chart to ensure the supply is correct. For patients transferred for a short time out-with the hospital, their medicines will be stored in the locked medicine cupboard on the original ward.

3.10.3 To another hospital within NHS Lothian - Patients transferred to another hospital, within or out-with NHS Lothian should be regarded as being discharged from the ward. The procedure for discharge of patients must be followed.

In some areas there may be local agreement to transfer patients without following the full discharge procedure, these local procedures must be identified and followed.

3.10.4 Emergency transfer - If a patient is being transferred to another Hospital as an emergency, then a discharge prescription is not required. A copy of the current prescription and administration chart must be sent with the patient along with all currently prescribed medicines from the patients’ medicine cabinet or medicine trolley. Any fridge items and patients’ own controlled drugs must also be included.

3.11 Discharge/pass medicines

3.11.1 Discharge procedure
3.11.1.1 Discharges and passes where possible, must be planned in advance in order to minimise the delay to the patient.

3.11.1.2 Patients’ Own Medicines must be re-issued where appropriate on discharge or pass. The patient must have at least a 7 day supply of each medicine on discharge, or adequate supplies to cover the length of the pass.
3.11.1.3 Using the discharge assessment criteria the following process must be observed:

3.11.1.4 The prescriber completes and signs the discharge/pass prescription

3.11.1.5 The clinical pharmacist professionally checks and signs the discharge/pass prescription.

3.11.1.6 The pharmacy technician, or clinical pharmacist, or nurse checks the patients’ medicines for suitability and length of supply and signs the discharge/pass prescription

3.11.1.7 Two registered nurses must then:
   - Check the discharge prescription against the patients’ prescription and administration chart
   - Check the patients’ medicines against the discharge prescription
   - Complete patient details on over-labelled medicines i.e.: name, date and any instructions as necessary. Both nurses must sign the discharge prescription.

3.11.1.8 One registered nurse issues the medicines to the patient, along with a copy of the discharge/pass prescription.

3.11.2 Pass prescriptions

3.11.2.1 Some clinical areas use a repeat pass prescription system. When working within these areas the process implemented must be identified and adhered to.

3.11.2.2 For pass medicine supplies, confirm with the prescriber that the patient may receive current quantities of medicines held in the patients’ medicine cabinet, as this is likely to be greater than that prescribed for the duration of the pass.

3.11.3 Multi-compartment compliance aids (MCAs)

3.11.3.1 It may be necessary to send medicines from the patients’ medicine cabinet to pharmacy to allow a multi-compartment-compliance aid (MCA) to be filled. The patients’ medicines and the discharge prescription must be sent to pharmacy. Some areas may have a locally agreed procedure for the filling of multi-compartment-compliance aids this should be identified and adhered to.

3.11.3.2 Unless the patient normally fills his/her own MCA a 7 day supply will be dispensed into the MCA in pharmacy. In some areas it may be necessary to provide a supply longer than 7 days, this should be discussed with clinical pharmacy staff.

3.11.4 Medication Administration Records (MAR charts)

3.11.4.1 A MAR chart will only be supplied for a patient who is
   - cared for at home and where the carers are required to record the administration of medication
   - being discharged to an Edinburgh City Council/Mid, East or West Lothian Council/NHS Lothian facility where this service has been agreed

A MAR chart will not be provided not for patients going to any other care facility.
3.11.4.2 A new MAR chart will be provided for the patient on discharge unless the patient’s MAR chart is with the patient on the ward and there have been no changes to their medicines during the admission and there are a minimum of 7 days left on the MAR chart for recording medicine administration.

3.11.4.3 Any discontinued MAR chart should be scored through and annotated as discontinued along with the date, name of the person cancelling the chart and their designation. This chart must be given to the patient on discharge.

3.11.4.4 If a new MAR chart is required on discharge this should be indicated at the top of the discharge prescription before sending to the pharmacy.

3.11.4.5 A 7 day supply of medicines will be provided along with the MAR chart or as agreed with the downstream facility.

3.11.5 Controlled drugs

3.11.5.1 If patients’ own controlled drugs need to be re-labelled for discharge/pass, they should be sent to pharmacy for re-labelling along with the discharge prescription. This should only be done if instructed to do so by a member of the pharmacy team. Some areas may have a locally agreed policy for the relabelling of controlled drugs this should be identified and adhered to.

3.11.6 Outwith pharmacy opening hours

3.11.6.1 Out of hours two registered nurses can check and supply discharge/pass medicines to the patient by following the discharge assessment criteria.

3.11.6.2 Discharge/pass prescriptions written and issued out with pharmacy working hours must have a retrospective professional check within 72 hours of patient discharge/pass.

3.11.6.3 Remote areas/areas with no on site pharmacy must contact the on call pharmacist.

3.11.7 Respite patients

3.11.7.1 The discharge procedure must be followed, and any locally agreed procedures adhered to.

3.11.7.2 Respite patients’ using their own medicines brought in from home should on discharge have a correctly labelled minimum 7 day supply for each medicine unless there is a robust process in place to ensure that medicines will be supplied before the patient runs out.

3.11.8 Unlabelled medicines

3.11.8.1 Unlabelled patients’ own medicines (eg blister strips) which are being returned to a patient on discharge or pass must be accompanied by a written instruction (patient copy of the discharge letter is acceptable in most cases), or, where appropriate, a new labelled supply can be issued.
3.11.8.2 When an unlabelled medicine has a change in dosage or instruction the patient must also be provided with a clear written instruction, this can also be provided by the patient copy of the discharge letter, or a new labelled supply issued.

3.11.9 Discharge/pass Prescription
3.11.9.1 The patient must be given a copy of the discharge or pass prescription, which will provide written instruction on current medicines. Identified copies must also be sent to pharmacy, the patients’ GP and a copy stored in the patients’ health care records.
4  Use of patient’s own medicines in hospitals

4.1  Aims

4.1.1 The aims of the policy are:
- To enable a more accurate medication history to be obtained on admission.
- To continue the use of brands of medicine which are familiar to the patient.
- To reduce the potential for duplication of medicine supplies and consequent errors.
- To reduce unnecessary destruction of patients’ own medicines and associated financial waste.
- To support one stop dispensing and provision of appropriate patient information in line with European Union legislation.
- To reduce delays in the provision of medicines on admission and on discharge.
- To utilise patients’ own medicines and minimise errors in prescribing and avoid duplications in supply.

4.2  Pre-Admission

4.2.1 Elective patients must be encouraged to bring in their own medicines from home. Each clinical area will facilitate this in ways that are readily incorporated into existing systems for sending out pre-admission information.

4.3  Admission

4.3.1 On admission all patients admitted directly from home, other hospital or nursing home must be asked if they have brought their medicines with them. Any medicines remaining at home should be brought in by a relative, carer or parent at the next visit if possible. This includes compliance devices and MAR charts (only for patients who are cared for at home). The medicines must then be locked in the patients’ lockable cabinet, medicine trolley or locked cupboard and assessed at the earliest opportunity.

4.3.2 Provided consent has been obtained patients’ own medicines may be:
- Stored on the ward
- Used on the ward
- Sent to pharmacy for destruction
- Returned to the patients’ home with a relative or carer after hospital staff have assessed and documented them.

4.4  Consent

4.4.1 Medicines brought from home remain the patient's property and consent for their use or destruction must be obtained. The patient or their representative must give this as soon as possible after admission. The admitting nurse/clinical pharmacist/pharmacy technician must obtain consent and record this in the patient’s healthcare record. If a patient is unable to give verbal consent a relative or carer must be asked on behalf of the patient and this must be recorded in the patient’s healthcare record.
4.4.2 Patients have the right not to agree to the use or destruction of their medicines. When this occurs the medicines must never be used or discarded. If consent for use or destruction is not given, this must be documented on the patient’s healthcare record. The medicines of a patient refusing to give consent must be returned to the patient on discharge or sent home prior to this with a relative or carer. If patients’ own medicines are considered unsuitable for use the nurse, pharmacist or pharmacy technician must advise the patient that the medicines are of an unsatisfactory quality, of the associated risks and request permission to have them destroyed.

4.5 Storage of Patients’ Own Medicines - Medicine Cabinets

4.5.1 Patients’ own medicines, with exception of fridge items, are kept in medicine cabinets either attached to or integrated into their bedside locker or attached to the wall. Each medicine cabinet has its own lock, avoiding the potential problem of access by other patients or relatives.

4.5.2 Medicine cabinets must be checked to ensure that they are empty at point of discharge or transfer and cleaned between each patients’ use.

4.5.3 The medicines of a patient refusing to give consent for their use or destruction must be stored in a secure manner so they do not present a risk to other patients, i.e. in a locked cupboard. At the first opportunity these medicines must be either sent home with a relative, carer or with the patient on discharge.

4.6 Fridge Medicines

4.6.1 Medicines requiring refrigeration (i.e. medicines labelled as such, or identified as store between 2-8ºC) must be stored in a locked medicine refrigerator. All medicines must be labelled appropriately with individual patient details.

4.7 Assessment of Patients’ Own Medicines

4.7.1 Patients’ own medicines must be assessed on admission using the suitability criteria. Initial assessment can be carried out by nursing staff and documented appropriately. An assessment of patient’s own medicines form may be used. See


All documentation must be stored in patients’ healthcare records. This allows patients’ own medicines to be utilised when pharmacy is closed.

4.7.2 On the first working day after admission and where practical, the ward based technician or clinical pharmacist when available, must formally assess the medicines. If patients own medicines are suitable for use this must be documented on the prescription and administration record, where appropriate. Some clinical areas may use specific documentation to record the suitability of patients own medicines, any locally developed
policies and procedures must be adhered to. Ensure the use of multi-compartment compliance aids or MAR charts are documented at this stage if not done so already.

4.7.3 Respite patients’ own medicines may be assessed for use during their hospital stay. The suitability criteria must also be used to assess these medicines.

4.8 Suitability criteria
4.8.1 Ensure the medicines belong to the patient.

4.8.2 The label and contents must appear to correspond. Where no label is available contents must correspond with the pack.

4.8.3 The medicine must be in the original container.

4.8.4 Blister strips with medicine name, strength, expiry date and batch number may be used.

4.8.5 Each container must hold only one type of brand of preparation from a single supply i.e mixed batches will not be accepted. Containers holding several different medicines or dosage strengths will be discarded, (with consent).

4.8.6 Patients’ own controlled drugs may be considered for use on the ward, providing they are in an original, labelled dispensing pack.

4.8.7 Where a medicine is not in its original pack and an expiry date is not provided, it must have been dispensed by a pharmacy within the last 12 months.

4.8.8 A medicine in the original manufacturer’s pack must be within the expiry date documented on the pack.

4.8.9 Ophthalmic preparations may be used provided they are within two weeks of opening.

4.8.10 Ear drops/nose drops must have been opened within previous 4 weeks.

4.8.11 Creams or ointments must have been opened within the previous 4 weeks.

4.8.12 Insulin products; In general opened vials, pens and cartridges must be used within 28 days of opening and can be stored in the patients’ medicine cabinet. Any unopened insulin must have been stored in the fridge at home and should be stored in the ward fridge. Always check manufacturers’ guidance for storage of specific insulin products.

4.8.13 Insulin pumps; contact the clinical pharmacist.

4.8.14 The expiry date on all inhalers and sprays must be checked.

4.8.15 Medication in a foreign language will only be used if the name and strength of the drug are stated in English on the packaging, in addition to a UK pharmacy dispensing label, or unless a pharmacist has authorised their use.

4.8.16 Cytotoxic agents, clozapine and clinical trial supplies are classed as high risk medicines. A pharmacist must confirm all patients’ own cytotoxic/clozapine/clinical trial medicines including methotrexate and azathioprine, as suitable and appropriate for the patient, before the medicines are administered to the patient. Out of hours or at the weekend it may be
necessary to contact the on call pharmacist who may make a new supply or approve patients’ own.

4.8.17 There must be no visible signs of deterioration of the medicines eg. mottling, discolouration, disintegrating tablets, dirty or damaged storage container.

4.8.19 The medicine must appear to have been correctly stored, in particular fridge items.

4.8.20 Any items removed from the cabinet for storage purposes must be clearly marked with the patients’ name and CHI number.

4.8.21 The responsible pharmacist/technician/registered nurse must be satisfied with the general condition of the product and it’s packaging and labelling.

4.8.22 Professional discretion should remain the over-riding factor in assessing suitability.

4.8.23 If in doubt about suitability of a medicine do not use it.

4.8.24 A patient’s own medicine must never be administered to another patient.

4.9 Use of multi-compartment compliance aids (MCAs)

4.9.1 Where patients’ are admitted with clearly labelled supplies of medicines in sealed multi compartment compliance aids (MCAs) - Nomad/MDS plus pack/Dosett or similar, these can be used on the ward in the same way as any other patients’ own medicine supply, however this must be at the discretion of the clinical pharmacist. It must be established that ALL medicines in the MCA are prescribed and in the same time frame.

4.9.2 Unsealed MCAs must not be used unless under exceptional circumstances.

These are:
- Patients who are on the self administration programme in accordance with the self administration policy.
- Short-term use when a patient is at clinical risk by omission of a medicine and an alternative supply is not available.

In either circumstance, a pharmacist must be consulted first.

4.9.3 Criteria for use of unsealed MCAs in the above situations.

4.9.4 The MCA must have been dispensed in a pharmacy, and/or the pharmacist must be satisfied that the contents are correct.

4.9.5 All contents should be prescribed on the prescription and administration chart and in the same time frame as the MCA.

4.9.6 It should have been dispensed within the previous 2 weeks.

4.9.7 It should be clean and dry with no obvious contamination or tampering.
4.10 Unsuitable or discontinued patients own medicines

4.10.1 Patients’ own medicines that are unsuitable for use, or that have been discontinued, must not be used.

4.10.2 If consent for destruction has been given they must be sent to pharmacy for destruction.

4.10.3 If consent for destruction has not been given all patients’ own medicines must be placed in a bag and clearly marked that they are not for use or for destruction and returned to a relative or carer at the first opportunity or sent home with the patient on discharge.

4.10.4 If the patient dies then all their medicines must be returned to pharmacy and should not be returned to relatives.

4.10.5 These bags must be stored either in the patient’s locked cabinet or a suitable locked cupboard until uplifted.

4.10.6 The patient must be advised that their medicines and doses may be changed at point of discharge. It is therefore inadvisable to use patients own medicine/s previously sent home or returned to them at point of discharge.

4.10.7 If a patient is admitted with a MAR chart this must be returned to the patient on discharge (see section 3.11.4).

4.11 Discrepancies between patients’ own medicines and the prescription chart

4.11.1 If a dose is changed and causes a discrepancy between the patients’ own medicine label and the prescription and administration chart the nurse administering the dose should take instruction from the prescription and administration chart. If there is still a discrepancy at point of discharge you must either;

- Provide a correctly labelled supply from the ward pre-labelled medicine supply
- A new individual patient supply.
Transport of medicines

5.1 Maintaining security and quality
5.1.1 A record must be kept at each step where a medicine changes hands during its delivery from the place of issue to the final destination.
5.1.2 The person responsible for the medicine at each point of the transportation chain must be identifiable.
5.1.3 Containers and packages must be kept securely or under surveillance whilst awaiting collection or in transit between the place of issue and the final destination.
5.1.4 Containers and packages awaiting collection or in transit must be kept in the appropriate storage conditions to maintain the quality of their contents. This includes maintaining the cold chain where required.
5.1.5 All medicines must be transported in sealed tamper evident containers or packages.
5.1.6 All containers and packages must be clearly labelled with the final destination.
5.1.7 Persons issuing medicines must advise of any health and safety risks and special storage conditions associated with the transport of a medicine at the time of collection. Specific arrangements must be in place for the transportation of cytotoxic medicines (see separate policy – Guidelines for the safe handling and administration of cytotoxic agents), medical gases (see separate section – Medical Gases), and radiopharmaceuticals (see separate section - Radiopharmaceuticals).
5.1.8 Responsibility for security and maintenance of appropriate storage conditions remains with those collecting the sealed container until delivery is made, and documentation is signed for receipt.
5.1.9 Managers of staff groups responsible for transporting medicines are responsible for ensuring staff are trained to ensure an understanding of the need for security and relevant procedures, including action to be taken in the event of physical threat.

5.2 Maintaining the cold chain
5.2.1 Sensitivity to changes in temperature varies depending on the medicine. The manufacturers literature must be consulted and other expert advice must be sought if medicines that require to be stored at temperatures outwith normal ambient temperatures, that is in a fridge or freezer, need to be transported.
5.2.2 If medicines that are sensitive to temperature changes are to be transported on a regular basis, the transport system must be validated and monitored using a continuous temperature recording device for the duration of the transport time.
5.2.3 If medicines that are sensitive to temperature changes are to be transported on an occasional basis, the following good practice should be followed.
The medicine must be held outwith the recommended storage temperature for the minimum time possible. Maximum exposure time allowed depends on the sensitivity of the product.

- Cold boxes or expanded polystyrene boxes should be used if appropriate.
- If ice packs are used, they must be evenly distributed. Direct contact with the medicines must be avoided by using layers of card between the medicines and the ice packs. Using partially frozen ice packs further reduces the risk of the medicine freezing.

5.3 Use of couriers by hospitals

5.3.1 Couriers may only be used to transport medicines from or between hospitals if hospital transport is not available.

5.3.2 Only couriers able to produce identification may be used to transport medicines.

5.3.3 Couriers used by hospitals must always be ordered via the hospital switchboard.

5.3.4 Couriers must not carry passengers while transporting medicines.

5.3.5 The courier must sign for collection of medicines to be transported.

5.4 Delivery of medicines by NHS Lothian staff or couriers to patient’s homes

5.4.1 This does not apply to CPN or other registered clinical staff who routinely deliver medicines to patients.

5.4.2 Medicines must only be delivered in exceptional circumstances when the patient or the patient’s representative cannot collect them, and there is no suitable alternative means of delivery.

5.4.3 A risk assessment must be made on how the medicines are to be delivered and that the patient is capable of receiving delivery.

5.4.4 Staff must contact the patient prior to ordering the courier or sending a member of staff with the medicines to ensure that they are in and able to answer the door. The patient must be asked to telephone the ward or department to confirm they have received the medicine.

5.4.5 The address that the medicine is to be delivered to must be confirmed along with the postcode.

5.4.6 Only couriers able to produce identification may be used to transport medicines.

5.4.7 Couriers used by hospitals must always be ordered via the hospital switchboard.

5.4.8 Couriers must not carry passengers while transporting medicines.

5.4.9 The courier must sign for collection of medicines to be transported.

5.4.10 If the patient receiving the medicine does not contact the ward or department with a reasonable period of time the staff must contact the patients to see if the medicine has been delivered.
5.4.11 If the medicine has failed to arrive then the courier must be contacted to see what the delay is and an estimate of the time the medicine will be delivered.

5.5 Posting medicines
5.5.1 Medicines must only be posted in exceptional circumstances when the patient or the patient’s representative cannot collect them, and there is no suitable alternative means of delivery apart from bowel preparations which are taken prior to endoscopy, which are routinely posted.

5.5.2 If medicines need to be posted, they must be packed, transported and delivered in such a way that their integrity, quality and effectiveness are preserved.

5.5.3 Patients medicines may provide confidential information about their condition and treatment, and this must be considered before posting medicines.

5.5.4 Cytotoxic chemotherapy is classified as prohibited or restricted material by the Postal Service and must therefore not be sent by routine post. Special arrangements are required and the carrier must be made aware of the hazardous contents. Storage, handling and packaging requirements must be agreed. Royal Mail International Headquarters may be contacted for further information.

5.5.5 Where medicines are posted, a record must be kept of the date, name and address of the recipient, contents of the package, and person responsible for posting.

5.5.6 Medicines must always be posted using recorded delivery or registered mail.

5.6 Return of medicines to the hospital pharmacy
5.6.1 Medicines must not be returned to the pharmacy in the pharmacy delivery box unless it has a tamper evident seal.

5.6.2 All medicines must be itemised.

5.6.3 Controlled drugs, cytotoxic medicines, or items requiring refrigeration or freezer storage must not be returned in the pharmacy delivery box at any time. Contact pharmacy department for advice on returning these medicines.

5.7 Transfer of medicines in hospitals
5.7.1 In areas where medicines or medicine kits are issued from hospital wards and departments to personnel, for example midwives, community nurses, ambulance drivers, the charge nurse is responsible for ensuring that written records of issue and return are maintained.

5.7.2 When a patient is transferred to another clinical area within the same hospital site, or at a different hospital site, the nurse responsible for the patient’s care must make arrangements to ensure that required doses of medicines are not missed or delayed. The patient’s own medicines, other medicines supplied for the individual patient’s use, and other prescribed medicines not immediately available in the receiving clinical area must be transferred.
5.7.3 Where medicines need to accompany a patient who is being transferred, they must be placed in a green ‘Patients Own Medicines’ disposable bag. As the responsibility for the patient is transferred from one nurse or other clinician to another, the responsibility for the safety and security of the medicines is also transferred.

5.7.4 Where the responsibility for a patient is transferred from one clinician to another, or from one clinical area to another, then the clinician receiving the patient must check that all medicines that are in the process of being administered during the transfer are correct for the patient. This is part of the series of checks that are required at transfer.

5.7.5 If defective administration equipment, or a medical device, containing medicines has to be removed from the clinical area for investigation, the person releasing the medicine must make a written record of the transfer. Records of any subsequent transfers, and of final disposal must be kept by the person releasing or destroying the medicine.

5.8 Transfer of patient’s medicines in or between hospitals

5.8.1 See section 3.10 for one-stop patients.

5.8.2 When a patient is transferred to another clinical area within the same hospital site, or at a different hospital site, the nurse responsible for the patient’s care must make arrangements to ensure that required doses of medicines are not missed or delayed. The patient’s own medicines, other medicines supplied for the individual patient’s use, and other prescribed medicines not immediately available in the receiving clinical area must be transferred.

5.8.3 Where medicines need to accompany a patient if available is being transferred, they must be placed in a green ‘Patients Own Medicines’ bag if available. As the responsibility for the patient is transferred from one nurse or other clinician to another, the responsibility for the safety and security of the medicines is also transferred.

5.8.4 Where the responsibility for a patient is transferred from one nurse or other clinician to another, or from one clinical area to another, then the nurse or other clinician receiving the patient must check that all medicines that are in the process of being administered during the transfer are correct for the patient. This is part of the series of checks that are required at transfer.
6 Storage and security in clinical areas including GP practices

6.1 Standards for storage areas
6.1.1 All medicines must be stored in areas that meet the standards for storage areas.

6.1.2 If medicines received in response to an order cannot be checked and put away immediately, the person that receives the medicines is responsible for ensuring that the package is stored in the conditions necessary to maintain security and quality (for example, in a locked area or under surveillance or in a fridge if required).

6.1.3 Medicines must be stored in such a way that they are maintained at the required quality for administration.

6.1.4 Storage areas must allow medicines to be segregated and arranged so that they can be easily selected when required, and so that the risk of selecting the wrong preparation is minimised. This also facilitates efficient stock control and ordering.

6.1.5 In hospitals, the charge nurse is responsible for maintaining the standards for medicine storage areas, for ensuring that there is adequate storage space, and for ensuring that medicines are stored at the temperature specified by the manufacturer.

6.1.6 Separate lockable cupboards are required for
- controlled drugs
- internal medicines
- external medicines
- items requiring fridge/freezer storage
- diagnostic reagents

6.1.7 and designated areas for
- bulk intravenous and sterile topical fluids
- medical gas cylinders
- radiopharmaceuticals (with sufficient shielding to minimise radiation hazard)
- flammable substances

6.1.8 It is good practice that
- parenteral medicines are stored in a separate area to other internal medicines
- other internal medicines are separated into solid oral dose preparations and liquid formulations and stored in separate areas

6.1.9 Cupboards, fridges and designated areas must be of an adequate size to allow medicines to be segregated and arranged to ease selection, access, and stock control, and allow an adequate range and stock level to be held to meet patients’ needs.

6.1.10 Drug cupboards -
- Drug cupboards to be used for internal and external medicines must comply with the current British Standard (BS 2881)
- Controlled Drug cupboards must comply with the Misuse of Drugs (Safe Custody) Regulations 1973
- Drug cupboards, including Controlled Drug cupboards, must not be marked to indicate their contents unless not accessible to unauthorised personnel
NHS Lothian Safe Use of Medicines Policy & Procedures – January 2018
Check Intranet for any amendments

- The cupboard must be marked with the number and date of the British Standard (i.e. BS 2881:1989), and the security level category
- Each cupboard must have a lock and key or appropriate secure access.

6.1.11 Fridges/freezers
- Fridges/freezers must be kept locked, or in an area that is locked when not manned
- The temperature must be set between 2° and 8°C
- A record of regular temperature monitoring and maintenance must be kept, and a written procedure must be in place indicating the action to be taken if the temperature is outwith the set range. A Drug Refrigerator Temperature Log is available from:

- The frequency of temperature monitoring must reflect the stability and critical nature of the medicines being stored
- Fridges used for the storage of vaccines must have:
  - fan assisted air circulation
  - no more than 50% of internal volume filled
  - a calibrated MAX/MIN thermometer in place
  - Door shelves should not be used to store vaccines

- Pharmacy Quality Assurance Services advice should be sought when purchasing thermometers and fridges to be used to store medicines

6.1.12 Medical gas cylinders (see separate section – Medical gases)
- must not be stored where the valve might be tampered with
- must be stored using required equipment for safe storage

6.1.13 Medicine trolleys
- must be locked and immobilised when not in use

6.1.14 Individual patient supplies in hospital (for example, for self-administration)
- Each patient must have a lockable receptacle that is not readily portable

6.1.15 Emergency boxes (for clinical emergencies)
- must be tamper evident
- must not be held in a locked cupboard, but at strategic and accessible sites
- must be kept under reasonable surveillance

6.1.16 Emergency trolleys
- medicines on emergency trolleys must be tamper evident
- must be sited at strategic and accessible sites
- must be kept under reasonable surveillance

6.1.17 Emergency kits (for example, for emergency teams working outside the hospital)
- must be tamper evident, must not be obvious to the general public
6.1.18 Patients own medicines in hospital
   • If they are retained in the ward, storage requirements are as for ward stock medicines or individual patient supplies.

6.1.19 Clinical trial medicines
   • Storage requirements are as for stock medicines or individual patient supplies.

6.1.20 Staff’s own medicine
   • Must be stored in the staff member’s own locker.

6.2 Control of access to medicines in hospitals

6.2.1 Local procedures must be in place to ensure that only authorised persons have access to medicines.

6.2.2 The charge nurse is responsible for the safekeeping of, and for controlling access to, all medicines stored in his or her area of control. In order to fulfil this responsibility, the charge nurse or nurse in charge must normally hold the keys for all areas where medicines are stored.

6.2.3 The keys for controlled drugs cupboards must be kept separate from other keys.

6.2.4 In circumstances where holding the keys personally would cause delays or difficulties in making medicines available, the charge nurse may delegate keyholding and control of access to another registered nurse. In operating theatres, control of access to drugs, including controlled drugs, may be delegated to a suitably qualified and competent Operating Department Practitioner (ODP).

6.2.5 The charge nurse retains responsibility for the safe custody of medicines, even if he or she decides to delegate control of access. The charge nurse must make necessary arrangements to be sure that only authorised persons are given access in appropriate circumstances, and that necessary records are maintained.

6.2.6 Master keys for the individual cabinets are held in each ward. Master keys should be stored in a locked cupboard when not in use. A check to account for all master keys should be made at least once in 24 hours. Checks may be made more often at the discretion of the nurse in charge.

6.2.7 Patients assessed as suitable to independently self-medicate may be given custody of their medicines and responsibility for the individual key to their cabinet. Patients should keep the key out of sight, in their bedside locker. A daily check should be made of patient held keys to confirm their continued safe storage. The nurse discharging the patient from the ward is responsible for retrieving the key from the patient.

6.2.8 The charge nurse is responsible for ensuring that a duplicate set of keys for all medicine storage cupboards, trolleys, pharmacy boxes etc. is stored securely in a designated place in the clinical area, or nursing office according to local arrangements.

6.2.9 The charge nurse is responsible for ensuring that a duplicate key for each locker for individual patient medicines is held securely in the designated area on the hospital site.

6.2.10 If the set of duplicate keys is stored in the clinical area, the charge nurse is responsible for the safe keeping and control of access as for the medicines themselves.
6.2.11 The set of duplicate keys must not be stored in the medicine cupboards, and the key for the designated area where it is stored must be kept separate from the keys for the medicine cupboards.

6.2.12 A duplicate key will be issued for use if the original is, or appears to be faulty, or is missing. The duplicate key must be returned to the designated storage location in the clinical area, or nursing office promptly whenever the faulty key is repaired, or the missing key is located. If the lock or key has to be replaced because it is faulty, or because a missing key cannot be located, a copy of the new key must be placed in the designated storage location in the clinical area, or supplied to nursing office, and the copy of the replaced key withdrawn.

6.2.13 If a key goes missing, the procedure is as follows. For controlled drugs, see separate section – Standard Operating Procedures for controlled drugs in hospitals.

- The charge nurse must make enquiry of all staff on duty.
- If the key is still missing then staff that have left the premises must be contacted at home. If one of them has the key he or she must return the key immediately.
- If the location of the key is unknown a thorough search of the environment must be carried out.
- If the key remains missing (either assumed lost or with a member of staff unable to return it) then the duplicate key may be issued for use from the designated storage location in the hospital site.
- Security staff on the site must be contacted. If the original key is still missing after 12 hours, then the Estates department must be contacted with a view to renewing the lock. During this 12 hour period, the cupboard must not be left unsupervised. If this is not possible, the lock must be replaced before the cupboard is left unsupervised.
- A Datix adverse event form must be completed recording all relevant details.

6.2.14 Some devices used to administer medicines are locked to avoid tampering with the device. The nurse who is caring for the patient may hold a copy of the key to the device.

6.2.15 The appropriate service manager and the responsible lead pharmacist are responsible for ensuring that medicine stocks in wards, theatres and departments that are to be left unmanned either routinely, for example overnight, at weekends, or due to closure for a limited period of time, are secure. When agreeing the procedure to be followed or the course of action to be taken, a risk assessment must be undertaken, taking consideration of the following factors.

- the likelihood of immediate detection of an intruder
- the deterrents in place
- the particular medicines being stored

6.3 Good practice in the storage of medicines

6.3.1 Medicines must be stored and checked to ensure that they are maintained at the required quality for administration.

6.3.2 Medicines must be stored appropriately to minimise the risk of error of selecting the wrong preparation.

6.3.3 Medicines must be stored alphabetically by approved name as far as practically possible, and in separate lockable cupboards as defined in the ‘Standards for storage areas’.

6.3.4 Medicines must be stored in their original packaging. Ampoules, vials, or blister packed tablets must not be removed from the original box during storage.
6.3.5 Medicines must only be removed from their storage location immediately before administration as far as possible. Keeping loose ampoules, vials and infusion bags in the clinical area must be avoided.

6.3.6 Some medicines are highly likely to cause serious harm or death to patients if they are administered inadvertently or incorrectly, for example cytotoxic medicines. Such hazardous medicines must not be stored in clinical areas where staff are not trained and experienced in their safe use.

6.3.7 Medicines must be segregated where necessary to avoid confusion that could result in serious consequences. For example, infusions for epidural administration must be stored physically separate from infusions for intravenous administration, and in a separate location if possible. Hazardous medicines must be stored in a designated area separate from other medicines.

6.3.8 Medicines must be stored appropriately to ensure that their quality is maintained.

6.3.9 Medicines must be stored at the correct temperature.

6.3.10 Medicines must be stored so that labels remain legible.

6.3.11 Stock must be rotated according to the expiry date so that oldest stock is used first. Expired medicines must be removed and returned to pharmacy for disposal.

6.3.12 There must be a system of checks in place for trays, trolleys and kits, that are assembled and stored ready for use, to ensure that any medicine included is correct and within its expiry date.

6.3.14 Some medicines, including multidose vials and medicines requiring reconstitution, must be discarded after a limited time after opening or first use. There must be a system in place to ensure that this requirement is met.

6.4 Stationery used to order medicines

6.4.1 Procedures must be in place to ensure that only authorised persons have access to stationery used for ordering medicines.

6.4.2 All stationery used to order medicines is controlled stationery. This includes prescription forms, and stationery used to order stock medicines.

6.4.3 In each setting a designated person is responsible for the safekeeping of all controlled stationery, for example in hospitals the charge nurse.

6.4.4 Controlled stationery must be kept under lock and key. Access to controlled stationery must only be allowed to persons authorised to order medicines.

6.4.5 The Councils of the British Medical Association and the Royal Pharmaceutical Society have issued a joint statement on the security of prescriptions. In particular, prescription forms should:

- not be left unattended at reception desks.
- not be left in a car where they may be visible.
- when not in use, be kept in a locked drawer within the surgery and at home.
6.4.6 Where there is any doubt about the authenticity of a prescription, the pharmacist should contact the prescriber. If this is done by telephone, the number should be obtained from the telephone directory rather than relying on the information on the prescription form, which may be false.

6.4.7 Completed order forms and delivery documentation must be retained for two years. A copy of hospital prescription forms must be filed in the patient’s medical record and a copy retained in pharmacy.

6.5 Computer-issued prescriptions
6.5.1 The recommendations of the Joint General Practitioners Information Technology Committee and the Royal College of General Practitioners must be followed. These recommendations are published in the current edition of the British National Formulary.

6.6 Records and stock checks of controlled drugs
6.6.1 See separate sections – Standard SOPs for GPs and Standard Operating Procedures for controlled drugs in hospitals.
7 Prescribing

7.1 Authorisation

7.1.1 Medicines may only be prescribed by a UK registered doctor or dentist, including provisional registration for Foundation Year 1 doctors, or a registered independent or supplementary prescriber. See Section 8 Prescribers that are not registered doctors, dentists or Foundation Year 1 (FY1) doctors.

7.1.2 Intrathecal therapy must only be prescribed by a prescriber whose name is on the register of personnel authorised to do so, under the direction of a consultant. See section 18.4.2 Intrathecal injections.

7.1.3 Homeopathic and herbal medicines may only be prescribed by practitioners who have specific training in, and knowledge of, the products. Patient self medication with homeopathic and herbal medicines may be permitted at the discretion of the consultant. Homeopathic and herbal medicines being administered or self-administered during a hospital stay must be prescribed on the prescription chart.

7.1.4 Medicines prescribed for research and clinical trials must have the appropriate ethics committee and management approval. See section 20 Medicines used for research and clinical trials.

7.1.5 Appropriate risk management arrangements must be followed for the use of unlicensed medicines and off-label use of licensed medicines. See policy for the use of unlicensed and off-label medicines.

http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx

7.1.6 If medicines are not prescribed, medicines may only be administered or supplied within the terms of a specific patient group direction.

7.1.7 In hospitals, medicines may only be prescribed for, and supplied to, patients who are registered with the hospital or hospital Division.

7.1.8 Medicines stocked in hospital pharmacies and clinical areas may not be prescribed for, or supplied to, or used by members of hospital staff. In an urgent or emergency situation, members of hospital staff may register as patients for example through the local Accident and Emergency department. Otherwise they must obtain any medicines they require through their GP or community pharmacist.

7.1.9 A record of all medicines prescribed and administered or supplied is maintained in the patient’s healthcare record.

7.2 Prescribing documents

7.2.1 Prescriptions must be written on the appropriate approved prescribing documents.
7.2.2 In hospitals, not more than one main prescribing and administration chart should be in use at any time for each patient. Where specific therapy is prescribed on an approved supplementary chart, it is also documented on the main chart.

7.2.3 When a patient is re-admitted, or transferred from another hospital outwith NHS Lothian, a new medicine chart must be used. When a patient is transferred from another hospital within NHS Lothian, or returns from pass or re-attends hospital for planned procedures at short intervals, the original medicine chart may be used.

7.2.4 Electronic prescribing systems must provide at least the same level of detail and safety as the paper system.

7.3 Hospital supplementary prescription and administration charts

7.3.1 A supplementary prescription and administration chart is a chart used to prescribe and record the administration of medicines, instead of, or in addition to, the main hospital Prescription and Administration Record.

7.3.2 Supplementary charts are used when it is not possible to record the administration instruction and/or record to the required level of detail on the main Prescription and Administration Record. Supplementary charts are also used in protocols, treatment plans, integrated care pathways etc. that are used to record information for individual patients.

7.3.3 Supplementary charts must comply with relevant national guidance, where available, from professional bodies and government agencies for the medicine or category of medicine for which is it used.

7.3.4. As far as possible, in order to minimise risk, there should be one approved supplementary chart for a medicine or category of medicine. Therefore, before a new supplementary chart is developed for use, the person developing the chart must check to ensure that a suitable approved supplementary chart is not already available.

7.3.5 In order to minimise risk, the layout of a supplementary chart must be consistent as far as possible with the layout of the main Prescription and Administration Record, and with other supplementary charts.

7.3.6 The terminology used must be consistent with the main Prescription and Administration Record.

7.3.7 The minimum standards for information that must be recorded on supplementary charts are as follows. The chart must include prompts where appropriate, and adequate space to record the information.

- Patient details – name, CHI number, date of birth, weight for paediatric patients, hospital and ward or department.
- If the chart has more than one page, the patient name and date of birth must be included on every page
- Instructions – date prescribed, start date, administration times, prescribed by signature.
- Administration record – dates and times administered, administered by signature, reason for non-administration (consistent with the main Prescription and Administration Record).
- If it is the only chart that any adverse reactions to medicines must be listed.
7.3.8 The Clinical Policy Group must approve all supplementary charts. Approved supplementary charts are published on the NHS Lothian intranet.

7.3.9 All supplementary charts must be controlled to ensure only the current approved version is used. The clinical director is responsible for ensuring that the current approved version is used within the directorate.

7.4 Prescription writing in hospital prescribing documents

7.4.1 Prescriptions must be written clearly in block capitals, using a black ballpoint pen.

7.4.2 For inpatient prescriptions, enter the following patient details

- Hospital
- Ward or department
- Name
- CHI Number
- Date of birth
- Height
- Weight
- Known drug sensitivities

7.4.3 Name and date of birth must be written on each page of the record.

7.4.4 For discharge and outpatient prescriptions, the following information must also be included.

- Patients address
- GP name and address
- Consultant

7.4.5 The approved name (generic) of the medicine must be used, except for combination products, or where a specific brand is necessary due to variation in response between brands.

7.4.6 The form of the medicine should be specified e.g. ointment, type of inhaler, mixture.

7.4.7 The dose of the medicine must be specified. Prescribing a dose range e.g. 10-20mg, is not acceptable.

7.4.8 The dose must be written in metric units. Only the following abbreviations may be used.

\[ g = \text{gram} \]
\[ mg = \text{milligram} \]
\[ mL = \text{millilitre} \]

7.4.9 All other dose units must be written in full.

7.4.10 The use of decimal points must be avoided. For example, 0.1mg must be written as 100micrograms. If the use of the decimal points is unavoidable, a zero must be written in front of the decimal point, for example 0.5 mL, not .5 mL.

7.4.11 For ‘as required’ medicines, the symptoms to be relieved, the minimum time interval between doses, and the maximum daily dose or the maximum number of doses per day, must be specified, for example paracetamol 1g every 4-6 hours as required for pain relief to a maximum of 4g per day.
7.4.12 The route of administration must be written in full except for the following approved abbreviations. Note that oral and intrathecal must be written in full.

- **ETT** = endotracheal
- **TOP** = topical
- **INHAL** = inhaled
- **IV** = intravenous
- **IM** = intramuscular
- **ID** = intradermal
- **SC** = subcutaneous
- **SL** = sublingual
- **NG** = nasogastric
- **NJ** = nasojejunal
- **PR** = per rectum
- **PV** = per vagina
- **PEG** = percutaneous endoscopic or other gastrostomy

7.4.13 The times, and day(s) where appropriate, of administration must be specified.

7.4.14 Prescriptions must not be altered or amended. If a change is required, the medicine must be cancelled completely and a new prescription must be written.

7.4.15 Outpatient and discharge prescriptions for controlled drugs must comply with legal requirements. See section 27.1.15 & 27.1.16 Management of CDs in wards, theatres and departments.

7.4.16 All prescriptions must be signed by the prescriber, and the name printed beside the signature. Initials are not acceptable.

### 7.5 Prescriptions for inpatients (not including the Aberdeen Kardex)

7.5.1 The start date must be clearly documented. When rewriting the prescription, the original start date must be carried forward.

7.5.2 For a course of treatment, enter only the dates that the medicine is to be given, or enter a stop date, draw a vertical line after the last date a dose is to be given, write 'last dose on...' stating date and time, then sign.

7.5.3 For alternate day treatment, draw a cross through the boxes on the administration section on the dates the medicine is not to be given.

7.5.4 Medicines intended to be given once only must be prescribed in the once only section of the medicine chart.

7.5.5 Medicines that are to be given once weekly must be prescribed in the regular section of the chart. A cross must be drawn through the days that the medicine is not to be given, and an instruction must be written in the notes section ‘Once a week on a …day’.

7.5.6 As required medicines must be prescribed in the as required section of the medicine chart.

7.5.7 When a medicine is discontinued, this must be done by drawing a line across the prescription box without obliterating what has been written, and by drawing a vertical line down the last administration time, then a double diagonal line, the date of discontinuation and the signature.
7.5.8 When re-writing medicine charts the following steps must be taken.
- Any item no longer required must be cancelled, and a diagonal line drawn across each page of the old chart.
- The original start date for each medicine must be written in the new chart.
- The word ‘re-written’ and the date of re-writing, must be written at the top of the new chart.
- All medicines reviewed for appropriateness.

7.6 Prescriptions for inpatients (Aberdeen Kardex)

7.6.1 The start date must be clearly documented. When rewriting the prescription, the original start date must be carried forward.

7.6.2 For a course of treatment enter the number of days the course of treatment is for in the appropriate column.

7.6.3 Medicines intended to be given once only must be prescribed in the once only section of the medicine chart.

7.6.4 Medicines that are to be given once weekly must be prescribed in the regular section of the chart. The time of administration should be ticked and once weekly written across the columns along with the day of administration.

7.6.5 As required medicines must be prescribed in the as required section of the medicine chart.

7.6.6 When a medicine must be discontinued the prescriber must sign and date when the medicine has been discontinued.

7.6.7 Medicine charts must be rewritten when required as follows:
- Any item no longer required must have a line drawn through the prescription, be signed and dated in the discontinued column by the prescriber.
- The original start date for each medicine must be written in the new chart.
- The word “rewritten” and the date of rewriting must be written at the top of the new chart.
- All medicines reviewed for appropriateness.

7.6.8 For the Standard Operating Procedure for use in the Prison Service for discontinuing medicines see the link below.


7.7 Procedure for the transfer of drug prescription sheets to NHS Lothian Community Hospitals

7.7.1 This procedure has been written to ensure the safety of patients through:
- Minimising the risks involved in transcribing the prescription of incoming patients, who transfer out of hours with an unfamiliar or unapproved prescription sheet.
- Avoidance of delay in administration of medicines.

7.7.2 The aim of the procedure is to provide guidance on prescribing and administration of medicines, for clinical staff who receive patients transferring into NHS Lothian community hospitals.
hospitals with drug prescription and record of administration sheets from other inpatient facilities within or outwith NHS Lothian

7.7.3 This procedure is applicable to all nursing and medical staff in NHS Lothian community hospitals, where there is no 24 hour medical cover.

7.7.4 If a doctor is not immediately available, it is acceptable for the nurse to use the transferring hospital's prescription sheet until it is safe for it to be transcribed by an authorised prescriber. The following requirements must be adhered to:

- Prescriptions are taken from the original, not a photocopy.
- There is clear evidence of it being the current prescription sheet, and if not clear, contact referring ward and/or medical team to check the status of the paper work.
- Make a note of evidence which demonstrates currency of the prescription sheet
- The current administration sheet should also be available.
- A new sheet is written as soon as an appropriate authorised practitioner is available, within 24 hours Monday to Thursday, within 72 hours Friday to Sunday or within 96 hours over 4 day public holiday periods. This should be undertaken within normal working hours.

7.8 Prescription writing in community prescribing documents including prescription forms to be dispensed by a community pharmacist

7.8.1 Approved (generic) drug names should be used when prescribing. However in some cases prescribers may use proprietary names for prescribing certain items such as dressings and appliances. Where there is a possible difference in bioavailability of drugs made by different pharmaceutical companies, then the proprietary name must be used, for example: lithium or sustained release preparations. Special care should be taken to avoid errors when prescribing compound preparations; in particular the hyphen in the prefix ‘co-’ should be retained.

7.8.2 As above and in addition, state

- the full name and address of the patient.
- the age and the date of birth of the patient if possible. It is a legal requirement in the case of prescription-only medicines to state the age for children under 12 years.
- dose and dose frequency. In the case of preparations to be taken ‘as required’ a minimum dose interval and maximum daily dose must be specified and the symptoms to be relieved.
- if administration is less than once daily the day and frequency
- When doses other than multiples of 5 mL are prescribed for oral liquid preparations the dose-volume will be provided by means of an oral syringe.
- A prescription for a preparation that has been withdrawn or needs to be specially imported for a named patient should be handwritten. The name of the preparation should be endorsed with the prescriber’s signature and the letters ‘WD’ (withdrawn or specially-imported drug); there may be considerable delay in obtaining a withdrawn medicine.
- Unused space in the prescription area of the form should be blocked out.

7.8.3 The above recommendations are for prescription-only medicines (POM), for controlled drugs see BNF.

7.8.4 Computer-generated facsimile signatures do not meet the legal requirement for a valid prescription.

7.8.5 Electronic prescriptions must meet the same standards.
7.9 **Prescribing in a multi-cultural, multi-faith society**

7.9.1 Prescribing and administering of medicines needs to be sensitive to cultural and religious beliefs.

7.9.2 Information regarding cultural and religious beliefs should be recorded in the healthcare record, and where appropriate discussed with the patient when medicines need to be prescribed.

7.9.3 Advice on the origin of medicines and excipients is available from the Medicines Information department.

7.10 **Prescribing for children**

7.10.1 As above for adults and note the following particular points.

7.10.2 Inclusion of age is a legal requirement in the case of prescription-only medicines for children under 12 years of age, but it is preferable to state the age for all prescriptions for children. Weight is required and height and surface area may be required in secondary care.

7.10.3 Although liquid preparations are particularly suitable for children, they may contain sugar which encourages dental decay. Sugar-free medicines are preferred for long-term treatment. When a prescription for a liquid oral preparation is written and the dose ordered is smaller than 5 mL an oral syringe will be supplied. Parents should be advised not to add any medicines to the infant’s feed, since the drug may interact with the milk or other liquid in it; moreover the ingested dosage may be reduced if the child does not drink all the contents.

7.10.4 Parents must be warned to keep all medicines out of the reach and sight of children.

7.11 **Prescribing for older people**

7.11.1 Older people require special care and consideration from prescribers. First always question whether a drug is indicated at all and consider the following points of good practice.

7.11.2 Limit the range. It is a sensible policy to prescribe from a limited range of drugs and to be thoroughly familiar with their effects in the elderly.

7.11.3 Reduce dose. Dosage should generally be substantially lower than for younger patients and it is common to start with about 50% of the adult dose.

7.11.4 Review regularly. Review repeat prescriptions regularly. It may be possible to stop the drug or it may be necessary to reduce the dose to match diminishing renal function.

7.11.5 Simplify regimens. Elderly patients benefit from simple treatment regimens. Only drugs with a clear indication should be prescribed and whenever possible given once or twice daily. In particular, regimens which call for a confusing array of dosage intervals should be avoided.
7.11.6 Explain clearly. Write full instructions on every prescription (including repeat prescriptions) so that containers can be properly labelled with full directions. Avoid imprecisions like ‘as directed’. Child-resistant containers may be unsuitable.

7.11.7 Repeats and disposal - instruct patients what to do when drugs run out, and also how to dispose of any that are no longer necessary. Try to prescribe matching lengths of supply.

7.12 Prescriptions for hospital discharge medicines

7.12.1 The Patient Discharge Information Summary or TRAK Inpatient Discharge Summary must be used to prescribe all current medicines. The information required must be accurately transcribed from the inpatient prescription chart and the patient’s healthcare records.

7.12.2 Any changes should be documented along with the reasons for the change.

7.12.3 The doctor responsible for the patient’s care must ensure that the Patient Discharge Information Summary is completed in adequate time, taking account of the patient’s planned time and date of discharge.

7.12.4 At least seven days supply of medicines must be provided, unless a longer or shorter course of treatment is appropriate. The duration of therapy for antibiotic or steroid courses must be specified.

7.13 Pass prescriptions

7.13.1 A pass prescription must be completed and sent to pharmacy at least 4 hours before the patient is due to go on pass or, on sites where there is no routine pharmacy service provided at weekends, by Friday morning for a weekend pass.

7.13.2 The pass prescription must include all relevant details, including length of pass, quantity of ‘as required’ medicines needed, in order to avoid any unnecessary delay.

7.13.4 Where one stop dispensing has been implemented, wards may use approved patients own drugs and appropriately labelled packs as pass medication. A pass prescription must be written and must be professionally checked by a pharmacist. Labelled medication can then be checked against this prescription by the clinical pharmacy technician or nursing staff, before being issued to the patient.

7.13.5 Pass medicines must not be supplied from unlabelled ward stock.

7.14 Verbal prescription by a prescriber present at an emergency

7.14.1 This procedure must only be carried out in exceptional circumstances, when a medicine has to be prescribed verbally in an emergency situation by a prescriber who is present.

7.14.2 Where a verbal prescription is given by a prescriber present at an emergency, the name, dose and route of administration must be stated.
7.14.3 The individual who prepares the medicine must ensure the correctness by repeating the name, dose and route of administration to the prescriber who ordered it and the prescriber must check the prepared medicine along with its original packaging.

7.14.4 The medicine must be administered either by the prescriber or by the individual who prepared it. Both must be present at the time of administration.

7.14.5 An accurate record of all medicines administered in this situation must be kept and all medicine containers must be kept until a formal record is completed and agreed by those who were present.

7.14.6 All medicines which have been administered must be accurately recorded onto the appropriate documentation by the prescriber and countersigned by a witness.

7.15 Telephoned prescriptions

7.15.1 Telephoned prescriptions may only be given or accepted in approved areas, in defined circumstances.

7.15.2 The Nursing and Midwifery Council states in its guidance that telephoned prescribing is not acceptable for new medicines. However current practice and circumstances in some clinical settings mean that telephoned prescriptions need to be used or there would be a detrimental effect on patient care. A risk assessment has to be undertaken for areas concerned, and the situation must be continuously monitored.

7.15.3 This procedure must only be carried out in the following areas – community hospitals that do not have 24 hour medical cover, police custody suites within the Forensic Medical Examiner Service and only in exceptional circumstances.

7.15.4 Two practitioners, one of whom must be registered, are required for the administration of medicines by a telephoned prescription. Except in the Forensic Medical Examiner Service were a custody sergeant may be the second practitioner. Student nurses may not participate in the procedure.

7.15.5 Schedule 2 controlled drugs may not be prescribed by a telephoned prescription.

7.15.6 The more senior practitioner must take responsibility for receiving the telephoned prescription.

7.15.7 The following procedure must be followed:

• Acquaint the prescriber with the patient details and findings of any examination carried out, including any known sensitivities, relevant medical history and the names and doses of all currently prescribed medicine. The source of this information must also be given to the doctor at this point, for example, verbally from the patient, patient’s own supply of medicine. All information and sources of the information must be recorded in the patient record.

• The responsibilities of the prescriber remain unchanged from any other situation where they prescribe medicines. They must be sure of the information supplied by the nursing staff and of the source of the information given.

• An e-mail copy of the prescription must be received wherever possible, before the medicine is administered. This should be transcribed onto the prescription sheet.

• The registered nurse must write the details of the verbal prescription on the approved prescription sheet in the ‘once only’ section, read back the written
prescription to the doctor, checking patient name, verbally prescribed medicine, dose, time and method of administration. The prescriber’s name must be entered in the ‘prescribed by’ column and a prescriber must countersign it within 24 hours unless in a continuing care area or community hospital where 7-day medical staff are not available, then this is within 72 hours.

- The second practitioner must witness the telephoned prescription. The prescription must be repeated by the doctor to the second nurse, who must then check it against what has been written on the prescription sheet.
- A note of the discussion must be documented in the unitary patient record.
- The two practitioners must be involved in selecting and preparing the medicine.
- The two practitioners must be present when the medicine is administered.
- After the medicine has been administered, both nurses must sign the appropriate recording box on the ‘once only’ section.
- Telephoned prescriptions must be regularly reviewed by the clinical team. This will include a review of the exceptional circumstances that required a telephoned prescription.

7.16 Hospital patients with restricted oral intake

7.16.1 There are three categories of restricted oral intake:
- Nil by mouth - no food, fluids or medication may be given orally. Consideration must be given to the need to prescribe medicines by an alternative route. Rationale – the volume of stomach contents needs to be limited, for example after surgery on the stomach or oesophagus.
- Difficulty swallowing – medicines, fluids and foods may be given orally, but the liquid form, naso-gastric or alternative route may be required depending on the degree of impairment. Rationale – the patient has difficulty in swallowing, or in protecting their airway, but the gastro-intestinal tract is otherwise functioning normally.
- Fasting – oral medicines may be given with enough water, up to 100 mL for adults and up to 30 mL for children, to allow adequate swallowing, except within 30 minutes of the operation or procedure to be undertaken. If a dose of an oral medicine is prescribed within 30 minutes of the operation or procedure, the anaesthetist or clinician undertaking the procedure must be consulted for advice. Rationale – for safety reasons, patients should not eat or drink prior to anaesthesia. Clear fluids are rapidly cleared from the stomach, but food is not. The fasting period for solid food or formula milk is 6 hours, for breast milk 4 hours and for clear non-particulate and non-carbonated fluids other than those required for swallowing medicines, 2 hours.

7.16.2 A doctor, speech and language therapist, suitably trained nurse or other suitably trained practitioner, must decide the status of the patient, communicate it to the nurse and the clinical pharmacist, and document it in the patient’s record.

7.16.3 If a patient has ‘difficulty swallowing’, the liquid or soluble tablet form of the medicine may be considered. The doctor must consider the need to prescribe oral medicines by an alternative route or formulation. The clinical pharmacist may be consulted for advice.

7.16.4 The nurse must place the appropriate sign indicating the patient’s status in a prominent position at the patient’s bedside.

7.16.5 The patient must be reviewed regularly, and the status updated accordingly. Note that review is important when theatre times are changed, for example.
7.16.6 Local policies, or surgeon’s instructions for individual patients, must be available for post-operative fasting.

7.17 Prescriptions for injections
7.17.1 The injection route is more hazardous than other routes of administration of medicines.

7.17.2 Prescribe medicines by injection only if no other route is suitable. For example:
- the medicine is not available for administration by another route, and there is no therapeutically equivalent medicine that could be used by another route, or
- the oral, naso-gastric, rectal or other possible route is not suitable due to the clinical condition of the patient, or
- the medicine needs to be administered by injection to achieve immediate effect, or
- the required therapeutic level

7.17.3 If an injection needs to be prescribed, write a specific finishing date on the prescription, or else review it every 24 hours and change to a less hazardous route at the earliest opportunity.

7.17.4 For antibiotics, consider changing from IV to oral when the patient fulfils the following criteria:
- temperature below 38°C for 48 hours, and
- patient clinically improved and there are no longer clinical indications for IV therapy, and
- oral fluids/food are tolerated and there is no reason to believe that oral absorption of antibiotics may be poor, and
- there is a suitable oral alternative available

7.17.5 Prescribe injections by bolus wherever possible, and only by infusion in the following circumstances:
- constant plasma concentrations are needed, or
- immediate control of plasma concentrations is needed, or
- a minimum administration time is required, or
- a more concentrated solution would be harmful, or
- the volume required for bolus, due to the dose required, is excessive

7.18 Classification of medicines – ‘approved’ or ‘non-approved’
7.18.1 As per SGHD/CMO(2012)1, Formulary Committee will classify medicines using the standard wording as below;

Included on the (LJF or Additional List or prescribing note) for the indication in question; www.ljf.scot.nhs.uk
Included pending protocol;
Not Included on the Lothian Joint Formulary because the NHS Board decision is that the medicine does not represent sufficient added benefit to other comparator medicines to treat the condition in question;
Not Included on the Lothian Joint Formulary because clinicians do not support the formulary inclusion;
Not Included on the NHS Board formulary because clinicians have not responded to an invitation to apply for formulary inclusion for this medicine; Not included pending protocol.

7.18.2 Approved medicines include:
- Formulary medicines – medicines that appear as first or second line, or in the prescribing notes, in the Lothian Joint Formulary (LJF)
- ‘Additional List’ medicines (medicines that are approved for use within a specialist unit, or when formulary medicines have proved to be ineffective, not tolerated or are contra-indicated)
- Medicines prescribed as part of an approved clinical trial.

7.18.3 Non-approved medicines include:
- Medicines recommended by the Scottish Medicines Consortium but following consideration by the NHS Lothian Formulary Committee are ‘not included’
  - as the medicine does not represent sufficient added benefit to other comparator medicines to treat the condition in question, or
  - because clinicians do not support the formulary inclusion, or
  - because clinicians have not responded to an invitation to apply for formulary inclusion for this medicine or pending protocol
- Medicines which have been assessed by the Scottish Medicines Consortium or NHS Lothian Formulary Committee and are ‘not recommended’
- Medicines not yet assessed by the Scottish Medicines Consortium or Formulary Committee. This includes unlicensed medicines prescribed for individual named patients.

7.18.4 Regular requests for the same non-approved medicine will require completion of a formulary amendment request or the appropriate Formulary Application Form (FAF), detailing supporting evidence of clinical efficacy. The request must be submitted to the Formulary Committee.

7.19 Requests for non-formulary medicines in secondary care
7.19.1 Certain patients will require particular non-formulary medicines because of their individual clinical circumstances. The pharmacy department will not routinely stock non-approved medicines. There will therefore be a delay in supplying non-formulary medicines if they are required.

7.19.2 Full policy is available at:

7.19.3 Non-formulary medicines may only be prescribed on the authority of the consultant in charge of the patient’s treatment plan. The consultant should discuss the need for a non-formulary medicine with the clinical pharmacist to ensure there is no alternative available.

7.19.4 The consultant must discuss any significant resource implications with the clinical director and service manager before implementing the treatment plan, so that a budget is identified.
7.19.5 The consultant must complete a NHS Lothian Non-formulary Medicine Request Form. Available at: 
http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx

7.19.6 The pharmacy department will obtain a supply of the medicine for treatment of the individual patient following receipt of the NHS Lothian Non-formulary Medicine Request Form and confirmation by the responsible clinical pharmacist.

7.19.7 The consultant must ensure that appropriate monitoring is put in place to assess the effectiveness of the prescribed medicine. If the medicine does not produce the desired clinical effect, then the exit strategy must be implemented.

7.19.8 The appropriate clinical director and service manager will regularly review all requests for non-formulary medicines, in order to identify trends and take any necessary action.

7.19.9 Regular requests for the same non-formulary medicine will require completion of a formulary amendment request, detailing supporting evidence of clinical efficacy. The request must be submitted to the Formulary Committee. The clinical director must approve the request if the cost of an individual patient’s treatment with a non-formulary medicine is significant. The clinical director must consult with the director of operations or general manager if the cost cannot be managed within the directorate budget allocation.

7.20 Unlicensed medicines and off-label use of licensed medicines

7.20.1 Full policy is available at: 
http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx

7.20.2 Licensed medicines are medicines that have a UK Marketing Authorisation, formerly called a Product Licence, issued by the Medicines and Healthcare products Regulatory Agency (MHRA).

7.20.3 Wherever possible licensed medicines must be used to treat patients.

7.20.4 Appropriate risk management arrangements must be followed for the prescribing of medicines that do not have a Marketing Authorisation.

7.20.5 Unlicensed medicines are medicines that do not have a Marketing Authorisation. They include:
- Medicines not for sale in the UK, for example awaiting a UK Marketing Authorisation, undergoing clinical trial, withdrawn from the market or manufactured outwith the UK. These medicines are usually available on a ‘named patient’ or ‘individual patient’ basis.
- Medicines prepared by a hospital or commercial manufacturer under a special licence. These medicines are termed ‘pharmaceutical specials’.
- Medicines prepared for a specific patient in accordance with an individual prescription. These medicines are termed extemporaneously dispensed medicines.
- Licensed medicines repacked from their original containers in batches rather than for an individual patient.
7.20.6 Off-label medicines are medicines with a UK Marketing Authorisation that are prescribed outwith the terms of the Marketing Authorisation, for example, for a different indication, or by a different route.

7.20.7 Doctors, independent or supplementary prescriber can prescribe unlicensed and off-label medicines, pharmacists can dispense them, and nurses and midwives can administer them to patients. If the medicine is to be used to treat an individual patient, and it has not been approved for use by the Area Drug and Therapeutics Committee, the policy for prescribing non-approved medicines must be followed.

7.20.8 If a prescriber wishes to initiate new treatments for groups of patients using an unlicensed medicine, a request must be submitted to the Area Drug and Therapeutics Committee. See separate section – Policy for the use of unlicensed and off-label medicines.

7.20.9 The prescriber is responsible for ensuring that the use of an unlicensed or off-label medicine is clearly justified and that the benefits are considered to outweigh the risks.

7.20.10 The pharmacist is responsible for ensuring, as far as possible, that the medicine he or she supplies is used safely, effectively and appropriately, and is suitable for the patient.

7.20.11 The Director of Pharmacy must ensure that there are systems in place to procure unlicensed medicines of the required quality.

7.21 Individual Patient Treatment Request

7.21.1 This is a policy for the use of medicines not recommended by the Scottish Medicines Consortium and for surgical procedures not recommended by NHS policy.

7.21.2 The aim of the policy is to provide a framework and procedures to ensure equitable decisions on access to newly licensed medicines.

7.21.3 An IPTR can only be sought where the clinician fully supports the request. The clinician is defined as the hospital consultant or General Practitioner with overall clinical responsibility for the patient.

7.21.4 Full policy is available at:
http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx

7.22 Medicines used in research and clinical trials

7.22.1 See Section 20.
8 Prescribers that are not registered doctors, dentists or Foundation Year 1 (FY1) doctors

8.1 Supplementary prescribing

8.1.1 Supplementary prescribing is a voluntary partnership between an independent prescriber and a supplementary prescriber to implement an agreed patient specific Clinical Management Plan, with the patient’s agreement.

8.1.2 The independent prescriber is a registered medical or dental practitioner who assesses the patient, and formulates the diagnosis.

8.1.3 The supplementary prescriber is a nurse, midwife Allied Health professionals or pharmacist, registered as a supplementary prescriber on the relevant professional register, who provides continuing care to the patient following assessment and diagnosis by the independent prescriber, and according to an agreed Clinical Management Plan.

8.1.4 The Clinical Management Plan (CMP) defines the treatments that may be prescribed by the supplementary prescriber. It must be agreed before supplementary prescribing can take place. The CMP must include the following:

- The name of the patient to whom the plan relates.
- The illnesses or conditions, which may be treated by the supplementary prescriber.
- The date on which the plan is to take effect, and when it is to be reviewed by the independent prescriber.
- Reference to the class or description of medicines or types of appliances, which may be prescribed or administered under the plan.
- Any restrictions or limitations as to the strength or dose of any medicine which may be prescribed or administered under the plan, and any period of administration or use of any medicine or appliance which may be prescribed or administered under the plan.
- Relevant warnings about known sensitivities of the patient to, or known difficulties of the patient with, particular medicines or appliances.
- The arrangements for notification of suspected or known reactions to any medicine which may be prescribed or administered under the plan, and suspected or known adverse reactions to any other medicine taken at the same time as any medicine prescribed or administered under the plan.
- The circumstances in which the supplementary prescriber should refer to, or seek the advice of, the independent prescriber.

8.1.5 The CMP must be recorded on the approved CMP template. It can be paper-based or electronic. It may include a reference to published national or local guidelines, as long as the guidelines are easily accessible, and they identify clearly the range of the relevant medicinal products to be used in the treatment of the patient. There is no need to repeat the advice in the guideline in the body of the CMP itself.

8.1.6 Similarly, detailed patient information that is contained in the patient’s record shared by each prescriber does not need to be repeated in the CMP, unless essential for clarity and patient safety.

8.1.7 There are no legal restrictions on the clinical conditions that supplementary prescribers may treat. Supplementary prescribing is primarily intended for use in managing specific chronic
medical conditions or health needs affecting the patient. However, acute episodes occurring within chronic conditions may be included in these arrangements, provided they are included in the CMP.

8.1.8 The CMP may include any General Sales List, Pharmacy, or Prescription Only Medicine prescribable at NHS expense. This means supplementary prescribers can prescribe:
- Black triangle” medicines and those products suggested by the British National Formulary to be “less suitable” for prescribing.
- Products used outside their licensed indications (“off-label” use), provided that the product is licensed for use in the UK. The status of the drug should be recorded in the CMP.
- Unlicensed medicines (that is, products that are not licensed in the UK) where a clinical trial is being undertaken under a clinical trials certificate or an exemption, and their use has the joint agreement of both prescribers and the status of the drug is recorded in the CMP.

8.2 Suitable conditions and situations for safe and effective supplementary prescribing

8.2.1 The relationship between the independent prescriber(s) and the supplementary prescriber(s) must be such that they
- communicate effectively,
- share access to, consult, keep up to date and use, the same common patient record,
- share access to the same local or national guidelines or protocols, where these are referred to in the CMP, and
- agree and share a common understanding of, and access to, the written CMP.

8.2.2 Guidelines and protocols referred to in CMPs must meet the standards defined in the NHS Lothian policy ‘Policy and operating procedure for clinical policies. The guideline or protocol document must be clear, easy to follow, and must contain evidence that it is the current version, approved by the appropriate person/group as stated in the policy.

8.2.3 There must be a benefit to the patient, for example
- saves patients waiting to see a doctor solely to obtain a prescription, or receive a dose,
- improves continuity of care

8.2.4 There must be added value to the health system, for example
- meets an identified service need (nurse/pharmacist led clinics and wards, home visits etc)
- meets the needs of a reasonable number of patients
- improves the cost effective use of medicines
- makes better use of nurses, pharmacists and/or doctors skills

8.2.5 Supplementary prescribers may prescribe most medicines for the full range of medical conditions, provided they do so under the terms of a CMP which has been agreed with the independent prescriber, and provided the patient agrees to the prescribing partnership. Supplementary prescribing is suitable in situations where treatment requires to be adjusted according to the needs of the individual patient over a reasonable period of time, following initial diagnosis by the independent prescriber. It is most useful when managing episodes of care that need treatment to be tailored according to patient response (e.g. pain control,
anticoagulation), and when dealing with long-term medical conditions (e.g. asthma) and health needs (e.g. anticoagulation).

8.2.6 The supplementary prescriber must have the opportunity to maintain skills through regular practice, and must be able to demonstrate continuing professional development in the area of practice.

8.2.7 The independent prescriber is responsible for:

- The initial assessment of the patient, the formulation of the diagnosis and determining the scope of the CMP.
- Reaching an agreement with the supplementary prescriber about the limits of the responsibility for prescribing and review – which should be set out in the CMP.
- Providing advice and support to the supplementary prescriber as requested.
- Carrying out a review of the patient’s progress at appropriate intervals, depending on the nature and stability of the patient’s condition.
- Sharing the patient’s record with the supplementary prescriber.
- Reporting adverse incidents within local risk management or clinical governance schemes. This is separate from Adverse Drug Reaction Reporting using the yellow card scheme.

8.2.8 The supplementary prescriber is responsible for:

- Prescribing for the patient in accordance with the CMP. Altering the medicines prescribed within the limits set out in the CMP, if monitoring of the patient’s progress indicates that this is clinically appropriate.
- Monitoring and assessing the patient’s progress as appropriate to the patient’s condition and the medicines prescribed.
- Working at all times within his/her clinical competence and professional Code of Conduct, consulting the independent prescriber as necessary.
- Accepting professional accountability and clinical responsibility for prescribing practice.
- Passing prescribing responsibility back to the independent prescriber if the agreed clinical reviews are not carried out within the specified interval, or if it is felt that the patient’s condition no longer falls within his/her competence.
- Recording prescribing and monitoring activity in the shared patient record as soon as possible.

8.2.9 The person administering the medicines and the person dispensing a prescription for an individual patient must satisfy themselves that

- the medicine is suitable for and in the best interests of the patient
- the prescription has been written by an authorised prescriber

8.3 Training and registration as a supplementary prescriber

8.3.1 A nurse supplementary prescriber must be a first level registered nurse or registered midwife whose name is held on the Nursing and Midwifery Council (NMC) professional register, with an annotation signifying that the nurse has successfully completed an approved programme of preparation for supplementary prescribing.

8.3.2 A pharmacist supplementary prescriber must be a pharmacist whose name is held on the General Pharmaceutical Council professional register, with an annotation signifying that the pharmacist has successfully completed an approved programme of preparation for supplementary prescribing.
8.3.3 Only education programmes that meet the standards set by the NMC and GPhC and approved by NHS Education for Scotland (NES) can lead to annotation on the professional registers.

8.3.4 Nurses who wish to apply to undertake the necessary training to become supplementary prescribers must have their applications approved by the Director of Nursing or delegated deputy. Pharmacists must have their applications approved by the Director of Pharmacy or delegated deputy.

8.3.5 Note that there is a single educational programme for nurse independent /supplementary prescribers.

8.3.6 Following annotation on the relevant professional register, the supplementary prescriber must also be registered on the Division register of approved supplementary prescribers before they are allowed to prescribe, and his/her job description amended to include supplementary prescribing. This applies to new supplementary prescribers and supplementary prescribers recruited from other organisations.

8.3.7 All nurses, midwives and pharmacists have a professional responsibility to keep themselves abreast of clinical and professional developments. Supplementary prescribers will be expected to demonstrate that they keep up to date with best practice in the management of conditions for which they prescribe.

8.4 Steps in the process - Preparation

8.4.1 The nurse or pharmacist applies to undertake the required training to become a supplementary prescriber. The Director of Nursing or Director of Pharmacy (or delegated deputies) approves, taking account of the conditions and situations in which the supplementary prescriber intends to practise.

8.4.2 When the necessary training is completed successfully, the supplementary prescriber applies for annotation on their professional register, then applies to the Director of Nursing or Director of Pharmacy (or delegated deputies) to be added to the Division register of supplementary prescribers.

8.4.3 Supplementary prescribers recruited from other organisations apply to the Director of Nursing or the Director of Pharmacy (or delegated deputies) to be added to the Division register of supplementary prescribers. The Director of Nursing or Director of Pharmacy (or delegated deputies) approves taking account of the conditions and situations in which the supplementary prescriber intends to practise, and allocates a unique prescriber code.

8.4.4 The line manager amends the job description to include the supplementary prescribing role.

8.4.5 If there are any changes to any of the details recorded on the Division register of supplementary prescribers, the supplementary prescriber re-applies to the Director of Nursing or the Director of Pharmacy (or delegated deputies) who approves, taking account of the conditions and situations in which the supplementary prescriber intends to practise.
8.5 Steps in the process - Operation

8.5.1 The independent prescriber assesses the patient, makes a diagnosis, and decides if the patient is suitable for supplementary prescribing.

8.5.2 The supplementary prescriber agrees that the patient is suitable for supplementary prescribing.

8.5.3 The independent and supplementary prescriber agree and sign a CMP for the patient.

8.5.4 The patient’s agreement to the concept of supplementary prescribing is obtained and recorded on the CMP.

8.5.5 The supplementary prescriber writes prescriptions on approved prescribing documents. The prescriber code is written beside the signature.

8.5.6 The person who administers or dispenses the medicine prescribed by a supplementary prescriber satisfies him/herself that the medicine is suitable for the patient, and that the prescription has been written by an approved prescriber.

8.5.7 If the independent prescriber or the supplementary prescriber changes, a new agreement to enter into a prescribing partnership is negotiated and recorded in the patient record.

8.5.8 The CMP comes to an end:

- at any time at the discretion of the independent prescriber, or
- at the request of the supplementary prescriber or the patient, or
- at the time specified for the review of the patient (unless it is renewed by both prescribers at that time), or
- where there is a sole independent prescriber and s/he is replaced for whatever reason, or
- where the patient is discharged from the care of the independent prescriber.

8.6 Independent Prescribing – Non-medical Prescribers Policy

8.6.1 Independent prescribing is prescribing by a practitioner responsible and accountable for the assessment of patients with undiagnosed or diagnosed conditions and for decisions about the clinical management required, including prescribing. It requires initial patient assessment, interpretation of that assessment, a decision on safe and appropriate therapy, and a process for ongoing monitoring.

8.6.2 A nurse, midwife, AHP or pharmacist, registered as an independent prescriber on the relevant professional register may undertake independent prescribing. For the purpose of this document, independent prescriber refers to a nurse (V300 NMC qualification), midwife AHP or pharmacist independent prescriber. Nurse independent prescriber includes midwives.

8.6.3 An independent prescriber can prescribe any medicines within their competency and for which they are prepared to accept legal responsibility, including 'off-label' medicines, unlicensed medicines and any controlled drug specified in Schedule 2, 3, 4 or 5, except diamorphine, cocaine and dipipanone for the treatment of addiction.

8.6.4 Independent prescribers must work only within their own level of competence and professional expertise, and according to their professional code of conduct. Prescribing must be in line with the Lothian Joint Formulary and local protocols.
8.6.5 Nurse independent prescribers must develop a personal core formulary using an approved template. The personal core formulary will list the medicines and clinical conditions for which the nurse will prescribe, and must be agreed with the lead clinician for the specialty, and the chief nurse of the Clinical Management Team responsible for the area where the independent nurse prescriber is practising. In General Practice core formularies will be agreed by the General Practitioners.

8.6.6 Independent prescribers must communicate effectively with other practitioners responsible for the patient’s care. They must have access to, consult, keep up-to-date, and use the same common patient record. They must immediately record any prescription, together with other details of the consultation with the patient, in the patient record.

8.6.7 Independent prescribers must have the opportunity to maintain skills through regular practice, and must be able to demonstrate continuing professional development in the area of practice.

8.6.8 Independent prescribers are responsible for reporting adverse incidents within local risk management or clinical governance schemes, and within the Yellow Card Scheme.

8.6.9 Independent prescribers must write prescriptions on approved prescribing documents. They must write their unique prescriber code beside the signature.

8.6.10 An independent prescriber should not dispense or supply a medicine that he/she has prescribed. An independent prescriber should not administer a medicine that he/she has prescribed. These duties should be undertaken by separate practitioners. However, a nurse prescriber may administer or supply a medicine that he/she has prescribed as long as a pharmacist has dispensed it. Where it is not possible to separate duties, a second suitably competent person must check the accuracy of the medicine dispensed, supplied or administered.

8.6.11 The person administering the medicine and the person dispensing a prescription for an individual patient must satisfy his/herself that the medicine is suitable for, and in the best interests of, the patient, and that the prescription has been written by an authorised prescriber. Clinical teams must maintain an up-to-date record of non-medical prescribers their area of responsibility that can be accessed by practitioners involved in dispensing and administration of medicines.

8.7 Training and registration as a non-medical independent prescriber

8.7.1 A nurse independent prescriber must be a first level registered nurse or registered midwife whose name is held on the Nursing and Midwifery Council (NMC) professional register, with an annotation signifying that the nurse has successfully completed an approved programme of preparation for independent prescribing.

8.7.2 An AHP independent prescriber must be registered with the Health and Care Professions Council (HCPC) with an annotation signifying that the AHP has successfully completed an approved programme of preparation for independent prescribing.

8.7.3 A pharmacist independent prescriber must be a pharmacist whose name is held on the General Pharmaceutical Council (GPhC) professional register, with an annotation signifying that the pharmacist has successfully completed an approved programme of preparation for independent prescribing.
8.7.4 Only education programmes that meet the standards set by the NMC, HCPC and GPhC and approved by NHS Education for Scotland (NES) can lead to annotation on the professional registers.

8.7.5 Nurses who wish to apply to undertake the necessary training to become independent prescribers must have their applications approved by the Director of Nursing (or delegated deputy). Pharmacists must have their applications approved by the Director of Pharmacy (or delegated deputy). AHPs must have their applications approved by the AHP Director.

8.7.6 Following annotation on the relevant professional register, independent prescribers must also be registered on the Division register of approved independent prescribers before they are allowed to prescribe independently, and job descriptions amended to include independent prescribing. This applies to new independent prescribers and independent prescribers recruited from other organisations.

8.7.7 All independent prescribers have a professional responsibility to keep themselves abreast of clinical and professional developments. Independent prescribers will be expected to demonstrate that they keep up to date with best practice in the management of conditions for which they prescribe.

8.8 Steps in the process

8.8.1 The nurse, AHP or pharmacist applies to undertake the required training to become an independent prescriber. The Director of Nursing or Director of Pharmacy (or delegated deputies) approves, taking account of the conditions and situations in which the independent prescriber intends to practise.

8.8.2 When the necessary training is completed successfully, the independent prescriber applies for annotation on their professional register, then applies to the Director of Nursing or Director of Pharmacy (or delegated deputies) to be added to the register of nurse and pharmacist independent prescribers.

8.8.3 Nurse and pharmacist independent prescribers recruited from other organisations apply to the Director of Nursing or the Director of Pharmacy (or delegated deputies) to be added to the register of independent prescribers. The Director of Nursing or Director of Pharmacy (or delegated deputies) approves taking account of the conditions and situations in which the independent prescriber intends to practise, and allocates a unique prescriber code.

8.8.4 The line manager amends the job description to include the independent prescribing role.

8.8.5 The nurse independent prescriber develops a personal core formulary using the approved template. In hospitals, the nurse independent prescriber ensures that it is agreed with the clinical director and the chief nurse of the Clinical Management Team, or equivalent, responsible for the area where he/she will be practising.

8.8.6 If there are any changes to any of the details recorded on the register of nurse and pharmacist independent prescribers, the independent prescriber re-applies to the Director of Nursing or the Director of Pharmacy (or delegated deputies) who approves, taking account of the conditions and situations in which the independent prescriber intends to practise.
9 Administration

9.1 Practitioners authorised to administer medicines

9.1.1 Persons authorised to administer and check medicines must have sufficient knowledge of the medicine being administered, and of the patient to whom the medicine is being administered, to be able to intervene in circumstances where administration is not appropriate.

9.1.2 The following practitioners are authorised to undertake single practitioner drug administration:
   - Registered doctors, including provisional registration for Foundation year 1 (FY1) doctors
   - Registered nurses (level 1 or level 2) and midwives, who have completed induction and been assessed as competent

9.1.3 Student nurses and midwives may only be involved in the administration of medicines, under the direct supervision of a registered nurse or midwife. It is the responsibility of the registered nurse or midwife to determine that the student is safe in the activities required of them at that time. See chart at: http://intranet.lothian.scot.nhs.uk/Directory/medicinespolicysubcommittee/Pages/Documents.aspx

9.1.4 Other suitably qualified and experienced persons may be authorised to administer prescribed medicines in clearly defined circumstances, for example, non-registered nurses, radiology staff and physiotherapists. The charge nurse for the ward, theatre or other clinical area, or the manager of the area where the medicines are administered, is responsible for ensuring that a written protocol is in place defining the circumstances and the persons authorised. The charge nurse or manager must ensure that the person concerned has been assessed as competent before undertaking administration of medicines.

9.1.5 Additional training and competencies are required for the administration and checking of intravenous injections, intrathecal injections, cytotoxic medicines by any route, medicines to children under the age of sixteen, medicines administered via electronic devices, and doses requiring complex calculations. Student nurses and midwives and medical students may not prepare, administer or check any of these categories of medicines. All staff involved in the administration of intrathecal therapy must have undergone appropriate training, and will be named on the register of personnel authorised to do so. See Section 18 – Intrathecal injections.

9.1.6 Administration involving one or more of the following elements must be checked by a second person who is authorised to administer the medicine.
   - Intravenous therapy including any changes to the rate of an infusion (except in ITU)
   - Intrathecal therapy
   - Patients under the age of sixteen
   - Medicines administered without a written prescription
   - Medicines administered via electronic medical devices, for example infusion pumps, syringe drivers.
9.1.7 In circumstances where it is not possible for a second person to check, for example administration takes place in the patient’s home, or where it is not feasible for operational reasons, for example, in theatres, a risk assessment must be undertaken and the action taken to minimise the risk must be documented.

9.1.8 Administration involving schedule 2 controlled drugs must be witnessed, except in circumstances where it is not possible for example, administration takes place in the patient’s home, or where it is not feasible for operational reasons, for example, in theatres. In such circumstances, a risk assessment must be undertaken, and the action taken to minimise the risk must be documented.

9.1.9 Persons who witness administration are responsible for observing that administration has taken place.

9.1.10 Registered nurses or midwives employed through an agency may witness administration of medicines where required.

9.1.11 Medical students may only be involved in the administration of medicines under the direct supervision of a registered doctor and senior charge nurses.

9.1.12 Assisting patients to take medication can be performed by Band 3 staff who possess a National Vocational Qualification Level 3 or appropriate equivalent. These staff must have successfully completed the Health and Social Care training package ‘Management of Medicines Provided in People’s Homes – Training Programme for Unregistered Staff (2014)’

9.2 Administration of medicines in hospitals

9.2.1 The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

9.2.2 The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.

- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertaining that the prescribed dose has not already been given
- Select the medicine required and check the label and the medicine against the prescription
- Check the expiry date
- Identify the patient by checking the name on the prescription against the name and CHI number on the patient’s identity band; if this is not possible then you must be able to satisfy yourself to the identity of the patient.

9.2.3 Complex dose calculations must be carried out independently by two registered practitioners to check accuracy. Simple calculations, for example the number of tablets required for a dose, may be carried out by a single registered practitioner. A senior nurse, doctor or pharmacist must be contacted in cases of uncertainty. In calculations involving patients’ weight the date of the weight measurement must be recorded.

9.2.4 The prescribed medicine must be administered as near as possible to the prescribed time, and normally within an hour. If this is not possible and there is any doubt about the
implications of administering a medicine outwith the prescribed time, medical advice must be sought. See section 9.3.

9.2.5 If a prescribed medicine is not given, the reason must be recorded clearly on the prescription record, documented in the patient’s medical record, and the responsible doctor informed. If the patient has administered their own medicine this should be recorded as “self” and is not required to be signed by the nurse on the Prescription and Administration Record. This should not be used for regular medicines or as part of routine practice. See Section 10 for the self-administration policy.

9.2.6 Medicines must never be left unattended between removal from the storage area and administration to the patient. Doses of medicines must not be left unsupervised on patients’ lockers. The practitioner responsible for administering the medicine must supervise the patient until administration is complete, or the start of the administration for slow administration that takes more than a few minutes.

9.2.7 An oral syringe must be used to measure oral doses that are required in doses other than multiples of 5 mL. Syringes for the administration of injections must not be used for the administration of oral medicines, including medicines given via enteral feeding tubes, to avoid the risk of the oral medicine being injected in error.

9.2.8 If a witness is required, the whole administration period must be witnessed except for slow administration that takes more than a few minutes, for example, infusions, for which the set up and start of the administration must be witnessed.

9.2.9 If the patient requests a dose that is different from the prescribed dose, the doctor must be informed so that the prescription may be reviewed before the medicine is administered.

9.2.10 For patients with restricted oral intake, the action must be taken depending on the category of restriction, as follows.

9.2.11 Rationale – for safety reasons, patients should not eat or drink prior to anaesthesia. Clear fluids are rapidly cleared from the stomach, but food is not. The fasting period for solid food or formula milk is 6 hours, for breast milk 4 hours and for clear non-particulate and non-carbonated fluids other than those required for swallowing medicines, 2 hours.

- **Nil by mouth** - no food, fluids or medication may be given orally. Consideration must be given to the need to prescribe medicines by an alternative route. **Rationale** – the volume of stomach contents needs to be limited e.g. after surgery on the stomach or oesophagus.
- **Difficulty swallowing** – medicines, fluids and foods may be given orally, but the liquid form, naso-gastric or alternative route may be required depending on the degree of impairment. **Rationale** – the patient has difficulty in swallowing, or in protecting their airway, but the gastro-intestinal tract is otherwise functioning normally.
- **Fasting** – oral medicines may be given with enough water, up to 100 mL for adults and up to 30 mL for children, to allow adequate swallowing, except within 30 minutes of the operation or procedure to be undertaken. If a dose of an oral medicine is prescribed within 30 minutes of the operation or procedure, the anaesthetist or clinician undertaking the procedure must be consulted for advice.

9.2.12 Administration must be recorded by signing the appropriate entry on the prescription record.

9.2.13 There may be occasion where Community Nurses, Community Psychiatric Nurses or Hospital at Home Nurses are required to come into hospital to administer medicines to patients under their care. This may include oral, intravenous, depot or palliative care medicines. Medicine administered in hospital must be prescribed on the hospital
Prescription and Administration Record. The nurses administering the medicines must sign the hospital Prescription and Administration record. When administering an intravenous medicine or setting up a syringe driver, two registered nurses or a registered nurse and a doctor, who are competent, must follow the procedure through. Both registered practitioners must sign the Prescription and Administration record and supplementary chart where appropriate.

9.3 Administration of medicines outwith prescribed times
9.3.1 If the patient has missed regularly prescribed medicines because they were absent from the ward at the time the medicine was prescribed then confirm with colleagues that the medication has not been administered and that the medicine is required before the next prescribed dose.

9.3.2 Contact a prescriber to advise them of the situation and provide information on the patient’s medicines that have been missed.

9.3.3 If there is no prescriber in the clinical area or able to attend then a prescriber may authorise by telephone the administration of the medicines. The name of the doctor authorising and the medicines to be administered must be recorded in the patient’s notes.

9.3.4 The authorised medicines must be administered immediately taking into account any specific guidance regarding administration for example to be given with food.

9.3.5 The administration must be recorded on the Prescription and Administration Chart against the original time prescribed with the actual time of administration clearly marked in the administration space either directly above or below.

9.3.6 The frequency of occurrence of missed administration times for individual patients should be monitored and consideration given to changing the regular administration times.

9.4 Administration of medicines in community clinical areas and patients’ own homes
9.4.1 Medicines administered in the domiciliary setting must be recorded in the patient record.

9.4.2 Medicines supplied on prescription remain the property of the individual for whom they have been prescribed.

9.4.3 On occasions, there may be a cause for concern regarding the safety of the patient, or the custody of the medicines. In such cases, nurses should be aware of their professional responsibilities and should consult the patient’s GP in order that suitable alternative arrangements can be made.

9.4.4 Nurses and other clinical staff have a responsibility for assisting in the education of the public regarding the safe custody and administration of medicines. Patients should be advised that all medicines require careful storage and that prescribed medicines should not be made available to persons other than the patient for whom they are prescribed. All unused medicines should be returned to the Community Pharmacy for safe disposal.

9.4.5 In the community setting, medication may have to be administered from the instructions given on the container labelled by pharmacy. In this situation full administration instructions must be detailed on the label, or in the individual patient instruction chart. ‘As directed by doctor’ is not an appropriate instruction.
9.5 Administration by injection

9.5.1 Medicines for injection that require complex calculation or manipulation to prepare, or that pose a health and safety risk during preparation, should be supplied in a ready to use form from the pharmacy.

9.5.2 Other injections that require dilution or reconstitution before administration may be prepared in the near patient area. Hazards associated with the preparation of injections include:

- incorrect dosage calculation
- selection of wrong medicine or diluent
- incorrect method of preparation
- incompatibility of constituents
- instability of final product
- microbial contamination
- particulate contamination
- health and safety risk to the operator or the environment

9.5.3 Only registered doctors and practitioners who have successfully completed the NHS Lothian intravenous therapy and infusion device training programme or equivalent may prepare, administer or check intravenous injections. Assessment of competence must be repeated every 2 years.

9.5.4 In addition, unregistered practitioners who have successfully completed the NHS Lothian Unregistered Practitioners Intravenous Therapy training programme or equivalent may prepare, administer and check the intravenous sodium chloride 0.9% flush during intravenous cannulation procedure. Assessment of competence must be repeated every two years.

9.5.5 The physical and chemical stability of an injection after reconstitution or dilution must be determined before the product is prepared. Information sources include

- Manufacturer’s Summary of Product Characteristics or package insert
- The UK Injectable Medicine Guide
- British National Formularies
- Clinical Pharmacist/ Medicines Information Service

9.5.6 Original containers of injections, except for multi-dose injections, must only be used to prepare a single dose.

9.5.7 Multi-dose injections are those that contain antimicrobial preservatives, as stated on the label. They have limited storage time after withdrawal of the first dose and this is stated on the label. If this information is not stated on the label, the injection must only be used to prepare a single dose. Multi-dose injections must be clearly labelled with the date and time that the first dose was withdrawn, and stored appropriately.

9.5.8 A time limit is required between preparation and completion of administration of injections due to the possibility of microbial contamination and lack of stability of the prepared solution. The maximum recommended time due to the possibility of contamination is 24 hours. However, depending on the medicine, a shorter time may be required due to limited stability. Refer to the individual monographs in the UK Injectable Medicine Guide or the manufacturer’s product information for guidance on stability times.
9.5.9 If an injection requires to be administered over a period longer than 24 hours, a risk assessment must be undertaken, documented and approved by the appropriate manager for the clinical area.

9.5.10 For infusions that are administered using a rate controlling infusion device, record instructions, details of preparation, and observations during administration on the Intravenous Infusion Chart. Infusions should be routinely changed during day shifts.

9.5.11 Injections prepared in the near patient area must be prepared immediately before administration. They must not be prepared and stored in the near patient area. If this is not possible for operational reasons, a risk assessment must be undertaken, and the action taken to minimise the risk must be documented.

9.5.12 Injections prepared in the near patient area must only be administered by those individuals who are either involved in the preparation, or who are able to check that the prepared medicine is correct.

9.6 Administration to children under the age of 16 years in hospitals

9.6.1 Preparation and administration of medicines for children must be checked by two registered practitioners, or one first level registered nurse and one suitably competent student nurse. The student nurse must have received the relevant theoretical preparation in the university and on placement and be assessed by their mentor/s to ensure they have the necessary competence.

9.6.2 Dose calculations must be carried out independently by two registered practitioners or with a suitably competent student nurse (see chart). http://intranet.lothian.scot.nhs.uk/Directory/medicinespolicysubcommittee/Pages/Documents.aspx

The clinical pharmacist must be contacted if there is any uncertainty regarding the dose or calculation.

9.6.3 The child’s current weight in kilograms must be recorded on the prescription chart.

9.6.4 If the child refuses to take medicines from the practitioners, a parent may administer oral medication but only in the presence of both practitioners involved.

9.7 Covert administration of medicines

9.7.1 NHS Lothian endorses the current advice from Mental Welfare Commission for Scotland COVERT MEDICATION Legal and Practical Guidance (2013) http://www.mwcscot.org.uk/media/140485/covert_medication_finalnov_13.pdf and recommends the adoption of this as an NHS Lothian Policy. Nurses and midwives should also be cognisant of Nursing and Midwifery Council May 2012 advice on covert administration of medicines.

9.7.2 This section should be read in conjunction with NHS Lothian Policy and Guidance for Obtaining Consent. http://intranet.lothian.scot.nhs.uk/NHSLothian/Healthcare/ClinicalGuidance/Pages/ClinicalGuidance-1.aspx
9.7.3 Covert medication is the administration of any medical treatment in disguised form. This usually involves disguising medication by administering it in food and drink. As a result, the person is unknowingly taking the medication. This is likely to be due to a refusal to take medication when it is offered, but where the treatment is necessary for the person’s physical or mental health and they lack capacity to consent to treatment. This should not be confused with administration of medication against someone’s will.

9.7.4 Every effort must be made to obtain the patient/client’s consent and to administer medicines openly.

9.7.5 Covert administration may only be considered if all of the criteria below are met and documented:

- The patient/client has been assessed and documented as lacking capacity at that time including those under the Adults with Incapacity (Scotland) Act and the Mental Health Act.
- The covert administration of medication is considered necessary to save the patient/client’s life, to prevent deterioration or ensure improvement in the person’s mental or physical health.
- It is the least restrictive option.
- The patient’s past/present wishes have been taken into account.
- A risk/benefit analysis has been undertaken.
- Pharmaceutical implications have been assessed.

9.7.7 The covert administration of medicines is only likely to be necessary or appropriate in the case of patients or clients who actively refuse medication, but who are judged not to have the capacity to understand the consequences of their refusal. The past wishes of the patient also need to be taken into account.

9.7.8 Disguising medication in the absence of informed consent may be regarded as deception or assault. A clear distinction should always be made between those patients/clients who have the capacity to refuse medication and whose refusal should be respected, and those who lack this capacity. A competent adult has the legal right to refuse treatment, even if a refusal will adversely affect his or her health or shorten his or her life. A further distinction should be made between those for whom no disguising is necessary because they are unaware of receiving medication e.g. unconscious patients and others who would be aware if they were not deceived into thinking otherwise.

9.7.9 The only person(s) who can consent for another adult is (are) their registered welfare attorney(s) or welfare guardian(s).

9.7.10 In Scotland, a child under the age of 16 has the legal capacity to consent to his/her own treatment where “in the opinion of the qualified medical practitioner attending him/her, he/she is capable of understanding the nature and possible consequences of the procedure or treatment” The Legal Capacity (Scotland) Act 1991. In this case a parent’s consent cannot override a refusal of consent by a competent child.

9.7.11 The aim of this section is to provide guidance on the covert administration of medicines and promote a standardised approach to assessing the need for covert medication, which reflects the requirements of the law in Scotland and current professional guidelines.

9.7.12 The objectives of this section are

- To comply with the legal framework and current guidance for professional organisations.
- To give practical guidance on operating within the legal and professional frameworks.
• To outline the appropriate assessment and management of patients who require covert medication.
9.7.13 This section is based on the following principles:

- There must be a valid certificate of incapacity under the Adults with Incapacity (Scotland) Act, or appropriate Mental Health (Care and Treatment) (Scotland) Act documentation to cover the proposed treatment.
- Professional guidelines are adhered to.
- A pharmacist has been consulted regarding the safety of mixing medication with food or drink or whether the method used to disguise medication e.g. crushing tablets, may impact on its compliance with the product’s licence for safe use.
- A clear distinction should always be made between those patients who have the capacity to refuse medication and whose refusal should be respected and those who lack this capacity.
- The best interests of the patient are paramount.
- The necessity of treatment has been considered.
- The patient’s capacity has been assessed and they have been found to lack capacity to make decisions regarding the proposed treatment.
- The decision to administer covertly should not be considered routine and must be reached after assessing the needs of the patient individually, against each individual medicine required.
- The ultimate decision must be one that has been informed and agreed by the multi professional team caring for that patient/client, not by a single practitioner, although the authority of the prescribing practitioner is required to cover staff who administer the medicine covertly.
- The wishes of family and /or carers and any views previously expressed by the patient should be considered. If unhappy with the decision, then advice regarding seeking an appeal via the Sheriff’s court should be given.
- A record should be made of language or communication issues and the methods used to overcome these.
- All discussions and decisions and actions taken must be fully documented in health care records and communicated to relevant others when there is a change of care setting.
- A review date must be set.

9.8 Self-administration by patients in hospital not yet reviewed by a doctor

9.8.1 Emergency admissions
9.8.1.1 The nurse responsible for the patients care must

- advise the patient not to take any medicine until the doctor has been consulted
- store the patients own medicines in a secure area or remain with the patient where appropriate.
- check whether the patient is due to take a dose of any medicine, or needs an ‘as required’ medicine to relieve symptoms. If any dose is required before the doctor is due to review the patient, inform the doctor, who is responsible for ensuring that a prescription is written. Medicines must not be administered before the prescription is written.

9.8.2 Elective admissions
9.8.2.1 The nurse responsible for the patient’s care must advise the patient to continue to self-administer medicines in line with the pre-admission advice given.
9.8.2.2 If the patient is not clear about the pre-admission advice, or has not received pre-admission advice about his/her medicines, the nurse responsible for the patient’s care must check approved protocols and advise the patient accordingly.

9.8.2.3 If a patient requires to self-administer medicines before a prescription is written, ensure that he/she keeps a record of what has been taken in the ‘once only’ section of the prescription and administration record.

9.8.2.4 If the patient is not able to self administer, or does not have his/her own medicines, or there is no clear advice available in approved protocols, the nurse responsible for the patient’s care must

- advise the patient not to take any medicine until the doctor has been consulted
- store any patients own medicines in a secure area
- check whether the patient is due to take a dose of any medicine, or needs an ‘as required’ medicine to relieve symptoms. If any dose is required before the doctor is due to review the patient, inform the doctor, who is responsible for ensuring that a prescription is written. Medicines must not be administered before the prescription is written.
10 Self-administration of medicines by patients in hospitals

10.1 Introduction
10.1.1 The benefits of self-administration are:
- Improves patient knowledge regarding their medicines
- Maintains patient independence
- Improves communication between professionals
- Helps to ensure that medicines are taken at the right time
- Enables timely discussion of changes to patients’ medicines
- Encourages familiarity with medicines
- Is an integral part of rehabilitation
- Increases patient empowerment
- Identifies patients with problems understanding and/or managing their medicines
- Improves awareness of patients ability to cope with medicines on the ward and identifies support needs for discharge
- Improves medicine compliance after discharge

10.2 Aims of the self-administration programme
10.2.1 To establish a standard process for determining the ability of patients to take their own medication reliably and safely.

10.2.2 To encourage patients to be more independent and take responsibility for their own medication within their individual limitations.

10.2.3 To assess patient compliance and concordance, and where necessary improve this through education by supporting self administration.

10.2.4 To ensure that where appropriate, all patients should be considered and assessed for the self administration programme.

10.3 Patient selection
10.3.1 The multidisciplinary team who have the appropriate knowledge of the patients’ medical, psychiatric, and social history must decide if the patient is suitable. This team normally consists of:
- Patient
- Registered Nurse
- Pharmacist
- Patients’ Consultant

10.3.2 The multidisciplinary team will decide if the patient is suitable to self-administer and at what level they will enter the programme. The multidisciplinary team assessing the patient for the self-administration programme must be aware of the risks involved for each individual patient.

10.3.3 Patients’ should be stable on their current medication, but have the ability to accept responsibility for any changes to their medicine regime.
10.3.4 The registered nurse will be responsible for co-ordinating the programme for each individual patient and will liaise with pharmacy and medical staff as to the patients’ progress.

10.3.5 Staff must have knowledge of NHS Lothian policies concerning the ordering, storage and safe administration of medicines.

10.4 Respite patients
10.4.1 Respite Patients who self administer at home may also be considered for the self administration programme.

10.5 Teaching and supervision
10.5.1 Each patient is an individual. Should patients require education and instruction on their medicines this will be a personalised teaching strategy which is tailored to their needs.

10.5.2 All patients should receive verbal information regarding the correct use of their medicines before commencing a self-administration programme. Knowledge should be checked and information reinforced throughout the programme.

10.6 Self administration process

10.6.1 Assessment
10.6.1.1 When a patient is considered suitable for the self-administration programme an assessment form must be completed by a member of the multidisciplinary team. The completed assessment form must be filed in the patient’s healthcare record. The assessment form must also indicate at what level the patient will commence the self-administration programme.

10.6.2 Patient information card
10.6.2.1 Patients’ selected for the self-administration programme will be issued with an information card which they must read prior to signing the consent form.

10.6.3 Consent and information card
10.6.3.1 Patients should where appropriate read the information card about the self-administration programme and the nurse or pharmacist should supplement this verbally before obtaining written consent. Consideration must be given to patients with communication difficulties to ensure that they understand the information.

10.6.3.2 Written consent must be obtained prior to commencing the self administration programme. If the patient is not competent to give consent, the team may decide to commence the programme on their behalf. This must be fully documented in the patients’ healthcare records. Usually, such a decision is lawful providing it is in the patients’ best interest. Legal advice must be sought wherever there is any doubt about a proposal. Consent can be withdrawn by the patient at any time during their hospital
stay. Where appropriate the patient should sign the consent form which is witnessed by the nurse or pharmacist and is retained in the patients’ healthcare records.

10.7 Levels of self-administration programme

10.7.1 There are three levels of the self-administration programme. Patients will normally commence at level 1 and progress through each level up to level 3.

10.7.2 The nurse in charge of the patient can decide to suspend or return the patient to a previous level of the programme at any time of day or night. This action and the patients’ current level must be recorded on the patient care plan and reviewed at the next multidisciplinary team meeting.

10.7.3 Patients’ levels should be reviewed on a daily basis for continuation on the self-administration programme and the level documented on the patients’ care plans.

10.7.4 Level 1 - The nurse administers the medicines while educating and informing the patient in order to help them progress to level 2 (if appropriate). The cabinet key must not be given to the patient at level 1. The nurse takes full responsibility for storage and security of medicines. The nurse will check and record each medicine taken and sign the prescription and administration chart when the medicine has been administered.

10.7.5 Level 2 - The nurse is responsible for the safe storage of the medicines. The patient is assessed as being able to request and select their own medicines for self-administration at the appropriate times whilst being monitored by the nurse. The cabinet key may be given to the patient at level 2. In areas where there is a clinical risk in the patient having the key the patient must request the key from the nurse. The nurse records the administration on the prescription and administration chart.

10.7.6 Level 3 - The patient is assessed as being able to administer medicines on their own without observation or supervision from a nurse. The cabinet key may be given to the patient at level 3. In areas where there is a clinical risk in the patient having the key the patient must request the key from the nurse. In areas where One Stop Dispensing has not been introduced and where patients’ have reached level 3 patients’ medicines should be stored in a locked cupboard and the patient should request their medicines at the appropriate times from the nurse. The patient must record each medicine administration by signing their prescription and administration chart.

10.8 Storage of medicines

10.8.1 A lockable secure cabinet should be available for each patient to store their medication from level 3 of the programme. Areas where One Stop Dispensing has not been introduced and where patients’ have reached level 3 should store patients’ medicines in a locked cupboard and a request made by the patient to nursing staff to source their medicines as the required times.

10.8.2 Respite patients who are assessed as suitable to self administer but do not have a bedside cabinet will be issued their medicines from the medicine trolley by nursing staff at the required times.
10.9 Individual keys

10.9.1 Patients assessed as suitable to self-administer and who have reached level 3 of the self-administration programme, if appropriate, can be given custody of their medicines and responsibility for the individual key to their cabinet. Patients should keep the key out of sight on their person. A daily check should be made of patient held keys to confirm their continued safe storage. The nurse discharging the patient from the ward is responsible for retrieving the key from the patient.

10.9.2 In areas where there is a clinical risk if the patients has the key, the patient must request the key from the nurse.

10.9.3 Duplicate keys for the individual lockers will be held in the designated key cupboard within the appropriate ward.

10.9.4 When patients are not self-administering medicines, the individual locker key should be locked in the designated key cupboard.

10.9.5 Patients who are assessed as suitable to self medicate but do not have a bedside cabinet will be issued their medicines from the medicine trolley by nursing staff at the required times.

10.10 Patient care plan

10.10.1 Patients participating in the self-administration programme must be assessed by the nurse each day for their ability to continue, this must be documented in the patient’s care plan.

- During the daily check the nurse must:
  - Check the prescription for changes and ensure medicines are labelled appropriately
  - Assess if the patient’s ability to self-administer at the same level has changed
  - Discuss the medicine regime with the patient to confirm their understanding
  - For patients at level 3 the nurse must check that the prescription and administration chart has been filled in appropriately by the patient

10.10.2 Patients who find it difficult to record any medicine administration must be supported by nursing staff and their level reviewed.

10.11 Medicine supplies

10.11.1 Medicine supplies for self-administration must be individually labelled for patients. Unlabelled medicines must never be used for self-administration. All patient medicines must be checked against the current prescription and administration chart.

10.12 One stop dispensing areas

10.12.1 The nurse must check that the medication stored in the patient’s medicine cabinet is appropriate for use.
10.12.2 The patient’s name and directions on any over-labelled medicines (pre-pack) used must be completed and correspond to what is prescribed on the current prescription and administration chart. In the event of a discrepancy medicines can be supplied in one of two ways:
   • Over-labelled medicine supply (pre-pack) from the ward
   • An Individual Patient Supply (IPS) ordered from Pharmacy

10.12.3 The quantity of medicines stored in the patient’s cabinet must be assessed on an individual basis for self-administering patients. In areas where there is a clinical risk of larger quantities of medicines being stored in the patient’s cabinet smaller supplies may be requested from Pharmacy.

10.13 Non one stop dispensing areas
10.13.1 As no over-labelled medicines are available in these areas the prescription and administration chart should be sent to Pharmacy detailing all the medication required by the patient to self-administer on the ward.

10.13.2 Any specific requests, for example large print labels or other aids to support patients with reading difficulties, should be written on the prescription and administration chart.

10.14 Relabelling of medicines
10.14.2 Relabelling of a medicine may only be carried out at the discretion of the clinical pharmacist.

10.15 Multi-compartment compliance aids
10.15.1 Requests for multi-compartment compliance aids should be discussed with the clinical pharmacy team and local protocol should be followed for individual areas.
11 Patient Group Directions

11.1 Introduction
11.1.1 A patient group direction is a written instruction for the supply or administration of medicines to groups of patients who may not be individually identified before presentation for treatment.

11.1.2 The majority of treatment with medicines must be prescribed on an individual, patient specific basis.

11.1.3 Medicines may be supplied or administered under patient group directions in limited situations where doing so offers an advantage for patient care without compromising patient safety, and where it is consistent with appropriate professional relationships and accountability.

11.1.4 The patient group direction must be agreed locally by a doctor, pharmacist, and nurse or lead professional manager for the other staff groups providing care under the direction. They must consult with all appropriate persons to confirm that the proposed direction is appropriate, does not compromise patient safety, and is consistent with professional relationships and accountability.
11.2 Approval process for development of Patient Group Direction (PGD)

Local Development Team prepare application to develop a new PGD (Form A - Application for PGD Group to Proceed with Development of a New Patient Group Direction) and submit to PGD sub-group of the Medicines Policy Committee

Yes

PGD sub-group check that PGD is:
- Required
- Legal and in line with policies, professional roles and strategies, and Clinical Governance
- Within professional codes of practice
- Issues new PGD number

No

PGD Group of the Medicines Policy Committee advises Local Development Team why they have not approved the development of a new PGD

Yes

Local Development Team develop PGD, ensuring information is correct and accurate and in line with formularies and protocols etc, and send PGD to a second pharmacist for review of medicine monograph.

Yes

Local Development Team send on to PGD sub-group

Yes

PGD sub-group review the submitted PGD, checking information properly completed and clinical information is correct and accurate and all legal requirements are met.

No

PGD sub-group advises Local Development Team of reasons why PGD is not ready for approval, with recommended amendments.

Yes

Local Development Team members are asked to sign relevant spaces on PGD and it is passed back to the PGD sub-group

Yes

Chairperson of the PGD sub-group of the Medicines Policy Committee signs the relevant space confirming approval of PGD and it is passed to Chairperson of the relevant NHS Lothian Drugs and Therapeutics Committee

Yes

Chairperson of the relevant NHS Lothian Drugs and Therapeutics Committee signs the relevant space confirming ADTC approval of PGD and it is passed to Medical Director of NHS Lothian.

Yes

Medical Director of NHS Lothian signs and dates relevant space confirming authorisation for use of the PGD and returns to PGD sub-group

Yes

Approved PGD copied and sent to all relevant Practice/Ward/Department PGD Holders

Yes

PGD Holder responsible for collecting signatures of Practice/Ward/Department Local Management for relevant spaces on page 1 of PGD, and for collecting signatures of Authorised Practitioners issuing under the PGD on page 2 and for keeping authorised practitioner list up to date

Yes

Authorised Practitioners responsible for ensuring own competences and maintaining knowledge and skills through CPD.
12 Medicinal products that do not require a prescription or patient group direction or patient specific direction for administration

12.1 Introduction

12.1.1 Products when used within an agreed protocol to disinfect or otherwise prepare the skin prior to surgery, or other invasive clinical procedure, for example chlorhexidine solutions, povidone iodine solutions, skin dyes.

12.1.2 Oils and other lubricants when used in therapeutic massage, for example coconut oil used for infants.

12.1.3 Lubricants when used within an agreed protocol, as part of a clinical procedure for example lubricating jelly used with instruments, during insertion of catheters.

12.1.4 Mouthwashes when used to freshen the mouth.

12.1.5 Sodium chloride 0.9% solution for flushing before and after intravenous injections, and for irrigating wounds in line with the NHS Lothian Wound Management Guidelines.

12.1.6 Glucose 5% for flushing before and after intravenous injections when sodium chloride 0.9% would not be appropriate.

12.1.7 Lugol's iodine, acetic acid and ferric subsulphate when applied topically during colposcopic examination within the agreed protocol.

12.1.8 Naloxone for the purpose of saving a life in an emergency may be supplied by staff who have undertaken the Naloxone Supply Competency Framework training.

12.1.9 Diluents for preparing intravenous injections. Any of the diluents listed in The UK Injectable Guide (the Red Manual) or in the manufacturer’s Summary of Product Characteristics may be used.

12.1.10 Sunscreen when used on an as required basis to protect from the sun.

12.1.11 When administered for the purpose of saving life in an emergency the following medicines:

- Adrenaline 1:1000 up to 1mg for intramuscular use in anaphylaxis
- Atropine sulphate and obidoxime chloride injection
- Atropine sulphate and pralidoxime chloride injection
- Atropine sulphate injection
- Atropine sulphate, pralidoxime mesilate and avizafone injection
- Chlorphenamine injection
- Dicobalt edetate injection
- Glucagon injection
- Glucose injection
- Hydrocortisone injection
- Naloxone hydrochloride
- Pralidoxime chloride injection
- Pralidoxime mesilate injection
- Promethazine hydrochloride injection
- Snake venom antiserum
- Sodium nitrate injection
• Sodium thiosulphate injection
• Sterile pralidoxime

The administration of these medicines must be recorded in appropriate documentation.
13 Symptomatic Relief Policy (SRP) [For Adults Only]

See full policy on the following link:


13.1 Introduction

13.1.1 Symptomatic relief is the administration of a range of medicines to patients, given by Registered Nurses and Midwives from the agreed NHS Lothian Symptomatic Relief Formulary in order to relieve specified symptoms, without the need to call a prescriber. The Registered Nurse/Midwife must have completed the approved NHS Lothian programme of theoretical preparation and assessment of competence.

13.1.2 This policy excludes children under 16 years and any other patient who does not meet the eligibility criteria i.e. is assessed as unsuitable to receive medicines within the symptomatic relief formulary.

13.1.3 Symptomatic Relief may only be administered when it is prescribed by an authorised prescriber.

13.2 Procedure

13.2.1 The authorised prescriber assesses the patient’s suitability to receive symptomatic relief, and prescribes the medication included in the Symptomatic Relief Formulary in the as required section (or dedicated SRP section) of the prescription and administration chart, by writing “SYMPOTOMATIC RELIEF POLICY” and signing and dating the entry as for other prescriptions.

13.2.2 The prescriber may exclude certain medicines or routes for administration in the Symptomatic Relief Formulary, and must write exclusions on the prescription and administration chart.

13.2.3 On administration of Symptomatic Relief, the Nurse/Midwife must record the medicine administered in the once only section of the chart (or dedicated SRP section), ensuring the name, dose, route/method and time and date of administration are recorded. Under prescriber’s signature the words “SYMPOTOMATIC RELIEF POLICY” should be written clearly. All recording should be indelible and legible with clear initials or, preferably, a full signature.

13.2.4 If the condition requiring symptomatic relief persists beyond the time/dosage limitations stated in the individual monograph or the patient has an adverse reaction, then medical staff must be notified and the patient medically examined to exclude the possibility of a more serious, undiagnosed condition.

13.2.5 The prescription for symptomatic relief must be reviewed in the light of any other medicine being subsequently prescribed.
14 Issue of medicines for patients to take away from hospital

14.1 Quantity supplied

14.1.1 For patients being discharged, at least 7 days supply of medicines must be provided, unless a longer or shorter course of treatment is appropriate.

14.1.2 For outpatients, the GP will normally accept responsibility for prescribing medicines that are recommended following a hospital consultation. However, in exceptional circumstances where it is necessary to initiate treatment immediately, a 14 day supply, or complete treatment course where appropriate, of required medicines is provided. In exceptional circumstances where a non-formulary medicine is recommended the prescriber must ensure that appropriate arrangements to ensure continuity of supply for the patient are in place. See Policy and Procedures for Prescribing Non-Formulary Medicines.

http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx

14.1.3 A 7 day supply, or complete treatment course where appropriate, of medicines which must be initiated immediately, are supplied to patients attending the Accident and Emergency department.

14.2 Supply standards

14.2.1 Prescriptions should be dispensed from the hospital pharmacy, or in certain agreed circumstances, supplied directly from the ward, clinic or the Accident and Emergency department.

14.2.2 If the medicines are to be issued to the patient direct from the ward, clinic or the Accident and Emergency department, the charge nurse must ensure that medicines are only issued by staff that he or she has authorised, and that authorised staff are trained and competent in the processes involved in issuing medicines to patients.

14.2.3 Prescriptions must be adequately checked to ensure that they are correct for the patient.

14.2.4 All medicines issued to patients to take away must be labelled to comply with legal requirements.

14.2.5 The patient must be provided with adequate verbal and written information about his or her medicines, taking account of any communication difficulties that the patient may have.

14.3 Medicines issued when patients are discharged from hospital

14.3.1 The In-Patient Discharge Information Summary or TRAK Inpatient Discharge Summary must be used to prescribe all current medicines. The information required must be accurately prescribed from information on current inpatient prescription chart and the medical notes.

14.3.2 The doctor responsible for the patient’s care must ensure that the Patient Discharge Information Summary or TRAK Inpatient Discharge Summary is completed in adequate time, taking account of the patient’s planned time and date of discharge.
14.3.3 At least 7 days supply of medicines must be provided, unless a longer or shorter course of treatment is appropriate. The duration of therapy for antibiotic or steroid courses must be specified.

14.3.4 Medicines that are stored in the individual locker for use during the hospital stay must be used as the discharge supply where appropriate.

14.3.5 A pharmacist should check discharge prescriptions written during normal working hours, before the medicines are issued to the patient. If the discharge prescription has not been checked before discharge, the prescription must be checked by the pharmacist retrospectively on the next working day, and any anomalies followed up.

14.3.6 If the patient already has supply of the required medicines at home, an additional supply need not be issued from the hospital. However, the doctor who writes the prescription, and the pharmacist, nurse or other practitioner who checks the prescription, must satisfy him/herself that the patient’s own supply is of an adequate quantity, and is correctly labelled with the current dosage instructions.

14.3.7 If the medicines are to be dispensed in the pharmacy, the In-Patient Discharge Information Summary or TRAK Inpatient Discharge Summary must be delivered to the pharmacy at least 4 working hours before the patient is due to be discharged, to allow adequate time for dispensing and return.

14.3.8 If a change is made to the medicines required on discharge after they have been dispensed, a new prescription must be written and the original medicines returned to the pharmacy. Labels may not be altered on the ward in any circumstances.

14.4 Procedure for supply of discharge medicines by nurses

14.4.1 See separate section – One Stop Dispensing.

14.5 Pass prescriptions

14.5.1 Pass medicines must not be supplied from unlabelled ward stock.

14.5.2 Where One Stop Dispensing is not in place a pass prescription must be completed and sent to pharmacy at least 4 hours before the patient is due to go on pass or, on sites where there is no routine pharmacy service provided at weekends, by Friday morning for a weekend pass.

14.5.3 The pass prescription must include all relevant details, including length of pass, quantity of ‘as required’ medicines needed, in order to avoid any unnecessary delay.

14.5.4 Where one stop dispensing has been implemented, wards may use approved patients own medicines as pass medication. A pass prescription must be written and must be professionally checked by a pharmacist. Labelled medication can then be checked against this prescription by the clinical pharmacy technician or nursing staff, before being issued to the patient.
14.6 Procedure for supply of medicines to outpatients direct from clinics and Accident and Emergency Departments

14.6.1 The prescription for medicines to be provided from outpatient clinics, or the Accident and Emergency department is written on the Immediate Outpatient Letter.

- Check that the Outpatient Letter contains the following details.
  - Patient’s name
  - Patient’s address
  - CHI number
  - Ward or department
  - Prescriber’s signature

14.6.2 Check the following details on the Outpatient Letter against the agreed List of Medicines that may be supplied to outpatients for the clinic.

- medicine name and form
- dosage instructions
- quantity to be provided

14.6.3 If any of these details differ from the agreed List of Medicines, the prescription must be dispensed from the pharmacy.

14.6.4 Select the medicines to be issued. Check that the expiry date is appropriate. Check that each medicine is labelled to include the following information –

- the correct quantity, name, form and strength of the medicine
- the correct dosage instructions and cautionary labels
- the address of the Division

14.6.5 Complete the ‘Issued by’ section of the Outpatient Letter. Ensure that a practitioner authorised to administer medicines checks each detail described above, and signs the final ‘Checked by’ by section on the prescription.

14.6.6 Distribute the copies of the Outpatient Letter as follows –

- the white copy to pharmacy
- the pink copy to the GP usually via the patient
- the blue copy to the patient’s notes

14.7 Preparation of injections by patients and carers

14.7.1 Refer to NHS Lothian Delegation of Care policy for nurses, midwives and allied health professionals.


14.7.2 Patients and carers may require to prepare injections for self administration in clinical areas in NHS Lothian premises, or in their own home environment following discharge, or as part of their continuing treatment for a condition managed in an outpatient clinic.

14.7.3 There are hazards associated with the preparation of injections, and patients and carers must be suitably instructed and informed to ensure that these hazards are eliminated or minimised.

14.7.4 The information and instructions provided to patients and carers must be tailored to their individual needs and circumstances. Practitioners who are involved in supporting patients
and carers should consider home, work and social circumstances when advising on the suitability of environments for preparation.

14.7.5 Patients and carers must be shown how to prepare their injections, and given adequate opportunity to practise under supervision until they are familiar and confident with the procedure and have achieved the necessary competence. Practitioners should ensure that re-assessment of the patient or carer’s technique is undertaken regularly. Records of initial instruction and re-assessment should be kept, signed by practitioners involved, and the patient or carer.

14.7.6 Written information, instruction on and assessment of the preparation of injections should include:
- storage requirements for each product,
- general good practice guidance on checking the medicines, the standard of the environment to be used, and preparation technique, and
- specific step-by-step instruction on the preparation of each product.
- disposal of medicines and equipment

14.7.7 Clinical managers and practitioners responsible for the patients’ care must ensure that appropriate information and instruction is made available to patients and carers who need to prepare injections.
15 Return and disposal in hospital

15.1 Return of medicines to the pharmacy
15.1.1 Medicines that are expired or no longer required must be returned to the pharmacy where appropriate for disposal or re-use.

15.1.2 Medicines must not be returned to the pharmacy in the pharmacy delivery box unless it can be sealed with a tamper evident seal.

15.1.3 Items requiring refrigerated or freezer storage must not be returned in the pharmacy delivery box unless for disposal.

15.1.4 Controlled drugs and cytotoxic medicines must not be returned in the pharmacy delivery box at any time.

15.1.5 All medicines brought into hospital by patients remain their own property. They may be returned to pharmacy for disposal if they are no longer required. They must only be disposed of with the consent of the patient, or the patient’s representative.

15.1.6 An itemised list, using the appropriate paperwork, containing the name, strength and form of the medicine, and the quantity being returned, must accompany all medicines returned to the pharmacy. If this is patients’ own medication then only the name of the individual patient is required.

15.2 Disposal of medicines
15.2.1 Only small quantities of non-hazardous medicines may be disposed of in an appropriate waste container in wards, theatres and departments for example refused medication or residual volumes of medicines not required for a dose.

15.2.2 Other medicines must be returned to the pharmacy for disposal by incineration or other safe means through a specialist contractor, according to legal requirements and the NHS Lothian policy for the disposal of pharmaceutical waste.

15.2.3 For controlled drugs, see section 27.1.23 Management of CDs in wards, theatres and departments.

15.2.4 For cytotoxic medicines, see Section 16 Guidelines for the safe handling and administration of cytotoxic agents.

15.2.5 For radiopharmaceuticals see Section 17 - Radiopharmaceuticals.

15.3 Re-use of medicines
15.3.1 All medicines returned to the pharmacy must be checked to ensure that their quality and integrity have been maintained before they are issued for re-use.

15.3.2 A patient’s own medicine must never be issued for re-use by another patient.
16  **Cytotoxic chemotherapy**

See separate document "Guidelines for the Safe Use of Systemic Anti-Cancer Therapies (SACT)" for full guidelines on the following link:

http://intranet.lothian.scot.nhs.uk/NHSLothian/Healthcare/A-Z/OOQS-TheOncologyOnlineQualitySystem/Chemotherapy/Documents/Guidelines for the safe use of SACT.doc

16.1  **Abbreviated guidance on the safe administration of chemotherapy in non-cancer areas including *azathioprine, ganciclovir, mycophenolate and valganciclovir**

16.1.1  **Introduction**

16.1.1.1  Chemotherapy (cytotoxic) drugs may be used for the treatment of both cancer and non-malignant conditions. Chemotherapy drugs may therefore be initiated in both cancer and non-cancer specialist clinical areas. Chemotherapy treatment can involve use of oral, subcutaneous, and topical agents which patients take home with them for chronic or cyclical administration. Therefore patients may be admitted to any hospital ward or may be being treated in care homes or their own home with a chemotherapy drug, meaning that a broad range of healthcare professionals could come across them at some stage.

16.1.1.2  There is evidence to indicate that health care professionals involved in the preparation and administration of chemotherapy drugs can, if not using adequate safe handling measures, absorb potentially harmful quantities of these compounds which can be carcinogenic and teratogenic. Under COSHH regulations 2002 and HDL 29 (2005), all staff working with chemotherapy agents must be made and kept aware of risks and the circumstances under which they may be exposed to a carcinogen and all necessary measures should be adopted to protect staff from occupational exposure. In addition, a number of hazardous drugs also carry occupational exposure risks of carcinogenesis and/or teratogenicity and safe handling precautions must also be followed by staff handling these.

16.1.1.3  This guidance should be referred to whenever chemotherapy agents and identified hazardous drugs* are being used in any care setting. All staff must be aware of the risks of handling these drugs and the precautions that need to be taken to safeguard themselves and others.

16.1.2  **Safe Practice Guidance**

16.1.2.1  The guidance that follows has been adapted from the NHS Lothian ‘Guidelines for the Safe Use of Systemic Anti-Cancer Therapies (SACT)’. The full document can be found on the NHS Lothian intranet using the link below:

http://intranet.lothian.scot.nhs.uk/Directory/OOQS-TheOncologyOnlineQualitySystem/Chemotherapy/Documents/Guidelines%20for%20the%20safe%20use%20of%20SACT.docx

16.1.2.2  This abbreviated guidance is intended to provide an easy to follow guide of essential safe handling precautions to be used with chemotherapy and identified hazardous drugs* for all staff working in non-cancer areas in any care setting in Lothian and directs readers to
the relevant sections of the full guidance document via electronic links. Staff working in areas where chemotherapy treatment is initiated as part of routine clinical practice should have this guidance included in their induction training.

16.1.3 Initiation of Chemotherapy Treatment in Non-Cancer Clinical Areas

16.1.3.1 Chemotherapy drugs may be initiated and prescribed as part of routine practice in different specialist (non-cancer) clinical areas. In these circumstances suitable governance arrangements should be put in place to ensure that these drugs are being used safely. The full “Guidelines for the Safe Use of Chemotherapy Agents version 9.2” document should be referred to and used as a guide for essential areas to be considered. These should include:

Staff training & awareness: Arrangements should be put in place to ensure that all staff members working in the clinical area are able to identify when they are handling chemotherapy or immunosuppressant drugs and all staff administering these products must be appropriately trained.

Prescribing and administration responsibilities of medical staff: For areas where chemotherapy drugs are routinely initiated it is recommended practice that they should be prescribed, dispensed, and administered only in the context of a specific written protocol or treatment plan. Local governance arrangements should be in place to ensure there are defined grades of staff identified that may initiate treatment, prescribe and if relevant, administer treatments.

Risk assessment of individual drugs: The multidisciplinary team, with the help of the relevant clinical pharmacist, should ensure that drugs used locally are risk assessed and appropriate arrangements put in place to ensure safe use of these drugs. Risk assessment should be shared with each area involved in the administration.

16.1.4 Identification of chemotherapy drugs

16.1.4.1 Patients may be admitted to hospital or care homes on chemotherapy drugs. Table 1 below lists chemotherapy drugs that patients may be self-administering at home, or carers and / or community nurses may be involved in administering. In addition, a number of hazardous drugs which also carry occupational exposure risks of carcinogenesis and / or teratogenicity are listed in Table 2. If patients are taking any of the drugs listed in Table 1 and 2, safe handling precautions must be followed by staff in all care settings. These lists are not exhaustive, a comprehensive list of all licensed chemotherapy agents and immunosuppressants can be found in chapter 8 of the BNF. If in doubt about any drug please contact your pharmacy department or the initiating specialist clinical area for advice.

Table 1: Chemotherapy drugs patients may be using in the community setting

| Capecitabine | Gefitinib | Pazopanib |
| Chlorambucil | Hydroxyurea | Topotecan |
| Cyclophosphamide | Imatinib | Tretinoin |
| Cytarabine (SC only) | Lapatanib | Procarbazine |
| Dasatinib | Lenalidomide | Sorafenib |
| Erlotinib | Lomustine | Sunitinib |
| Etoposide | Mercaptopurine | Tegafur with uracil |
| Everolimus | Methotrexate (Oral & SC route) | Temozolamide |
| Fludarabine | Mitomycin | Temsirolimus |
| Fluorouracil | Mitotane | Thalidomide |
| | Nilotinib | |
### 16.1.5 Hospital Setting

16.1.5.1 What to do when a patient using chemotherapy drugs is admitted to any inpatient clinical area:

*Check the chemotherapy treatment is to continue:* If patients are admitted to hospital whilst taking chemotherapy drugs, the consultant who is responsible for initiating and monitoring this treatment should be contacted to ensure that it is appropriate to continue treatment in light of their current clinical condition.

*Obtain a supply of the patients’ chemotherapy:* If it is appropriate to continue treatment, the patient’s medicines should, where possible be brought in for use. This is to ensure the patient gets the correct drug and dose and does not receive too much or too little treatment. Only when this is not possible should chemotherapy agents be re-dispensed. If this is required, contact your clinical pharmacist to arrange the dispensing of the chemotherapy agents.

Supplies of chemotherapy drugs will generally only be issued during normal working hours. Only under specific emergency situations, where there is a life-threatening situation, will supplies be issued out of hours.

*Ensure that all staff working in your clinical area are aware:* If you work in an area where staff are unfamiliar with the use of chemotherapy drugs ensure that information regarding the chemotherapy drugs is clearly documented in the nursing notes and shared with all staff during handover or safety briefing meetings. It is vital that all staff know what precautions to take to safeguard themselves and others.

### 16.1.6 Community Setting

16.1.6.1 What to do when a patient using chemotherapy drugs is being cared for at home or in a care home:

- Ensure that prior to transfer the referring unit provides verbal and written information on the chemotherapy, and / or hazardous drug treatment*, potential side effects, what to do if incorrect dose administered, safe handling requirements, contact details for future issues and any training staff may need to undertake to support safe care of this patient.

- Ensure the chemotherapy or hazardous drugs* and any equipment required for safe handling are supplied to the patient to take home or to their care home.

- Ensure that the supply route for the chemotherapy and other drugs has been established

- Ensure that all staff (health and social care) involved in the care of this patient are informed that the patient is being administered chemotherapy or hazardous drugs* and that they know what precautions to take and who to contact for advice and support.
16.1.7 Safe Handling Precautions

16.1.7.1 Safety precautions must be in place to protect healthcare workers and others from the potential hazards of chemotherapy, and identified hazardous drugs*. During administration, the risk of exposure is minimised through use of safe handling techniques and protective clothing. Table 3 below is intended to highlight to staff the essential areas for consideration when handling chemotherapy and hazardous drugs. Each section links to the appropriate section of the full NHS Lothian ‘Guidelines for the Safe Use of Chemotherapy Agents version 9.2’ which fully details the required precautions.

Table 3: Essential areas for consideration when handling chemotherapy or hazardous drugs

<table>
<thead>
<tr>
<th>Link to Section of full guideline</th>
<th>2.1 (p17)</th>
<th>2.2 (p18)</th>
<th>2.4.2 (p19)</th>
<th>3.0 (p21)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protective clothing</strong></td>
<td>Personal protective equipment (PPE) must be used – including powder free nitrile gloves.</td>
<td>Parenteral chemotherapy: All staff who administer chemotherapy intravenously must undertake formal training. In non-cancer areas where intravenous chemotherapy is being initiated, local arrangements should be in place to ensure all staff administering intravenous treatment have undergone the appropriate training (see education section). Appropriate administration checklists, applicable to the clinical area, should be in place. They should follow the broad principles outlined in this section. Practitioners should not be administering chemotherapy agents by IV bolus injection. In this instance the clinical management team would be advised to seek advice from the Clinical Education Team. Subcutaneous chemotherapy may be given in non-cancer areas. The same principles for safe handling of this route apply. If patients on subcutaneous chemotherapy are admitted to a ward or clinical setting which does not deal with these medications routinely, patients*, who are able to, should be encouraged to continue to self-administer where possible. If this is not possible contact the appropriate specialist area for advice and support. Powder free nitrile gloves should be worn. Use disposable measuring spoons and cups. (These should be labelled up for sole use with oral chemotherapy and disposed of weekly or at the end of treatment whichever is sooner). Never attempt to half or crush tablets or open capsules. If a patient is unable to swallow their medication contact the ward clinical pharmacist or unit responsible for initiating treatment for advice. Refer to section for full details. Double bag completed injections and infusions and dispose of them in chemotherapy sharps bins (purple lids). PPE should be discarded into chemotherapy sharps bins.</td>
<td></td>
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*Powder free nitrile gloves should be worn.
Chemotherapy drugs should NEVER be returned in the pharmacy box.

Refer to section 3 for full guidance

### 4.0 Handling and disposal of bodily waste: chemotherapy only

Bodily waste from patients receiving systemic chemotherapy may contain residues of chemotherapy agents for up to 7 days after the end of treatment and should be treated as a biohazard.

Appropriate PPE should be used.

Absorbent crystals may be used to decrease risk of contaminated spillage for patients who are catheterised, have stoma’s or drains in place. If staff require access to absorbent crystals contact ward 3, WGH for details of how to obtain these.

See section 4 for full details of recommendations for staff, patients and relatives.

### 5.0 Management of chemotherapy or hazardous drug* spillage

Wards administering parenteral treatments should have access to a chemotherapy spillage kit. Section 5 details how to deal with an IV chemotherapy spillage and how to obtain a chemotherapy spillage kit. Spillage of IV hazardous drugs* should be dealt with in the same way.

### 6.0 Accidental contact with chemotherapy or hazardous drugs*

Details of how to avoid accidental contact with chemotherapy and what to do in the event of an incident can be found in section 6. Accidental contact with hazardous drugs* should be dealt with in the same way.

### 8.0 Occupational exposure

Monitoring and surveillance: Report any accidental exposure to chemotherapy agents or hazardous drugs* to occupational health and record the incident on DATIX.

Pregnancy, planning pregnancy and breast feeding: The preparation and administration of chemotherapy agents in pregnancy is a complex issue. Despite conflicting reports in biomedical literature, it is generally agreed that there is some evidence of an occupational risk to staff working with chemotherapy drugs. Therefore recognised steps should be taken to reduce or minimise exposure to these substances in the working environment.

See section 8 for further details

### 9.0 Education and training

For all NHS Lothian staff involved in the sporadic care of patients receiving cytotoxic chemotherapy and hazardous medicines.

An awareness of this policy should be included in all ward induction training.

Staff working in areas where chemotherapy treatment is initiated as part of routine clinical practice should have this guidance included in their induction training and depending on their responsibilities should complete the training detailed below:

Staff routinely administering or checking cytotoxic chemotherapy agents, and hazardous medicines:

- Mandatory attendance at the ‘Introduction to – Cytotoxic Chemotherapy, and Hazardous Medicines Study Day’ involving:
Successful completion of a written assessment

18 monthly e-learning ‘chemotherapy’ module update

Competency assessment should be devised by the relevant clinical area and should be relevant for the activities being undertaken.

Staff routinely caring for patients receiving cytotoxic chemotherapy and hazardous medicines:

- Specific training should be included in ward induction which is tailored to the individual areas’ activities.
- This should include awareness of this policy and the specific sections of the full safe use guidelines that relate to the staff members duties.
- Specific information on the drugs which are routinely used in practice should be included.

Ward Information

All wards where chemotherapy or hazardous drugs* are regularly administered should give consideration to setting up a chemotherapy or hazardous drugs* recourse pack which is available for all staff. 16.1.7.2 Appendix 1 includes a suggested list of resources and equipment which may need to be kept.

Education support

Please contact the education tea, who will refer you to the chemotherapy education specialist if you wish to discuss specific requirements within your area.

<table>
<thead>
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<th>Table of abbreviations</th>
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<tr>
<td>COSHH</td>
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<td>HDL</td>
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<td>PPE</td>
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16.1.7.2 Appendix 1

Essential equipment and resources for the safe use of chemotherapy and hazardous drugs* in clinical areas.

- Hard copy of this guidance plus the relevant selected sections of the NHS Lothian ‘Guidelines for the Safe Use of Chemotherapy Agents version 9.2’
- Personal protective equipment- including purple nitrile gloves and aprons
- Chemotherapy sharps bin (purple lid)
- Small orange bags for double bagging completed infusions (if appropriate)
- Chemotherapy spillage kit – can be ordered on PECOS system TYCO/healthcare Kendal CT 4004
- Copy of relevant protocol for use of chemotherapy
- Copy of administration procedure for chemotherapy
- Copy of patient information
- For oral chemotherapy or hazardous drugs disposable medicine cups & spoons

Suggested equipment and resources for the safe use of chemotherapy and hazardous drugs* in clinical areas.

- Extravasation kit – if relevant for drug being administered
Absorbent crystals (Verna gel powder) for patients who are catheterised or have stoma’s or drains in place – to decrease the risk of contaminated spillage of body fluids (Verna gel powder can be ordered on a non-stock form from procurement)

Trays for carrying chemotherapy or hazardous drugs which are delivered via infusion (for ordering ref- solid ribbed base code IT3025 WARWICK SASCO)

Any specific instructions required for dealing with the chemotherapy used within your clinical area- for example, sodium bicarbonate 8.4% should be used to wash skin should mitomycin for bladder instillation come into contact with skin
17 Radiopharmaceuticals

17.1 Transport
17.1.1 Vehicles used to transport radiopharmaceuticals must comply with the Road Transport Regulations.

17.1.2 Drivers of vehicles used to transport radiopharmaceuticals must be trained by a member of the radiopharmacy staff.

17.2 Administration
17.2.1 Administration of radiopharmaceuticals and the use of radioactive sources in diagnosis, treatment and research is governed by the Medicines (Administration of Radioactive Substances) (MARS) Regulations and the 1995 amendment MARS regulations. These activities can only be undertaken by medically qualified staff who possess an Administration of Radioactive Substances Advisory Committee (ARSAC) license, or under supervision through a formally delegated entitlement from the ARSAC license holder. ARSAC licenses are specific to the individual, listed procedures, site and facilities (equipment and staff support) at that site and are time limited subject to renewal.

17.2.2 Administration of radiopharmaceuticals must be carried out in accordance with the Ionising Radiation (Medical Exposure) Regulations (IR(ME)R), the Division Radiation Protection Policies and local departmental standard operating procedures. The main duties and responsibilities as laid down by IR(ME)R are available on NHS Lothian Intranet site.

http://intranet.lothian.scot.nhs.uk/NHSLothian/Healthcare/A-Z/OOQS-TheOncologyOnlineQualitySystem/Radiotherapy/Documents/Forms/AllItems.aspx

17.3 Return and disposal
17.3.1 Disposal of unused radiopharmaceuticals and residues of used radiopharmaceuticals must be in accordance with the methods specified in the Local Radiation Rules for Radioisotope Departments.

17.3.2 Empty radiation shields must be returned to the radiopharmacy after labels have been removed.

17.3.3 Administration of radiopharmaceuticals must be carried out in accordance with the Ionising Radiation (Medical Exposure) Regulations (IR(ME)R) and the Division Radiation Protection Policies. The main requirements of IR(ME)R are contained in the Local Radiation Rules for Radioisotope Departments.
18 Intrathecal Injections

18.1 Introduction
18.1.1 Refer to separate section - Guidelines for the Safe Handling and Administration of Cytotoxic Chemotherapy - for guidance on intrathecal cytotoxic chemotherapy.

18.1.2 This policy is based on the Scottish Government ‘Guidance on the safe handling of intrathecal and intraventricular injections’ issued as NHS HDL (2006) 11. A copy of this guidance must be available in all areas where intrathecal and intraventricular injections are handled.

18.1.3 All references to intrathecal medicines in the following paragraphs should be read as equally applicable to intraventricular medicines

18.2 General good practice
18.2.1 The intrathecal route should be used where there is a clear body of evidence of efficacy in the particular clinical situation.

18.2.2 Practitioners involved in the prescribing, preparation and administration of intrathecal injections must receive education and training appropriate to their roles. Formal induction programmes for all practitioners must cover, at the very minimum, all potential clinical hazards associated with intrathecal medicines. There should be a formal local assessment to ensure that all practitioners, including locums, have read and understood this guideline and all the organisation’s relevant guidelines and protocols.

18.2.3 A written local protocol must be available in each clinical area where intrathecal injections are prescribed, prepared or administered. It must be readily accessible to all practitioners involved in the process. The local protocol should cover training, prescribing, preparation, transportation, storage, checking and administration. It should include the following local information:
   • who can do what
   • where things should be done
   • where to find key documents such as national guidance and local protocols
   • a list of medicines and specific formulations licensed to be administered by the intrathecal route
   • doses licensed to be used for intrathecal administration
   • procedures to eliminate or minimise the hazards associated with the preparation and administration of intrathecal injections

18.2.4 Use of medicines and doses not licensed for intrathecal administration is only be permitted in line with the NHS Lothian policy for the use of unlicensed and off-label medicines.

18.2.5 A system must be in place to ensure that only the latest editions of the local protocol is available to staff. Reviews of protocols should be carried out every two years and documented.

18.2.6 All practitioners involved with the care and treatment of patients receiving intrathecal injections must be encouraged to challenge colleagues if, in their judgement, protocols are not being adhered to or when the actions of an individual may cause potential risk to
a patient. Challenging a colleague should not be seen as adversarial, but as an additional check to improve patient safety and reduce risk.

18.2.7 Injections must be clearly identifiable at all stages during preparation and administration. This may be achieved by labelling the injection, or by another agreed safe system to meet local circumstances and situations. For example, if the prepared injection is to be supervised at all times during preparation and completion of administration, the original container and final preparation could be kept in an individual tray between preparation and administration.

18.2.8 If labels are added, the route of administration must be printed clearly in the largest font size possible and emboldened. Negative labelling (for example, ‘Not for intrathecal use’) must never be used.

18.2.9 Once prepared, intrathecal injections must be kept in designated areas separate from injections that are to be given by a different route. They should never be kept as ward or theatre stock.

18.3 Arrangements for intrathecal spinal anaesthesia and analgesia

18.3.1 Personnel
18.3.1.1 Anaesthetists recognised as such by the Royal Colleges of Anaesthetists or equivalent professional regulator, or delegated by the Clinical Director of Anaesthesia, are authorised to prescribe, prepare and administer intrathecal spinal anaesthetics and analgesics in operating departments.

18.3.1.2 Practitioners in training under the supervision of an anaesthetist may prepare and administer intrathecal spinal anaesthetics and analgesics when they have achieved a suitable level of skill. The anaesthetist must determine the level of supervision required, depending on the experience of the trainee. The trainee must be familiar with the local protocols relevant to the prescribing, dispensing, checking and administering of intrathecal medicines.

18.3.1.3 A local register of trainees that are authorised to prepare and administer intrathecal spinal anaesthetics and analgesics must be held in operating departments where intrathecal injections are prepared and administered.

18.3.1.4 There must be a system in place to ensure that the local register is always up-to-date.

18.3.2 Preparation and administration
18.3.2.1 Intrathecal injections should be prepared and administered by the same person.

18.3.2.2 Practitioners preparing to administer an intrathecal injection must verify details to ensure that the correct medicine and the correct dose are given to the correct patient by the correct route.
18.3.2.3 Checks must be made at relevant stages throughout the preparation process. The responsibility for checking remains with the anaesthetist or trainee who administers the dose. A second person should check the ingredients to ensure that they are correct.

18.3.2.4 Intrathecal injections should be administered immediately following preparation.

18.3.2.5 Intrathecal injections should be prepared and administered at a different time from injections to be given by the intravenous or other injection route. Where this is not possible, intrathecal injections must be kept clearly separate from injections to be given by a different route to avoid the risk of selecting the wrong preparation.

18.3.2.6 Administration of intrathecal injections must be recorded on the anaesthetic record by the anaesthetist who administers the dose.

18.3.2.7 Scheduling of administration of intrathecal medicines must take account of the availability of anaesthetists, or trainees named on the local register. The intrathecal procedure must not be undertaken if they are not available.

18.4 Arrangements for intrathecal injections other than spinal anaesthesia and analgesia

18.4.1 Personnel
18.4.1.1 NHS Lothian maintains an intrathecal register that names practitioners who have been trained and certified competent in the prescribing, preparation and/or administration of medicines given by the intrathecal route. The register is held on the NHS Lothian Intranet.

18.4.1.2 The register includes, for each individual practitioner, the specific intrathecal medicines, or category of intrathecal medicines where appropriate, and the clinical indication for which they may be prescribed, prepared or administered. The intrathecal register also includes the activity (that is prescribing, preparation or administration), for which the practitioner is authorised.

18.4.1.3 Practitioners named on the intrathecal register will have to demonstrate that they are competent to fulfil their designated roles and that they have been certified as such by the appropriate person. The Medical Director, the Director of Nursing and the Director of Pharmacy are responsible for ensuring that there is a system in place to maintain the intrathecal register.

18.4.1.4 Practitioners, including locums, moving from one organisation to another must produce proof of their competence before being placed on the NHS Lothian intrathecal register. Appropriate lead professionals must ensure that these practitioners are provided with a formal period of induction. The practitioner must be familiar with the local protocols relevant to the prescribing, dispensing, checking and administering of intrathecal medicines before being placed on the register.

18.4.1.5 In order to remain on the intrathecal register, practitioners must demonstrate every two years that they are up-to-date on policies and competent in the required techniques for the administration of intrathecal medicines.
18.4.2 Prescribing
18.4.2.1 Intrathecal medicines used for treatment and diagnostic imaging may only be prescribed by registered prescribers that are named on the intrathecal register.

18.4.2.2 Prescribing and administration of intrathecal medicines should be recorded on the main prescribing chart. However, where it is not possible to record prescribing or administration to the required level of detail on the main chart, a separate supplementary chart may be used.

18.4.2.3 Wherever possible, intrathecal doses should be prescribed and/or administered at different times from intravenous bolus doses. Where this is not possible, intrathecal injections must be kept separate from injections to be given by a different route to avoid the risk of selecting the wrong preparation.

18.4.3 Preparation
18.4.3.1 Intrathecal doses of medicines used for treatment and diagnostic imaging must only be prepared in pharmacy aseptic departments.

18.4.3.2 Only practitioners named on the intrathecal register, or trainees under the supervision of a person named on the intrathecal register as authorised to prepare, and who have achieved a suitable level of skill, may prepare intrathecal injections.

18.5 Issue and transportation from the pharmacy
18.5.1 Medicines for intrathecal administration must only be issued from the pharmacy by and to practitioners designated in the local protocol. If the medicines are taken to the near-patient area they must be either issued directly to the person who will be administering the intrathecal medicine or placed in the designated area for the storage of intrathecal injections. The pharmacy practitioner should sign for the release of the medicines, identifying to whom the medicines were released or that they have been placed in the designated area. Where the person who will be administering the intrathecal medicine does not take direct receipt of the medicines, she/he must check the medicines and sign for them on retrieval from the designated area.

18.5.2 Intrathecal injections must always be packed and transported separately from treatments for administration by other routes. Intrathecal doses should be packed in such a way as to highlight that the product is different from intravenous drugs. For example, the transport containers could be clearly labelled for intrathecal use. The packaging of intrathecal injections must comply with the manufacturer’s recommendations. Colour coding of containers and syringes alone is unreliable and could result in error.

18.6 Timing of issue from the pharmacy
18.6.1 If injections to be administered by intravenous bolus, and injections to be administered by intrathecal injection are prepared in the pharmacy for the same patient, they must be
issued from the pharmacy at different times. Injections to be administered by intravenous bolus must be issued first. The only exception that can be made to the sequencing is when it is essential that intrathecal injections, and injections to be administered by intravenous bolus, are given in one episode of treatment.

18.7 Storage
18.7.1 Prepared intrathecal medicines should not be stored in the clinical area. Intrathecal medicines issued from the pharmacy should be delivered immediately before the planned administration time, and those prepared in operating departments should be used immediately following preparation. Where this is not possible, intrathecal injections must be stored in the designated area, separate from injections to be given by a different route, to avoid the risk of selecting the wrong preparation.

18.7.2 The designated area must be a lockable area. The key should be kept with the nurse-in-charge. The area must be locked at all times.

18.7.3 Only a practitioner on the intrathecal register should remove the intrathecal injection from the designated area. Only one dose should ever be removed at any one time.

18.8 Administration
18.8.1 Practitioners preparing to administer an intrathecal injection must verify details to ensure that the correct medicine and the correct dose are given to the correct patient by the correct route. These details must be verified by a second person, and the checks made must be recorded on the prescription chart.

18.8.2 Intrathecal medicines should be administered at a different time from injections to be given by the intravenous or other injection route. Where this is not possible, intrathecal injections must be kept clearly separate from injections to be given by a different route, to avoid the risk of selecting the wrong preparation. Wherever possible, the intrathecal and the intravenous bolus injection should be administered by different practitioners.

18.8.3 A technically difficult lumbar puncture may occasionally need the assistance of staff not on the intrathecal register, for example a radiologist to position the needle under imaging control. This is acceptable – however, these staff must never be involved in any other aspect of the process and, specifically, must never administer the intrathecal injection.

18.8.4 Intrathecal injections must be prepared and administered within normal working hours whenever possible. The intrathecal procedure should not be undertaken if practitioners named on the intrathecal register are not available.
19 Policy for the use of unlicensed and off-label medicines

See the Policy for the use of unlicensed (and off-label) medicines in NHS Lothian

http://intranet.lothian.scot.nhs.uk/Directory/BoardCommittees/AreaDrugTherapeutics/Pages/MedicinesGovernancePoliciesADTCPolicyStatements.aspx
20 Medicines used for research and clinical trials

20.1 Introduction

20.1.1 An application for NHS Lothian Management approval to conduct a clinical trial must be made to the hospital Research and Development department (R&D) by way of an NHS R&D SSI form.

20.1.2 If the clinical trial involves the administration or supply of medicines, an authorised pharmacist must review and assess the protocol and if there are no objections to the trial being conducted from a pharmacy prospective they should sign the relevant section of the Research and Development form or confirm pharmacy support to R&D via email before the trial documents are submitted for approval.

20.1.3 A Clinical Trials Authorisation (CTA) must be obtained from the Medicines and Healthcare Products Regulatory Agency (MHRA) for all interventional clinical drug trials.

20.1.4 An application for an ethical opinion must be made to an appropriate recognised Research Ethics Committee.

20.1.5 Medicine supplies for research and clinical trials must be procured and distributed through the hospital pharmacy. The pharmacy will review and assess the labelling of any Investigational Medicinal Products (IMPs) received to ensure the labels are compliant with Good Manufacturing Practice (GMP) prior to starting any dispensing.

20.1.6 A copy of the current research protocol, all regulatory and local approvals, and emergency code break information, where relevant for double blind trials, must be held in the pharmacy.

20.1.7 Patient recruitment to a clinical trial can only commence following the receipt of all the listed documents in point 1.6.

20.2 Prescriptions for clinical trials

20.2.1 When a hospital inpatient requires a supply of a clinical trial drug to be administered on the ward it must be prescribed on the medicine chart and the entry should include along with dosing and administration instructions the protocol number and the patient trial identification number.

20.2.2 When an outpatient requires a supply of a clinical trial drug it must be prescribed on a trial specific approved prescription form.
21 Safe Storage and Use of Expired Drugs in Training

21.1 Introduction
21.1.1 It is essential to prepare individuals and teams to manage real life events in clinical practice. Wherever possible this should be done using the type of equipment which would actually be used during these real life events. Notably, drug delivery systems can cause problems where users are unfamiliar with drug presentation, opening, assembly and use of pre-filled syringes. It is therefore vitally important that training in the use of these devices takes place with staff members who may be expected to use them. The use of expired Prescription Only Medicines may be used in certain circumstances for training programmes delivered to staff.

21.2 Objectives
21.2.1 To ensure the safe storage and handling of all expired medicines used in training
21.2.2 To ensure accurate record keeping which provides an effective audit trail from supply to disposal

21.3 Expired Drugs Held
21.3.1 Only expired medicines for which no cost effective placebo exists or where the packaging alone is insufficient for training purposes may be requested from pharmacy. A review must be made of the range of drugs held by a Trainer once a year and this must be signed off by the appropriate Head of Service. This agreed Stock List must be provided to the Site Lead Pharmacist.
21.3.2 No expired Controlled Drugs (Schedules 2 – 5) will be provided for training purposes.

21.4 Issue by Pharmacy
21.4.1 An order form will be required to be completed before expired stock is issued from Pharmacy. Pharmacy can supply the necessary paperwork if order books are not routinely used within the area.

21.5 Receipt of Stock by the Trainer
21.5.1 Once expired drugs have been received by the Trainer, the drug names and quantities must be documented in a register which will be held by the Trainer. The expired medicines must be securely stored and clearly marked “EXPIRED STOCK FOR TRAINING ONLY”.

21.6 Security and Storage
21.6.1 Once logged in the local register, these drugs must be stored in a locked cupboard with restricted access, but this must not be the same cupboard where medicines for patients use
are stored. During training, the Trainer must ensure that these medicines are under their
direct supervision.

21.7 Disposal
21.7.1 For training purposes, pre-filled syringes may be used a number of times before disposal.
When empty they must be disposed of in an approved sharps bin. The Trainer must record
use and disposal of all items in the register kept in each area.

21.8 Recordkeeping
21.8.1 Records will be retained by the Trainer in each area where drugs are held and made
available for audit when required. These records will be held for a period of two years after
the last entry.
22 Vaccination and immunisation

22.1 Introduction

22.1.1 In order to enhance disease prevention, appropriately trained healthcare professionals are required to participate in vaccination programmes and administer vaccines to patients and/or staff in relation to influenza. These vaccines will have been individually prescribed or be covered by a Patient Group direction (PGD).

22.1.2 Nurses administering vaccines under a PGD must have received immunisation and vaccination training, paediatric and/or adult basic life support and anaphylaxis training. Nurses administering travel vaccines using a PGD should have undertaken a course in travel health and annual CPR and anaphylaxis training.

22.1.3 See NHS Lothian policy for the Handling and Storage of Vaccines

http://intranet.lothian.scot.nhs.uk/Directory/publichealth/Immunisation/Pages/Coldchaindocuments.aspx

22.2 General information for hospital staff

22.2.1 Most areas do not have adequate storage facilities for the storage of vaccines. They should not be stored at ward/department level but ordered on a named patient basis from pharmacy.

22.2.2 Vaccines should be used within two hours of leaving pharmacy or returned if unused. However, this may not be possible in some cases, eg during the flu season, ward areas may store vaccines in ward fridge before administering to patients.
23 Policies for specific medicines

23.1 Potassium chloride concentrated solutions
23.1.1 Several incidents of death or serious injury have been reported following the inappropriate administration of concentrated potassium chloride solutions. They have occurred due to mistaken use for reconstitution or dilution of injections, and due to inadequate mixing during addition to infusion solutions.

23.1.2 The National Patient Safety Agency Alert, July 2002, sets out action required by the NHS to reduce the risk of accidental overdose arising from the use of concentrated potassium solutions.

Concentrated potassium solutions are solutions that contain -
- 10% potassium chloride (approximately 1.3mmol potassium per mL)
- 15% potassium chloride (approximately 2.0mmol potassium per mL)
- 20% potassium chloride (approximately 2.6mmol potassium per mL)

Potassium hydrogen phosphate solutions in ampoules and vials
Potassium dihydrogen phosphate solutions in ampoules in vials.

23.2 Policy Statements
23.2.1 Wherever possible, intravenous potassium solutions should be prescribed in concentrations that are available from the pharmacy in ready-to-use solutions, i.e. requiring no further dilution before administration.

23.2.2 Concentrated potassium solutions should only be stored in wards, theatres and other clinical areas where their use is justified because
- the ready-to-use diluted solutions that are available from the pharmacy are not appropriate, and
- they need to be available for urgent use

23.2.3 Concentrated potassium solutions should be stored and handled in wards, theatres and other clinical areas in the same way as controlled drugs, that is
- they are ordered from pharmacy using a controlled drug order form
- they are stored in the controlled drug cupboard
- records of receipt, administration and destruction are maintained in the controlled drug register
- stocks are checked and reconciled on a daily basis by nurses
- records are checked every 3 months by a pharmacist

23.2.4 Concentrated potassium solutions should not be borrowed or transferred between wards, theatres and other clinical areas. They are always obtained directly from the pharmacy.

23.2.5 Concentrated potassium solutions should only be handled by staff who have been trained and are competent in their use.

23.2.6 Infusions involving the addition of concentrated potassium solutions should be prepared using a procedure that:
- avoids the risk of pooling and incomplete distribution, and
• incorporates an independent check by a second practitioner for all aspects of the preparation, set up and start of administration

23.2.7 Infusions prepared in wards, theatres and other clinical areas should be used immediately and not stored for use later.

23.3 Procedure for adding concentrated potassium solution to an infusion fluid

23.3.1 Check that a ready-to-use solution, or combination of ready-to-use solutions running at the same time could not be used.

23.3.2 Ensure that an independent practitioner checks the following before the concentrated potassium solution is added to the infusion bag.
   • the calculation is correct to produce the final concentration required
   • the correct infusion fluid has been selected
   • the correct additive solution has been selected
   • the correct volume has been drawn up
   • the additive label has been completed correctly

23.3.3 Never inject concentrated potassium solution into a hanging bag.

23.3.4 Hold the additive port of the infusion bag uppermost.

23.3.5 Inject the concentrated potassium downwards into the bag.

23.3.6 Mix the contents by inverting the bag at least 5 times. Do not attempt to mix the contents by repeated squeezing of the bag – this is not effective.

23.3.7 Administer the infusion to the patient immediately. Do not store it for use later. If it is not used immediately, dispose of the contents and prepare a fresh bag when required.

23.3.8 Ensure that an independent practitioner checks
   • the prescription to ensure that it is correct for the patient
   • the infusion label to ensure it matches the prescription
   • the identity of the patient
   • the set up of the infusion device
   • that administration is commenced correctly
24 Donating medicines

24.1 Introduction
24.1.1 These guidelines have been prepared in line with the ‘Guidelines for drug donations’, World Health organisation (WHO), second edition, 1999.

24.1.2 Medicines are essential in humanitarian relief efforts and people make donations with the best of intentions. The WHO guidelines have been developed to provide information to ensure that medicines donated are suitable for, and can be sorted, stored and distributed in, the receiving country. This will avoid added pressure and cost to the recipient if unsuitable medicines need to be destroyed. NHS Lothian staff should take the following points into consideration when becoming involved in donating medicines.

24.2 Guidance
24.2.1 Donated medicines must be relevant for the situation, for the disease pattern and for the level of care that is available in the recipient country. Local health professionals and patients must be familiar with them or have access to information on their use, and they must comply with locally agreed medicines policies and standard treatment guidelines.

24.2.2 All medicines should be labelled in a language that is easily understood by health professionals in the recipient country. The label on each individual container should at least contain the International Non-proprietary Name (INN) or generic name, batch number, dosage form, strength, name of manufacturer, quantity in the container, storage conditions and expiry date. The presentation, strength and formulation of donated medicines should, as far as possible, be similar to those of drugs commonly used in the recipient country.

24.2.3 All donated medicines must be obtained from a reliable source and comply with quality standards in both donor and recipient country. Medicines that have been issued to patients and then returned to a pharmacy or elsewhere, or otherwise where quality cannot be guaranteed should not be donated.

24.2.4 Legal requirements for ordering, supply, transport, storage and receipt of medicines apply to medicine donations. Controlled Drugs regulations must be adhered to.

24.2.5 Recipients should be aware of all medicines donations that are being considered, prepared or actually under way, so that plans can be prepared for receipt, storage and distribution. Medicines should not arrive unannounced.

24.2.6 All donated medicines should have a remaining shelf-life of at least one year after arrival in the recipient country. In some situations there are logistical problems, and distribution of the medicines may take months. As much as possible, donated medicines should be presented in larger quantity units and hospital packs, as these are less bulky to transport.

24.2.7 All medicine donations must be packed in accordance with international shipping regulations, and be accompanied by a detailed packing list which specifies the contents of each numbered carton by INN, dosage form, quantity, batch number, expiry date, volume, weight and any special storage conditions. The weight per carton should not exceed 50 kilograms. Medicines should not be mixed with other supplies in the same carton.
24.2.8 Import tax, port clearance, and handling costs must be considered, and the declared value of a medicine donation should be based on the wholesale price of its generic equivalent in the recipient country, or, if such information is not available, on the wholesale world-market price for its generic equivalent. Costs of international and local transport, warehousing, port clearance and appropriate storage and handling should be paid by the donor agency, unless specifically agreed otherwise with the recipient in advance.
Medication Incidents

25.1 Introduction

25.1.1 A medication incident occurs when

- the wrong medicine is prescribed, administered or dispensed to a patient
- an unsuitable (e.g. expired or incorrectly stored) medicine is supplied or administered to a patient
- a medicine to which a patient has an allergy is prescribed or administered
- a medicine is administered to the wrong patient
- a medicine is administered via a route other than that prescribed
- the wrong dose or strength of a medicine is prescribed, administered or dispensed to a patient
- the wrong concentration is prescribed or administered
- the wrong frequency (time between doses) of medicine is prescribed or administered
- the wrong rate of administration of a medicine is prescribed or set up for administration
- a dose of a medicine is significantly delayed or missed, either because it has not been prescribed, administered or dispensed, timeously
- the medicine dispensed or supplied to a patient is labelled with the wrong medicine name, strength or dosage instructions
- any other medication prescribing, administration or dispensing error occurs which may result in adverse patient outcome
- prescription or administration is not correctly recorded

25.1.2 A breach of security is also a medication incident, and includes any deviation from the procedures that causes actual or potential loss or theft of medicines. Examples of such incidents include:

- medicines are left unattended at an insecure location
- signatures are not received when a medicine changes hands
- medicines are found to be missing
- controlled stationery is found to be missing or in possession of unauthorised person
- a key for medicine storage areas is found to be missing
- where controlled drug legislation has been contravened

25.1.3 Medication incidents must be reported and investigated in order to ensure that the appropriate corrective action is taken, and to agree the appropriate preventive action to be taken to avoid recurrence.

25.1.4 The person who discovers a medication incident must complete a report form, either paper or on the intranet, and pass it to the appropriate manager according to the Risk Management policy.

25.1.5 The manager of the department concerned must investigate the incident and complete the Risk Management Information System (Datix) Incident Investigation screen where Datix is in use, or complete the Medication Incident Recording Form for other areas, according to local policy.

25.1.6 For serious medication incidents resulting in harm to patients, the Director of Pharmacy and the Head of Service or professional head must be informed immediately.
25.1.7 For incidents involving Controlled Drugs the Accountable Officer must be informed.

25.1.8 Any incidents involving a student nurse should be reported to the tutor or relevant department in the education institute, so that the programme leader or tutor may meet with the student for further guidance and support.

25.1.9 Clinical governance committees, Quality Improvement Teams, and the Area Drug and Therapeutics Committee and sub-committees must review medication incidents to identify trends and advise on preventive action required.
26 Procedures for the preparation and administration of medicines

Monographs for the following routes of administration are provided in the following pages.

26.1 Injections
   26.1.1 General
   26.1.2 Intramuscular injection
   26.1.3 Subcutaneous injection
   26.1.4 Intravenous injection (bolus)
26.2 Aural
26.3 Inhalation
26.4 Nasal
26.5 Nebuliser
26.6 Ophthalmic
26.7 Oral
26.8 Rectal
26.9 Stomal
26.10 Topical
26.11 Transdermal
26.12 Urinary catheter
26.13 Vaginal
26.14 Enteral feeds

26.1 Injections

26.1.1 General

Step 1

- It is generally recommended that intravenous medicines are prepared by two practitioners. Under exceptional circumstances when delay in administration may cause harm to the patient, preparation and administration should not be delayed by the absence of a second practitioner. Other local exceptions must be defined, documented and approved by the appropriate manager for the clinical area.

- Check the formulation, dose and diluent against the prescription and the product information. Note that some formulations of medicines are similar, eg plastic ampoules and nebulizers. Check the route of administration.

- Infusions should be routinely changed during day shifts.

- Prepare the label for the injection.

- Ensure that the area in which the injection will be prepared is uncluttered, clean and quiet.

- Clean hands.

- Assemble the items required – medicine, syringe, needle, swabs, gloves, disposable tray etc. check expiry dates. Check the integrity of packaging and containers.
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Check Intranet for any amendments

- Put on a pair of disposable gloves if the injection is hazardous, e.g., an antibiotic.

- Use a 70% isopropyl alcohol swab to disinfect the surface on which the information will be prepared.

- Assemble syringe(s) and needle(s) – peel back wrappers – do not push through wrappers as this results in particulate contamination.

- Use a ‘no-touch’ technique, i.e., avoid touching areas where bacterial contamination may be introduced, e.g., syringe tips, the surfaces of the plunger that go inside the syringe barrel, needles, vial tops, etc.

- Prepare the injection according to the appropriate section in Step 2.

Step 2
Drawing liquid from an ampoule into a syringe
- Swab the neck of the ampoule with an alcohol wipe and allow to dry for a minimum of 30 seconds.

- Snap open the neck of the ampoule.

- Draw the required volume into the syringe. Tilt the ampoule if necessary to allow the required volume to be withdrawn.

- Tap the syringe lightly to concentrate the air bubbles. Expel the air.

- Remove the needle from the syringe and fit either a new needle or sterile blind hub.

Drawing liquid from a vial into a syringe
- Remove the tamper evident seal from the vial and swab the rubber cap with an alcohol wipe. Allow to dry for a minimum of 30 seconds.

- With the needle cover on, draw the syringe plunger back to the desired volume.

- Remove the needle cover and insert the needle into the rubber cap.

- Invert the vial. Keep the needle in the liquid and gradually depress the plunger to push the air into the vial. Note – of a large volume of liquid is to be withdrawn, use a ‘push and pull’ technique, i.e., inject 5 mL of air and withdraw 5 mL liquid until the required volume is in the syringe. This technique minimises the risk of aerosol spray by avoiding a build up of pressure in the vial.

- Release the plunger so that the liquid enters the syringe.

- Tap the syringe lightly to concentrate the air bubbles. Push the air into the vial.

- Fill the syringe to the required volume of liquid, draw in a small volume of air then remove the needle from the rubber cap.

- Expel the excess air, remove the needle from the syringe and either fit a new needle or sterile blind hub.
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Reconstituting a vial of medicine in powder form and drawing the liquid into a syringe
• Swab the rubber cap of the vial and neck of the ampoule with an alcohol wipe. Allow to dry for a minimum of 30 seconds.

• Use the procedure specified above for drawing liquid from an ampoule to draw the required volume of diluent into a syringe.

• Inject the diluent into the vial. Release the pressure on the plunger. The syringe will fill with air that has been displaced by the liquid (unless the contents of the vials are supplied under vacuum in which case the vacuum will draw the liquid into the vial). Note – of a large volume of liquid is to be added, use a ‘push and pull’ technique, ie inject 5 mL of liquid and withdraw 5 mL air until all the liquid is in the vial. This technique minimises the risk of aerosol spray by avoiding a build up of pressure in the vial.

• With syringe and needles still attached, shake the vial to dissolve the powder (unless otherwise indicated in the product information).

• Follow steps 22-26 of the procedure specified above for drawing liquid from a vial into a syringe.

Adding a medicine to an infusion
• Prepare the medicine in a syringe using one of the techniques described above.

• Swab the rubber cap of the infusion container with an alcohol wipe. Allow to dry for a minimum of 30 seconds.

• Inject the medicine into the infusion container. Mix well.

Diluting a medicine in a syringe for use in a pump or driver
• Prepare the medicine in a syringe using one of the techniques described above.

• Draw the diluent into the administration syringe using one of the techniques described above.

• Stand the syringe upright. Insert the needle on the syringe containing the medicine into the tip of the administration syringe. Inject the medicine.

• Fit a blind hub to the administration syringe a mix the contents.

• Remove the blind hub. Tap the syringe lightly to concentrate the air bubbles. Expel the gas. Refit the blind hub.

Step 3
• Label the container. Labelling of a syringe is required only when more than one is being prepared or when it is not for immediate administration.

• Place the container of medicine in a tray for transport to the patient.
### Intramuscular injection

**Procedure for preparation and administration by the intramuscular injection route**

| Requirements | Sterile syringe and needles  
| Sterile alcohol swabs  
| Foil tray |
| Selecting and preparing | Refer to Preparation of Injections Section |
| Administering | 1. Discuss and explain procedure to patient  
2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.  
3. Instruct or assist patient into a comfortable upright position.  
4. Choose an appropriate site considering patients condition.  
   - the upper outer quadrant of the buttock  
   - the front outer aspect of the thigh  
   - the upper outer aspect of the upper arm  
5. Clean hands.  
6. Cleanse the skin using alcohol wipe, pull the skin taut and introduce the needle at a 90° angle.  
7. Withdraw the plunger slightly. If reflux of blood occurs withdraw the needle a little and change direction. If there is no further reflux slowly introduce the medicine. Wait 4 seconds.  
8. Withdraw the needle and syringe. Do not re-sheath the used needle.  
9. Dispose of syringe and needles in sharps container immediately. |

**Intramuscular injection**

The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.

- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date
- Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.
<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the intramuscular injection route</th>
<th>Intramuscular injection</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Clean hands.</td>
<td></td>
</tr>
</tbody>
</table>
The Z track technique can be used for all IM injections. It decreases leakage of medication into subcutaneous tissue, thus decreasing pain and possible complications.  
- Using the palm or fingers of non-dominant hand, pull skin and subcutaneous tissue of buttock taut towards midline of body.  
- Keeping the skin taut with non-dominant hand, insert needle at 90° angle where muscle is thickest.  
- Withdraw plunger slightly to ensure that needle is not in a blood vessel. (If reflux of blood occurs the injection should be abandoned and a new injection prepared. A new injection site should be elected).  
- Continue to hold the skin taut and stretched to one side with non-dominant hand.  
- Inject the medication very slowly.  
- Wait about 10 seconds before withdrawing the needle to allow medication to diffuse through the muscle.  
- Withdraw the needle quickly and immediately release the skin held taut by the non-dominant hand.  
- Apply light pressure to the injection site for 30 seconds. Do not massage the skin.  
- If bleeding occurs from the injection site, wipe area gently with sterile cotton ball or gauze square. Do not apply a sticking plaster to injection site.  
- Do not re-sheath used needle.  
- Immediately dispose of syringe and needles in sharps container. |
| Recording | The person administering the medicine must sign the patient’s medicine administration recording chart |
| Further information | NHS Lothian policies on infection control and waste management |
### 26.1.3 Subcutaneous Injection

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the subcutaneous injection route</th>
<th>Subcutaneous injection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. &lt;br&gt; The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed. &lt;br&gt; - Read the prescription carefully &lt;br&gt; - Check that the medicine is correct for the patient &lt;br&gt; - Ascertian that the prescribed dose has not already been given &lt;br&gt; - Select the medicine required and check the label against the prescription &lt;br&gt; - Check the expiry date &lt;br&gt; - Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Sterile syringe and needles or pre-packed syringe with needle &lt;br&gt; Sterile alcohol swabs &lt;br&gt; Foil tray</td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>Refer to Preparation of Injections Section</td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td>1. Discuss and explain procedure to patient &lt;br&gt; 2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Instruct or assist patient into a comfortable upright position. &lt;br&gt; 3. Instruct or assist the patient into an appropriate comfortable position &lt;br&gt; 4. Choose an appropriate site, the patient’s thigh, abdomen, upper arm or buttock &lt;br&gt; 5. Clean hands &lt;br&gt; 6. Cleanse the skin. &lt;br&gt; 7. Pinch the skin and insert needle at a 45° angle if the needle is more than half an inch, and 90° if less than half an inch in length. &lt;br&gt; 8. Release the pinched skin but continue to support it. &lt;br&gt; 9. Introduce the medicine slowly until the total dose is administered. &lt;br&gt; 10. Wait 6 seconds. &lt;br&gt; 11. Withdraw the needle. &lt;br&gt; 12. Do not re-sheath the used needle &lt;br&gt; 13. Dispose of syringe and needles in sharps container immediately. &lt;br&gt; 14. Clean hands.</td>
</tr>
</tbody>
</table>
### Procedure for preparation and administration by the subcutaneous injection route

<table>
<thead>
<tr>
<th>Subcutaneous injection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recording</strong></td>
</tr>
<tr>
<td>The person administering the medicine must sign the patient’s medicine administration recording chart</td>
</tr>
<tr>
<td><strong>Further information</strong></td>
</tr>
<tr>
<td>NHS Lothian policies on infection control and waste management</td>
</tr>
</tbody>
</table>
### Intravenous injection (bolus)

#### General

The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.

- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date
- Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.

#### Requirements

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tray</td>
</tr>
<tr>
<td>Syringe of appropriate size</td>
</tr>
<tr>
<td>Needles</td>
</tr>
<tr>
<td>Sterile alcohol wipes</td>
</tr>
<tr>
<td>Compatible diluent (if required)</td>
</tr>
<tr>
<td>Non sterile gloves</td>
</tr>
<tr>
<td>Sharps container</td>
</tr>
<tr>
<td>Labels for syringe if more than one</td>
</tr>
<tr>
<td>Compatible flush (if required)</td>
</tr>
</tbody>
</table>

#### Selecting and preparing

Refer to Preparation of Injections Section

#### Administering

1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Instruct or assist patient into a comfortable upright position.
3. Clean hands
4. Clean injectable membrane, port of burette or infusion line with sterile alcohol wipe and allow to dry.
5. Check patency of cannula/intravenous access with compatible flush
6. Administer medicine at correct rate using an aseptic technique.
7. Monitor for acute adverse reaction. Stop injection if concerned and inform medical staff and/or nurse in charge immediately.
8. Reflush the cannula with compatible flush.
9. Apply sterile obturator cap if required.
10. Dispose of waste
11. Clean hands.
<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the intravenous injection route (bolus)</th>
<th>Intravenous injection (bolus)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recording</strong></td>
<td>The person administering the medicine must sign the patient’s medicine administration recording chart</td>
</tr>
<tr>
<td><strong>Further information</strong></td>
<td>NHS Lothian policies on infection control and waste management</td>
</tr>
</tbody>
</table>
26.2  Aural

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the aural route</th>
<th>Aural</th>
</tr>
</thead>
</table>
| **General**                                                  | The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.  
• Read the prescription carefully  
• Check that the medicine is correct for the patient  
• Ascertaining that the prescribed dose has not already been given  
• Select the medicine required and check the label against the prescription  
• Check the expiry date  
• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth. |

**Requirements**

| Clean receptacle  
Cotton wool balls.  
0.9% sodium chloride solution or warm water (if needed to clean area).  
Tissues |

**Selecting and preparing**

| Identify patient’s own medicine / check prescription  
Check expiry date  
Refer to manufacturer’s information leaflet  
Identify the ear to be treated.  
Wash hands. Wear gloves if appropriate  
Clean area if appropriate. |

**Administering**

1. Discuss and explain procedure to patient  
2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.  
3. Position patient with head leaning to the unaffected side.  
4. Clean hands  
5. Ensure auditory canal is straightened by:  
   • in adults: holding pinna of the ear upwards and backwards  
   • in children: holding pinna of the ear downwards  
6. Instil drops along floor of the auditory canal.  
7. Massage the area around the tragus to expel air and facilitate dispersal of the drops  
8. Ask patient to remain in position for 5 minutes  
9. Clean hands |

**Recording**

The person administering the medicine must sign the patient’s medicine administration recording chart |

**Further information**

NHS Lothian policies on infection control and waste management
26.3 Inhalation (Metered Dose Inhalers)

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the inhaled route</th>
<th>Inhalation (Metered Dose Inhalers)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.</td>
</tr>
<tr>
<td></td>
<td>The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td></td>
<td>1. Read the prescription carefully</td>
</tr>
<tr>
<td></td>
<td>2. Check that the medicine is correct for the patient</td>
</tr>
<tr>
<td></td>
<td>3. Ascertain that the prescribed dose has not already been given</td>
</tr>
<tr>
<td></td>
<td>4. Select the medicine required and check the label against the prescription</td>
</tr>
<tr>
<td></td>
<td>5. Check the expiry date</td>
</tr>
<tr>
<td></td>
<td>6. Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
</tr>
<tr>
<td></td>
<td>Peak flow measurements should be taken, where instructed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Medicine in correct metered-dose container.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>Ensure personalised inhaler for patient is identified.</td>
</tr>
<tr>
<td></td>
<td>Ensure mouthpiece is clean and dry.</td>
</tr>
<tr>
<td></td>
<td>Consider the use of a spacer device for improved patient compliance/ administration if required and if compatible with inhaler. Check with pharmacy.</td>
</tr>
</tbody>
</table>

| **Administering** | 1. Discuss and explain procedure to patient |
|                  | 2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Instruct or assist patient into a comfortable upright position. |
|                  | 3. If bronchodilators (e.g. salbutamol, terbutaline) are prescribed at the same time as steroids the bronchodilators should normally be administered first. |
|                  | 4. The healthcare professional must witness the patient administering the inhaled medicine, monitoring that; |
|                  | • the patient is capable of actuating the device |
|                  | • the patient ensures a good seal around the mouthpiece of the inhaler on administration |
|                  | • the patient exhales immediately before actuating the inhaler device |
|                  | • the patient inhales a deep breath on actuating the inhaler |
|                  | • the patient holds breath for a short time before exhaling and breathing normally |
**Procedure for preparation and administration by the inhaled route**

<table>
<thead>
<tr>
<th><strong>Inhalation (Metered Dose Inhalers)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Advise patient on technique if necessary or contact a clinical pharmacist or nurse specialist to educate the patient.</td>
</tr>
<tr>
<td><strong>NB</strong> Other types of inhaler device, e.g. Easibreathe, Accuhaler, may be prescribed. Please read manufacturer information leaflet or contact clinical pharmacist for instructions on how to use/administer these devices.</td>
</tr>
</tbody>
</table>

**Recording**

The person administering the medicine must sign the patient’s medicine administration recording chart

**Further information**

NHS Lothian policies on infection control and waste management
### 26.4 Nasal

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the nasal route</th>
<th>Nasal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.</td>
</tr>
<tr>
<td></td>
<td>The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td></td>
<td>• Read the prescription carefully</td>
</tr>
<tr>
<td></td>
<td>• Check that the medicine is correct for the patient</td>
</tr>
<tr>
<td></td>
<td>• Ascertain that the prescribed dose has not already been given</td>
</tr>
<tr>
<td></td>
<td>• Select the medicine required and check the label against the prescription</td>
</tr>
<tr>
<td></td>
<td>• Check the expiry date</td>
</tr>
<tr>
<td></td>
<td>• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Tissues</td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>Refer to manufacturer’s information leaflet. Ensure dropper or spray attachment is clear and ready for use.</td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td>1. Administer as directed in manufacturer’s information leaflet.</td>
</tr>
<tr>
<td><strong>Recording</strong></td>
<td>The person administering the medicine must sign the patient’s medicine administration recording chart</td>
</tr>
<tr>
<td><strong>Further information</strong></td>
<td>NHS Lothian policies on infection control and waste management</td>
</tr>
</tbody>
</table>
26.5 Nebuliser

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the nebulised route</th>
<th>Nebuliser</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td>• Read the prescription carefully</td>
<td></td>
</tr>
<tr>
<td>• Check that the medicine is correct for the patient</td>
<td></td>
</tr>
<tr>
<td>• Ascertain that the prescribed dose has not already been given</td>
<td></td>
</tr>
<tr>
<td>• Select the medicine required and check the label against the prescription</td>
<td></td>
</tr>
<tr>
<td>• Check the expiry date</td>
<td></td>
</tr>
<tr>
<td>• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
<td></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Nebuliser. Nebuliser mask or mouthpiece. Sterile sodium chloride 0.9% ampoules ) if dilution Sterile syringe ) required Driving gas (air or oxygen)</td>
</tr>
<tr>
<td><strong>Prescribing</strong></td>
<td>The prescriber is required to state the driving gas, flow rate and how long the nebuliser is to be used for on the main prescription sheet. All prescriptions for nebulised medicines must be reviewed every 48 hours.</td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>• Read prescription sheet carefully noting driving gas.</td>
</tr>
<tr>
<td></td>
<td>• Place medicine for nebulisation in the chamber and make up to 4 mL (fill volume) with sterile sodium chloride 0.9% if required. Do not use water as this makes a hypotonic solution.</td>
</tr>
<tr>
<td></td>
<td>• Salbutamol and ipratropium may be mixed together in the nebuliser as long as the maximum volume does not exceed 4.5 mL. Check compatibility before mixing any other medicines for nebulisation. Information is available from manufacturer’s literature, clinical pharmacist, or Medicines Information in the Pharmacy Department.</td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td>1. Discuss and explain procedure to patient</td>
</tr>
<tr>
<td></td>
<td>2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Instruct or assist the patient into a comfortable upright position.</td>
</tr>
<tr>
<td></td>
<td>3. Clean hands.</td>
</tr>
</tbody>
</table>
### Procedure for preparation and administration by the nebulised route

1. Fit face mask/mouthpiece comfortably with nebuliser in an upright position.
2. Nebulise for 5 - 10 minutes using prescribed gas at a flow rate of 6 - 8L/min or via a portable nebuliser.
3. Clean hands
4. Clean the equipment daily by washing the mask and chamber in soapy water and rinsing in clean water. Drip dry or dry by passing air through the equipment.
5. Patients on long-term nebulised therapy should have the nebuliser unit and tubing changed weekly.

### Recording

The person administering the medicine must sign the patient’s medicine administration recording chart

### Further information

NHS Lothian policies on infection control and waste management
26.6 Ophthalmic

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the ophthalmic route</th>
<th>Ophthalmic</th>
</tr>
</thead>
</table>
| General | The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.  

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:  
  - Read the prescription carefully  
  - Check that the medicine is correct for the patient  
  - Ascertain that the prescribed dose has not already been given  
  - Select the medicine required and check the label against the prescription  
  - Check the expiry date  
  - Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth. |
| Requirements | Eye dressing pack (as appropriate)  
Tissues or cotton balls (as appropriate) |
| Selecting and preparing | 1. Identify the eye to be treated  
2. Refer to manufacturer’s information leaflet  
3. If patient/client has an eye infection a separate bottle/tube of ointment should be used for each eye for each prescribed ophthalmic preparation.  
4. Where indicated bathe appropriate eye from inner to outer canthus using sodium chloride 0.9% or cooled boiled water in the community setting |
| Administering | 1. Discuss and explain procedure to patient  
2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Discuss and explain procedure to patient  
3. Clean hands  
4. Position patient with head well supported, tilted back and looking at the ceiling  
5. Gently pull the lower eyelid down, using a tissue or cotton wool ball if necessary, and instil drops or ointment.  
6. Eye drops - Instil dose into lower fornix  
7. Eye ointment - Apply strip of ointment to lower fornix from inner to outer canthus  
8. Release the lower lid and close eyelid for 30 seconds  
9. Wipe away lacrimation  
10. Clean hands |
| Recording | The person administering the medicine must sign the patient’s medicine administration recording chart |
| Further information | NHS Lothian policies on infection control and waste management |
## Oral

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the oral route</th>
<th>Oral</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.</td>
<td></td>
</tr>
<tr>
<td>The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
<td></td>
</tr>
<tr>
<td>• Read the prescription carefully</td>
<td></td>
</tr>
<tr>
<td>• Check that the medicine is correct for the patient</td>
<td></td>
</tr>
<tr>
<td>• Ascertain that the prescribed dose has not already been given</td>
<td></td>
</tr>
<tr>
<td>• Select the medicine required and check the label against the prescription</td>
<td></td>
</tr>
<tr>
<td>• Check the expiry date</td>
<td></td>
</tr>
<tr>
<td>• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
<td></td>
</tr>
<tr>
<td>Oral administration also includes buccal and sublingual</td>
<td></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Medicine cup/measuring spoon</td>
<td></td>
</tr>
<tr>
<td>Oral syringe/Syringe (where appropriate)</td>
<td></td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td></td>
</tr>
<tr>
<td>1. Tablets/capsules</td>
<td></td>
</tr>
<tr>
<td>• transfer the prescribed dose into a suitable container</td>
<td></td>
</tr>
<tr>
<td>2. Liquids</td>
<td></td>
</tr>
<tr>
<td>• shake the bottle where appropriate</td>
<td></td>
</tr>
<tr>
<td>• Measure the required amount of medicine into graduated medicine cup or by using an oral syringe where appropriate</td>
<td></td>
</tr>
<tr>
<td>• Ensure the outer rim of the bottle is clean</td>
<td></td>
</tr>
<tr>
<td>Where possible administer irritant medicines with meals or snacks. Administer medicines that interact with foods, or those destroyed by digestive enzymes, between meals or on an empty stomach. Contact pharmacy for advice.</td>
<td></td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td></td>
</tr>
<tr>
<td>1. Discuss and explain procedure to patient</td>
<td></td>
</tr>
<tr>
<td>2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.</td>
<td></td>
</tr>
<tr>
<td>3. Clean hands</td>
<td></td>
</tr>
<tr>
<td>4. Administer the medicine using one of the methods below.</td>
<td></td>
</tr>
<tr>
<td>5. Oral tablets and capsules</td>
<td></td>
</tr>
<tr>
<td>• Offer the patient a glass of water (if allowed).</td>
<td></td>
</tr>
<tr>
<td>• Do not break a tablet unless scored.</td>
<td></td>
</tr>
<tr>
<td>• Do not interfere with time release capsules and enteric coated tablets, which should be swallowed whole</td>
<td></td>
</tr>
<tr>
<td>Procedure for preparation and administration by the oral route</td>
<td>Oral</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>and not chewed. Refer to pharmacy for further information or see section on Enteral Administration</td>
<td></td>
</tr>
<tr>
<td>• Witness the medicine being swallowed</td>
<td></td>
</tr>
<tr>
<td>6. Liquids</td>
<td></td>
</tr>
<tr>
<td>• When administering liquids to babies and young children, or when an accurately measured dose in multiples of 1 mL is required for an adult, an oral syringe should be used in preference to a medicine spoon or measure. <strong>Never use syringes intended for the administration of injections to administer an oral dose.</strong></td>
<td></td>
</tr>
<tr>
<td>• In babies and children especially, the correct use of the oral syringe is very important. The tip of the oral syringe should be gently pushed into and towards the side of the mouth. The contents of the oral syringe are then slowly discharged towards the inside of the cheek, pausing if necessary to allow the liquid to be swallowed. In difficult children, it may help to place the end of the oral syringe barrel between the teeth.</td>
<td></td>
</tr>
<tr>
<td>• Witness the medicine being swallowed.</td>
<td></td>
</tr>
<tr>
<td>7. Sublingual</td>
<td></td>
</tr>
<tr>
<td>• Witness the tablet being placed under the tongue or the actuated dose being delivered. Ensure the tablet is dissolving and if it is accidentally swallowed within the first five minutes it may be appropriate to repeat the dose of the medicine is not active orally eg GTN. Contact pharmacy for advice.</td>
<td></td>
</tr>
<tr>
<td>• Sublingual tablets will not dissolve if the patient has a dry mouth.</td>
<td></td>
</tr>
<tr>
<td>• If sublingual glyceryl trinitrate (GTN) is administered ensure the patient is sitting or in the supine position. The maximum dose of three 500 microgram tablets or three sprays of 400 micrograms within 15 minutes should not be exceeded and the doctor should be contacted if such doses are not effective.</td>
<td></td>
</tr>
<tr>
<td>8. Buccal</td>
<td></td>
</tr>
<tr>
<td>• Witness the tablet being place between the upper lip and gum and ensure tablet is dissolving. If the tablet is accidentally swallowed within the first 5 minutes it may be appropriate to repeat the dose of the medicine is not active orally eg GTN. Contact pharmacy for advice.</td>
<td></td>
</tr>
<tr>
<td>• Some buccal tablets, e.g. Glyceryl trinitrate (Suscard Buccal) may take hours to dissolve.</td>
<td></td>
</tr>
<tr>
<td>9. Clean hands</td>
<td></td>
</tr>
</tbody>
</table>

**Recording**
The person administering the medicine must sign the patient’s medicine administration recording chart

**Further information**
NHS Lothian policies on infection control and waste management
<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the rectal route</th>
<th>Rectal</th>
</tr>
</thead>
</table>
| General                                                      | The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.  
  • Read the prescription carefully
  • Check that the medicine is correct for the patient
  • Ascertain that the prescribed dose has not already been given
  • Select the medicine required and check the label against the prescription
  • Check the expiry date
  • Identify the patient by checking the name on the prescription against the name on the patient's identity band, or ask the patient to state his or her name and date of birth. |
| Requirements                                                  | Receptacle (if appropriate)  
  Non-sterile gloves
  Lubricant (as appropriate)
  Tissues
  Disposal bag
  Prescribed enema or suppository
  Disposable apron and scissors
  Procedure pad |
| Selecting and preparing | Remove outer plastic/foil wrappers from suppositories |
| Administering                                                 | **Suppositories**  
  1. Discuss and explain procedure to patient  
  2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Discuss and explain the procedure to the patient.  
  3. Suggest that the patient empties his/her bladder. If you are administering a medicated suppository for its systemic effect e.g. diclofenac, it is best to do so after the patient has emptied his/her bowels as they require to be in contact with the mucus membrane of the rectum to be effective. Lubricant suppositories, e.g. glycerine, should be inserted directly into the faeces and allowed to dissolve to enable softening of the faecal mass.  
  4. Ensuring privacy, instruct or assist patient into a suitable, comfortable position ideally left lateral with knees flexed.  
  5. Ensure a bedpan, commode or toilet readily available or near at hand.  
  6. Place a disposable protective pad beneath the |
### Procedure for preparation and administration by the rectal route

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Place a disposable procedure pad beneath the patient’s hips and buttocks.</td>
</tr>
<tr>
<td>2</td>
<td>Clean hands and apply gloves.</td>
</tr>
<tr>
<td>3</td>
<td>Remove any wrapping from suppository.</td>
</tr>
<tr>
<td>4</td>
<td>Lubricate a gloved finger and undertake a rectal examination if appropriate.</td>
</tr>
<tr>
<td>5</td>
<td>Lubricate end of suppository with lubricating jelly.</td>
</tr>
<tr>
<td>6</td>
<td>Gently insert suppository into the rectum, advancing 5–7 cm between the anal wall and stool. (NB Limited research has shown that suppositories inserted blunt end first are more readily retained) (Abd-el-Maeboud et al 1991).</td>
</tr>
<tr>
<td>7</td>
<td>Repeat this procedure if a second suppository is to be inserted.</td>
</tr>
<tr>
<td>8</td>
<td>Dry the perineal area with a tissue.</td>
</tr>
<tr>
<td>9</td>
<td>Give verbal instructions about potential actions/effects. Ask the patient to retain the suppository(ies) for 20 minutes or until he or she is no longer able to do so. If medicated suppository given, remind patient that its aim is not to stimulate evacuation and to retain suppository for at least 20 minutes or as long as possible.</td>
</tr>
<tr>
<td>10</td>
<td>Remove and dispose of equipment.</td>
</tr>
<tr>
<td>11</td>
<td>Clean hands.</td>
</tr>
<tr>
<td>12</td>
<td>Ensure the patient will manage to the toilet or leave commode at bedside.</td>
</tr>
</tbody>
</table>

### Enemas

1. Discuss and explain procedure to patient.
2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.
3. Suggest that the patient empties his/her bladder if necessary.
4. Ensure a bedpan, commode or toilet is readily available.
5. Warm the enema to the required temperature by immersing in a jug of hot water, testing with a bath thermometer. A temperature of 40.5°C – 43.3°C is recommended for adults. Oil retention enemas should be warmed to 37.8°C.
6. Ensuring privacy, instruct or assist the patient into a suitable comfortable position, i.e. on left side with knees well flexed, the upper higher than the lower one and with the buttocks near the edge of the bed.
7. Place a disposable procedure pad beneath the patient’s hips and buttocks.
8. Clean hands and apply gloves.
9. Remove any protective cap then lubricate the nozzle of the enema or rectal tube with lubricating jelly.
10. Expel excessive air and introduce the nozzle or tube slowly into the anal canal while separating the buttocks. (A small amount of air may be introduced if bowel evacuation is desired. The introduction of the air into the colon will cause distension of the walls and
<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the rectal route</th>
<th>Rectal</th>
</tr>
</thead>
<tbody>
<tr>
<td>increased peristalsis, which will more effectively induce evacuation).</td>
<td></td>
</tr>
<tr>
<td>11. Slowly introduce the tube or nozzle to a depth of 10–12.5cm.</td>
<td></td>
</tr>
<tr>
<td>12. If a retention enema is used, e.g. arachis oil, olive oil, prednisolone etc, introduce the fluid slowly and leave the patient in bed with the foot of the bed raised, if possible to, and appropriate, 45°C, for as long as prescribed.’</td>
<td></td>
</tr>
<tr>
<td>13. If an evacuant enema is used, e.g docusate sodium, sodium citrate etc, introduce the fluid slowly by rolling the pack from the bottom to the top to prevent backflow, until the pack is empty or the solution is completely finished.</td>
<td></td>
</tr>
<tr>
<td>14. Slowly withdraw the tube or nozzle.</td>
<td></td>
</tr>
<tr>
<td>15. Dry the patient’s perineal area with a gauze swab</td>
<td></td>
</tr>
<tr>
<td>16. Ask the patient to retain the enema for 10–15 minutes before evacuating the bowel.</td>
<td></td>
</tr>
<tr>
<td>17. Ensure that the patient is near to the bedpan, commode or toilet and has adequate toilet paper, or has access to the nurse call system.</td>
<td></td>
</tr>
<tr>
<td>18. Remove and dispose of equipment.</td>
<td></td>
</tr>
<tr>
<td>19. Clean hands.</td>
<td></td>
</tr>
</tbody>
</table>

| Recording | The person administering the medicine must sign the patient’s medicine administration recording chart |

| Further information | NHS Lothian policies on infection control and waste management |
### 26.9 Stomal

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the stomal route</th>
<th>Stomal</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.</td>
<td></td>
<td>The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td>- Read the prescription carefully</td>
<td></td>
<td>- Read the prescription carefully</td>
</tr>
<tr>
<td>- Check that the medicine is correct for the patient</td>
<td></td>
<td>- Check that the medicine is correct for the patient</td>
</tr>
<tr>
<td>- Ascertain that the prescribed dose has not already been given</td>
<td></td>
<td>- Ascertain that the prescribed dose has not already been given</td>
</tr>
<tr>
<td>- Select the medicine required and check the label against the prescription</td>
<td></td>
<td>- Select the medicine required and check the label against the prescription</td>
</tr>
<tr>
<td>- Check the expiry date</td>
<td></td>
<td>- Check the expiry date</td>
</tr>
<tr>
<td>- Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
<td></td>
<td>- Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Appropriate receptacle</th>
<th>Non-sterile gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tissues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposal bag</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedure pad for bed (as appropriate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment for stoma appliance change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Selecting and preparing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discuss and explain procedure to patient</td>
</tr>
<tr>
<td>2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.</td>
</tr>
<tr>
<td>3. Clean hands.</td>
</tr>
<tr>
<td>4. Apply gloves.</td>
</tr>
<tr>
<td>5. Position dry wipes under stoma and remove appliance.</td>
</tr>
<tr>
<td>6. Wipe the peristomal skin and stoma.</td>
</tr>
<tr>
<td>7. Lubricate the suppository or applicator.</td>
</tr>
<tr>
<td>8. Lubricate a small gloved finger and examine the orifice of the stoma by inserting finger gently.</td>
</tr>
<tr>
<td>9. Insert medicine into stoma.</td>
</tr>
<tr>
<td>10. Wipe the stoma and peristomal skin and apply new appliance.</td>
</tr>
<tr>
<td>11. Clean hands.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recording</th>
<th>The person administering the medicine must sign the patient’s medicine administration recording chart</th>
</tr>
</thead>
</table>

| Further information | NHS Lothian policies on infection control and waste management |
### 26.10 Topical

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the topical route</th>
<th>Topical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td></td>
<td>• Read the prescription carefully</td>
</tr>
<tr>
<td></td>
<td>• Check that the medicine is correct for the patient</td>
</tr>
<tr>
<td></td>
<td>• Ascertaining that the prescribed dose has not already been given</td>
</tr>
<tr>
<td></td>
<td>• Select the medicine required and check the label against the prescription</td>
</tr>
<tr>
<td></td>
<td>• Check the expiry date</td>
</tr>
<tr>
<td></td>
<td>• Identify the patient by checking the name on the prescription against the name on the patient's identity band, or ask the patient to state his or her name and date of birth.</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Applicator (as appropriate)</td>
</tr>
<tr>
<td></td>
<td>Non sterile gloves</td>
</tr>
<tr>
<td></td>
<td>Apron (as appropriate)</td>
</tr>
<tr>
<td></td>
<td>Dressing (as appropriate)</td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>1. Check that the topical medicine has been correctly prescribed, paying particular attention to the:</td>
</tr>
<tr>
<td></td>
<td>2. • formulation of topical medicine (e.g. cream, ointment, lotion),</td>
</tr>
<tr>
<td></td>
<td>• concentration of medicine,</td>
</tr>
<tr>
<td></td>
<td>• area of skin to be treated</td>
</tr>
<tr>
<td></td>
<td>• Refer to manufacturer's information leaflet</td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td>1. Discuss and explain procedure to patient</td>
</tr>
<tr>
<td></td>
<td>2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. Discuss and explain procedure to patient.</td>
</tr>
<tr>
<td></td>
<td>3. Clean hands.</td>
</tr>
<tr>
<td></td>
<td>4. Apply gloves and, where necessary, apron.</td>
</tr>
<tr>
<td></td>
<td>5. Administer in accordance with manufacturer's instructions and ward/unit protocols.</td>
</tr>
<tr>
<td></td>
<td>6. If no instructions are available contact the community pharmacist, primary care pharmacist, clinical pharmacist or Medicines Information in the Pharmacy Department.</td>
</tr>
<tr>
<td></td>
<td>7. Give verbal instructions about potential actions/effects.</td>
</tr>
<tr>
<td></td>
<td>8. Clean hands.</td>
</tr>
<tr>
<td><strong>Recording</strong></td>
<td>The person administering the medicine must sign the patient's medicine administration recording chart</td>
</tr>
<tr>
<td><strong>Further information</strong></td>
<td>NHS Lothian policies on infection control and waste management</td>
</tr>
</tbody>
</table>
26.11 Transdermal

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the transdermal route</th>
<th>Transdermal Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.</td>
</tr>
<tr>
<td>The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
<td></td>
</tr>
<tr>
<td>• Read the prescription carefully</td>
<td></td>
</tr>
<tr>
<td>• Check that the medicine is correct for the patient</td>
<td></td>
</tr>
<tr>
<td>• Ascertain that the prescribed dose has not already been given</td>
<td></td>
</tr>
<tr>
<td>• Select the medicine required and check the label against the prescription</td>
<td></td>
</tr>
<tr>
<td>• Check the expiry date</td>
<td></td>
</tr>
<tr>
<td>• Identify the patient by checking the name on the prescription against the name on the patient's identity band, or ask the patient to state his or her name and date of birth.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Non sterile gloves and bag</th>
</tr>
</thead>
</table>

| Selecting and preparing | |
|-------------------------| |
| • Select an appropriate area of skin to apply the patch (always check manufacturers information for guidance), e.g. Oestrogen patches should be applied below the waist, e.g. buttock, lower back, hip, upper thigh or abdomen. |
| • Inform the patient that a patch should never be placed on or near the breasts. Glyceryl trinitrate (GTN) and fentanyl patches should be applied to the chest, shoulders or inner aspect of the upper arms. |
| • To facilitate adherence of the patch to the skin ensure that the skin is clean and that no oil or talcum powder has been applied. |

<p>| Administering | |
|---------------| |
| 1. Discuss and explain procedure to patient |
| 2. Give verbal information on any potential effects the patient may experience, e.g. dizziness. |
| 3. Clean hands. |
| 4. Apply gloves. |
| 5. Remove the previous patch and dispose of appropriately before a new patch is applied. |
| 6. Rub the edge of the patch between thumb and forefinger, the stiff protective liner will peel away from the flexible patch. |
| 7. Apply patch to the selected area of skin. Press the patch firmly into position with the palm of the hand. |</p>
<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the transdermal route</th>
<th>Transdermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>pressing for a few seconds to ensure it adheres securely.</td>
<td></td>
</tr>
<tr>
<td>8. Clean hands</td>
<td></td>
</tr>
<tr>
<td>9. If the patch comes off in the shower or bath the skin should be dried thoroughly and the patch re-applied.</td>
<td></td>
</tr>
<tr>
<td>10. New patches should always be applied to a fresh area of skin, e.g. alternate sides.</td>
<td></td>
</tr>
<tr>
<td>11. The used patch should be disposed of carefully in a sharps container after folding the medicine to the inside.</td>
<td></td>
</tr>
<tr>
<td>12. Wash hands and dry thoroughly.</td>
<td></td>
</tr>
<tr>
<td>13. Transdermal patches should be changed according to the prescribers written instructions.</td>
<td></td>
</tr>
<tr>
<td>14. Some patches may cause local irritation – if severe, discuss with the prescriber before proceeding with further treatment.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recording</th>
<th>The person administering the medicine must sign the patient’s medicine administration recording chart</th>
</tr>
</thead>
</table>

| Further information | NHS Lothian policies on infection control and waste management |
## 26.12 Urinary Catheter

<table>
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<tr>
<th>Procedure for preparation and administration by the urinary catheter route</th>
<th>Urinary catheter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td>• Read the prescription carefully</td>
<td></td>
</tr>
<tr>
<td>• Check that the medicine is correct for the patient</td>
<td></td>
</tr>
<tr>
<td>• Ascertain that the prescribed dose has not already been given</td>
<td></td>
</tr>
<tr>
<td>• Select the medicine required and check the label against the prescription</td>
<td></td>
</tr>
<tr>
<td>• Check the expiry date</td>
<td></td>
</tr>
<tr>
<td>• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
<td></td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Absorbent pad</td>
</tr>
<tr>
<td></td>
<td>Bowl</td>
</tr>
<tr>
<td></td>
<td>Warm water</td>
</tr>
<tr>
<td></td>
<td>Disposable sterile gloves</td>
</tr>
<tr>
<td></td>
<td>Sterile urine drainage bag as appropriate</td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>Allow approximately 10 minutes for the instillation to be warmed to body temperature in bowl of hot water. Do not break the seal.</td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td>1. Discuss and explain procedure to patient</td>
</tr>
<tr>
<td></td>
<td>2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.</td>
</tr>
<tr>
<td></td>
<td>3. Instruct or assist the patient into a comfortable recumbent position.</td>
</tr>
<tr>
<td></td>
<td>4. Remove any existing urine drainage bag.</td>
</tr>
<tr>
<td></td>
<td>5. Place an absorbent pad under catheter.</td>
</tr>
<tr>
<td></td>
<td>6. Clean hands and apply gloves.</td>
</tr>
<tr>
<td></td>
<td>7. Using an aseptic technique administer the solution according to the manufacturer’s instructions.</td>
</tr>
<tr>
<td></td>
<td>8. Close the clamp on the instillation bag to leave solution in the bladder for the recommended time.</td>
</tr>
<tr>
<td></td>
<td>9. Release the clamp and allow the solution to drain into the instillation bag.</td>
</tr>
<tr>
<td></td>
<td>10. Replace the instillation bag with a suitable sterile urine drainage bag or remove the catheter where appropriate.</td>
</tr>
<tr>
<td></td>
<td>11. Clean hands.</td>
</tr>
<tr>
<td><strong>Recording</strong></td>
<td>The person administering the medicine must sign the patient’s medicine administration recording chart</td>
</tr>
<tr>
<td><strong>Further information</strong></td>
<td>NHS Lothian policies on infection control and waste management</td>
</tr>
</tbody>
</table>
## 26.13 Vaginal

<table>
<thead>
<tr>
<th>Procedure for preparation and administration by the vaginal route</th>
<th>Vaginal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.</td>
</tr>
<tr>
<td>• Read the prescription carefully</td>
<td>• Read the prescription carefully</td>
</tr>
<tr>
<td>• Check that the medicine is correct for the patient</td>
<td>• Check that the medicine is correct for the patient</td>
</tr>
<tr>
<td>• Ascertaining that the prescribed dose has not already been given</td>
<td>• Ascertaining that the prescribed dose has not already been given</td>
</tr>
<tr>
<td>• Select the medicine required and check the label against the prescription</td>
<td>• Select the medicine required and check the label against the prescription</td>
</tr>
<tr>
<td>• Check the expiry date</td>
<td>• Check the expiry date</td>
</tr>
<tr>
<td>• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
<td>• Identify the patient by checking the name on the prescription against the name on the patient’s identity band, or ask the patient to state his or her name and date of birth.</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Clean receptacle</td>
</tr>
<tr>
<td></td>
<td>Non-sterile gloves (Latex free if possible)</td>
</tr>
<tr>
<td></td>
<td>Tissues</td>
</tr>
<tr>
<td></td>
<td>Disposal bag</td>
</tr>
<tr>
<td></td>
<td>Procedure pad for bed (as appropriate)</td>
</tr>
<tr>
<td><strong>Selecting and preparing</strong></td>
<td>Refer to manufacturer’s information leaflet.</td>
</tr>
<tr>
<td><strong>Administering</strong></td>
<td>1. Discuss and explain procedure to patient</td>
</tr>
<tr>
<td></td>
<td>2. Give verbal information on any potential effects the patient may experience, e.g. dizziness.</td>
</tr>
<tr>
<td></td>
<td>3. Place or assist patient into a suitable, comfortable position.</td>
</tr>
<tr>
<td></td>
<td>4. Clean hands.</td>
</tr>
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<td></td>
<td>5. Put on gloves.</td>
</tr>
<tr>
<td></td>
<td>6. Cleanse vulval area or wash with warm water if necessary.</td>
</tr>
<tr>
<td></td>
<td>7. Insert medicine into the vagina as directed.</td>
</tr>
<tr>
<td></td>
<td>8. Remove applicator and dry vulval area.</td>
</tr>
<tr>
<td></td>
<td>9. Give verbal instructions about potential actions/effects.</td>
</tr>
<tr>
<td></td>
<td>10. Clean hands.</td>
</tr>
<tr>
<td><strong>Recording</strong></td>
<td>The person administering the medicine must sign the patient’s medicine administration recording chart</td>
</tr>
<tr>
<td><strong>Further information</strong></td>
<td>NHS Lothian policies on infection control and waste management</td>
</tr>
</tbody>
</table>
26.14 Enteral Feeds

26.14.1 Introduction
26.14.1.1 Medicines should be administered with caution via enteral feeding tubes. For patients on enteral feeds, consider using the oral route if possible, or consider other routes of administration. If a medicine has to be given via the enteral feeding tube, use liquid or soluble/dispersible tablets where possible. Lists of examples given below are not exhaustive.

26.14.2 Medicines that interact directly with the enteral feed
26.14.2.1 Medicines that have to be taken on an empty stomach, or are labelled ‘take before food’ (check BNF for this information). Stop the feed preferably 30 minutes before and 1 hour after the dose is administered.

26.14.2.2 Specific medicines. Examples of commonly used medicines that interact with enteral feeds include:
- antacids
- ciprofloxacin and other quinolone antibiotics
- etidronate
- hydralazine
- phenytoin*
- sucralfate
- theophylline*
- warfarin* (does not require to be given at different time)

Contact your clinical pharmacist for advice on administration. Those marked * require monitoring.

26.14.3 Medicines that interact with feeding tube
26.14.3.1 Examples of commonly used medicines with the feeding tubes include:
- carbamazepine use suppositories, and adjust the dose or if long term therapy consider using the suspension. Contact your clinical pharmacist for advice
- chlormethiazole use an alternative medicine
- ciclosporin flush the tube well with sterile water before and after dose, monitor blood levels

26.14.4 Preparations that block the feeding tube
26.14.4.1 Some liquid formulations and dispersible tablets may block to tube (especially if a fine bore tube is used) if the correct procedure is not followed. Examples of commonly used medicines that may block the tube include:
- lansoprazole suspension
- omeprazole dispersible tablets
26.14.5 Medicines that are sensitive to light

26.14.5.1 The potency of some medicines is reduced if tablets are crushed or capsules are opened. Examples of commonly used medicines that are sensitive to light include;

- nicorandil
- nifedipine
- nimodipine

26.14.6 Medicines that may require a change in dose/frequency/formulation

26.14.6.1 Be aware when changing from modified release (labelled M/R, LA/ SA. CR, XL, ‘slow’ or ‘retard’) to ordinary release tablets or capsules, or to liquid formulations, that changes in dose and/or dose interval may be required.

26.14.6.2 Examples of commonly used medicines that need a dose adjustment when alternative formulations are used include:

- digoxin
- levodopa (Madopar®, Sinemet®)
- lithium
- phenytoin – serum level monitoring advised
- sodium fusidate

26.14.6.3 Do not crush tablets or open capsules if
- They are modified release labelled M/R, LA/ SA. CR, XL, ‘slow’ or ‘retard’
- They are enteric coated labelled E/C
- They are labelled ‘swallow whole’ or ‘do not chew’
- The medicine is an antibiotic, cytotoxic, hormone, hormone antagonist or steroid

26.14.7 Administration

26.14.7.1 Always use an oral syringe to draw up liquid/dispersed medicines for administration by enteral feeding tubes. Deaths have resulted from accidental intravenous administration of medicines intended for enteral use.

26.14.7.2 Dissolve dispersible tablets in 10-15 mL of sterile water (5-10 mL for children and fluid restricted patients unless a proportion of the tablet dose is required, then a specific volume is used). Use immediately following preparation.

26.14.7.3 Shake liquid formulations in the bottle.

26.14.7.4 Crush tablets or open capsules and mix in 10-15 mL of sterile water (5-10 mL for children and fluid restricted patients).

26.14.7.5 Draw up into a 30-50 mL oral syringe.

26.14.7.6 Flush the feeding tube with 30 mL of sterile water (5-10 mL for children and fluid restricted patients) before administration of the medicine.

26.14.7.7 Administer each medicine separately, flushing the tube with 5 mL (3 mL for children and fluid restricted patients) of sterile water between each medicine.

26.14.7.8 Flush the feeding tube with 30 mL of sterile water after administration is complete.

Contact your clinical pharmacist or the Medicines Information Service (ext 22920) for advice if you are not familiar with giving a particular medicine via a feeding tube.
27 Controlled drugs

Guidance for Safer Management of Controlled Drugs including Standard Operating Procedure Template for General Practitioners (non-dispensing).

http://intranet.lothian.scot.nhs.uk/NHSLothian/Healthcare/A-Z/ControlledDrugs/Documents/Forms/AllItems.aspx

See link below for Standard Operating Procedures for the safer management of controlled drugs in the prison service (HMP Edinburgh and HMP Addiewell).


27.1 Management of CDs in wards, theatres, and departments

27.1.1 Accountable individuals

The registered nurse, midwife or Operating Department Practitioner (ODP) in charge of a ward, theatre or department is responsible for the safe and appropriate management of CDs in that area.

The registered nurse, midwife or ODP in charge can delegate control of access (i.e. key-holding) to the CD cupboard to another, such as a registered nurse or ODP. However, legal responsibility remains with the registered nurse, midwife or ODP in charge. Whilst the task can be delegated, the responsibility cannot.

27.1.2 Standard Operating Procedures

27.1.2.1 There must be standard operating procedures (SOPs) in place covering each of the activities concerned with CDs such as requisitioning, receipt, administration etc., approved by the Accountable Officer or by the person to whom this work has been delegated. These SOPs must be followed at all times.

27.1.2.2 The Accountable Officer remains finally accountable for systems for the safe management and use of CDs.

27.1.3 CD stocks

27.1.3.1 There must be a list, and a minimum stock level, of the CDs to be held in each ward, theatre or department as stock items. The contents of the list must reflect current patterns of usage of CDs in the ward, theatre or department and must be agreed between the pharmacist or pharmacy technician responsible for stock control of medicines and the registered nurse, midwife or ODP in charge.

27.1.3.2 The list must be modified if practices change and must be subject to annual review.

27.1.4 Requisitioning of CDs

27.1.4.1 The registered nurse, midwife, or ODP in charge of a ward, theatre or department, is responsible for the requisitioning of CDs for use in that area.
27.1.4.2 The registered nurse, midwife or ODP in charge can delegate the task of preparing a requisition to another registered nurse or midwife. However, legal responsibility remains with the registered nurse, midwife, or ODP in charge.

27.1.4.3 Orders must be written on a Controlled Drug Order Book with duplicate pages and must be signed by an authorised signatory, that is a registered nurse, midwife, or ODP.

27.1.4.4 The registered nurse, midwife, or ODP in charge of a ward, theatre or department, is responsible for ensuring access to ordering stationery is restricted to those staff authorised to order CDs.

27.1.4.5 Orders must contain the following:

- Name of hospital
- Ward / Department
- Drug name, form, strength, ampoule size if more than one available
- Total quantity
- Signature and printed name of registered nurse, midwife or operating department practitioner authorised to order controlled drugs for that ward/department.
- Date
- Signature of person issuing the item from the pharmacy

27.1.4.6 The person who receives the CDs on the ward must sign the duplicate copy of the requisition.

27.1.4.7 On occasion it may be necessary for pharmacy staff to alter the quantity supplied to that of a complete pack or blister strip. Where this happens the quantity stated must be altered, signed and dated by the member of pharmacy staff on both copies on the requisition.

27.1.4.8 The person who accepts CDs for transit/delivery from the pharmacy must sign for receipt. This may be on separate documentation kept for this purpose.

27.1.5 CD Top-up schemes

27.1.5.1 In some situations pharmacy-led CD top-up schemes for replenishing stocks of CDs on wards, theatres and departments are a practical and convenient mechanism of stock control. These are usually carried out by a pharmacy technician or senior assistant technical officer but may also be carried out by other suitably-trained, competent members of the pharmacy staff.

27.1.5.2 When a CD top-up scheme is in operation, the responsibility for CDs in a ward, theatre or department remains with the registered nurse, midwife or ODP in charge.

27.1.5.3 In a top-up scheme a member of the pharmacy staff is responsible for checking the stock balances in the ward Controlled Drug Record Book against the levels in the agreed stock list and preparing the CD order forms in order to replenish the stock. These requisition forms should be signed by the registered nurse or midwife.

27.1.6 Receipt of CDs

27.1.6.1 When CDs are delivered to a ward, theatre or department they must be handed to a registered nurse, midwife, or ODP. On no account should they be left unattended. Messengers must identify the registered nurse or midwife by checking their identity.
badges. As a matter of good practice, where practical, the receiving person should not be the same person who ordered the CDs.

27.1.6.2 The person permitted to receive CDs must sign for receipt of the sealed delivery package confirming that it was received intact. The package must be held in a secure place, or under direct surveillance, as defined by local policy.

27.1.6.3 As soon as possible after delivery the registered nurse, midwife or ODP in charge must:

- Check the CDs against the order form – including the number ordered and received. If this is correct then the duplicate sheet in the CD order book must be signed in the “received by” section. Any tamper-evident seals on packs must be left intact when they are received from pharmacy. This will simplify and speed up routine checks. A seal must only be broken when the pack is required for administration.
- If, when the tamper evident seal is broken the contents do not match the expected amount stated on the pack, the person in charge must contact the pharmacy department immediately.
- Make appropriate records in the CD Register and all necessary action taken to resolve the discrepancy must be documented.
- Place the CDs in the appropriate CD cupboard.
- Enter the CDs into the CD record book, update the running balance and check that the balance tallies with the quantity that is physically present.

27.1.6.4 Receipt of CDs and updating of the register must be witnessed by a second competent person.

27.1.7 Storage of CDs

27.1.7.1 The Misuse of Drugs (Safe Custody) Regulations 1973 cover the safe custody of CDs in certain specified premises. The Regulations also set out certain standards for safes and cabinets used to store CDs.

27.1.7.2 Ward, theatre and department CD cupboards should conform to the British Standard reference BS2881. This is a minimum security standard and may not be sufficient for areas where there are large amounts of drugs in stock at a given time, and/or there is not a 24-hour staff presence, or easy control of access. In this case a security cabinet that has been evaluated against the SOLD SECURE standard SS304 (See www.soldsecure.com) should be used.

27.1.7.3 All CDs must be stored in a locked receptacle which can only be opened by a person who can lawfully be in possession, such as a pharmacist or the registered nurse, midwife or ODP in charge, or a person working under their authority.

27.1.7.5 General measures for the storage of CDs include the following:
- Cupboards must be kept locked when not in use.
- The lock must not be common to any other lock in the hospital.
- Keys must only be available to authorised members of staff and at any time the key-holder must be readily identifiable.
- The cupboard should be dedicated to the storage of CDs.
- No other medicines or items should normally be stored in the CD cupboard except an item which has been agreed to by the Accountable Officer.
- CDs must be locked away when not in use.
There must be local SOPs for keeping the keys secure. This is particularly important for areas such as day surgery units and five-day wards that are not operational at all times.

### 27.1.8 Responsibility for CD keys

#### 27.1.8.1
The registered nurse, midwife or ODP in charge is responsible for the CD key. Key-holding may be delegated to other suitably-trained, registered healthcare professionals but the legal responsibility rests with the registered nurse, midwife or ODP in charge.

#### 27.1.8.2
On occasion, for the purpose of stock checking, the CD key may be handed to an authorised member of the pharmacy staff (e.g. the pharmacy technician responsible for stock control of medicines on the ward).

#### 27.1.8.3
The CD key should be returned to the nurse, midwife or ODP in charge immediately after use by another registered member of staff. If this is not practical, the registered nurse, midwife or ODP in charge must at all times know who has the CD key.

#### 27.1.8.4
There must be a local SOP for storage of spare CD keys. This policy must ensure that they are secure at all times and can only be accessed by authorised staff.

### 27.1.9 Missing CD keys

#### 27.1.9.1
If the CD keys cannot be found then urgent efforts must be made to locate the keys e.g. by contacting nursing, midwifery or ODP staff who have just gone off duty.

#### 27.1.9.2
If the keys cannot be located, a SOP is in place to ensure that the senior registered nurse or midwife or the duty nurse or midwife manager is informed as soon as possible and the duty pharmacist as soon as appropriate. The SOP specifies the arrangements for preserving the security of CD stocks and for ensuring that patient care is not impeded. An incident form must be completed and submitted to the Accountable Officer even if the keys are subsequently found.

#### 27.1.9.3
If the keys cannot be found then the Accountable Officer and the police must be informed as soon as possible, within 48 hours. A SOP is in place for recording and handling of incidents regarding lost CD keys.

### 27.1.10 Record-keeping

#### 27.1.10.1
Each ward, theatre or department that holds stocks of CDs must keep a record of CDs received and administered in the CD Record Book.

#### 27.1.10.2
The registered nurse, midwife or ODP in charge is responsible for keeping this CD Record Book up to date and in good order.

#### 27.1.10.3
The CD Record Book must be bound (not loose-leaf) with sequentially numbered pages and it must have separate pages for each drug, each form and each strength, so that a running balance can be kept easily. Entries must be made in chronological order, in ink or be otherwise indelible.

#### 27.1.10.4
All entries must be signed by a registered nurse, midwife or ODP and must be witnessed preferably by a second registered nurse, midwife or ODP. If a second registered nurse, midwife or ODP is not available, then the transaction can be witnessed by another registered practitioner (e.g. doctor, pharmacist, pharmacy technician) or by an appropriately trained competent person.
27.1.10.5 On reaching the end of a page in the CD record book, the balance must be transferred to another page. The new page number must be added to the bottom of the finished page and the index updated. This transfer must be witnessed as specified in section 27.1.10.4.

27.10.10.6 If a mistake is made it must be bracketed in such a way that the original entry is still clearly legible. This must be signed, dated and witnessed by a second registered nurse, midwife, ODP or other registered professional or by an appropriately trained competent person. The witness must also sign the correction.

27.1.11 Records of receipts

27.1.11.1 A record must be kept of all CDs that are received or administered.

27.1.11.2 For CDs received, the following details must be recorded on the appropriate page in the CD Record Book:
- Date of entry.
- The serial number of requisition.
- Quantity received.
- Form (name, formulation and strength) in which received.
- Name/signature of nurse/authorised person making entry.
- Name/signature of witness.
- Balance in stock.

27.1.11.3 After every administration, the stock balance of an individual preparation must be confirmed to be correct and the balance recorded in the CD Record Book. The entry must be signed and dated.

27.1.12 Ward, theatre and department CD stock checks

27.1.12.1 The stock balance of all CDs entered in the CD record book must be checked and reconciled with the amounts in the cupboard at least once each day, on days that the ward, theatre or department is open, at a change of shift, by a registered nurse, midwife or ODP from each shift. In addition, stock checks must be carried out every three months by pharmacy staff.

27.1.12.2 The registered nurse, midwife or ODP in charge is responsible for ensuring that the regular CD stock check is carried out by staff in the ward, theatre or department.

27.1.12.3 Where possible the staff undertaking this check should be rotated periodically. The stock check must take account of the following points:
- The balance in the CD record book must be checked against the contents of the CD cupboard, not the reverse, to ensure all balances are checked.
- It is not necessary to open packs with intact tamper-evident seals for stock checking purposes, e.g. manufacturer’s complete sealed packs.
- Stock balances of liquid medicines should generally be checked by visual inspection but periodic volume checks must be carried out. The balance must be confirmed to be correct on completion of a bottle.
- In the event of a spillage, a second person must verify that it has occurred, and countersign the CD record book and Datix the incident so that any trends may be identified.

27.1.12.4 A record indicating that this reconciliation check has been carried out and confirming the stock is correct must be kept. This record must include as a minimum the date and time of the reconciliation check, and be signed by the registered nurse, midwife or ODP and the witness.
27.1.12.5 Any discrepancy which cannot be accounted for by an error or omission must be reported to the Lead Pharmacist for the hospital. If the discrepancy cannot be resolved it must be reported to the Accountable Officer and the police as soon as possible, within 48 hours.

27.1.13 Archiving of CD records
27.1.13.1 CD records, including documents designed to track and/or monitor CD usage, must be stored for two years from the date of the last entry or seven years if they contain details of CD destruction.

27.1.14 Prescribing for inpatients
27.1.14.1 CDs can be prescribed on the inpatient medicines chart or other approved prescription chart including electronic records in line with local policies and procedures. CDs may only be prescribed by a suitably qualified practitioner who is recognised and authorised by the organisation to undertake this function.

27.1.14.2 The written requirements for CDs on these charts are the same as for other medicines:
- Medicine name and form.
- Route.
- Dose.
- Frequency (if prescribed “when required” e.g. for breakthrough pain, a minimum interval for administration should be specified, e.g. every six hours, and a maximum total quantity to be administered in 24hrs if applicable).
- Start date.
- Finish date where appropriate.
- Signature of prescriber.
- The patient’s name, CHI number and allergy status must also be written on the chart.

27.1.15 Prescribing for discharge patients
27.1.15.1 Prescriptions for CDs for patients who are going home (discharge medicines) must be written on locally-approved prescription forms for dispensing by the hospital pharmacy. These prescriptions must conform to all requirements of the Misuse of Drugs Regulations for a CD prescription.

27.1.15.2 Medical doctors who have not achieved full registration with the GMC are permitted to prescribe CDs (and other POM medicines) on these prescription forms for in-patients so far as this is necessary for the purposes of his employment as defined in the Medical Act 1983. Further guidance is available from the GMC.

27.1.15.3 Up to a maximum of 30 days supply should be prescribed, as a matter of good practice. There may be circumstances where there is a genuine need to prescribe for more than 30 days. Where a prescriber considers it clinically appropriate to supply more than a 30-day quantity and this does not pose an unacceptable risk to patient safety, the patient’s notes should be annotated to that effect. Prescribers who prescribe more than a 30-day supply must be prepared to justify their decision.

27.1.16 Prescribing for outpatients
27.1.16.1 CD prescriptions for outpatients must be written in accordance with the requirements of the Misuse of Drugs Regulations (regulation 15). The prescription must be written on
27.1.16.2 A prescription for Schedule 2 and 3 CDs must contain the following details written so as to be indelible, i.e. written by hand, typed or computer-generated: The patient’s full name, address and, where appropriate, age.
- The name and form of the drug, even if only one form exists.
- The strength of the preparation, where appropriate.
- The dose to be taken.
- The total quantity of the preparation, or the number of dose units, to be supplied in both words and figures.

In addition the patient’s CHI number must be included on the prescription.

27.1.16.3 The prescription must be signed by the prescriber with his/her usual signature, in his/her own handwriting and dated by him/her (the date does not have to be handwritten). Amendments to the Misuse of Drugs Regulations 2001, which came into force on 14th November 2005, removed the requirement for prescriptions for Schedule 2 and 3 CDs to be written in the prescriber’s own handwriting (other than their signature).

27.1.16.4 CD prescriptions may be computer-generated. Only the signature has to be in the prescriber’s own handwriting. The prescriber is also required to sign any manual changes. If an electronic solution exists, local polices should describe how this operates within the supply system.

27.1.16.5 If the prescription is prepared by someone other than the prescriber then that person must be a registered healthcare professional.

27.1.16.6 The use of pre-printed sticky labels on prescriptions is good practice to ensure that all required details are included in a legible form, and to reduce transcription errors. However, if they are used, such sticky labels should be non-peelable and tamper-evident (so that it is obvious if an attempt has been made to remove them), and they must be fixed to all duplicate copies of the prescription. Prescribers must sign across the sticky label and prescription (so that the signature is not entirely on the label). This is a further safeguard to ensure sticky labels are not tampered with or another sticky label is not placed on top of the one that the prescriber signed for.

27.1.16.7 Sticky labels must not be used on CD prescriptions to be dispensed in the community. The scanning systems in use at Practitioner Services Division cannot process such prescriptions.

27.1.17 **Supplementary prescribing**

27.1.17.1 Regulations were amended in 2005 to permit a supplementary prescriber, when acting under and in accordance with the terms of an agreed individual Clinical Management Plan (CMP), and supported by additional governance arrangements, to prescribe and administer and/or supply or direct any person to administer any CD provided that the CD is included in the CMP.

27.1.17.2 Good practice requires that there is a separation of duties. If the supplementary prescriber is a pharmacist, then he/she must not also dispense the controlled drug unless a second pharmacist, who is in a position to check that it is appropriate for the patient, checks it. If the supplementary prescriber is a nurse, he/she must not also administer the controlled drug, unless a second nurse who is in a position to check that
it is appropriate for the patient, checks it. The policy is the same for nurse independent prescribers.

27.1.18 Administration

27.1.18.1 The administration of CDs must comply with all local policies and procedures for the administration of medicines. Nurses and midwives must follow Nursing and Midwifery Council standards and guidance.

27.1.18.2 The administration of CDs within secondary care should be done via two-person administration process. Any departure from the double check process should be considered exceptional and carry with it a specific risk assessment to support this practice.

27.1.18.3 For the administration of CDs, one practitioner should be a registered nurse, midwife, doctor or ODP. Both practitioners must be present during the whole of the administration procedure or, in the case of an infusion or patient-controlled analgesia device, for the set-up and start. They must both witness:

- The preparation of the CDs to be administered.
- The CD being administered to the patient.
- The destruction of any surplus drug (e.g. part of an ampoule infusion not required).

27.1.18.4 A record must be made in the ward, theatre or department CD Record Book when a CD is removed from the CD cupboard for administration or destruction.

27.1.18.5 In theatres, the practice of issuing “active stock” to the anaesthetist and then returning the unused portion to stock, recording both issues and returns in the theatre CD record book, must be avoided. An amount must be issued to the anaesthetist for a specific patient and any surplus drug must be destroyed and witnessed. For example, if the patient is prescribed diamorphine 2.5mg and only a 5mg preparation is available, the record should show, “2.5mg given and 2.5mg discarded”.

27.1.18.6 Injectables must be treated as intended for single use only unless the label specifically indicates that they are licensed and intended for use on more than one occasion or to provide more than a single dose on any one occasion.

27.1.18.7 For CDs administered the following details must be recorded in the register:

- Date and time when dose administered.
- Name of patient.
- Quantity administered and discarded if appropriate.
- Form (name, formulation and strength) in which administered.
- Full signature of nurse/authorised person who administered the dose.
- Full signature of witness (where there is a second person witnessing administration).
- Balance in stock.

27.1.18.8 If part of a vial is administered to the patient, the registered nurse, midwife or registered practitioner should record the amount given and the amount discarded e.g. if the patient is prescribed 2.5 mg diamorphine and only a 5mg preparation is available, the record should show, “2.5mg given and 2.5mg destroyed”.

27.1.18.9 Individual doses of CDs which have been prepared but not administered must be destroyed by a registered nurse midwife or registered health professional on the ward or department in the presence of a witness and the reason documented in the CD Record Book. For appropriate methods of destruction see Section 27.1.24.
27.1.19 Management of CDs when patients are transferred to other wards or departments

27.1.19.1 There is a SOP to ensure that appropriate records are maintained when patients are transferred between wards/departments with CDs physically attached to them, e.g. patient-controlled analgesia or patches etc. This includes:
- Arrangements for documentation when the patient is moved from theatre to wards.
- Arrangements for recording administration.
- Arrangements for disposal of surplus CDs.

27.1.20 Returning CDs to the pharmacy

27.1.20.1 There is a SOP specifying the circumstances and procedures to be followed when CDs are returned to the pharmacy.

27.1.20.2 Unused CD stock from wards or departments may be returned to the pharmacy for re-issue by the pharmacy, provided it was initially issued by that pharmacy and has at all times been under the control of that hospital. The pharmacy department must carry out a risk assessment of returned CDs to ensure they are fit for re-use.

27.1.20.3 The CDs must be transferred to the pharmacy in a safe and secure way.

27.1.21 Records of CDs returned: Ward or Department

27.1.21.1 The ward or department must keep a record of drugs returned to the pharmacy in the CD record book. The entry must be made on the relevant page of the CD record book and must show:
- Date.
- Reason for return.
- Names and signatures of the registered nurse, midwife or ODP responsible and a competent witness.
- Quantity removed.
- Name, form and strength of drug.
- Balance remaining.

27.1.21.2 There must be a fully auditable trail of the CD movement back to the pharmacy and the pharmacy register. It is appropriate for the ward/department CD drug requisition book to be used to record the details of CDs being returned to the pharmacy.

27.1.22 Records of CDs returned: Pharmacy

27.1.22.1 The following details must be recorded when CDs are returned to the pharmacy:
- Date.
- Name, form, strength and quantity of drug returned.
- Reason for return.
- Name of the registered nurse, midwife or ODP, and the name and signature of the pharmacist.

27.1.23 Disposal of CDs in wards and departments

27.1.23.1 There is a SOP for disposal of CDs in wards and departments. CDs must be destroyed in such a way that the drug is denatured or rendered irretrievable so that it cannot be reconstituted or re-used.
27.1.24 Disposal of small amounts of CDs

27.1.24.1 Only small amounts of CDs should be destroyed on wards, for example, the surplus when a dose smaller than the total quantity in an ampoule or vial is drawn up or when a dose is drawn up but not used.

27.1.24.2 All destruction must be documented. It must be witnessed by a second competent person such as a registered nurse, midwife or ODP. Both persons should sign the destruction record.

27.1.25 Discrepancies and diversion

27.1.25.1 The balances in the CD record books must always tally with the amounts of CDs in the cupboard. If they do not, the discrepancy must be reported, investigated and resolved.

27.1.25.2 There is a SOP for dealing with discrepancies and this specifies the arrangements for reporting and investigation. In the first instance the following must be carefully checked:

- All requisitions received have been entered into the correct page of the register.
- All CDs administered have been entered into the CD record book.
- Items have not been accidentally put into the wrong place in the cupboard.
- Arithmetic to ensure that balances have been calculated correctly.

27.1.25.3 If the error or omission is traced, the registered nurse, midwife or ODP in charge should make an entry in the CD Record Book clearly stating the reason for the entry and the corrected balance. This entry must be witnessed by a second nurse, midwife, ODP, pharmacist, pharmacy technician or doctor. Both persons must sign the CD Record Book.

27.1.25.4 If no errors or omissions are detected then the pharmacist must be contacted and the discrepancy must be reported to the Lead Pharmacist for the hospital. The time and date that the pharmacist is contacted must be noted in register. If the discrepancy cannot be resolved it must be reported to the Accountable Officer and the police as soon as possible, within 48 hours.
27.2 Management of CDs – general processes and specific circumstances

27.2.1 CD Stationery
27.2.1.1 The registered nurse, or midwife in charge of a ward, department, operating theatre or theatre suite is responsible for the requisitioning of CDs for use in that area and for ensuring that all CD stationery used to order, return or distribute CDs is stored securely and that access to the stationery is restricted to those staff authorised to order CDs.

27.2.2 Definition of CD stationery
27.2.2.2 CD stationery includes:
- CD requisition books.
- CD record books.
- Local CD documents such as CD returns advice notes, pharmacy distribution documents, Midwives Supply Order etc.

27.2.3 Secure storage of CD stationery
27.2.3.1 CD stationery which is kept in wards, theatres or departments must be kept in a locked cupboard or drawer to which access is restricted.

27.2.3.2 Stocks of CD stationery held in pharmacy departments must be kept in a secure area that is locked when there is no one present.

27.2.4 Supply of CD stationery
27.2.4.1 CD stationery must be issued from the pharmacy against a written requisition signed by a registered nurse or midwife.

27.2.4.2 A record must be kept of the supply of CD stationery. It should include:
- Date.
- Ward/department.
- Name of person ordering the stationery.
- Type of stationery issued.
- Quantity.
- The serial numbers of the stationery.
- Signature of the member of pharmacy staff making the supply.
- Signature of the registered nurse or midwife receiving the stationery.

27.2.4.3 Any unused stationery returned to pharmacy must be recorded as a return, with the details above, in the supply record.

27.2.5 Use of CD stationery
27.2.5.1 Only one CD Order Book per ward or department should be in use.

27.2.5.2 When a new CD Record Book is started, the balance of CDs in stock must be written into the new book immediately by a registered nurse, midwife or ODP. This transfer should be witnessed.

27.2.5.3 All CDs must be transferred to the new CD Record Book at the same time. This may be carried out by a registered nurse/midwife/ODP. This transfer must be witnessed by a...
registered/student nurse/midwife/ODP or authorised member of staff eg pharmacist or pharmacy technician.

27.2.5.4 When transferring the physical balance and the CD Record Book balance must be checked. The balance in the old CD Record Book should be made ‘zero’ stating the date and the quantity transferred to the new CD Record Book. This must be signed by both members of staff. Any part used pages in the old CD Record Book should be ruled off.

27.2.5.5 The new CD Record Book should have an entry on the appropriately titled page stating the balance that was transferred and the page of old CD Record Book from which the information was transferred. This must be signed by both members of staff.

27.2.5.6 The front page of the old CD Record Book should be dated to show when the CDs were transferred and the book closed.

27.2.5.7 The front cover of the new CD Record Book should be dated to show when the book came into use.

27.2.5.8 Completed ward requisition books and CD record books must be retained securely in the ward or department for a minimum of two years from the date of closure.

27.2.6 Loss or theft of CD stationery
27.2.6.1 There is a SOP to deal with the loss or theft of CD stationery. Loss or theft of any CD stationery which may be used to order CDs must be reported immediately to the lead pharmacist for the hospital, and as soon as possible, within 48 hours, to the Accountable Officer and the police.

27.2.7 Movement/Distribution of CDs within and outside the hospital
27.2.7.1 Movement/distribution of CDs is likely to involve the following situations:
   • Collection by ward staff from the pharmacy.
   • Collection by porters from the pharmacy.
   • Delivery by pharmacy staff to wards, departments, theatres.
   • Collection by patient or representative for outpatient items only.
   • Delivery by hospital porter/driver.
   • Delivery by commercial courier (for example, taxi out-of-hours).

27.2.8 Methods of transfer
27.2.8.1 CDs must be transferred or conveyed in a secure, sealed, tamper-evident container.

27.2.8.2 CDs may not be transported in pneumatic tubes, or posted.

27.2.9 Records of transfer
27.2.9.1 At each point where a CD moves from the authorised possession of one person to another, a signature for receipt must be obtained.

27.2.10 Messengers
27.2.10.1 The person who conveys the CD acts as a messenger, that is to say he/she carries a sealed or tamper-evident container and is responsible for delivering the container intact.
27.2.10.2 The person acting as the messenger must:
- Ensure destination is known.
- Be aware of safe storage and security, the importance of handing over the item to an authorised person and obtaining a signature for delivery on the delivery document.
- Have a valid ID badge.

27.2.10.3 CDs must only be handed to members of staff who are wearing valid ID badges.

27.2.10.4 CDs should be transported using NHS transport whenever possible. Where a commercial courier or taxi driver is responsible for conveying a CD he/she should be asked to show their valid company ID.

27.2.10.5 Taxi drivers or commercial couriers should not be made aware that CDs are being transported as this may increase the potential for diversion or may discourage taxi drivers from carrying CDs. As a matter of good practice the taxi driver identity number should be recorded. Contract taxi companies should be informed that taxi driver proof of identity will be routinely requested.

27.2.11 Transfer of CDs from ward to ward or theatre to ward

27.2.11.1 Local procedures defining the safe, secure and auditable methods to transfer CDs from ward to ward must be followed. The three situations in which this is most likely to arise are:
- When a patient is receiving a CD by means of syringe pump (PCA pump) or infusion.
- When a patient has his/her own CDs for self-administration.
- When a CD has been dispensed on a “named-patient” basis.

27.2.11.2 Patients’ own CDs must be transferred from ward to ward with the patient in line with procedures for transferring all other medicines and properties belonging to that patient.

27.2.11.3 The SOP for the management of patient controlled analgesia must be followed.

27.2.12 Clinical trials

27.2.12.1 The procedures for the use of CDs in clinical trials must comply with the Misuse of Drugs Regulations and with local policies governing the management of clinical trial medicines, in addition to clinical trials legislation and MHRA guidance on clinical trials.

27.2.12.2 All clinical trial CDs must be stored segregated from stock CDs in the CD cupboard. They do not necessarily need to be stored in a separate CD cupboard. A separate page in the register must be used to record receipt and issues in addition to clinical trial documentation so that a running balance of trial stock can be kept.

27.2.12.3 If a discrepancy is identified then it must be reported on the internal incident reporting system in accordance with local procedures. A note to file should be stored with all the clinical trials documentation. The sponsor and investigator should be informed and also the lead pharmacist for the hospital site and the Accountable Officer.
27.2.12.4 For double blind trials in which only one arm involves a CD, pharmacy staff may be unaware which packs contain CDs. In this situation, all supplies must be treated as CDs until the end of trial.

27.2.12.5 For trials that involve the use of Schedule 1 CDs, such as cannabinoids, a license from the Home Office must be obtained before the item is received into stock or supplied. The licence should normally be held by the lead pharmacist for the hospital site and/or the Accountable Officer. A copy must be kept with the trial protocol.

27.2.13 Labelling
27.2.13.1 All clinical trial CDs must be labelled and dispensed in accordance with the specific trial protocol in addition to the MDR requirements.

27.2.14 Disposal
27.2.14.1 The clinical trial protocol must stipulate requirements for disposal of CDs. Clinical trial CDs must be destroyed in the same way as other CDs (see Chapter 8 Destruction of CDs in pharmacies). However, this destruction may need to be carried out following the monitoring instructions with the trial sponsor. For example, the sponsor may wish to carry out an independent reconciliation (in addition to the check and reconciliation carried out by the pharmacy department) prior to any destruction.

27.2.15 Clinical trial CDs returned by patients
27.2.15.1 The clinical trial protocol must stipulate requirements for handling of CDs returned by patients. The pharmacy must establish secure arrangements for the storage (and destruction) of CD clinical trial medicines returned by patients. Drug accountability records must be completed promptly when a patient returns the CD clinical trial medicine and opportunities for diversion should be minimised.

27.2.16 Arrangements for research departments
27.2.16.1 If a hospital pharmacy supplies CDs to a research department, then the same governance arrangements for safe use must apply as for elsewhere in the organisation. All the activities must be covered by SOPs and the processes should be robust and auditable.

27.2.17 Management of CDs that are the patient’s property
27.2.17. The procedure for the management of CDs that are the patient’s property must follow the general policy. See Section 4.

27.2.18 Use of a patient’s own CDs on the ward
27.2.18.1 It may be appropriate to use a patient’s own CDs (i.e. CDs brought into the hospital by the patient on admission) whilst they are in hospital. On such occasions the drugs must be stored in the CD cupboard and checked for suitability according to the local procedure for patients own drugs to ensure that they are fit for purpose.

27.2.18.2 If patients’ own CDs are no longer required for use, they should be designated for destruction following consent by the patient or the patient’s representative.

27.2.18.3 Patients’ own CDs that are not to be used for self-administration must be recorded in the ward’s Controlled Drug Record Book and stored in the CD cupboard.
27.2.18.4 Temporary storage of patients’ own CDs on the ward may be necessary whilst they are awaiting collection and removal to the pharmacy, or issue to the patient on discharge. All CDs on the ward must be stored securely and recorded in the ward Controlled Drug Record Book and be subject to same procedures as all other CD stocks.

27.2.18.5 Patient’s own medicines including CDs must never be used to treat other patients.

27.2.19 Self-administration of CDs
27.2.19.1 The procedure for patient self-administration of medicines must be followed for the self-administration of CDs. The procedure specifies arrangements for ordering, dispensing, storage, recording and monitoring use and stock levels.

27.2.20 Out-of-hours supply
27.2.20.1 The nurse, midwife or ODP in charge is responsible for ensuring that adequate stocks of controlled drugs are available to ensure that doses are not missed or delayed. There must be a system in place to ensure that adequate supplies of required medicines are ordered during the pharmacy opening hours.

27.2.20.2 If supplies of CDs are required when the pharmacy is closed, the procedure for out-of-hours supply must be followed.

27.2.21 Temporary/ward closure/relocation and transfer
27.2.21.1 There must be a local procedure for the management of CDs during short and long term ward, department and theatre closures and transfers. The procedure must ensure the security of the CDs and should be auditable.

27.2.21.2 The procedure must include:
- A provision for a risk assessment to be carried out. The risk assessment must consider the likelihood of detection of an intruder, the deterrents in place, and the particular medicines being stored.
- Arrangements for removal and temporary storage of CDs by the pharmacy, if appropriate.
- Arrangements for return of CDs to the pharmacy for re-use, if appropriate.
- Arrangements for transfer of CDs and Controlled Drug Record Book, if appropriate.
- Arrangements for checking and reconciliation of stocks, in particular when ward staff transfer but CDs and Controlled Drug Record Book are left in place.
- Specification of the entries required in the in particular when ward staff transfer but CDs and Controlled Drug Record Book s are left in place.
- Specification of the entries required in the Controlled Drug Record Book.
- Arrangements for secure storage of current (i.e. in use) CD stationery during closure.
- Arrangements for return of stocks, including reconciliation with list of CDs removed, if appropriate.
- Arrangements for restocking, if appropriate.

27.2.22 Relocation to different site
27.2.22.1 If controlled drugs are required to be moved then a stock check must be completed by two registered nurses at the original location.
27.2.22.2 The controlled drugs are packed into bag/box and sealed as appropriate.

27.2.22.3 The sealed bag/box must be transported by a member of staff to the next location.

27.2.22.4 A stock check must be undertaken at the new location.

27.2.22.5 Any discrepancies must be notified to the pharmacy department and Accountable Officer and investigated.

27.2.23 CDs brought into hospital belonging to parents/carers

27.2.23.1 Parents/carers who are substance misusers sometimes bring CDs prescribed and supplied for their own use on to hospital premises. There requires to be a local policy that addresses this. For example, in neonatal units, women who no longer require medical or nursing care, and who are transferred to the transitional care area while their babies remain in hospital may have difficulties travelling to their community pharmacy to collect their methadone. The required daily dose may be dispensed from the ward under the following circumstances.

- the woman has genuine difficulty in accessing the community pharmacist
- the arrangement lasts no longer than seven days
- there are written comprehensive and clear procedures in place to be followed by the midwife or nurse who provides the daily dose

27.2.23.2 Where there are concerns about potential diversion, staff should be alerted that this may be a possibility and, if appropriate, reference should be made to the appropriate child protection services.

27.2.24 Patients on prescribed methadone who are admitted or discharged from hospital

27.2.24.1 Patients who are receiving prescribed methadone for opiate dependence in the community may be dispensed instalments between daily to on a weekly basis by their pharmacist. Consumption of the dose may be supervised by the pharmacist. Frequency of dispensing takes into account the individual patient’s dose, stability and personal circumstances.

27.2.24.2 If a patient on a methadone programme is admitted to hospital, it is essential that hospital and community colleagues work together to ensure that the supply arrangements are modified appropriately during the period of the hospital stay and at discharge.

27.2.24.3 On admission (person dealing with patient’s admission)

- Contact the prescriber and the community pharmacist to confirm that the patient is prescribed methadone, and to inform them of the admission. Obtain the following information:
  - Current dose.
  - If on supervised or daily pick-ups.
  - When last dose was dispensed / supervised.
  - Number of days supply given (if not daily dispensing).

- Advise the community pharmacist that no further supplies should be given and ask the prescriber to cancel or suspend the prescription, as appropriate. Remove any of the medicine that is in the patient’s possession for use during the hospital stay if suitable, or destruction if not suitable. Document all of these details in the healthcare record. Maintain a record of the methadone in the CD register.

27.2.24.4 On discharge (person dealing with patient’s discharge)
Contact the prescriber in the community to inform him/her of the agreed discharge date and time, confirm the current dose and when the last dose will be administered before discharge. Confirm that the usual prescriber in the community will make the necessary arrangements with the community pharmacist to provide a new prescription or re-instate the suspended prescription.

Make sure that suitable arrangements have been made to allow the patient to collect the next due dose following discharge.

Administer the daily dose on the ward before the patient is discharged, unless alternative arrangements have been made.

Inform the patient of the arrangements for the next dose.

Do not return any unused supplies that were brought in on admission, and do not provide a discharge supply unless a single dose is required until the regular arrangement in the community is put in place.

27.2.25 CDs for midwives

27.2.25.1 A registered midwife may possess, administer and supply diamorphine, morphine, pethidine and pentazocine in his/her own right so far as is necessary for the practice of his/her profession.

27.2.26 Supplies of CDs for home confinements

27.2.26.1 In NHS Lothian, for a home confinement, it is important to plan in advance for any requirement for opiates. Women that wish to have diamorphine, morphine, pethidine and pentazocine available to them in labour must obtain a prescription from either their GP or hospital consultant.

27.2.26.2 The medicine dispensed is the property of the mother, and may be administered by the midwife providing her care during labour.

27.2.26.3 If a woman booked for a home confinement has not obtained a supply of opiates prior to the onset of labour, and subsequently requests an opiate during labour, she should be transferred to hospital. If a prescription has been obtained but the supply has not yet been dispensed, if feasible, arrangements should be made for the prescription to be dispensed to avoid hospital admission.

27.2.27 Records for home confinements

27.2.27.1 Administration of CDs by midwives must be in accordance with locally agreed procedures.

27.2.27.2 A record of administration of the CDs must be kept in the woman’s maternity record.

27.2.27.3 Maternity records must be returned to the hospital medical records department when post-natal care is complete.

27.2.28 Returns and disposal for home confinements

27.2.28.1 When a controlled drug has been drawn up but not administered, it should be destroyed by the midwife in the presence of a witness, where possible. A member of the family may act as the witness. Record of disposal must be recorded in the woman’s maternity record.
27.2.28.2 Following confinement, the midwife should advise the woman to destroy opiates that are no longer required, preferably in the presence of the midwife. Alternatively, the woman should be advised to return them to a community for disposal.

27.2.28.3 Controlled drugs should not normally be removed by the midwife, but if this is necessary for safety and security, the midwife should obtain the woman’s agreement in writing in the maternity record before removing the CD from her home and returning it to a community pharmacy for safe disposal.

27.2.29 Use of opiates by midwives for hospital births

27.2.29.1 Procedures for ordering, receipt, storage and disposal of controlled drugs for use by midwives within the hospital must be the same as those for all wards, theatres and departments.

27.2.29.2 Midwives may administer diamorphine, morphine, pethidine and pentazocine without a prescription written by a registered prescriber, or a Patient Group Direction, provided it is part of their professional practice.

27.2.29.3 There should be a protocol agreed by the multi-professional team for the administration of diamorphine, morphine, pethidine and pentazocine during labour. Opiates required for the relief of pain outwith labour should be prescribed by a registered prescriber.

27.2.29.4 Administration must be recorded on the woman’s prescription and administration record, in the maternity record and in the controlled drug register.

27.3 Procedures for Controlled Drugs in Hospitals

27.3.1 Requisitioning of controlled drugs by wards, theatres and departments

27.3.1.1 The charge nurse and the responsible pharmacist must agree a stock list for all medicines, including controlled drugs, that reflects the needs of the patient group in each clinical area, and is in line with agreed formularies.

27.3.1.2 Staff who are trained and competent to handle and administer all the medicines on the agreed stock list must be available in the clinical area.

27.3.1.3 The stock list must contain a list of the names and forms of all medicines required, and the minimum stock level that must be held.

27.3.1.4 The stock list must be reviewed and updated regularly, at least once every year.

27.3.1.5 Medicines that are not on the agreed stock list must only be prescribed and ordered if there are staff available in the clinical area that are trained and competent to handle and administer them.

27.3.1.6 Patients must be encouraged to bring their own medicines for use during the hospital stay.

27.3.1.7 Medicines that are not included in the agreed stock list, or where the patient’s own supply is not available or suitable, must be obtained timeously, so that doses are not missed or delayed.
27.3.2 Procedure for ordering controlled drugs

27.3.2.1 The charge nurse must ensure that controlled drugs are only ordered by registered nursing staff or other relevant professionals that he or she has authorised, and that authorised staff are trained and competent in the processes involved in ordering controlled drugs.

27.3.2.2 Staff that order controlled drugs must make all the checks that are needed to ensure that required medicines are ordered, and that unnecessary medicines are not ordered. Patients should use their own medicines during the hospital stay where they are suitable, and where the patient consents to do so.

27.3.2.3 Controlled drugs for stock must be ordered from the pharmacy using a Controlled Drug Order form in a bound book.

27.3.2.4 All required information must be written clearly on the order form.

27.3.2.5 The Controlled Drug Order form book must be sent to pharmacy. It must kept secure or under surveillance whilst awaiting collection or in transit between the ward, theatre or department and the pharmacy.

27.3.2.6 A registered doctor must write an order for controlled drugs that require to be labelled with instructions for inpatient and/or discharge use, to comply with legal requirements.

27.3.3 Issue of controlled drugs from the pharmacy

27.3.3.1 Controlled drugs must be issued from the pharmacy in a tamper evident package, clearly labelled with the destination, and accompanied the Controlled Drug Order form book containing a note of what has been supplied.

27.3.3.2 Tamper evident packaging and a note of what has been supplied are not required when medicines are collected by the patient.

27.3.3.3 The messenger or porter who collects the completed order from the pharmacy must sign for receipt of the sealed package.

27.3.3.4 The details of any person that collects a controlled drug from the pharmacy must be recorded in the pharmacy Controlled Drug Register. If the person collecting the controlled drug is a registered healthcare professional, then the name and address (for example, ward number) must be recorded. If the person that collects the controlled drug is a non-registered healthcare worker, patient or patient's representative, then a description of the person (for example hospital porter) must be recorded.

27.3.4 Receipt of controlled drugs in wards, theatres and departments

27.3.4.1 A registered nurse must sign for receipt of the sealed package in the ward, theatre or department.

27.3.4.2 If the order cannot be checked immediately, the registered nurse is responsible for ensuring that the package is stored in the conditions necessary to maintain security and quality (for example, in a locked area or under surveillance or in a locked fridge if required). This should be for the minimal time possible.

- A registered nurse in the ward, theatre or department, must check the received order, as follows.
- The package is sealed and has not been tampered with.
The items listed on the note of what has been supplied match the items that were ordered.
The items listed on the note of what has been supplied match the items that have been received.
Sign order to confirm receipt.

27.3.4.3 If a discrepancy is found it must be reported to the pharmacy immediately.

27.3.4.4 The note of what has been supplied must be retained in the ward, theatre or department for two years, or for prescriptions, in the patient's medical notes.

27.3.4.5 The registered nurse is responsible for ensuring that all controlled drugs are placed in the controlled drug cupboard immediately following the check on receipt.

27.3.4.6 Receipt of controlled drugs must be recorded in the Controlled Drugs Register. A separate page must be dedicated to each individual product (that is, every different strength and form of a preparation requires a separate page), and all transactions recorded on that page. When the page is full, required information must be carried over to a new page. The index at the front of the register must be used to indicate the current page in use for each product.

27.3.4.7 Two registered nurses, or one registered nurse and one suitably competent student nurse, must sign the register on receipt of controlled drugs. The student nurse must have received the relevant theoretical preparation in the university and on placement and be assessed by their mentor/s to ensure they have the necessary competence. Both are responsible for checking that each required detail is entered correctly, and that the controlled drugs are immediately placed in the controlled drugs cupboard.

27.3.5 Administration of controlled drugs

27.3.5.1 The charge nurse or Operating Department Practitioners must ensure that records of administration of controlled drugs are properly maintained, and that stocks are reconciled.

27.3.5.2 Administration involving controlled drugs must be witnessed, except in circumstances where it is not possible for example, administration takes place in the patient’s home, or where it is not feasible for operational reasons, for example, in theatres. In such circumstances, a risk assessment must be undertaken, and the action taken to minimise the risk must be documented.

27.3.5.3 Persons who witness administration are responsible for observing that administration has taken place.

27.3.5.4 A record of administration must be made in the ward or department Controlled Drug Register as follows.
- Date and time of administration
- Patient’s full name
- Dose administered
- Amount administered
- Amount discarded
- Full signatures of both practitioners
- Check of remaining stock balance

27.3.5.5 The two persons involved in the procedure must be present at the time of administration (see section 9.1.7 for exceptions), or at the set up and start of
administration for injections that are administered over a period longer than a few minutes.

27.3.5.6 Any controlled drug prepared and not used or only partly used must be destroyed in the presence of the second person. An entry must be made in the Controlled Drug register and signed by both parties.

27.3.5.7 The registered nurse and witness must reconcile the stock balance at each administration by counting or measuring the physical stock and checking it against the register.

27.3.5.8 Where doses of less than 1 mL of a liquid medicine are prescribed, it is not possible to reconcile the stock balance by measuring the physical stock. Under these circumstances the following arrangements should be considered:
- the medicine should be supplied in a more dilute form if possible to allow reconciliation

27.3.5.9 Any discrepancies must be reported to the charge nurse immediately, and investigated following the procedure 'Dealing with discrepancies in controlled drugs in wards, theatres and departments'.

27.3.6 Borrowing controlled drugs between wards, theatres and departments

27.3.6.1 Controlled drugs may only be borrowed between wards, theatres and departments when the pharmacy is closed unless under emergency situations, and following consultation with the on-call pharmacist.

27.3.6.2 Controlled drugs may be borrowed under the following circumstances:
- the charge nurses agree
- the ward, theatre or department that holds the stock is nearby to the borrowing ward, theatre or department
- only a small number of doses are required

27.3.6.3 The dose must be transferred at the time it is required.

27.3.6.4 Stock must not be transferred between controlled drug registers. The register of the ward, theatre or department from which the dose is being transferred must be used to record administration details.

27.3.6.5 The charge nurse of the ward, theatre or department from which the dose is being transferred must check the prescription chart and must sign the register to confirm that the dose has been issued.

27.3.6.6 Two registered nurses from the ward, theatre or department to which the dose is being transferred must complete the procedure for administration of controlled drugs.

27.3.7 Returning controlled drugs to pharmacy from wards, theatres and departments

27.3.7.1 Controlled drugs that are expired, or controlled drugs not on the agreed stock list that are no longer required for the individual patient, must be destroyed on the ward, witnessed by a pharmacist, or else returned to the pharmacy where appropriate for disposal or re-use.
27.3.7.2 Controlled drugs must not be returned to the pharmacy in the pharmacy delivery box. Contact pharmacy to arrange return or disposal of controlled drugs no longer required.

27.3.7.3 An itemised list containing the name, strength and form of the medicine, and the quantity being returned, must accompany all schedule 2 controlled drugs returned to the pharmacy. The list must be recorded on a page in the Controlled Drug Order book, and signed by the pharmacist and charge nurse. The top copy of the page must accompany the controlled drugs being returned, and the other copy must be retained in the ward, theatre or department.

27.3.7.4 All controlled drugs brought into hospital by patients remain their own property. They may be destroyed on the ward or returned to pharmacy for disposal if they are no longer required. They must only be disposed of with the consent of the patient, or the patient’s representative.

27.3.8 Records and stock checks of controlled drugs in wards and departments

27.3.8.1 A separate page must be dedicated to each individual product, and all transactions recorded on that page. When the page is full, required information must be carried over to a new page. The index at the front of the register must be used to indicate the current page in use for each product.

27.3.8.2 Patients own controlled drugs which are being used or stored must be entered in the Controlled Drug Register on a dedicated page, and each transaction must be recorded. Where a patient is self-administering controlled drugs, records do not need to be kept in the Controlled Drugs Register.

27.3.8.3 The stock of every controlled drug must be checked at least once each day, at a change of shift, by a registered nurse from each shift, as follows:
- Systematically look at each page of the register and then count or measure the corresponding physical stock. Do not select the item first and then refer to the corresponding page in the register, because this method does not ensure that all stock recorded in the register is accounted for.
- Refer to the Controlled Drug Order book. Check that each order received, and any controlled drugs returned to pharmacy, since the last daily check, has been entered in the Controlled Drug Register.
- Record in writing that the daily check has been carried out.
- Inform the charge nurse of any discrepancies found.

27.3.8.4 A pharmacist or suitably trained technician must check controlled drug registers and reconcile stock at least once every 3 months. The pharmacist must provide a written report of the check to the charge nurse. The pharmacist must record any discrepancies found on an incident report form and pass it to the appropriate nurse manager.

27.3.8.5 If any discrepancies that cannot be resolved are found in the stock of controlled drugs, the charge nurse must act immediately by informing the line manager, the pharmacist, and the Accountable Officer. The line manager and/or Accountable Officer may inform the police if appropriate.

27.3.9 Security of controlled drug stationery

27.3.9.1 Controlled stationery including any stationery, which, in the wrong hands, could be used to obtain medicines fraudulently.
27.3.9.2 The following items are examples of controlled stationery and must be received and held securely:
- Controlled drug register
- Controlled drug order book
- HBP prescription forms (Hospital Out-patient)
- Hospital discharge prescription form

27.3.9.3 The person receiving controlled stationery in the ward, theatre or department is responsible for its security.

27.3.9.4 The issuing authority for controlled drug stationery must keep a record of receipt and issue. The date issued and the identity of the person requesting and issuing must be recorded.

27.3.9.5 Unused Controlled Drug Order books and prescription forms must be returned to the issuer, who must record receipt.

27.3.9.6 Records of the receipt and issue of controlled stationery must be retained for two years.

27.3.9.7 Only one Controlled Drug Order book should be held on a ward at any time, except when otherwise agreed locally with the site lead pharmacist to meet exceptional circumstances, for example some community hospitals.

27.3.9.8 Controlled Drug registers that are being replaced should have part-used pages ruled off.

27.3.9.9 Loss or theft of any controlled stationery must be reported immediately to the charge nurse or department manager, who is responsible for investigating and reporting the incident in accordance with the policy for incidents. The Accountable Officer must be informed.

27.3.9.10 Controlled Drug registers must be retained securely for two years from date of last entry or seven years if containing details of CD destructions.

27.3.9.11 Controlled Drug Order books must be retained securely for two years from date of last entry.

27.3.10 Dealing with discrepancies in controlled drugs in wards, theatres, departments including pharmacy

27.3.10.1 If a member of staff becomes aware of a controlled drug discrepancy, he/she must ensure that it is reported and investigated immediately as follows.
- Check arithmetic since last correct balance
- Check all controlled drug stocks with a second person (include date expired stock, dispensed medicines not yet collected and exclude patient returns)
- Check other register sections of same drug class for erroneous entries
- Sense-check register (correct pack sizes, patterns of entry for potential missing entries, and unusual quantities)
- Check orders have all been entered by checking delivery notes / invoices / stock orders for discrepancies
- Check diary and contact all members of staff who have worked in the clinical area during the relevant period to verify any supplies made that have not been entered
27.3.10.2 If the discrepancy can be resolved at any of the above steps, a bracket must be placed around the wrong entry, initialled and a dated footnote in the Controlled Drug Register must be made to reflect the correction.

27.3.10.3 Any discrepancy which cannot be resolved must be notified to the charge nurse or department manager, the pharmacist, and to the Accountable Officer. See SOP ‘Action in the event of a breach of security involving controlled drugs’. The time and date that the pharmacist has been contacted should be noted in the register.

27.3.11 Security of controlled drug cupboard keys

27.3.11.1 The charge nurse must ensure that procedures are in place so that only authorised persons have access to controlled drugs.

27.3.11.2 The charge nurse is responsible for the safekeeping of, and for controlling access to, all medicines stored in his or her area of control. The charge nurse must normally hold the keys for the cupboards and the master keys for patient medicine lockers. In circumstances where holding the keys personally would cause delays or difficulties in making medicines available, key-holding may be delegated to other suitably trained registered healthcare professionals. The responsibility remains with the charge nurse.

27.3.11.3 The keys for controlled drugs cupboards must be kept separate from other keys and only given to other approved staff when access to controlled drugs is required.

27.3.11.4 The key may be given to a member of the pharmacy staff for the purposes of stock checking. On completion of stock checking the key must be immediately returned to the charge nurse or key-holder as appropriate.

27.3.11.5 The duplicate keys to controlled drug cupboards, must be retained in a secure place and access restricted as for the in-use key. Records of access to duplicate keys must be maintained. Pharmacy does not hold duplicate keys.

27.3.11.6 A duplicate key will be issued for use if the original is, or appears to be, faulty, or is missing. The duplicate key must be returned to the designated storage location promptly whenever the faulty key is repaired, or the missing key is located.

27.3.11.7 If the lock or key has to be replaced, a duplicate copy of the new key must be placed in the designated storage location and the duplicate copy of the replaced key withdrawn.

27.3.11.8 The charge nurse is responsible for ensuring that a duplicate key for each locker for individual patient medicines is held securely in the designated area.

27.3.11.9 Some devices used to administer medicines are locked to avoid tampering with the device, and not to control access to the medicine. The nurse who is caring for the patient may hold a key to the device.

27.3.12 Action in the event of missing controlled drug cupboard keys

27.3.12.1 If a key goes missing, it must be reported immediately to the charge nurse or department manager, who is responsible for ensuring that the following steps are taken.

27.3.12.2 Ask all staff on duty to check if they have the keys on their person.

27.3.12.3 If the key is still missing, contact staff that have left the premises. If one of them has the key he or she must return it immediately.
27.3.12.4 If the key is still missing, conduct a thorough search of the environment.

27.3.12.5 If the key remains missing (either assumed lost or with a member of staff unable to return it) then the duplicate key may be issued for use. See section 27.4.11 ‘Security of controlled drug keys’.

27.3.12.6 Carry out a full inventory check.

27.3.12.7 If the lock has to be replaced, ensure that the cupboard is not left unsupervised until that has been completed.

27.3.12.8 Complete an incident form recording all relevant details and actions taken and submit to the relevant manager. Inform the Accountable Officer. If there is evidence or suspicion of criminal activity, the nurse manager must inform the police and record in Datix.

27.3.13 Action in the event of a breach of security involving controlled drugs

27.3.13.1 Theft of controlled drugs is a serious criminal offence under the Medicines Act 1968, the Misuse of Drugs Act 1971 and other legislation and will be dealt with accordingly by the NHS Board Accountable Officer, professional and regulatory bodies and the police.

27.3.13.2 A breach of security includes any deviation from the procedures that causes actual or potential loss or theft of medicines. Examples of such incidents include:

- Controlled drugs are found to be missing
- Controlled stationery is found to be missing
- A key for controlled drug cupboards areas is found to be missing
- Controlled drugs belonging to ward / department stock are found to be missing
- Patients own controlled drugs are found to be missing
- An unauthorised person has access to controlled drugs or controlled drug stationery

27.3.13.3 Any person who discovers a breach of security is responsible for reporting it immediately to the charge nurse or line manager. All concerns will be treated in the strictest confidence regardless of whether the subsequent review substantiates these concerns. All investigations must be carried out in a discrete manner.

27.3.13.4 All breaches of security that cause actual or potential loss or theft of controlled drugs must be investigated and the appropriate corrective and preventive action taken. If medicines have been misappropriated police charges may be brought.

27.3.13.5 The charge nurse must take reasonable steps to ensure that controlled drugs are in fact missing, for example check administration records; cupboards not normally used for storage of controlled drugs and pharmacy delivery records.

27.3.13.6 If the charge nurse is unable to satisfy him/herself that all medicines can be accounted for, they must report suspicions to the relevant manager immediately.

27.3.13.7 Where a manager has been informed of suspected or actual theft of medicines, he/she must inform relevant professional leads including the pharmacy lead. The incident policy should be followed in all cases of suspected or actual theft of medicines.

27.3.13.8 Should the result of the preliminary review identify any evidence of actual theft, the Accountable Officer and police should be contacted immediately. Any evidence should be retained pending police investigation.
27.3.13.9 Staff should be familiar with and refer to the local Fraud Policy in all cases of suspected or actual theft of medicines.

27.3.13.10 The Accountable Officer must be informed of any incident or concern relating to controlled drugs.

27.3.14 Transfer of patients to other clinical areas with controlled drugs attached

27.3.14.1 When a patient is transferred to another clinical area with controlled drugs such as infusions, syringe drivers or patches, the current administration and monitoring chart must be transferred with him/her.

27.3.14.2 The registered nurse in the clinical area the patient leaves must check the administration system and volume/quantity remaining and sign, date and time the administration and monitoring chart to ensure that the record is accurate when the patient is handed over, and that the quantity remaining is correct.

27.3.14.3 The registered nurse in the clinical area to which the patient is transferred must check the administration system and volume/quantity remaining and sign, date and time the administration and monitoring chart to confirm that the record is accurate.

27.3.15 Patient Controlled Analgesia (PCA)

27.3.15.1 Controlled drugs for administration via a PCA device should be prescribed stating the drug concentration, bolus dose, lock out time and rate of background infusion, if appropriate.

27.3.15.2 Two registered practitioners that have been trained and assessed as competent must be present during the set up and start of the device. One must prepare the controlled drug to be administered and attach the device to the patient, the other must check each step. They must both verify the programme against the written prescription and must sign the administration record chart, as a record of this check. Both practitioners are equally accountable for the process.

27.3.15.3 The following details should be recorded in the Controlled Drug Register:

- Date and time when PCA commenced
- Name of patient
- Quantity in syringe
- Form (name, formulation and strength) in which administered
- Name/signature of practitioners who set up the PCA
- Name of the prescriber
- Balance in stock

27.3.15.4 When the PCA is discontinued, the time, date and the residual amount of drug in milligrams should be recorded on the PCA chart together with the signatures of the two practitioners involved. The residual controlled drug must be disposed of and a record made on the Prescription chart.

27.3.15.5 The local procedure for PCA must be followed at all times.

27.3.16 Suspicious substances

27.3.16.1 The NHS does not permit the use, possession or supply of illegal substances on its premises. For the purposes of this policy, a substance is suspicious if the person in possession cannot reasonably explain why they have it, or there is any doubt about its nature.
27.3.16.2 Schedule 1 drugs include the hallucinogenic drugs, for example, LSD, ecstasy, cannabis. The class of persons who may lawfully possess them is strictly limited, and does not include pharmacists or other clinicians, except under licence granted by the Home Office.

27.3.16.3 A nurse may only take possession of a Schedule 1 drug for the purpose of handing it to a police officer, or to a person authorised to destroy it. The nurse is not authorised to supply, therefore it is illegal for the nurse to return it to the patient or patient representative.

27.3.16.4 A pharmacist is authorised to take possession of a schedule 1 drug in order to destroy it, or to hand it to a police officer or to another person authorised to destroy it.

27.3.16.5 Therefore, when a member of staff takes possession of a suspicious substance, it is important that all actions related to the taking into safe custody or destruction of such substances are fully and correctly documented and witnessed. Also, accurate records maybe required for evidence if matters proceed to a court case.

27.3.16.6 If a patient is found in possession of a suspicious substance, the nurse or other member of staff, should inform the patient that the substance is to be removed for destruction. The nurse or other member of staff may involve the police at this stage if he or she is uncomfortable in approaching the patient. Also, if the patient refuses to hand over the suspicious substance, the police should be informed. The police will remove the suspicious substance when they attend in these circumstances. Otherwise, the procedure below must be followed

27.3.16.7 A senior manager or consultant clinician must decide whether patient details are made available to the police in the interests of patient safety. Details must be made available to the police if the quantity of the suspicious substance is greater than what could be considered for the patient’s own personal use.

27.3.16.8 The person removing the suspicious substance from the patient must complete part A of the form ‘The removal and storage of suspicious substances found within hospital premises’ (see link below for form)
   - place the suspicious substance in a Drug Production Bag (if available on the ward) or sealed envelope, and store it temporarily in the ward controlled drug cupboard
   - make an entry in the controlled drug register stating ‘received one sealed bag of a suspicious substance from patient, CHI number’, witnessed and signed by two registered nurses.
   - there should be a separate page in the register for suspicious substances.
   - inform the pharmacy as soon as possible, within normal working hours


27.3.16.9 The pharmacist must
   - along with the nurse in charge, complete part B of the form ‘The removal and storage of suspicious substances found within hospital premises’
   - make an entry in the controlled drug register stating that the substance has been removed to the pharmacy, sign and have the entry witnessed and signed by the nurse in charge
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Check Intranet for any amendments

- remove the package and a copy of the form (the original to be filed in the patient’s health record), and place both in the designated area in the pharmacy controlled drug store
- contact police (Edinburgh Service Centre on ‘101’ or previously agreed contact number for relevant site) to arrange for the substance to be collected by a police officer

27.3.16.10 Then the police officer attends to collect the suspicious substance, a pharmacist must be present to hand over the package. The form ‘The collection of suspicious substances from pharmacy department by Police Scotland’ must be completed by the police officer and the pharmacist. See link below for form. A copy of this form must be given to the police officer along with the package.


27.3.16.11 Both forms – ‘The removal and storage of suspicious substances found within hospital premises’ and ‘The collection of suspicious substances from pharmacy department by Police Scotland’ must be filed in the designated folder and retained for 2 years.

27.4 Management of CDs in hospital pharmacies

27.4.1 Accountability and responsibility
27.4.1.1 The lead pharmacist for the hospital is responsible for the safe and appropriate management of CDs in the pharmacy. Day-to-day management of CDs (for example, receipt into and issue from dispensary stock) in the pharmacy will normally be delegated to a suitably-trained, competent registered pharmacy technician or pharmacist. However, legal responsibility for CDs remains with the lead pharmacist for the hospital.

27.4.2 Security of CDs
27.4.2.1 The pharmacy must have SOPs covering each of the aspects of the safe management of CDs such as ordering, receipt, record-keeping etc.

27.4.2.2 SOPs must be kept up-to-date, reflecting current legal and good practice requirements for CDs, and there must be a system of document control to ensure that the correct version is used.

27.4.2.3 SOPs must be approved by the Accountable Officer or by the person to whom he/she has delegated this task. The AO is accountable for all the systems for the safe management of CDs.

27.4.3 Ordering and receipt
27.4.3.1 Ordering of CDs from wholesalers and manufacturers and receipt of CDs must follow the principles of good procurement. Local procedures should ensure that there is a robust audit trail and that the opportunities for diversion are minimised.
27.4.4 Receipt
27.4.4.1 There must be a local procedure for the receipt of CDs into the pharmacy department. The procedure must ensure the security of CDs and should be auditable. It must include:
- who may sign for receipt.
- how the goods must be checked (e.g. matching of the details on the delivery note to the goods) and appropriate stock control documentation completed.
- an instruction that any tamper-evident seals on packs must be left intact when they are received from the supplier. This will simplify and speed up routine balance checks.
- an instruction that if, when the tamper-evident seal is broken the contents do not match the expected amount stated on the pack, the pharmacy must contact the supplier.
- the action to be taken if the item received is incorrect.
- arrangements for storage of incorrect items for return.
- specifications of the entry required in the register, including who may make the register entry and whether a witness is required.

27.4.4.2 Receipt must be recorded immediately, and no later than 24 hours after receipt. A SOP is required defining the procedure for safe storage and records of stock when receipt is not recorded immediately. The balance in stock must be checked and recorded as correct by the person making the entry.

27.4.4.3 The stock must be put away into the appropriate section of the CD cabinet promptly.

27.4.5 Storage
27.4.5.1 Pharmacy CD cabinets must comply with the Misuse of Drugs (Safe Custody) Regulations. A risk assessment must be undertaken to determine whether additional security arrangements are required, for example when the pharmacy is unmanned.

27.4.6 Issuing of CDs to wards and departments
27.4.6.1 There must be a local procedure for the issuing of CDs to wards and departments. The procedure must ensure the security of the CDs and must be auditable. It must include:
- the procedure for checking that the requisition is valid and complete
- the mechanism for correcting an incomplete or inaccurate requisition.
- specifications of the details required on labels (see below).
- specification of entry required in the register, including who may make the register entry.
- whether a check by a second person is required. The decision as to whether a check by a second person is required or not must be made following a risk assessment.
- arrangements for the transfer of the CDs to the ward or department.

27.4.7 Electronic systems
27.4.7.1 Where electronic systems for the requisitioning of CDs are introduced, safeguards in the software must be put in place to ensure that:
- only individuals who are authorised to requisition CDs from the pharmacy can do so.
- entries cannot be altered at a later date.
- a log of all data entered is kept and can be recalled for audit purposes.
27.4.8 Labelling of CDs
27.4.8.1 There must be a SOP for labelling CDs issued from the pharmacy. The CD pack must clearly state:
- Drug name, form and strength.
- Quantity.
- Store in CD cupboard.
- Expiry date if dispensed from bulk. (NB: Certain preparations have a reduced expiry once opened, e.g., oral morphine solution).
- Keep out of reach and sight of children.
- Address of the pharmacy.
- The batch number of a product that has been dispensed from bulk.

27.4.8.2 Each container must be labelled individually.

27.4.9 CD registers
27.4.9.1 Pharmacy departments are required to keep registers of receipts and supplies of Schedule 2 CDs.

27.4.9.2 Register entries must be made in consecutive, chronological order. The entry must be made no later than 24 hours after the controlled drug is received, and immediately when it is supplied. Entries must be in black ink or be otherwise indelible.

27.4.9.3 If a mistake is made the entry must not be crossed out, deleted, obliterated or defaced; correction fluid must not be used. If an error is found, it must be bracketed and accompanied by a clearly recognised signature. The balance shown must be accurate and easily read. A footnote must be added to explain the alteration.

27.4.9.4 The following staff may complete the CD register:
- any competent member of pharmacy staff as authorised by the lead pharmacist for the hospital
- any person who is being trained, as long as a competent member of pharmacy staff, countersigns entry.

27.4.9.5 Each drug form and strength must be on a different page in the register. The drug name, form and strength must be written at the top of the page. An index must be kept at the front of the register.

27.4.9.6 For CDs supplied, the register entry must also include:
- Date of transaction.
- Name and address of person/department supplied.
- Licence or authority of person/department supplied.
- Amount supplied.
- Form in which supplied.
- Name of patient, if individually dispensed
- the serial number of indent/requisition number

27.4.9.7 For CDs received into stock the following details must be recorded in the CD register:
- The date on which the CD was received.
- The name and address of the supplier, e.g. wholesaler, pharmacy.
- The quantity received.
- The name, form and strength of the CD.
27.4.9.8 The stock balance in the register should be checked against both the quantity in the CD cabinet and the balance shown in the pharmacy stock control system at each transaction.

27.4.10 Liquid preparations
27.4.10.1 Discrepancies can arise with liquid CDs as a result of e.g. manufacturer’s overage, the measurement process or spillage. Such overage or losses of liquid preparations should be recorded and the running balance adjusted.

27.4.10.2 Stock balances of liquid medicines should be checked by visual inspection but periodic volume checks must be carried out. The balance must be confirmed to be correct on completion of a bottle.

27.4.10.3 In the event of a spillage, a second person must verify that it has occurred, and countersign the CD record book. A Datix entry must be made.

27.4.11 Computerised registers
27.4.11.1 Entries in computerised registers must be attributable and auditable.

27.4.11.2 If the CD register is held in computerised form, the following safeguards in the software must be put in place to ensure that:
- the author of each entry is identifiable.
- entries cannot be altered at a later date.
- all entries are attributable to the individual making the entry.
- a log of all data entered is kept and can be recalled for audit purposes.
- adequate backups are made.
- systems are in place to minimise the risk of unauthorized access to the data.

27.4.12 Checks of CD stocks held in the pharmacy
27.4.12.1 All CDs in the pharmacy must be checked periodically e.g. every month. CDs that are awaiting destruction must be included in the register’s running balance and segregated from in-date stock. A separate register for out-of-date stock should not be kept. Following a risk assessment, the frequency of such checks should be determined by the pharmacist with operational responsibility for managing CDs. This must be included in a SOP.

27.4.12.2 The check may be undertaken by any competent person approved by the lead pharmacist for the hospital. The system must enable CD registers to be reconciled with issues to wards/departments. The routine check must include sample reconciliations of the register against requisitions received in the pharmacy, plus checks of any exceptional ordering which should be queried.

27.4.12.3 The check should be recorded in the register by means of a signature, date and an appropriate entry, for example, “Stock checked. Balance correct”.

27.4.13 Discrepancies
27.4.13.1 The balance recorded in the hardcopy register and/or, where relevant, the electronic register/pharmacy stock control system, must be reconciled against the stock of every product in the CD cupboard. If one or more of these levels does not tally, the discrepancy must be investigated and resolved without delay. It is important to remember that a discrepancy may indicate misuse.
27.4.13.2 There must be a careful check of transactions in the register and in the stock control system to trace an error or omission.

27.4.13.3 If an error is traced then a register entry must be made, clearly stating the reason for the entry, the reference of the error or the omission, the date of the error or omission and the signature of both the person carrying out the amendment and the a second person who checks the whole process.

27.4.13.4 If no errors or omissions are detected then the discrepancy must be reported to the Lead Pharmacist for the hospital. If the discrepancy cannot be resolved it must be reported to the Accountable Officer and the police as soon as possible, within 48 hours.

27.4.14 Archiving of CD records

27.4.14.1 Every requisition, order or private prescription on which a CD is supplied must be preserved by the Pharmacy department for a minimum period of two years from the date on which the last delivery under it was made.

27.4.14.2 The time periods for archiving CD documentation are:
- Requisitions: 2 years
- Registers and controlled drug record books: 2 years from last entry
- Registers and controlled drug record books containing details of CD destructions: 7 years from last entry

27.4.15 Supply to outpatients and discharge patients

27.4.15.1 Persons asked to supply CDs on prescription must establish whether the person collecting the medicine is the patient, their representative or a healthcare professional acting in his professional capacity on behalf of the patient.

27.4.15.2 When outpatient prescriptions are being given directly to patients or their representatives, the patients or their representatives may be asked to provide evidence of identity when collecting Schedule 2 CDs. The requirement allows discretion not to ask patients or patient representatives for proof of identity if for example they have concerns that to do so may compromise patient confidentiality or deter patients from having their medicine dispensed.

27.4.15.3 The following information must be recorded in the CD register for Schedule 2 CDs supplied on prescription:
- whether the person who collected the drug was the patient, the patient’s representative or a healthcare professional acting on behalf of the patient;
- if the person who collected the drug was a healthcare professional acting on behalf of the patient, that person’s name and address;
- if the person who collected the drug was the patient or their representative, whether evidence of identity was requested (as a matter of good practice a note as to why the dispenser did not ask may be included but this is not mandatory); and
- whether evidence of identity was provided by the person collecting the drug.

27.4.15.4 The patient’s date of birth may be used as a second check if necessary.
27.4.16 Supply to external units or other health and social care bodies in exceptional circumstances

27.4.16.1 A hospital pharmacy can no longer supply controlled drugs to an external organisation unless for a named individual and not routine practice.

27.4.17 Destruction of stock CDs

27.4.17.1 Any pharmacy held stock of obsolete, expired or unwanted Schedule 2 CDs must be recorded in a timely manner. Destruction can only take place in the presence of a person authorised by the Accountable Officer.

27.4.17.2 Until they can be destroyed, obsolete, expired and unwanted stock CDs requiring safe custody, according to arrangements appropriate to their schedule, must be kept segregated from other CDs in the CD cupboard but continue to include them in the running balance. Stock CDs awaiting destruction must be clearly marked in order to minimise the risk of errors and inadvertent supply.

27.4.17.3 When stock Schedule 2 CDs are destroyed, the following details must be entered into the CD register:
- Drug name
- Drug form
- Drug strength
- Quantity of drug being destroyed
- Date of destruction
- Signature of the authorised person in whose presence the drug was destroyed
- Signature of the person carrying out the destruction

27.4.18 Destruction of CDs returned by patients

27.4.18.1 CDs that have been prescribed for, and dispensed to, a named patient and then returned unused or part-used by the patient or their representative to the pharmacy must be kept securely and separate from pharmacy stock. When destroyed their destruction must be recorded appropriately.

27.4.18.2 A record of CDs returned by patients must be kept and a record of destruction must be made in a timely manner.

27.4.18.3 The record of CDs returned and of their destruction must be made on a designated page in the CD register.
- Date of return of the CDs.
- Name, quantity, strength and form of the CDs.
- Role of the person who returned the CDs (if known).
- Name and signature of the person who received the CDs.
- Patient's name and address (if known).
- Names, positions and signatures of the person destroying the CDs and the witness.
- Date of destruction.
- Comments, for example, expiry date, name of patient and ward.

27.4.18.4 CDs awaiting destruction must be stored in the CD cabinet separately from pharmacy stock CDs.

27.4.18.5 Destruction of CDs should occur with sufficient frequency to ensure that excessive quantities are not stored awaiting destruction. The frequency should be determined locally following a risk assessment but be no less then every three months.
27.4.19 Methods of disposal for CDs
27.4.19.1 The SOP for disposal of CDs must be followed.

27.4.20 Pharmacy Staff training for management of CDs
27.4.20.1 Pharmacy staff must receive appropriate training on local SOPs for CDs when they first become involved in prescribing, supplying, administering or disposing of CDs and then regularly thereafter. The frequency of training should be determined locally.

27.4.20.2 Pharmacy staff must be informed and, if necessary, receive additional training when SOPs are revised or amended and when new CD products or systems are introduced.

27.5 Additional governance arrangements for prescribing controlled drugs (non-medical prescribers)

27.5.1 Controlled drugs are only supplied or administered to patients on the authority of a nurse (V300 NMC qualification) or pharmacist where he or she is registered as a non-medical prescriber
27.5.1.1 The practitioner who dispenses a prescription for a controlled drug written by a non-medical prescriber, or who administers a controlled drug from stock that has been prescribed by a non-medical prescriber, is able to check that the prescriber is registered as a supplementary or independent prescriber.

27.5.2 There is justification that, in general, the non-medical prescriber needs to be able to prescribe controlled drugs in his/her area of practice.
27.5.2.1 Only controlled drugs included in the Clinical Management Plan (for supplementary prescribers) or in the Personal Core Formulary agreed with the employer (for nurse independent prescribers) are prescribed by non-medical prescribers. The Clinical Management Plan or the Personal Core Formulary specifies the name of each controlled drug, the medical condition, and the dose range for which it will be prescribed.

27.5.3 Controlled drugs prescribed by the non-medical prescriber are justified for the individual patient
27.5.3.1 Controlled drugs are prescribed, dispensed or supplied, and administered by separate practitioners wherever possible.

27.5.3.2 A nurse independent prescriber or nurse supplementary prescriber does not supply a controlled drug that he/she has prescribed, to the patient, carer or other health professional who administers it. In primary care, the prescription for the controlled drug is dispensed for the individual patient by a pharmacist.

27.5.3.3 In circumstances where an independent prescriber or supplementary prescriber is responsible for administering a controlled drug that he/she has prescribed, and that has been dispensed for the individual patient by a pharmacist, a suitably competent second person checks that the accuracy of the medicine administered. A suitably competent person in this situation is a person who can check that the correct medicine, and the correct quantity or dose is supplied or administered to the correct patient.
27.5.3.4 Where a supplementary prescriber is responsible for administering a controlled drug that he/she has prescribed, and that is administered from stock, a suitably competent second person checks that the accuracy of the medicine administered. A suitably competent person in this situation is a person who can check that the correct medicine, and the correct quantity or dose is supplied or administered to the correct patient.

27.5.3.5 Where an independent prescriber is responsible for administering a controlled drug that he/she has prescribed, and that is administered from stock, a suitably competent second person checks that the medicine administered is correct for the patient. A suitably competent second person in this situation is a person with sufficient knowledge of the medicine, and of the patient to whom it is being supplied or administered, to be able to intervene when the medicine is not appropriate.

27.5.3.6 In circumstances where a pharmacist supplementary or independent prescriber is responsible for dispensing a controlled drug that he/she has prescribed, a suitably competent second person checks the accuracy of the dispensed medicine. A suitably competent person in this situation is a person who can check that the correct medicine of the required quality, the correct dose, and the correct route have been selected for administration to the correct patient.

27.5.3.7 If a non-medical prescriber prescribes a new dose of a controlled drug that has already been dispensed for the individual patient, the unused medicine is returned to the pharmacist and a new supply is dispensed.

27.5.4 Independent non-medical prescribers may prescribe controlled drugs

27.5.4.1 A nurse independent prescriber (V300 NMC qualification) or a pharmacist independent prescriber can prescribe any medicines within their competency and for which they are prepared to accept legal responsibility, including ‘off-label’ medicines, unlicensed medicines and any controlled drug specified in Schedule 2, 3, 4 or 5, except diamorphine, cocaine and dipipanone for the treatment of addiction.

27.5.4.2 Prescribing must be in line with the Lothian Joint Formulary and local protocols. Nurse independent prescribers must list the controlled drugs in their Personal Core Formulary, which must have been agreed by management and the service.

27.5.5 Controlled drugs are not prescribed for a period beyond their clinical need

27.5.5.1 The review date and referral criteria for a Clinical Management Plan that includes a controlled drug is agreed to take account of the clinical need of the patient for the controlled drug.

27.5.6 Records of prescribing of controlled drugs facilitates monitoring of the quantity and frequency of prescribing of controlled drugs in general and for individual patients, and adherence to the Clinical Management Plan or Personal Core Formulary

27.5.6.1 Controlled Drugs are prescribed on approved prescribing documents. A unique code must be on all prescription forms and charts that identifies the prescriber.

27.5.6.2 The name of the prescriber is recorded in controlled drug registers when dispensed.
27.5.6.3   The details of the controlled drug prescription is entered in the shared patient record immediately, or as soon as possible after consultation and should not exceed 48 hours except under exceptional circumstances.

27.5.6.4   The organisation has a system in place to report, monitor and take action on complaints, incidents and near misses involving the prescribing of controlled drugs by non-medical prescribers. The Accountable Officer must also be informed.
28 Medical Gases

28.1 Introduction
28.1.1 Medical gases are medicinal products under the provision of the Medicines Act 1968, and are afforded the same degree of control as other medicinal products with regard to authorisation to prescribe, order and administer.

28.1.2 Safety in the handling and use of medical gases and medical gas cylinders has been a concern of gas cylinder manufacturers and health care personnel for many years. This policy document has been prepared in accordance with the recommendations of Scottish Health Technical Memorandum 02-01 (June 2012) taking account of the requirements of the Health and Safety at Work Act, 1974, to offer guidance and instruction to personnel responsible for safety and care in the ordering, handling, use, and storage of medical gases and medical gas cylinders.

28.1.3 Implementation of this policy and procedures establishes a framework for control of medical gases and medical gas cylinders and encompasses all related issues.

28.1.4 It is the responsibility of the designated managers identified in Section 1; Areas of Responsibilities, to ensure local operational procedures are in place, consistent with the policy for areas under their control. Recommended procedures relating to the ordering, supply and delivery of medical gases and medical gas cylinders are outlined.

28.2 Aims of the Policy and Procedures
28.2.1 The overall aim is to exercise greater control over the delivery, storage and handling of medical gases and medical gas cylinders for the following reasons:

- To ensure that adequate supplies of medical gases are available at all times
- To ensure proper handling and safety for staff and patients
- To maintain the quality of medical gases
- To ensure proper storage and the efficient rotation of stock
- To ensure that the correct cylinders are received and used and are traceable
- To minimise the costs to NHS Lothian by controlling the number of cylinders in circulation
- To ensure appropriate training of staff (and patients, where required)

28.2.2 The aims of the policy and procedures document will be achieved by the implementing the requirements of the document, which covers the following:

- Areas of responsibility
- The Permit to Work System for medical gas pipeline systems
- Storage of medical gases
- Delivery and receipt of medical gas cylinders
- Central Supply Systems
- Safe handling and use of medical gas cylinders
- Ordering of medical gas cylinders by wards, clinics and departments
- Emergency procedures
28.3 Areas of responsibility

28.3.1 For relevant sites, the Charge Nurse, the Site Lead Pharmacist, the Site Logistics Manager, the Estates Manager, the Senior Anaesthetics Technician, and the relevant laboratory manager must ensure that all staff in their area of responsibility are adequately trained regarding medical gases, both in routine use and in emergency situations.

28.3.2.1 Specific responsibilities are identified for key personnel in relation to the Permit to Work system for medical gas pipeline systems as required within Scottish Health Technical Memorandum (SHTM) 02-01.

28.3.2.2 The term Designated Nursing Officer is used in the SHTM. In NHS Lothian, the Charge Nurse would normally be considered to be the Designated Nursing Officer. The responsibilities of the Designated Nursing Officer are described below.

28.3.1 Nursing staff

28.3.1.1 The Charge Nurse who, for the purposes of this policy, will assume the role of the Designated Nursing Officer, has the responsibility for the safe and secure storage, handling and use of medical gases in his/her area of control. This includes ensuring the availability and maintenance of the necessary equipment for administration of medical gases to patients, and storage of medical gas cylinders.

28.3.1.2 The Charge Nurse is responsible for ensuring effective and efficient stock control of any medical gas cylinders held.

28.3.3 The Chief Nurse/CHP Nurse Manager (who may also be a Charge Nurse) must ensure that there is a Charge Nurse available at all times who:
- Knows the location of the area valve service units for piped medical gas services
- Is competent to decide, in liaison with the Authorised Person who will provide information on the implications, when it is appropriate to close the medical gas pipeline area valves, and to take the necessary actions thereafter
- Can operate the area valve service unit, if required
- Will act as the focus person for communication related to interruptions to medical gas pipeline systems in the area, as part of the Permit to Work System, ensuring that all clinical/nursing staff are aware of areas affected.

28.3.1.4 The Chief Nurse/CHP Nurse Manager must also ensure that a list of current Charge Nurses for each area is made available to the Estates Manager.

28.3.2 Pharmacy

28.3.2.1 The Site Lead Pharmacist has delegated responsibility for the procurement and supply of medical gases and medical gas cylinders (28.11 Appendix 1 – Classification of medical gas cylinders), as these are considered medicines under the provisions of the Medicines Act 1968.

28.3.2.2 The Site Lead Pharmacist is responsible for the quality of medical gases, and for ensuring that, where necessary, the required quality testing is carried out under the Permit to Work System for piped medical gas systems. Quality testing may also be
undertaken when an untoward patient event suggests a problem with the piped medical gas supply.

28.3.2.3 At least once every 3 months, the Site Lead Pharmacist or equivalent must ensure that piped medical air produced from compressor plants is quality tested.

28.3.3 Logistics Services

28.3.3.1 Medical gas cylinders are procured by the Pharmacy Department and distributed to wards by the Logistics staff. The Site Logistics Manager is responsible for ensuring that Logistics staff informs the pharmacy ordering staff when supplies of medical gas cylinders require to be re-ordered, with reference to a minimum stock list issued by the Pharmacy.

28.3.3.2 The Site Logistics Manager is responsible for the maintenance, safety, and security of cylinder storage areas and associated transportation equipment.

28.3.3.3 The Site Logistics Manager is responsible for ensuring continuous supply from the oxygen, nitrous oxide, medical air and Equanox manifolds, where installed. This involves checking and changing cylinders as required and routinely on an annual basis.

28.3.3.4 The Site Logistics Manager is responsible for the supply and issue of cylinder trolleys.

28.3.3.5 Where there are no Logistics staff available, e.g. within community health premises, an appropriate professional person is identified as having responsibility for the moving, handling and storage of medical gas cylinders. The responsibilities are documented.

28.3.4 Estates Services/Department of Anaesthetics

28.3.4.1 The Estates Manager is responsible for the maintenance of all installations and pipework associated with piped medical gas supply.

28.3.4.2 The Estates Manager is responsible for the maintenance of cylinders on all manifolds, including the back-up manifolds for the medical air compressors. This includes planned operative maintenance to include both testing the gas supply, i.e. cylinder contents, and the switching mechanism.

28.3.4.3 The Estates Manager is responsible for the maintenance and testing of low-level alarms.

28.3.4.4 The Estates Manager is responsible for maintenance associated with medical gases pipelines from plant, manifolds or liquid oxygen installations to and including the gas outlet.

28.3.4.5 The Senior Technician, Anaesthetic Technical Services or Estates Services (depending on local arrangements) are responsible for the maintenance of anaesthetic and intensive care equipment that plugs into the wall outlets. The Anaesthetic Technical Services Department or Estates Department (depending on local arrangements) is responsible for the issue of all standard medical regulators for fitting to medical gas cylinders and flowmeters for use at wall outlet points on a service exchange basis.

28.3.4.6 The Estates Manager is responsible for ensuring adequate training and availability of Authorised Persons and Competent Persons under the Permit to Work System. The Estates Manager must ensure that Authorised Persons have information available on the
areas served by the area valve service units, so that they can liaise with the Charge Nurse on the implications of closing these valves.
28.3.5 Key personnel and their duties and responsibilities for medical gas pipeline systems

The following are the key personnel with their respective responsibilities in relation to medical gas pipeline systems:

- **Authorised Person** - a person who has sufficient technical knowledge, training and expertise to enable her/him to understand fully the dangers involved and who is appointed in writing by the Chief Operating Officer/CHP Manager on the recommendation of the Estates Manager and authorised by the responsible engineer appointed by the relevant Health Board for this purpose. The certificate of appointment states the class of work that the person is authorised to initiate and the extent of his authority to issue and cancel Permits to Work. The Authorised Person is responsible for the day-to-day management of the medical gas pipeline systems and operates according to the guidance in Scottish Health Technical Memorandum (SHTM) 02-01.

- **Competent person** - a contractor who has his name on the register of competent persons maintained by the Estates Manager. The Competent person has sufficient technical knowledge, training and experience to enable him to carry out his duties in a competent manner and according to the testing and commissioning procedures referred to in SHTM 02-01.

- **Designated Nursing Officer (Charge Nurse)** - a person designated by the Chief Nurse/CHP Nurse Manager to act as a focal point for all communications related to medical gas pipeline systems or medical gas cylinders in a department or departments. The Designated Nursing Officer must give permission for an interruption to the medical gas pipe systems, and must consult with the Chief Nurse or deputy if a major shutdown is necessary. All Charge Nurses should have received training on the medical gas pipeline system relevant to their departments and on the action to be taken in the event of an emergency.

- **Quality Controller** - a person appointed in writing by the Chief Operating Officer/CHP Manager on the recommendation of the Director of Pharmacy. The Quality Controller is a pharmacist or other suitably qualified person and has specialist knowledge, training and experience of medical gas pipe systems and SHTM 02-01. The quality controller is responsible for checking the quality of medical gases at terminal outlets. His/her duties include carrying out quality tests in accordance with the procedures in SHTM 02-01.

28.3.6 Laboratories and other departments

28.3.6.1 Laboratories and other departments that use special and industrial gases are responsible for ordering their own supplies of gas cylinders. These cylinders may be stored in the main cylinder store segregated from medical gas cylinders, and distributed by Logistics staff.

28.3.7 Community Health/General Practice Services

28.3.7.1 Within the community services individual healthcare disciplines e.g. podiatry, midwifery, family planning, South East Scotland Breast Screening Service, are responsible for the safe handling, storage, transportation and use of medical gases within their designated area. Compliance with the policy for medical gases applies equally in the community setting.
28.3.7.2 General Medical Practitioner Services – All GP practices within NHS Lothian that use medical gases (generally in cylinders for resuscitation) must have suitable arrangements in place for the supply, storage, handling and use of medical gas cylinders. Responsibility for ensuring that appropriate arrangements are in place lies with the users and should comply with NHS Lothian Policy for medical gases.

28.3.8 Dental Services

28.3.8.1 Medical gas cylinders are ordered by the senior dental nurse direct from the current approved medical gas cylinder supplier. Deliveries are made to the dental departments and distributed to surgeries/stores by dental nursing staff.

28.3.8.2 Senior dental nurses are responsible for:

- the maintenance, safety and security of cylinder storage areas and associated transportation equipment
- ensuring continuous supply and changing cylinders as required
- ensuring that air quality from dental air compressors (supplying dental chairs) is tested and compliant with the requirements of the Health Technical Memorandum 2022 Supplement 1 – Dental compressed air and vacuum systems.

28.3.8.3 Suitable training in the preparation of cylinders for use forms part of the training dental staff receives on resuscitation and relative analgesia.

28.3.8.4 Edinburgh Dental Institute order medical gas cylinders through the Pharmacy Department at the Royal Infirmary of Edinburgh. The Dental nurse in charge is responsible for ordering, safe storage and use of medical gas cylinders.

28.4 The Permit to Work System for medical gas pipeline systems

28.4.1 The Permit to Work System as defined in Scottish Health Technical Memorandum (SHTM) 02-01 describes safe systems of work for the design, installation, repair and servicing of medical gas pipeline systems (MGPS).

28.4.2 In order to prevent contamination of piped medical gases, special precautions are required when pipelines are to be altered or extended. Normally, the section to be modified is physically isolated from the rest of the system by closing area valve service units (AVSUs).

28.4.3 Key personnel with their respective responsibilities in relation to medical gas pipeline systems are identified in Section 28.3 of this Policy document.

28.4.1 Levels of Hazard

28.4.1.1 Two levels of hazard occur when work is to be carried out on any part of a piped medical gas installation that is currently in use. The Authorised Person will assess the level of hazard at the time of preparing the Permit to Work.

- **Low Hazard Work** - Any work on the terminal unit where only one piped gas service (plus medical vacuum) is present. This is the case in most ward situations. The work introduces little or no hazard of cross connection but may cause inconvenience to staff or patients.

- **High Hazard Work** - Any work that involves cutting or brazing of an in-service pipeline and any work in which brazing is required. The work introduces hazards of...
28.4.2 Procedure for operating the Permit to Work system

28.4.2.1 Before work may commence, an Authorised Person must obtain the signature of a Charge Nurse in the area affected by the work. The signature is recorded on the Permit to Work Form. The Charge Nurse must ensure that relevant staff are notified.

28.4.2.2 The Charge Nurse must arrange for adequate alternative supplies to be made available in the patient areas affected by the work. This normally involves using medical gas cylinders. If additional cylinders are required, they must be ordered from the pharmacy 5 days in advance of planned work. Additional regulators must be ordered from the Department of Anaesthetics or Estates Services (depending on local arrangements), and additional trolleys must be ordered from the Logistics Department. The Charge Nurse is responsible for ensuring that all additional cylinders, regulators and trolleys are returned when the work is completed.

28.4.2.3 For high hazard work the Authorised Person will arrange for the Quality Controller to carry out quality tests before the affected pipeline system may be taken back into use.

28.4.2.4 The Authorised Person must ensure that alternative supplies are maintained to affected patient areas during work on the pipeline system.

28.4.2.5 The Authorised Person must give written authority (a copy of the Permit to Work Form) to the Competent Person to carry out the work.

28.4.2.6 The Authorised Person is the only person authorised to allow the affected pipeline system back into use, following the completion of the work by the Competent Person and satisfactory quality testing by the Quality Controller. The Authorised Person must check that each of the 8 sections of the Permit to Work Form is correctly completed and signed by the appropriate personnel. He/she must inform the Charge Nurse when work is complete, who must in turn inform relevant staff in the area.

28.4.2.7 The Permit to Work Form is in triplicate. The copies are distributed as follows:
- To the Authorised Person, to be kept in the Permit to Work Book.
- To the Competent Person, as his authority to carry out the work specified.
- To the Quality Controller.

28.5 Storage of medical gases

28.5.1 Wards, Clinics and Departments
The Charge Nurse is responsible for the safe and secure storage of medical gas cylinders in the ward, clinic or department, and for ensuring the following:

28.5.1.1 Cylinders are located in a safe position and secured so they cannot fall over. Cylinders are not stored or used freestanding. Cylinders of size G or J should not be used while secured only in the trolley used for transportation - a more secure arrangement is required to prevent the cylinder falling over.

28.5.1.2 Cylinders are located near to an exit so that they can be removed quickly in an emergency such as a fire. However, they must not block the exit, or present any other type of hazard.
28.5.1.3 Cylinder storage areas are identified by signs (indicating gas storage) and are well ventilated.

28.5.1.4 Cylinders are sited away from storage areas containing highly flammable liquids and other combustible materials, and from sources of heat or ignition.

28.5.1.5 Warning notices are posted prohibiting smoking and naked lights within the vicinity of the cylinders.

28.5.1.6 Cylinders containing liquefiable gases are stored and used upright with the valve uppermost unless the attached equipment is specifically designed to withdraw liquid from the container.

28.5.1.7 Cylinder numbers stored are kept to the minimum number required (as agreed with pharmacy or supplier).

28.5.2 (Main) Cylinder stores

The Site Logistics Manager is responsible for the safe and secure storage of medical gas cylinders in the cylinder stores, and for ensuring the following:

28.5.2.1 The cylinder stores are kept locked when not in use. Access is restricted to authorised personnel only i.e. Pharmacy, Logistics personnel, Estates.

28.5.2.2 Medical and industrial (non-medical) gases are stored separately.

28.5.2.3 Cylinders of size “F” and greater are stored secured in the vertical position to prevent toppling (with the exception of Equanox). Cylinders of size “E” and smaller are stacked horizontally on racks to prevent damage to the cylinder paintwork.

28.5.2.4 Different sizes and types of medical gas cylinders are stored in separate racks or defined areas.

28.5.2.5 Full cylinders are arranged so that oldest stock is used first. On receipt, cylinders are positioned in the store, such that good stock rotation is maintained.

28.5.2.6 Cylinders are not subject to extremes of temperature.

28.5.2.7 Full and empty cylinders are segregated in clearly defined areas.

28.5.2.8 Cylinders are not defaced by marking with chalk, paint crayon or other material.

28.5.2.9 On return to the store, cylinder valves are tightly closed and where appropriate valve outlets capped and plugged. Cylinder valve guards or caps are in place and properly secured.

28.5.2.10 Cylinders containing oxygen and oxidants are stored segregated (if possible by a physical barrier) from flammable gases. Flammable gases are not stored routinely, and if required, quantities are kept to a minimum.

28.5.2.11 Cylinder stores are kept clean and dry and free from inflammable material. Rubbish is not allowed to accumulate.
28.5.2.12 The area surrounding the stores is kept free of vegetation or other combustible materials. If weedkillers are required then chemicals, which are a potential fire hazard (e.g. sodium chlorate), are not used and Estates Services should be advised in the event of such conditions.

28.5.3 Patients Homes

The Primary Healthcare team is responsible for advising on the safe and secure storage of medical gas cylinders in the patient’s home, and for ensuring the following storage guidance is promoted:

28.5.3.1 Cylinders are stored inside and not subject to extremes of temperature. Cylinders are located in a safe position and secured so they cannot fall over. Cylinders are not stored or used freestanding.

28.5.3.2 Cylinders are located near to an exit so that they can be removed quickly in an emergency such as a fire. However, they must not block the exit, or present any other type of hazard.

28.5.3.3 Cylinder storage areas are dry, clean and well ventilated.

28.5.3.4 Cylinders are stored away from highly flammable liquids and other combustible materials, and from sources of heat or ignition.

28.5.3.5 Cylinders containing liquefiable gases are stored and used upright with the valve uppermost.

28.5.3.6 Cylinders are stored in a convenient place with safety in mind.

28.5.3.7 Where it is obvious to a member of staff that the above guidance may not be followed, the member of staff requires to report this to their Line Manager.

28.5.4 Special requirements for 50% oxygen/50% nitrous oxide mixtures (Equanox®)

28.5.4.1 50% oxygen/50% nitrous oxide (Equanox®) gas cylinders must be specially stored to avoid separation of the constituent gases.

28.5.4.2 Mixtures of these gases are liable to separate at low temperatures. Cylinders should be stored horizontally at a temperature between 10 and 38 degrees centigrade for 24 hours before use or before connection to a manifold. If this is not possible they must be warmed by storing above 10 degrees centigrade for at least two hours, or placed vertically (up to the shoulder only) in warm water at 38 degrees centigrade for five minutes. During this procedure the valves must not be wetted and cylinders must be dried before use. After warming, the cylinder must be agitated by inverting it at least three times to mix the contents.

28.6 Delivery and receipt of medical gas cylinders
28.6.1 Introduction
All areas that receive medical gas cylinder deliveries must have procedures in place for the delivery and receipt of medical gases. The following is recommended as best practice:

28.6.1.1 On arrival, the delivery driver must contact the Logistics department or site responsible person.

28.6.1.2 Cylinders must be received by a staff member trained in the management of medical gas cylinders.

28.6.1.3 The key for the medical gas cylinder store should be held securely and released under signature only to approved personnel, who must return it as soon as possible after completing receipt of the cylinder delivery.

28.6.1.4 The person receiving the cylinder must check the following:
- the name of the gas on the cylinder label and colour identification of the cylinder
- the quantities and sizes of cylinders received
- that only one batch number label is affixed to each cylinder
- that each cylinder has a protective cover over the valve outlet. This cover may be a viscose seal alone, a viscose ring and a plastic cap, or a metal screw-on cap
- that an equal number of empty cylinders of each type are returned unless otherwise instructed

Cylinders not complying with any of the above must not be accepted. Discrepancies must be noted by the person receiving the cylinders who must amend the delivery note appropriately.

28.6.1.5 Received cylinders must be positioned in the cylinder store so that good stock rotation is maintained. Cylinders with the oldest date of filling must be issued first. All cylinders must be used or returned within five years of the date of filling as recorded on the circular label on the cylinder valve.

28.6.1.6 On completion of cylinder receipt, delivery notes must be signed and dated by the person receiving the cylinders and sent to the appropriate department.

28.6.1.7 The delivery note must be reconciled with the copy order and dated as a record of receipt of the cylinders. The goods received note and the copy order are filed and kept as permanent record of receipt of that order.

28.6.2 Replenishing stocks of medical gas cylinders
28.6.2.1 Where medical gas cylinders are supplied from a central cylinder store, then procedures must be in place for re-ordering cylinders from the medical gas cylinder supplier. The store must have in place a stock list to ensure that the correct quantities and types of gases are ordered. The mechanism for ordering cylinders including all the personnel involved e.g. Pharmacy, Logistics, must be documented.

28.6.2.2 The following details are required and should be recorded.
- Delivery point/destination
- Number of cylinders required
- Type of medical gas
- Size of cylinder
28.6.2.3 An official order should be completed for every order required. Orders sent to the current medical gas cylinder supplier received before 9.30am for same day delivery or after 9.30am for next day delivery.

28.7 Central Supply Systems

28.7.1 Liquid oxygen plant
28.7.1.1 Liquid oxygen plant is a means to supply oxygen to many patients via a pipeline system in a hospital. The liquid supply system has at least 14 days capacity.

28.7.1.2 In general, the liquid oxygen plant is the property of Air Products who are responsible for servicing and breakdown maintenance.

28.7.1.3 The gates on the compounds are kept locked at all times. Pharmacy, Logistics and Estates Services and Air Products personnel only are allowed access, and hold the access code for the padlock.

28.7.1.4 Where Air Products are the tank owners they will top up the liquid oxygen tanks based on the sites actual usage, which is measured via a telemetry monitoring system. Under normal circumstances there should be no need to request a delivery of liquid oxygen. Only in exceptional circumstances will Air Products require to be called out, either due to an increased demand or a leak in the system. A procedure should be in place to cover this eventuality.

28.7.1.5 Monitoring of the liquid oxygen tank gauges should be carried out on a daily basis in accordance with a documented procedure that indicates the implementation of any subsequent action required is the responsibility of the pharmacy.

28.7.2 Manifold medical gas supply systems

28.7.2.1 Areas of responsibility
28.7.2.1.1 The Site Logistics Manager is responsible for ensuring and documenting that all cylinders on all manifolds and all back-up cylinders are changed when required and routinely on an annual basis, except where Estates Services have agreed to carry this out for medical air compressor back-up manifolds. This includes:

- the back-up cylinders for the air compressors
- the back-up nitrous oxide and Equanox® manifolds

28.7.2.1.2 The Estates Manager is responsible for ensuring that a leak test is performed on all manifolds on a weekly basis and that records of checks are kept.
28.7.2.1.3 The Estates Manager is responsible for ensuring and documenting planned operative maintenance of all manifolds, to include both testing the gas supply, i.e. cylinder contents, and the switching mechanism.

28.7.2.2 General information relating to the manifold room

28.7.2.2.1 The requirements for the safe handling, storage and use of medical gas cylinders apply to cylinders for use on manifold systems.

28.7.2.2.2 Only personnel authorised by the Estates Department may have access to the manifold rooms.

28.7.2.2.3 Personnel involved in pipeline operation must have adequate training and must ensure they are familiar with the operating instructions and safety procedures. The procedures give details of the actions to be taken in the event of a gas supply failure or maintenance shut down.

28.7.2.2.4 The manifolds are monitored via alarms to the hospital telephone switchboard where alarm-warning lights are constantly under view. If the alarm rings, the switchboard operator must immediately inform an Authorised Person from Estates Services who must check the situation and take necessary action. In the event that supply of gas to the pipeline cannot be maintained, the Authorised Person must immediately inform the Estates Manager, the Director of Pharmacy or Deputy, the Chief Nurse, the Duty or Site manager and if appropriate the transport manager, Air Liquide or Air Products.

28.7.2.2.5 The manifold room must not be used as a general cylinder store.

28.7.2.2.6 Sufficient cylinders to replace all banks of the manifold must be held on site, and at least two cylinders in the manifold room.

28.7.2.2.7 Empty cylinders must be returned to the cylinder store as soon as possible and never be allowed to accumulate within the manifold room.

28.7.2.2.8 Any separate emergency cylinders must be full and available for use. They must be checked and stock rotated on an annual basis. A record of when cylinders are changed must be kept. This is the responsibility of the Site Logistics Manager.

28.7.2.2.9 The cylinder stores must be kept clear and dry and free from inflammable material. Rubbish must not be allowed to accumulate.
28.8 Safe handling and use of medical gas cylinders

28.8.1 Introduction
Medical gas cylinders, though robust, should be handled with care and only by personnel who have received training and understand the hazards involved. The details given below are intended to serve as a reminder to staff who regularly handle and transport cylinders and who have received formal training. The guidelines are therefore intended to supplement, and not replace, formal training.

28.8.2 General Guidelines

28.8.2.1 Smoking or the use naked flames in the immediate vicinity of a cylinder or in confined areas where cylinders are kept or stored is strictly forbidden.

28.8.2.2 Do not subject cylinders to temperatures above 45 degrees centigrade.

28.8.2.3 Where a large number of cylinders are to be moved, appropriate protective clothing (gloves, overalls, and safety boots) should be worn. Heavy protective gloves (preferably textile or leather) and protective safety footwear must be worn when loading or unloading cylinders. Gloves, protective boots and overalls must be clean and free from oil or grease.

28.8.2.4 Ensure cylinders are kept free from dirt, grease and oil, including hand creams, alcohol gels, and food (e.g. crisps).

28.8.2.5 Ensure all equipment used to transport cylinders (e.g. trolleys) is clean and free from dirt, grease and oil.

28.8.2.6 Handle cylinders with care - do not allow them to knock against each other or against other pieces of equipment. Ensure cylinders are secured to prevent them falling or rolling against each other during transport.

28.8.2.7 Do not roll or drag cylinders along the floor.

28.8.2.8 Avoid lifting cylinders by their caps or valves where possible.

28.8.2.9 Move cylinders only with the appropriate size and type of trolley - do not use stretchers or wheelchairs.

28.8.2.10 Use medical gas cylinders for medical treatment only (normally associated with respiratory function) and not for other purposes such as welding, laboratory experiments, etc.

28.8.2.11 When transporting cylinders attached to medical equipment, ensure that the gas supply is switched off and the cylinder valve is closed, unless the equipment is attached to a patient. When cylinders are moved with apparatus attached always close the cylinder valve first and vent any residual gas to the atmosphere.

28.8.2.12 In use, cylinders are located in a safe position and secured so they cannot fall over. Cylinders are not stored or used freestanding. Cylinders of size G or J should not be used while secured only in the trolley used for transportation - a more secure arrangement is required to prevent the cylinder falling over.
28.8.3 **Equipment for use with medical gases**

28.8.3.1 All administration equipment must comply with the relevant British Standard and must only be used with the gas for which it is designed. This should be checked before connecting any piece of equipment to a medical gas cylinder.

28.8.3.2 Administration equipment (cylinder regulators and flowmeters) may only be issued by the Anaesthetics Technical Services Department (ATS) or Estates Services (depending on local arrangements) - if any item of administration equipment is found to be damaged or leaking it must not be used and should be taken during normal working hours to Anaesthetic Technical Services or Estates Services for replacement on a service exchange basis.

28.8.4 **Precautions for oxygen therapy**

There is a serious risk of fire when patients smoke or are in close proximity to other forms of ignition when receiving oxygen therapy. Oxygen, although not flammable, will increase the burning rate of any combustion. The following precautions must be taken:

28.8.4.1 Fire and safety warning signs must be conspicuously displayed in all wards and departments where oxygen is to be administered (available from the Fire Officer).

28.8.4.2 Smoking must not be permitted in the room or area where oxygen is being administered or stored. Other sources of ignition e.g. lighters, matches, open fires, cookers must be removed.

28.8.4.3 Special consideration needs to be given for oxygen tents and canopies. For children only toys approved by the Fire Officer should be given to a patient receiving oxygen therapy.

28.8.4.4 The patient must read and understand the Guidelines for Patients Receiving Oxygen Therapy (28.12 Appendix 2). Copies of the guidelines should be available in each ward and department in the form of a laminated card.

28.8.5 **Safe transport of medical gases**

28.8.5.1 **General Principles**

The following general guidance applies at all sites:

28.8.5.1.1 The Site Logistics Manager must ensure that the risks arising from the transport of gas cylinders around the hospital site are assessed, and appropriate precautions established and applied. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.1.2 Gas cylinders must only be transported using containers and or vehicles which are appropriate for the size and number of the cylinders, and which allow all cylinders to be firmly secured either horizontally or vertically. For further guidance please make reference to local site Policy for Transportation of Medical Gases.
28.8.5.1.3 Lifts should be used whenever practicable when gas cylinders are taken from one floor to another. Cylinders of sizes E or larger should never be manually handled up or down stairs. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2 With patients
28.8.5.2.1 Contact Logistics staff to arrange the supply of a wheelchair and inform them that the patient is receiving oxygen therapy, in order to ensure that a wheelchair with an oxygen cylinder support is supplied. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.2 Always check the cylinder being transported has the correct product label. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.3 Oxygen cylinders can be transported either horizontally or vertically. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.4 Use a size D oxygen cylinder when transporting patients who require oxygen throughout the hospital. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.5 If a portable oxygen cylinder is being used place and secure it in the appropriate oxygen carrier bag. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.6 The oxygen cylinder must be handled with care and not knocked violently or allowed to fall. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.7 Ensure that the oxygen cylinder is firmly secured and cannot move in transit. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.2.8 During transit the patient must be accompanied by a member of staff trained in the use of oxygen cylinders. For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.3 For transport home
28.8.5.3.1 Where patients are to receive therapy at home using equipment supplied by a hospital then a documented system should be in place to ensure that hospital cylinders and equipment are completely traceable.

28.8.5.3.2 If a patient receiving oxygen therapy needs to be transported home for either a home assessment or home discharge, the patient should be transported by ambulance.

28.8.5.3.3 Book an ambulance in the usual way via Ambulance Control and request a two-man ambulance with oxygen.

28.8.5.3.4 For transport of the patient to the ambulance follow the procedures detailed in section 28.8.5.2 above.
28.8.5.3.5 Portable oxygen will be required once inside the patient’s home. If the patient is on a home visit it is important to ensure enough oxygen is available for the patient should the return of the ambulance be delayed.

28.8.5.3.6 If the patient has been discharged, the doctor arranging the discharge has the responsibility for arranging home oxygen in liaison with the patient's GP however, it is important to ensure a suitable quantity of oxygen is available in the house prior to discharge.

28.8.5.3.7 If an oxygen concentrator is ordered, the patient may initially require the use of oxygen cylinders or require oxygen cylinders for use in emergencies, again arranged through the patient's GP.

28.8.5.3.8 Prior to discharge the patient must be trained by ward staff on how to use/control the oxygen, and must be aware of Procedure for Safe Use of Oxygen in the Home (28.13 Appendix 3).

28.8.5.3.9 For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.5.4 Transport of medical gas cylinders off-site in motor vehicles

28.8.5.4.1 Transport of medical gas cylinders between sites should be carried out in accordance with the “Policy for safe transportation of medical gas cylinders within NHS Lothian vehicles”.

28.8.5.4.2 The managers of departments, which require to transport gas cylinders in motor vehicles, must ensure that all such vehicles are equipped so that cylinders can be firmly secured and that drivers are trained in the legal and safety requirements. See Safety Precautions for Gas Handling and Transportation (28.14 Appendix 4).

28.8.5.4.3 Cylinders must only be carried in motor vehicles if they can be securely fastened in the boot of a car or rear of a van.

28.8.5.4.4 Drivers must carry the appropriate handling information (28.15 Appendix 5 – Product Hazard Data Information), for the gas and be familiar with its contents.

28.8.5.4.5 Any incident that causes a significant impact to a gas cylinder must be reported immediately to the relevant manager and to the pharmacy.

28.8.5.4.6 The vehicle must display a green “non-flammable compressed gas” sign at all times whilst transporting gas cylinders.

28.8.5.4.7 For further guidance please make reference to local site Policy for Transportation of Medical Gases.

28.8.6 Provision of medical gases for home births

28.8.6.1 The community midwife in charge is responsible for arranging the provision of Equanox® and oxygen for home births. The following actions must be taken:
28.8.6.2 Arrange the supply of one each Equanox® size F and oxygen size F to the home by the 37th week of pregnancy. Cylinders are ordered from the Pharmacy Department at the Royal Infirmary, associated equipment from the Anaesthetics Technical Department and transport is arranged with the Laboratory van service.

28.8.6.3 Inform and advise the woman on the safe storage and use of medical gas cylinders. This includes issuing the 'Guidelines for women using Equanox® and oxygen during a home birth' (28.16 Appendix 6).

28.8.6.4 Arrange return of used and unused cylinders and associated equipment to the proper storage site at the Royal Infirmary, in liaison with the Pharmacy, Anaesthetics Technical Department, and Logistics Department.

28.9 Ordering of medical gas cylinders by wards, clinics and departments

28.9.1 Introduction

28.9.1.1 A procedure should exist for wards, clinics and departments to order medical gas cylinders that are supplied from a central cylinder store.

28.9.1.2 Cylinders should be exchanged on a full for empty (or near empty basis), in accordance with the stock level for the ward, clinic or department.

28.9.1.3 Cylinders should only be delivered if the requesting ward, clinic or department has appropriate storage facilities and equipment.

28.9.1.4 Cylinders may be supplied on a temporary basis when usage in a particular ward, clinic or department is high or for gases that are not normally stocked. When ordering such cylinders the purpose and the expected duration of need must be stated. Cylinder labels will then be flagged as “Temporary Stock”.

28.9.1.5 On receipt of a telephone order the following information must be recorded in the pharmacy logbook:
- Ward/clinic/department making request
- Medical gas required
- Size and number(s) of cylinders required
- Date/time of request
- Label number issued (1 label for each cylinder)

28.9.1.6 The person who receives the telephone order must enter the appropriate information on the label. The label is the official written request. The label must be collected by the porter and attached to the cylinder and delivered to the requesting ward or department.

28.9.1.7 On delivery, the bottom section of the label must be signed by a member of staff from ward or department. This must be detached from the rest of the label by the porter making the delivery and returned on the same day to the pharmacy. The detached section of the label will be retained in the pharmacy department as the record of issue.

28.9.1.8 The empty/used cylinder must be returned to the cylinder store.

28.9.1.9 Ward staff must complete the sections on the label for “In Use” and “Empty” at the appropriate times.
28.9.1.10 Cylinders that were “Temporary Stock” or are no longer required must be returned as soon as possible by contacting the pharmacy staff who will require information on the number and size of cylinders to be uplifted. Pharmacy staff will notify the Logistics department to arrange uplift.

28.9.1.11 All returned cylinders will be considered “empty” and returned to the supplier at the earliest opportunity.

28.9.2 Defective Cylinders

Gas suppliers usually classify defective cylinders under two categories: ‘faulty’ and ‘incident’.

28.9.2.1 Faulty Cylinders

28.9.2.1.1 Cylinders are described as faulty where the complaint is minor and patient safety is not at risk. Typical complaints that are classified as faulty are:

| Contents: | Empty or part-full (where the cylinder is not required for immediate use). |
| Cylinder: | Faulty valve operation |
|          | Damaged valve outlet |
|          | Minor leaks from valve |

28.9.2.1.2 If a cylinder is thought to be faulty, the pharmacy department must be contacted with a description of the fault, the batch number, filling date, expiry date, cylinder size code and gas for each affected cylinder. Arrangements will be made for a replacement to be supplied. Any reports of faulty cylinders must be recorded on the Datix reporting system.

28.9.2.1.3 The label of the faulty cylinder must be marked “FAULTY DO NOT USE”. The faulty cylinder must be segregated from other cylinders. A faulty cylinder must not be returned to the cylinder store unless it is labelled appropriately. The faulty cylinder should be held in quarantine within the store.

28.9.2.1.4 The pharmacy will contact the supplier to inform them about a faulty cylinder. The supplier will supply a suitable label, which will be passed to the Logistics staff who must ensure uplift of the faulty cylinder at the next delivery.

28.9.2.2 Incident Cylinders

28.9.2.2.1 Incident cylinders are described as such where the complaint is serious and patient safety has considered to have been at risk. Examples are:

| Contents: | Wrong gas in cylinder or wrong gas specification |
|          | Gas contamination in cylinder |
|          | Abnormal patient reaction to gas |
|          | Cylinder empty when required for immediate use |
|          | Doubts about gas identity |
|          | Incorrect labelling |
| Cylinder: | Shell failure/damage |
|          | Ignition of shell or valve |
|          | Discharge from safety valve or bursting disc |
28.9.2.2.2 If a cylinder is considered an incident cylinder, the pharmacy department must be contacted with a description of the issue, the batch number, filling date, expiry date, cylinder size code and gas for each affected cylinder. Arrangements will be made for a replacement to be supplied. Any reports of incident cylinders must be recorded on the Datix reporting system.

28.9.2.2.3 The label of the incident cylinder must be marked “INCIDENT CYLINDER DO not use”. The incident cylinder must be segregated from other cylinders. An incident cylinder must not be returned to the cylinder store unless it is labelled appropriately. The incident cylinder should be held in quarantine within the store.

28.9.2.2.4 The pharmacy will contact the supplier to inform them about the incident cylinder. The supplier will supply a suitable label, which will be passed to the Logistics staff who must ensure uplift of the incident cylinder at the next delivery.

28.10 Emergency procedures

28.10. Alarm systems

28.10.1.1 A comprehensive system of alarms situated in the telephone switchboard or other permanently manned location covers all points of supply of medical gases, including the manifold supplies of nitrous oxide, and Equanox, liquid oxygen plant and medical air compressors. This alarm system complies with the recommendations of SHTM 02-01.

28.10.1.2 Any queries associated with the alarm system should be directed in the first instance to the Estates Services.

28.10.1.3 The switchboard operator must immediately contact the Estates Services if any of the alarm indicators are activated.

28.10.2 Indicator panels

28.10.2.1 In addition to the main alarm system panel located in the telephone exchange or permanently manned location, there are indicator panels located in theatres, intensive care areas and certain wards throughout the hospital. These indicate pressure only and will activate on a pressure drop/rise to that area. These panels only indicate on the type of gas supplied to the area in question.

28.10.2.2 Technical services staff check indicator panels regularly. Ward/theatre staff must report any incident of a pressure drop by calling the Estates Services emergency number.
28.10.3 Failure of liquid oxygen supply

28.10.3.1 The liquid oxygen plants are the property of Air Products who are responsible for servicing and breakdown maintenance.

28.10.3.2 Monitoring the liquid oxygen tank gauges on a daily basis and implementation of any subsequent action required is the responsibility of the pharmacy.

28.10.3.3 There are 4 gauges associated with the liquid oxygen plant.
   - Contents indicator.
   - VIE tank pressure.
   - Line pressure.
   - Reserve pressure.

   If the reading on the line or reserve pressure gauges falls below the minimum level the following actions must be taken immediately:-

   a) Inform an Authorised Person from Estates Services who must check the system for leaks.

   b) Inform the pharmacy who must ensure that an urgent order is placed with Air Products.

   If the reading on the contents indicator falls below the minimum level, an alarm rings in the switchboard. The following actions must be taken immediately:-

   c) The switchboard operator/security officer informs an Authorised Person from Estates Services who must check the situation.

   d) If the liquid oxygen supply is below the minimum, the Authorised Person must immediately contact supplier (oxygen deliveries telephone number is indicated at compound) and inform the pharmacy who must ensure that an urgent order is placed with Air Products and who must inform the Director of Pharmacy or Deputy.

   e) The Authorised Person must inform Estates Services, Director of Pharmacy or Deputy, and Chief Nurses.

28.10.4 Failure of manifold medical gas supply system

28.10.4.1 The manifolds are monitored via alarms to the hospital telephone switchboard where alarm-warning lights are constantly under view. If the alarm rings, the switchboard operator must immediately inform an Authorised Person from Estates Services who must check the situation and take necessary action. In the event that supply of gas to the pipeline cannot be maintained, the Authorised Person must immediately inform the Estates Manager, the Director of Pharmacy or Deputy, the Chief Nurse, the Duty or Site manager and if appropriate the transport manager, Air Liquide or Air Products.

28.10.5 Action in the event of a fire

In the event of a fire, it is stressed that the safety of all personnel must be the first priority.

28.10.5.1 Initial actions

28.10.5.1.1 As soon as a fire is discovered, immediately operate the Hospital Fire Procedure and notify the Fire Services, warning them of the presence of pipeline gas or compressed
gas cylinders. A key for the medical gas cylinder store is immediately available from either the pharmacy during opening hours or from the security officer on duty at any time.

28.10.5.1.2 When the Fire Services arrive on the scene, the Designated Nursing Officer must consult with the fire officer in charge and an Authorised Person from Technical or Estates Services to decide whether the area valve for the supply of pipeline gas should be closed. If such action is required other areas affected by this action must be notified immediately. The supply to patients may require to be maintained by means of portable cylinders.

28.10.5.1.3 Cylinders involved in the fire that cannot be removed safely may burst due to excessive heat and therefore the immediate area must be evacuated.

28.10.5.2 Subsequent actions
28.10.5.2.1 Cylinders in other areas, which might become involved in the fire, should be moved to a safe location, provided it is safe to do so.

28.10.5.2.2 Unless you are trained in the use of either fire extinguishers, do not attempt to fight a fire in which cylinders are directly involved.

28.10.2.3.1 If you have appropriate training, endeavour to keep the cylinders cool by using either a fire extinguisher from a protected area. Do not take any undue risks.

28.10.2.3.2 If a cylinder is connected to, but is some distance away from, an apparatus involved in a fire, and it is safe to do so, close the valve and if possible remove the cylinder from the area.

28.10.2.3 After the fire

28.10.2.3.1 Cylinders which have been involved in a fire will be treated as incident cylinders. These must be identified and segregated from other cylinders. Under no circumstances should their contents be used. Pharmacy must be contacted and notified of the incident. The supplier must be informed and the affected cylinders returned for examination.

Business Continuity Planning will have to be considered when determining action in the event of an emergency, similar to the above. This Policy does not provide a site solution for such planning and further work will be required by appropriate managers to ensure continuity of service.
28.11 Appendix 1 - Classification of gas cylinders

Gas cylinders are classified into two main categories - medical and non-medical cylinders. These two categories must never be mixed, either in storage or in use. Gas cylinders are further subdivided into four groups depending on the risk associated with the cylinder contents. Medical gas cylinders present hazards due to a.) the nature of the contents and b.) the fact that the contents are susceptible to mechanical or heat related damage.

Group 1     - Flammable
Group 2     - Oxidising (and/or supports combustion)
Group 3     - Toxic or Corrosive (contents may also be flammable or oxidising)
Group 4     - Others (including inert gases)

The majority of medical gas cylinders used fall into group 2 with helium and carbon dioxide classified in group 4. Gases other than oxygen are considered to pose a hazard in an enclosed environment where they may replace air.

Medical gas cylinders available through Pharmacy

Medical Oxygen (compressed)
Medical Nitrous Oxide
50% Oxygen/50% Nitrous Oxide Medical Gas Mixture (Equanox®)
Medical Air
Medical Carbon Dioxide
Medical Helium
Nitric oxide
5% Carbon Dioxide/Oxygen Medical Gas Mixture
21% Oxygen/Helium Medical Gas Mixture
* 10% Carbon Dioxide/Oxygen Medical Gas Mixture
* 20% Carbon Dioxide/Oxygen Medical Gas Mixture
* 5% Carbon Dioxide/Oxygen Medical Gas Mixture
* 9% Helium/35% Oxygen/Nitrogen Medical Gas Mixture
* Lung Function Medical Gas Mixture 1
  (0.28% Carbon Monoxide/14% Helium/18% Oxygen/Nitrogen Mixture
* Lung Function Medical Gas Mixture 2
  (0.30% Carbon Monoxide/10% Helium/18.8% Oxygen/Nitrogen Mixture
* Lung Function Medical Gas Mixture 3
  (0.28% Carbon Monoxide/9% Helium/19% Oxygen/Nitrogen Mixture
* Lung Function Medical Gas Mixture 4
  (0.30% Carbon Monoxide/10% Helium/21% Oxygen/Nitrogen Mixture

* Available from BOC special gases, via the Pharmacy Department.
Please read this information carefully. Ask your nurse if there is anything you do not understand.

You are currently being treated with oxygen therapy. Normally, your body gets enough oxygen from room air. The extra oxygen you are being given will help ensure that your body functions well while you are ill or recovering from your operation.

PLEASE REMEMBER

Oxygen is a fire hazard and must not be used in the presence of a naked flame. Lighters, matches, etc., must be removed from the area where oxygen therapy from the area where oxygen therapy is being used.

⚠️ It is essential that no-one smokes in the same room while you are receiving oxygen therapy.

Do not let children or untrained people tamper with the oxygen therapy equipment.
28.13 Appendix 3 - Guidelines for the safe use of oxygen in the home

These guidelines are intended to supplement practical training and demonstration and for reference. Ensure that you know how to handle, store and operate medical gas equipment while the trainer is present.

Storage of cylinders
- Keep cylinders under cover, preferably inside, and not subjected to extremes of heat or cold.
- Keep areas where cylinders are stored dry, clean and well ventilated.
- Store cylinders in separate areas away from highly flammable liquids and other combustible material and away from sources of heat and ignition.
- Store cylinders so that they do not become dirty or rusty. They must never be repainted, have any markings obscured or any labels removed.

Preparation for use
- Cylinder valves and associated equipment must never be lubricated and must be kept entirely free from oil and grease.
- First, remove the disposable coloured seal fitted to the valve by tearing it. The valve cap may then be removed from the valve outlet but should not be discarded, so that it can be replaced when the cylinder is empty.
- Check the valve for signs of oil or grease. If oil or grease is discovered on the valve, do not use the cylinder but return to your pharmacist as soon as possible.
- Open the valve for a few seconds to blow any grit or foreign matter out of the valve outlet. Hold the jet away from your body during the process.
- Ensure that the connecting face on the regulator bullnose is clean and that the ‘O’ ring is in good condition.
- Attach the regulator. Only a reasonable amount of force should be used to tighten the regulator to the valve.
- Use the appropriate regulator and follow the regulator operating instructions.
- Slowly, open the cylinder valve fully. Then close the valve one-quarter turn to distinguish between an open and closed valve.
Leaks

- A hissing noise may indicate a leakage of gas.

- Leaks may occur at the connection between the valve and the regulator. Check by closing the cylinder valve. A fall in the reading on the pressure gauge attached to the equipment confirms a leak at this connection. Tighten the connection to the valve or replace the ‘O’ ring seal to cure the leak. Sealing or jointing compounds should never be used to cure leaks.

Cylinders with damaged or leaking valves or leaks in other parts of the equipment should be labelled and returned to the pharmacist as soon as possible, with a note of the nature of the fault.

Use of cylinders

- Whenever practical, keep cylinders near to an exit so that they can be removed quickly in an emergency such as a fire. However, make sure that they do not block the exit.

- Before use, ensure that the cylinder is placed in a safe position, secured so that it cannot fall over.

- Do not allow smoking or naked lights in the same room as a cylinder in use, or areas where cylinders are stored.

- Only sufficient force should be used to close a cylinder valve. Excessive force will result in damage to the valve.

- Always close the cylinder valve directly after use, and release the pressure in the regulator.

- When the cylinder is empty, close the valve and place the plastic cap over the valve outlet to prevent moisture entering the cylinder.

- Do not keep empty cylinders. Advise your pharmacist to collect them as soon as possible.

Procedure in the event of a fire

- As soon as a fire is discovered notify the fire services, warning them of the presence of compressed gas cylinders.

- Keep cylinders that have been involved in a fire apart from other cylinders. Do not use them under any circumstances. Inform your pharmacist immediately so that they can be returned to the supplier.
### Appendix 4 - Safety Precautions for gas handling and transportation

1. Before use, identify the gas type by checking the official labelling and markings on the cylinder.

2. Understand the properties and hazards associated with the gas before using it.

3. Oil and grease should not be allowed on valves or cylinders. Valves must always be closed when not in use.

4. Do not attempt to repair or modify cylinder valves or safety relief devices.

5. Never use a cylinder without appropriate regulator, the pressure within a cylinder is approx 137 bar.

6. Do not attempt to lift a cylinder by the valve guard or remove valve guards.

7. Always transport cylinders in an upright position.

8. Protect eyes, hands and feet when handling cylinders. Always wear goggles, gloves and safety boots.

9. Never smoke when dealing with gas, nor use direct heat on a cylinder.

10. Ensure cylinders are secure and unable to move in the vehicle. Open vehicles are recommended.

11. Fire extinguishers should be available and gas information sheets carried on any vehicle transporting gas cylinders.

12. Keep cylinders cool and away from intense heat.
28.15 Appendix 5 - Product Hazard Data Information

<table>
<thead>
<tr>
<th>Handling Equanox</th>
<th>Handling Oxygen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Hazards:</strong></td>
<td><strong>Main Hazards:</strong></td>
</tr>
<tr>
<td>× Should be stored in conditions between 10°C and 39°C. If these temperatures cannot be maintained, bring to room temperature and invert cylinder several times.</td>
<td>× Store in cylinder under pressure (normally 137 bar or 2,000 psi)</td>
</tr>
<tr>
<td>× Stored in cylinders under pressure (normally 137bar or 2,000psi)</td>
<td>× Gas is colourless, odourless and tasteless.</td>
</tr>
<tr>
<td>× Has a sweetish odour and is heavier than air so will collect in confined spaces.</td>
<td>× Gas is slightly heavier than air.</td>
</tr>
<tr>
<td>× Strong oxidant, will cause things to burn more rapidly.</td>
<td>× Strongly supports combustion, will cause things to burn more rapidly.</td>
</tr>
<tr>
<td>× Will react violently with oils or grease.</td>
<td>× Above 23% in atmosphere normally flammables may catch fire.</td>
</tr>
<tr>
<td>× Will cause narcotic effects.</td>
<td>× Above 27% non-flammables may burn.</td>
</tr>
<tr>
<td>× Can cause a cold burn by rapid expansion of gas if opened onto skin.</td>
<td>× Oils, greases etc will react violently with oxygen.</td>
</tr>
<tr>
<td>× Cylinders in a fire may rupture and explode, feeding the fire.</td>
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<tr>
<th><strong>Main Precautions:</strong></th>
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<tbody>
<tr>
<td>* Use only Equanox specific equipment on this gas cylinder</td>
<td>* Use only specified equipment on the gas cylinder</td>
</tr>
<tr>
<td>* Before attaching regulators ensure the valve is clean and has no oils or grease or other contaminants including substances from your hands such as petroleum jelly or hand creams.</td>
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</tr>
<tr>
<td></td>
<td>* There is a great deal of stored energy inside the gas cylinder so open the valve slowly.</td>
</tr>
<tr>
<td></td>
<td>* If you transport by car, always store it securely in the boot with the valve shut. Do not transport within the passenger compartment as leaks may impair your judgement as Equanox is a powerful analgesic and mild anaesthetic.</td>
</tr>
<tr>
<td></td>
<td>* Store securely inside the boot, ensure the cylinder does not move about either by using a bracket or keeping the cylinder immobile in an appropriate padded storage bag.</td>
</tr>
<tr>
<td></td>
<td>* If the cylinder leaks, evacuate the vehicle. Ensure adequate ventilation and eliminate sources of ignition.</td>
</tr>
<tr>
<td></td>
<td>* Leaks will collect at low level, as Equanox is heavier than air. Gas can be quickly dispersed by flow of fresh air.</td>
</tr>
<tr>
<td></td>
<td>* Keep the cylinder away from other flammable gases.</td>
</tr>
<tr>
<td></td>
<td>* Do not smoke or have any other source of ignition when using this gas.</td>
</tr>
<tr>
<td></td>
<td>* Ensure adequate ventilation.</td>
</tr>
</tbody>
</table>

Emergency Phone No 0800 0567 345

Emergency Phone No 0800 0567 345
GUIDELINES FOR WOMEN USING EQUANOX® AND OXYGEN DURING A HOME BIRTH

Please read this information carefully. Ask your midwife if there is anything you do not understand.

One cylinder each of Equanox® and oxygen will be delivered to your home between the 36 and 37th week of pregnancy. Your midwife will teach you how to use these. The Equanox® is to relieve pain during labour. The oxygen is for your baby’s use in the rare event that extra oxygen is needed.

PLEASE REMEMBER

Equanox® (50% oxygen and 50% nitrous oxide) and oxygen are fire hazards and must not be used in the presence of a naked flame. Lighters, matches, etc., must be removed from the area where Equanox® and oxygen are being used.

It is essential that no-one smokes in the same room while you are receiving Equanox® or oxygen.

Do not let children or untrained people tamper with the Equanox® or oxygen equipment. No oil, grease, acid or corrosive substances may be kept near these cylinders.

Your midwife will arrange for return of these cylinders when you no longer require them.
29 References
Medicines Act 1968.


Misuse of Drugs Act 1971 and associated regulations.


Good Practice Statement for the Preparation of Injections in Near-patient Areas, including Clinical and Home Environments. Scottish Executive Health Department, Clinical Resource and Audit Group, December 2002.


