


# Information for patients and carers

## Bladder Carbogen and Nicotinamide Radiotherapy (BCON)

Decorative blue wavy lines at the bottom of the page, consisting of three overlapping bands of different shades of blue.

## Details of your treatment

This leaflet is designed for patients who are receiving BCON (Bladder Carbogen and Nicotinamide) alongside their radiotherapy for bladder cancer. You can also find useful information in the 'radiotherapy for bladder cancer' information leaflet.

The information in this booklet should not be seen as a replacement for talking with the radiographers, specialist nurses and doctors involved in your treatment and care.

## What is BCON?

Radiotherapy relies on the oxygen in your cells to cause damage to the cancerous cells. Healthy cells can recover from this damage, whereas cancerous cells cannot. BCON is a two-step method of increasing the amount of oxygen in your bladder cells, making your treatment more effective. One step is by administering Carbogen gas; and the other step is by taking a modified vitamin called Nicotinamide.

## What is Carbogen?

Carbogen is a mixture of Oxygen (98%) and Carbon Dioxide (2%) which will be administered for 5 minutes prior to your treatment. This will be delivered by a loose mask which you will wear for the duration of the administration. The effect of Carbogen gas is an increase in oxygen in the cells receiving radiotherapy. The levels of oxygen in your cells should return to normal shortly after treatment.

## What is Nicotinamide?

Nicotinamide is a modified form of Vitamin B3 which will be given to you to take in tablet form during your course of Radiotherapy. Nicotinamide increases the blood flow to the cancerous cells, which allows more oxygen to enter them. This effect is amplified when combined with Carbogen gas.

Once the prescription for Nicotinamide tablets is given to you, it will be your responsibility to take the Nicotinamide tablet **60 – 90 minutes before each treatment** appointment.

## What are the side effects of Nicotinamide?

Nicotinamide (also known as Nicotinic Acid) has several possible side effects. These can usually be helped by taking the Nicotinamide tablet with food. Side effects can include

- Nausea
- Dizziness
- Looser Bowels / Diarrhoea
- Headaches / Migraines
- Flushing

If you begin to suffer with any of these side effects, please inform a member of staff either in person when you attend for treatment, or via the phone numbers at the bottom of this leaflet. It may be the case that we reduce the strength of your dose or ask you to stop taking the tablets completely.

These tablets should be taken Monday to Friday, but not at the weekend. On your first day of treatment, you will also be given an anti-sickness medication to help with potential nausea.

Please inform a member of staff if you have been diagnosed with any conditions affecting your liver or kidneys. We will monitor your condition with weekly blood tests.

## Contact details

Should you require further advice or information please contact:

Radiotherapy Reception **(01772) 522923**

Appointments **(01772) 522931**

Transport **(01772) 522295**

**If you would like to watch a short radiotherapy information video, please scan the QR code below.**



## Sources of further information

[www.lancsteachinghospitals.nhs.uk](http://www.lancsteachinghospitals.nhs.uk)

[www.nhs.uk](http://www.nhs.uk)

[www.accessable.co.uk](http://www.accessable.co.uk)

<https://bnf.nice.org.uk/drugs/nicotinamide/>

<https://bnf.nice.org.uk/drugs/nicotinic-acid/>

<https://www.cuh.nhs.uk/patient-information/bladder-radiotherapy-with-carbogen-and-nicotinamide/>

## Stop smoking services

<https://www.nhs.uk/better-health/quit-smoking/find-your-local-stop-smoking-service/>

**Macmillan at Rosemere Cancer Centre**

<https://tinyurl.com/38z3d2fy>

**(01772) 523709**

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

[www.lancsteachinghospitals.nhs.uk/cancer-patient-information-leaflets](http://www.lancsteachinghospitals.nhs.uk/cancer-patient-information-leaflets)

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