

Bowel cancer 'chemo swap' shrinks tumours, making surgery safer and easier

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Giving some bowel cancer patients six weeks of chemotherapy before surgery can significantly shrink their tumour, making it easier to remove and potentially reducing the chances of the cancer coming back, according to results from a major Cancer Research UK-funded pilot study published this month in *Lancet Oncology*.

Giving [chemotherapy](#) before [surgery](#) is already standard practice for several other cancers of the [digestive system](#) – including oesophageal, stomach and rectal cancers. This may be more effective at killing off any [cancer cells](#) that have broken away and spread elsewhere in the body, than if chemotherapy is delayed until after surgery.

But until now doctors had deemed it too risky to use this approach for colon cancers (part of the bowel) because, if tumours fail to respond to this treatment they continue growing, risking a potentially fatal blockage in the colon that requires [emergency surgery](#). Another challenge was to pick out which [patients](#) needed chemotherapy before surgery.

These results - from the pilot of the 'FOxTROT' trial - show that, using the latest [CT imaging](#) techniques, it is possible to safely and accurately select [colon cancer](#) patients who could benefit from having chemotherapy before surgery.

A total of 150 patients took part in the study from 35 hospitals around the UK. They were each randomly assigned to receive either six weeks of the [oxaliplatin](#)-based chemotherapy before surgery, followed by 18 weeks afterwards, or the standard treatment of 24 weeks of the same chemotherapy after surgery. All patients had 'locally advanced' tumours, that had grown through the colon wall or into nearby body organs but not spread to other part of the body.

Among those given six weeks of chemotherapy prior to surgery - followed by 18 weeks afterwards - 31 per cent (29 out of 94) of patients' tumours shrank significantly, with two patients' tumours reported as completely disappearing.

Chief Investigator Professor Dion Morton, from the University of Birmingham, said: "These feasibility results show that pre-operative chemotherapy can be delivered safely and efficiently, paving the way for a larger phase III study which, if successful, could completely change the way we treat colon cancer within five years.

"Shrinking the tumours beforehand makes them easier to remove, reducing the chances of any of the [tumour](#) being left behind. Importantly, all of the patients we treated in this way were well enough

to proceed with their surgery and they were no more likely to have complications that extended their hospital stay afterwards."

The trial also looked at adding a new targeted drug called panitumumab to some patients' treatment. Previous research has shown that this drug can help people with colon cancer that has spread, although this is the first time it has been used in patients prior to surgery.

But panitumumab only works in tumours that don't have faults in a gene called K-RAS. So first the researchers wanted to find out if it might be possible to carry out K-RAS testing on patients' tumours quickly enough to use panitumumab before surgery.

Professor Morton added: "We were able to show that genetic testing of patients' tumours could be carried out within an eight day timeframe – quickly enough to allow patients to potentially benefit from the latest targeted treatments without delay to their surgery or chemotherapy. This has never before been attempted in this group of patients and represents a major step forwards that could see more patients benefitting from such treatments in the future."

Alan Sugden, 64, from Kidderminster, was diagnosed with colon cancer in 2009, after initially going to his GP with suspected haemorrhoids and later being referred for a colonoscopy.

He was told by his doctors that he had probably had the cancer for about two years and when he found out he was eligible to join the FOxTROT trial, he jumped at the chance.

Alan said: "The trial definitely helped me. Having the chemotherapy before my operation helped shrink my tumour which made it easier for the surgeon. I think it's essential that people keep signing up to these type of trials to push forward the research. My cancer was treatable and

that's thanks to the work of organisations like Cancer Research UK who keep investing in these areas.

"I have since become a granddad for the first time and am enjoying spending time with my beautiful new baby granddaughter. I continue to travel and have just come back from another lovely holiday to Portugal. Life goes on and you have to make the most of things and keep on going."

More information: FOxTROT Collaborative Group, Feasibility of preoperative chemotherapy for locally advanced, operable colon cancer: the pilot phase of a randomised controlled trial, *Lancet Oncology* (2012), DOI: [10.1016/S1470-2045\(12\)70348-0](https://doi.org/10.1016/S1470-2045(12)70348-0)

www.cancerresearchuk.org/cancer-research/ery-for-bowel-cancer

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