

Photodynamic therapy for advanced bronchial carcinoma

**Understanding NICE guidance –
information for people considering the
procedure, and for the public**

August 2004



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Information from Interventional Procedure Guidance 87

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Issue date: August 2004

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Website: www.nice.org.uk

ISBN: 978-1-4731-8796-2

Published by the National Institute for Clinical Excellence
August 2004

Typeset by Icon Design, Eton
Print on Demand

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About this information

This information describes the guidance that the National Institute for Clinical Excellence (NICE) has issued to the NHS on a procedure called photodynamic therapy when it's used for advanced bronchial carcinoma. It is not a complete description of what is involved in the procedure – the patient's healthcare team should describe it in detail.

NICE has looked at whether photodynamic therapy is safe enough and works well enough for it to be used routinely for the treatment of advanced bronchial carcinoma.

To produce this guidance, NICE has:

- looked at the results of studies on the safety of photodynamic therapy for bronchial carcinoma and how well it works
- asked experts for their opinions
- asked the views of the organisations that speak for the healthcare professionals and the patients and carers who will be affected by this guidance.

This guidance is part of NICE's work on 'interventional procedures' (see 'Further information' on page 10).

About photodynamic therapy for advanced bronchial carcinoma

Bronchial carcinoma is a type of lung cancer where the cancer has developed in the air passages leading to the lungs. There are several different types of lung cancer – NICE has looked at photodynamic therapy as an option for the type called non-small cell lung cancer when it's not possible to remove the cancer in an operation. The aim is to try to make the cancer smaller to help with symptoms such as breathlessness.

Photodynamic therapy involves giving the patient something that makes them sensitive to light. A few days after this, the second stage of the procedure gets under way. A special piece of medical equipment is put down the windpipe and into the lung. It's used to shine light onto the cancer, which should by now contain the light-sensitive substance. The light activates the light-sensitive substance, starting off a chain of events that aims to destroy some of the cancer. Other possible options for patients include:

- removing some of the cancer through the windpipe
- radiotherapy using X-rays and other forms of radiation to try to make the cancer smaller
- using a laser to remove some of the cancer.

How well it works

What the studies said

Two studies compared what happened in people who had photodynamic therapy with people who had laser treatment. In both studies, the two treatments had similar effects on patients' symptoms.

In one of these studies, tests on how well the lungs were working seemed to show more of an improvement in the patients who had photodynamic therapy.

In the other study, the effects of the photodynamic therapy lasted for longer than the effects of the laser treatment (the average results were 50 days for photodynamic therapy compared with 38 days for the laser treatment). On average, patients who had the photodynamic therapy went on to live for another 265 days, whereas patients who had the laser treatment went on to live for 95 days.

What the experts said

The experts said that, overall, it wasn't clear how helpful it was to remove or destroy some of the cancer in these circumstances, either in terms of helping to ease patients' symptoms or in

helping them to live for longer. They also said doctors should be careful when deciding whether to offer this procedure to a patient, so that it is not tried in someone for whom it's not likely to be suitable.

Risks and possible problems

What the studies said

In one of the studies that compared photodynamic therapy with laser treatment, every patient who had photodynamic therapy had at least one problem after the treatment. In contrast, just under three-quarters of people who had the laser treatment had a problem afterwards. The most common problems among the people having photodynamic therapy were:

- inflammation of the airways (bronchitis) – 4 people out of 14 had this
- a skin reaction to the light-sensitive substance – 4 people out of 14 had this
- difficulty breathing – 3 people out of 14 had this.

One person died after having photodynamic therapy and their death was thought to be linked to the treatment.

What the experts said

The experts thought that, in general, photodynamic therapy was safe. They thought the main problems were likely to be skin reactions, bleeding, damage to the airway caused by the light-activated substance, blockage of the airway, narrowing of the airway some time after the treatment, and the formation of a hole joining the airway and the gullet (the medical name for this type of connection is a fistula).

What has NICE decided?

NICE has considered the evidence on photodynamic therapy for advanced bronchial carcinoma. It has recommended that when doctors use it for people with advanced bronchial carcinoma, they should be sure that:

- the patient understands what is involved and agrees (consents) to the treatment, and
- the results of the procedure are monitored.

NICE has encouraged doctors to send information about every patient who has the procedure and what happens to them afterwards to a central store of information. This is so the safety of the procedure and how well it works can be checked over time. The central

store of information is called the UK Central Cardiac Audit Database, and it is being run by the Department of Health.

Other comments from NICE

NICE commented that the studies that compared photodynamic therapy with laser treatment were good quality, but it also encouraged more research to be done on photodynamic therapy for advanced bronchial carcinoma.

What the decision means for you

Your doctor may have offered you photodynamic therapy for advanced bronchial carcinoma. NICE has considered this procedure because it is relatively new. NICE has decided that the procedure is safe enough and works well enough for use in the NHS. Nonetheless, you should understand the benefits and risks of photodynamic therapy for advanced bronchial carcinoma before you agree to it. Your doctor should discuss the benefits and risks with you. Some of these may be described above.

Further information

You have the right to be fully informed and to share in decision-making about the treatment you receive. You may want to discuss this guidance with the doctors and nurses looking after you.

You can visit the NICE website (www.nice.org.uk) for further information about the National Institute for Clinical Excellence and the Interventional Procedures Programme. A copy of the full guidance on photodynamic therapy for bronchial carcinoma is on the NICE website (www.nice.org.uk/IPG087guidance), or you can order a copy from the website or by telephoning the NHS Response Line on 0870 1555 455 and quoting reference number N0683. The evidence that NICE considered in developing this guidance is also available from the NICE website.

If you want more information on lung cancer, a good starting point is NHS Direct (telephone 0845 4647) or NHS Direct Online (www.nhsdirect.nhs.uk).

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