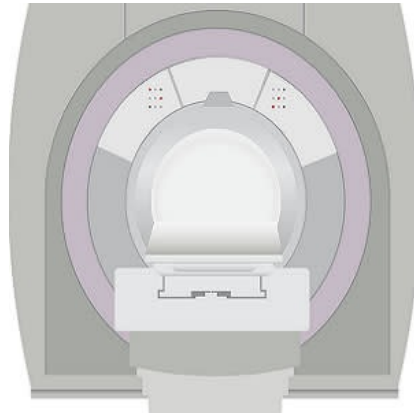




## Acceptability of whole-body MRI for staging colorectal and lung cancer



A new study sought to describe patient experience and acceptability of whole-body magnetic resonance imaging (WB-MRI) as a potential replacement for the modalities currently used for staging lung and colorectal cancer. The findings, published in the journal *BMJ Open*, confirm that WB-MRI can be a challenging experience and that staff support is important in modifying scan-related stress.

WB-MRI has been advocated as a safe, accurate and efficient "one stop shop" investigation that could potentially replace current complex multimodality staging strategies. For example it is not unusual for a patient with suspected lung cancer to undergo diagnostic CT, followed by staging positron emission tomography (PET)-CT, dedicated brain imaging and invasive mediastinal nodal sampling prior to the first major treatment decision. A single WB-MRI scan could not only accelerate staging but would simultaneously reduce exposure to ionising radiation, in theory reducing the risk of subsequent radiation-induced malignancies, particularly in those diagnosed at a younger age.

WB-MRI however can be stressful: its duration, 45-90 min, is longer than standard tests -- CT takes a few seconds. MRI scanners are noisy and require full body and head immersion into a relatively narrow tube, often necessitating coils wrapped around the patient that restrict movement. Between 5% and 30% of patients experience distress associated with the anticipated and actual experience of undergoing MRI. Anxiety relates to the scan experience itself as well as the result.

For this investigation, researchers performed a qualitative study using one-to-one interviews with thematic analysis. Patients were recruited from 10 hospitals in London, East and South East England between March 2013 and July 2014. The interviews were completed face to face (at home or at hospital) or via the telephone. Individual interviews were conducted to facilitate expression of emotions and negative experiences that may be inhibited in a group setting.

In all, 51 patients (31 male, age range 40–89 years) were included in the study. These patients were recruited consecutively from two parallel clinical trials comparing the diagnostic accuracy and cost-effectiveness of WB-MRI with standard scans for staging colorectal and lung cancer ('Streamline-C' and 'Streamline-L'). WB-MRI was offered as an additional scan as part of the trials.

The researchers observed that in general WB-MRI presented a greater challenge than standard scans, although all but four patients completed the WB-MRI. Key challenges were enclosed space, noise and scan duration; reduced patient tolerance was associated with claustrophobia, pulmonary symptoms and existing comorbidities. Coping strategies facilitated scan tolerance and were grouped into (1) those intended to help with physical and

emotional challenges, and (2) those focused on motivation to complete the scan, for example focusing on health benefit.

The study suggests that good staff communication could reduce anxiety and boost coping strategies by acting as a source of distraction, motivation and emotional reassurance, according to the research team. "The varied experiences encountered underline the need for staff interaction to be tailored. Advanced staff training to build rapport can reduce MRI non-completion rates and increase patient satisfaction," the team adds.

The researchers also note that the generalisability of their results may be limited as WB-MRI was performed within the context of a research trial and some patients declined participation citing claustrophobia.

Source: [BMJ Open](#)

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