

Outpatient treatment for cancer condition offers effective new approach for patients

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A novel approach to treating fluid build-up around the lungs of cancer patients could deliver a more effective home-based treatment for thousands of people who might be approaching the end of their lives, according to a new study led by the University of Bristol and North Bristol NHS Trust.

In [patients](#) with all types of [cancer](#) excess fluid can start to collect between the thin layers of tissue lining the outside of the [lung](#) and the wall of the chest cavity. This phenomenon, called a "malignant pleural effusion" and which is particularly prevalent in lung and [breast cancer patients](#), is estimated to affect at least 50,000 people in the UK each year with numbers increasing as both cancer survival and number of cancer diagnoses increases year-on-year.

As the lung becomes compressed by the surrounding fluid, patients will usually experience breathlessness and a dramatic reduction in quality of life. The commonest treatment for malignant effusions involves inserting a temporary tube between the ribs to drain the fluid, which allows the lung to expand. Before it is removed, medical talcum powder can be inserted down the tube to try to "glue" the lung to the inside of the chest wall to prevent further build-up of fluid.

However, while this treatment is relatively effective, the fact that it must be delivered in hospital over a number of days means that patients can experience additional distress because they are unable to be at home or with family.

The alternative "indwelling pleural catheter", or IPC method, has become increasingly popular in the last two decades and is now offered by many hospitals in the UK. This approach involves patients only being in hospital for a few hours to have a long-term drainage tube tunnelled under a short section of skin in the chest. After this, their fluid can be drained at home as often as needed, rather than in the hospital environment. The main downside to this method, however, is that the tube may need to stay in place for many months or longer because, unlike talc, the method is not designed to prevent fluid formation.

In a recent study, published today [Wednesday 4 April] in the *New England Journal of Medicine*, researchers from the University of Bristol and North Bristol NHS Trust spent four years working with patients in 18 UK hospitals to assess whether an alternative treatment approach, which combined talc with an IPC, could be delivered to patients who preferred to remain at home rather than be admitted to hospital for their [malignant pleural effusion](#).

One hundred and fifty four patients were randomly treated as outpatients with either an IPC alone, or with an IPC in combination with talc. The study showed that those patients given talc through their IPC were more than twice as likely to have their fluid dry up than those who were just treated as standard, with an IPC alone.

Dr Rahul Bhatnagar, Clinical Lecturer in Respiratory Medicine, who co-ordinated the trial, and Nick Maskell, Professor of Respiratory Medicine, who led the study, from the Bristol Medical School (THS) at the University of Bristol, said: "This could change how malignant effusions are treated around the world.

"Our study shows that by combining two common but previously separate treatments, those with cancer-related [fluid](#) around the lung can be more effectively managed at home than previously thought.

"For those who would prefer not to spend any time in [hospital](#), this combination is at least twice as good as any previous option. Most patients who are having an IPC should now be considered for talc treatment as well."

The researchers plan to continue to find ways to minimise the impact of malignant effusions on [cancer patients](#), particularly focusing on what patients feel is most important to them. The cost implications to the NHS of such a new [treatment](#) are also being investigated.

More information: 'Outpatient Talc Administration by Indwelling Pleural Catheter for Malignant Effusion' by Rahul Bhatnagar et al in *New England Journal of Medicine* [NEJM].

Provided by University of Bristol

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