

# **Carbogen and nicotinamide with radiotherapy for bladder cancer (BCON)**

Information for patients

---

## Bladder cancer and radiotherapy

This information booklet will give you more information about a treatment you will be having as part of your bladder cancer care.

You have cancer in the bladder which requires a course of radiotherapy. We know from experience that in some patients radiotherapy alone does not completely remove the cancer. Cancer cells which have low levels of oxygen are less sensitive to radiation than those with normal or high levels of oxygen. As a result, our current standard radiotherapy treatment involves measures that help to increase the levels of oxygen in the tumour. This is done in two ways:

### Carbogen

This is a gas made up of 98% oxygen and 2% carbon dioxide which is given through a breathing mask while you are lying on the radiotherapy couch receiving treatment. The mixture of gases (carbogen) is usually managed well with few recognised side effects. Other than the mild discomfort of wearing a mask, some patients feel a little short of breath which lasts for a few minutes. With practice and experience most patients overcome this and no longer notice any side effects after a few treatments.

### Nicotinamide tablets

Also known as Niacinamide or Nicotinic Acid. This is a vitamin which helps increase blood flow in the tumour.

The tablets will need to be taken 1½ - 2 hours before the radiotherapy treatment. Nicotinamide (Niacinamide) has a few side effects associated with it. The most common side effects are nausea and less commonly headaches, dizziness, and flushing. These effects may be reduced by taking the tablets with food. If you suffer from any of these side effects, please let us know. We may suggest either reducing the dose or stopping the tablets. However, if you have no

problems, you will be asked to take the tablets before each radiotherapy treatment throughout the course of your treatment. The tablets only need to be taken on days when you receive treatment, usually this is Mondays to Fridays and not at weekends.

## General advice

Both nicotinamide (Niacinamide) and carbogen have been used widely across the world during the development of this form of treatment.

The main side effects of having radiotherapy to the bladder are discomfort in your bowels, loosening of bowel motions, an increased frequency and urgency of urination, stinging during urination and fatigue. You will be asked to empty your bladder before treatment each day.

During your treatment you will be seen weekly by your clinical team to assess for any side effects of the treatment. The radiographers on the treatment machines will also perform routine checks daily and ask about any issues you may have and ensure you are managing to take the tablets every day.

For more information about the radiotherapy treatment, please refer to the “Radiotherapy to the Bladder” booklet which should be given to you prior to consenting to the treatment.

## Contact details

During your treatment, you can speak to the treatment radiographers, radiotherapy nurses or other members of the clinical team if you are experiencing problems.

The uro-oncology clinical nurse specialists can also be contacted via the Cancer Navigation Hub on 0300 123 1600.

You can also contact the Cancer Treatment Helpline on 0800 9177711.

