

Men with early stage testicular cancer could avoid potentially harmful monitoring scans



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BY [CANCER RESEARCH UK](#)

Men who have had treatment for early stage testicular cancer could benefit from fewer monitoring scans, freeing them from some of the harmful radiation that comes from computerized tomography (CT) imaging, according to results* from the TRISST** clinical trial presented at GU ASCO conference today (Friday).

The Cancer Research UK-funded study also found that using magnetic resonance imaging (MRI) instead of CT scans was just as good at picking up signs of cancer relapse.

Using fewer CT scans, or swapping these for MRI, could expose men to less harmful radiation, which is particularly important when monitoring young men who are unlikely to die from testicular cancer.

Currently men with stage one testicular seminoma, which accounts for 40-50% of cases, have surgery to remove the affected testicle, and are monitored to see if the cancer has come back by having regular CT scans for 5 years. While essential, having a CT scan exposes men to some radiation, which may slightly increase their risk of developing other cancers later on.

Because of this, doctors want to find out if men can have CT scans less often, or have MRI scans instead, which don't use radiation, without seeing an unacceptable increase in cases where the cancer is only detected in its advanced stage.

In the largest study of its kind, the TRISST trial, led by researchers from The Institute of Cancer Research, London,

Leeds/Huddersfield and UCL, enrolled 669 men with stage one testicular cancer who had surgery to remove the affected testicle. Men were monitored either using the standard 7 CT scans, 3 CT scans, or the same two regimes using MRI scans***.

Results showed that 82 (12%) of the men saw their cancer return, but only a small proportion (10 men) had advanced stage disease at detection. The majority of relapses happened within 3 years (all but 5 of the men), suggesting that scanning beyond 3 years may be unnecessary.

When comparing the numbers of relapses that were detected at advanced stage, 9 (2.8%) were found in the 3-scan group compared with 1 (0.3%) in the 7-scan group. While this shows that some of the more advanced-stage relapses could have been detected earlier if given 7 scans rather than 3 ****, all men who relapsed were treated successfully. This indicates that the risks of the additional scans didn't outweigh the benefits of fewer scans.

When comparing the two types of scans, more advanced stage relapses were detected with CT (8 [2.5%]), compared with MRI (2 [0.6%]), but the difference was not significant, and all men in both trial arms were treated successfully.

Professor Robert Huddart, Professor of Urological Cancer at The Institute of Cancer Research, London, and Consultant in Urological Oncology at The Royal Marsden NHS Foundation Trust, one of the lead authors of the study, said: "When looking at a young population of men who are unlikely to die from testicular cancer, avoiding unnecessary radiation exposure is vital.

"We found that the benefit of having continued CT scans beyond 3 years was outweighed by the potentially harmful exposure to radiation, given the small number of men who relapse and our success at treating those patients. Our study also found that MRI could have real benefits for men with testicular cancer in achieving similar outcomes to CT but with lower doses of radiation. Reducing the number of scans men have could help alleviate the anxiety that some patients

experience, as well as easing pressure on the NHS.

“We are now collecting health economic data to see if using 3 MRI scans could be recommended as the standard surveillance plan.”

Richard, who was diagnosed with seminal testicular cancer in 2009, had surgery to remove the affected testicle and 7 CT scans that are the current standard of care. He said: “I’ve always considered myself fortunate to be diagnosed early, and only needing surgery and monitoring. But I know that lots of people, like my daughter Mya, absolutely hate hospitals and injections like the ones I had to have with every CT scan even more. For people like them, having to go for scans less frequently would be much less stressful, and it’s great to see research is happening to make sure that people are monitored in the best way possible after treatment.”

Michelle Mitchell, chief executive at Cancer Research UK, said: “Survival for early stage testicular cancer is almost 100%, which is an incredible outcome. With almost all men being treated successfully, optimising how they’re monitored after surgery could have huge impact. This is not just in terms of detecting if the cancer has relapsed when treatment is most likely to be successful, but also minimising potential harms that may come from scans. We will be eagerly following the next steps of this trial to see whether using fewer CT scans or MRI could be the new standard of care.”

Dr Fay Cafferty, project lead at the Medical Research Council Clinical Trials Unit at University College London, said: “These are relatively young men and, for most, their cancer won’t return. So striking the right balance with monitoring is crucial to avoid unnecessary radiation exposure and stress associated with hospital visits. TRISST has shown that relapses can still be detected at an early stage, and successfully treated, with fewer scans, and when using MRI rather than CT. These results will help to shape care for men with this type of cancer in future, allowing us to reduce their exposure to potentially harmful radiation whilst still providing effective monitoring.”

Researchers will build on the early findings of the study and

will explore the cost and effectiveness of MRI scans.

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