Cheaper, safer: new laser cure for cancer

Doctors are staggered by the results of an alternative treatment to radiotherapy and surgery, **Jon Ungoed-Thomas** and **Justin Stoneman** report

A LASER treatment that can cure some cancers without radical surgery or gruelling chemotherapy is set to be made available to an initial 45,000 patients a year.

A Department of Health expert report, due to be published in the new year, is expected to recommend that at least six new specialist centres should provide it on the NHS.

Some cancer experts believe photodynamic therapy (PDT) offers a fourth weapon in the battle against cancer, alongside the established surgery, radiotherapy and chemotherapy.

So far it has mainly been used to treat skin, head and neck cancers at a limited number of centres, but some consultants believe it has far wider potential. Trials are under way for the treatment of pancreatic, prostate, bile duct and bone cancer.

One of the main centres offering the treatment is University College London hospital, which has successfully treated about 1,700 patients. It is responsible for about 80% of all PTD treatment of head and neck cancer in England.

On Tuesday The Sunday Times watched as two head and neck cancer patients were treated by laser.

Colin Hopper, a consultant in head and neck surgery at University College London hospital and the Eastman Institute, who was conducting Tuesday's operations, said: "If you can get a needle to the tumour, you can treat it with a non-thermal laser and the results in some cases are staggering.

"It doesn't involve surgery, it doesn't have any lasting effects like radiotherapy and it doesn't make you feel ill or have an effect on your immune system like chemotherapy."

In one study 85% of patients with early-stage oral cancers who were given laser treatment saw their tumours disappear.

Some had recurrences, but 75% of the 114 patients in the trial were alive after two years.

The laser treatment is used in conjunction with a photosensitive drug. The laser combined with the drug changes oxygen molecules in a way that causes them to overwhelm and destroy the cancer cells.

Don Moulden, 58, a former sales manager, is convinced he owes his life to laser treatment. Moulden, from Buntingford, Hertfordshire, was diagnosed with lung cancer 11 years ago and was successfully treated with surgery.

When the cancer returned a few years later, he was told it was terminal.

He had PDT at University College London hospital in June 2006, paid for by a charity. It destroyed the tumours and he is still clear of the cancer.

"It saved my life and without it I would never have seen the birth of my granddaughter," he said last week.

"My health authority would have spent £20,000 for me to have radiotherapy or chemotherapy if they had been suitable, but they would not pay the £4,000 required for PDT. Patients are dying because people don't know about it."

The expert report will say there is now good evidence that PDT can cure cancer in some patients and it can be a cheaper and less damaging option than other established procedures.

It will also recommend new investment to research the laser treatment for a wide range of cancers.

PDT has already been approved by the National Institute of Clinical Excellence for some conditions, including some skin, head and neck, and lung cancers.

PDT is typically used to treat cancers near the skin, but has also been used to treat cancers in internal organs using endoscopes.

Alison Curnow, a principal investigator in clinical photobiology, who is based at the Royal Cornwall hospital in Truro, said: "PDT is a 21st-century treatment that has the opportunity to change people's lives. We're now at a turning point and it's very exciting."

It is very effective at curing some early-stage cancers and can be used for palliative treatment for patients for whom other treatments have failed.

It has cleared tumours in patients who were considered incurable.

A 2009 report by the Netherlands Cancer Institute and other international cancer centres studied 39 patients who had exhausted their treatment options and were considered to have incurable head and neck cancers at an advanced stage.

All the patients were given PDT. Nineteen saw their tumours initially disappear altogether. Nine patients were alive for three years or longer after the treatment and seven of these patients were declared free of cancer.

James Knowlson, 77, emeritus professor of French at Reading University, was successfully treated with PDT for mouth cancer about 12 years ago. He has remained clear of the disease.

"It was quite simply the luckiest day of my life when I was offered treatment by PDT," said Knowlson. "I had had surgery and radiotherapy and the cancer was still there. I am appalled and astounded that in many cases patients are still not being offered the treatment."

One of the early patients to be given PDT was Brian Elias, 62, the composer, who lives in London. Elias was treated in 1992 for cheek cancer and has been clear of the disease ever since. "It should be offered to a lot more people," he said.

The official Department of Health cancer reform strategy, headed by Professor Sir Michael Richards and published in December 2007, said PTD could have an "increasing role" in the treatment of cancer.

A new strategy document, to be published by the department shortly, is expected to emphasise the role of PDT.

Although PDT has been in use for two decades, clinicians have struggled to find sufficient funds to prove its effectiveness.

Sir Robert Naylor, chief executive of University College London Hospitals NHS Foundation Trust, said new funds were needed to research the treatment, adding: "I'm absolutely convinced that it works in selected patients for different types of cancer.

"It's not a new treatment, but it has never really been developed and we need to research the application across a range of other cancers."

The charity Killing Cancer, which has been working to support the treatment, estimates that it could save the NHS £2 billion a year.

David Longman, founder of the charity, said: "Some patients with cancer are being offered expensive and devastating surgery with no guarantee of a cure. They could instead be offered PDT, which is cheaper and can be just as effective."

Lord Lloyd-Webber, the composer, is among the charity's supporters. He was diagnosed with prostate cancer last year and had the gland removed.

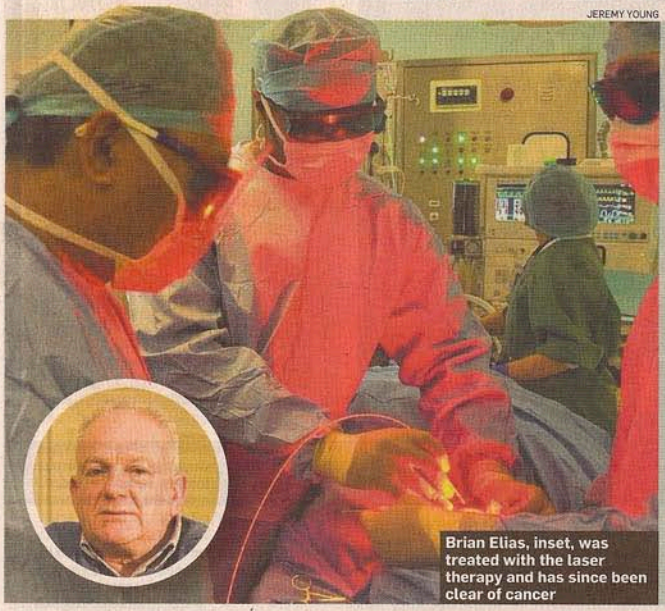
He said the treatment had "thrilling potential", although its use had been ruled out for him. "I explored options and discovered that my case was not eligible for PDT," he added.

Sir David Frost, another supporter, said: "It is incredibly exciting that the UK is a world leader in this marvellous advance. Millions of lives will be saved."

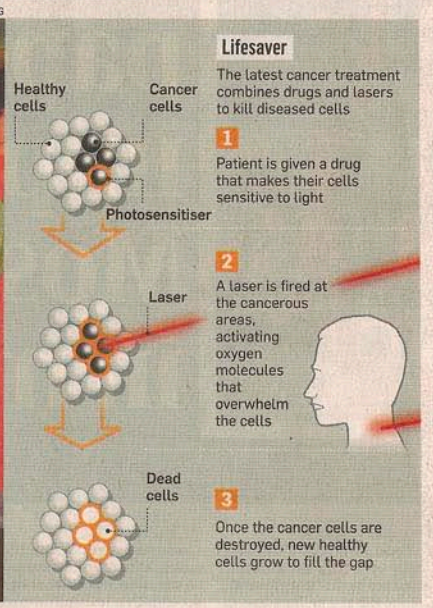
The Department of Health said the report on PDT would be published in the new year and it would be "inappropriate" to pre-empt the contents.

For more information on PDT, go to killingcancer.co.uk

JEREMY YOUNG



Brian Elias, inset, was treated with the laser therapy and has since been clear of cancer



SUNDAY TIMES ONLINE

ST To see footage of a patient undergoing the pioneering laser treatment, go to **thesundaytimes.co.uk/news**

Medical files

More than 1 in 3 people will develop cancer in their lifetime

About 298,000 new cases of cancer are detected each year and about 160,000 die from the disease annually

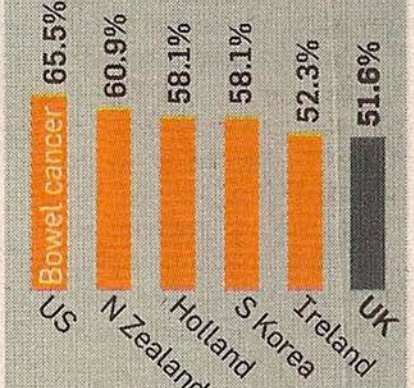
There are more than 200 types of cancer, each with different symptoms. However breast, lung, large bowel and prostate account for more than half of all new cases

In the past 30 years the number of people diagnosed with cancer has increased by 25%

The number of deaths from the disease has fallen by 20%

Survival rate

Percentage still alive after five years



Source: OECD 2009