

Twice a day radiotherapy halves treatment time and is equally good at treating small cell lung cancer

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Having radiotherapy once a day for six and a half weeks or twice a day for three weeks—when combined with chemotherapy—is equally good at treating small cell lung cancer that hasn't spread.

These results—from a Cancer Research UK-funded clinical trial presented at the ASCO cancer conference today (Sunday)—mean patients and doctors can choose together which treatment suits them best.

The CONVERT clinical trial—the largest trial ever completed in this group of patients—looked to find the best way of giving radiotherapy alongside chemotherapy for patients with small cell lung cancer.

The trial also found that small cell lung cancer patients live longer and with fewer side effects than previous studies suggested which is likely to be because of the modern radiotherapy techniques used.

Around 550 patients from around the world were split into two groups—one receiving radiotherapy twice a day over three weeks and the other once a day at a higher dose over six and a half weeks. All patients also had chemotherapy.

Scientists from the University of Manchester and the Christie Hospital with others in France, Spain, Belgium, Netherlands, Poland, Slovenia

and Canada compared survival and side effects for both groups.

They found that survival in both groups was similar with 56 per cent of patients who had radiotherapy twice a day surviving for two years compared with 51 per cent of those given it once a day.

Importantly, the majority of side effects from radiotherapy were similar in both groups, apart from neutropenia—weakening of the immune system - which happened more often in twice daily treatment group (in 74 per cent of the patients who had twice daily radiotherapy compared with 65 per cent of the once daily group).

The trial results support the use of either once daily or twice daily radiotherapy with chemotherapy as standard treatment for small cell lung cancer that hasn't spread. This means that individual patients' treatment can be planned with their doctor according to what works best for them and their hospital.

Previously there was no agreed dose for giving radiotherapy once or twice a day, but this trial has identified the best amounts as 66 grays once a day and 45 grays twice a day.

Although the trial will still be followed up for the full five years, the results have already changed clinical practice within the UK and internationally.

Professor Corinne Faivre-Finn, trial lead and Cancer Research UK-funded scientist from the University of Manchester and the Christie, said: "Before this study it was unclear whether having radiotherapy once or twice a day helped more patients survive for longer and what level of [side effects](#) was expected with modern radiotherapy techniques.

"We're pleased to provide answers to these questions and our results

have already begun to change practice around the world. Based on our findings, small cell [lung cancer patients](#) will be able to choose between a shorter course of radiotherapy given twice a day and a longer course given once a day."

Jane Jepson, a 51 year-old grandmother from Southport, who took part in the CONVERT trial four years ago and had radiotherapy twice a day for three weeks, said: "It's great to hear the good news from this trial, and I'm really pleased to have been involved in something that will change how other patients like me are treated. I was diagnosed with small cell lung cancer in August 2012—I was initially admitted to hospital with a kidney infection but an X-ray showed something on my lung.

"Since my treatment I have got married, my granddaughter has turned four and I've got another grandchild on the way. I shouldn't be here really but I am, and I'm eternally grateful to everyone involved in my treatment."

Dr Ian Walker, Cancer Research UK's director of clinical research, said: "Finding the most appropriate way to give treatments like radiotherapy is a crucial part of treating cancer. Before this study began there had been few large clinical [trials](#) of this type in small cell [lung cancer](#)." Outcomes for lung cancers have been very poor for a long time, so at Cancer Research UK we're dramatically increasing the amount we're spending on research in this area, and we're delighted that the CONVERT trial is making a real difference in how we treat these [patients](#)."

The cancer strategy for England called for national funding to urgently update and replace outdated [radiotherapy](#) equipment, but the Government and NHS England are yet to commit to this.

More information:

abstract.asco.org/176/AbstView_176_165387.html

Provided by Cancer Research UK

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