

GP access to MRI: the Australian reality

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Abstract

Twelve months ago, the Australian Medical Association (AMA) called upon the Federal Labor Government to implement a previous coalition policy allowing general practitioners to directly refer patients for magnetic resonance imaging (MRI) scans of the knee and brain. To support their position, the AMA commissioned a University of Sydney report evaluating the health care and economic outcomes of the policy. The AMA reported that the results supported the policy and would result in a \$42 million saving from fewer computed tomography (CT) scans and fewer specialist referrals and consultations. Arguably, this was not an accurate portrayal of the results. Further research is needed, and ongoing dialogue with radiologists and other key stakeholders is urged, to ensure that access to MRI facilities will continue to meet future demand and that GPs will be adequately trained in utilising MRI services.

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IN OCTOBER 2007, the former Minister for Health and Ageing, The Hon Tony Abbott, announced that general practitioners could request two Medicare Benefits Schedule items (item 63328 and 63049) for magnetic resonance imaging (MRI) services from 1 January 2008.¹ Following Labor's election victory in November 2007, implementation of the policy was postponed. On 16 January 2008, Australian Medical Association (AMA) President, Dr Rosanna Capolingua, urged the government to implement the policy, saying that it would reduce waiting times for specialist appointments and benefit patients by expediting

treatment, especially in rural areas, where access to specialists is limited.² She said that the policy should be extended to allow GPs to refer patients for MRI scans for other medical conditions. She quoted a University of Sydney report, commissioned by the AMA, saying that the policy would save \$42 million per annum. Twelve months later, the policy has yet to be implemented.

The University of Sydney report

Britt and Miller³ assessed the costs incurred if the government allowed GPs to directly refer patients for an MRI scan. They conducted a secondary analysis of data obtained from a national survey of GP activity, "Bettering the Evaluation and Care of Health". This survey indicated that GPs frequently order computed tomography (CT) scans for medical conditions where MRI is the recommended initial investigation. These "MRI morbidities" include back pain, headache and symptoms of cerebrovascular disease. Royal Australian and New Zealand College of Radiologists Guidelines⁴ indicate that CT scans should only be performed when MRI is unavailable or inaccessible.

The researchers initially calculated the "current total costs" of managing MRI morbidities. This included:

- Cost of GPs ordering CT scans (because they could not access direct MRI referrals)
- Cost of specialist referrals by GPs (in order to obtain an MRI scan)
- Cost of specialists ordering MRI scans (where a CT scan or no scan was performed).

The authors noted that in 2005 in Australia, GPs managed MRI morbidities on 9.55 million occasions.⁵ Using cost estimates of \$342 per MRI scan, \$72 per initial specialist consultation and \$212 per CT scan, the authors estimated the total current cost of managing MRI morbidities at \$280 409 999 (with a 95% confidence interval of \$260 689 082 to \$299 942 537).

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The authors then quantified the cost of managing MRI morbidities under the policy. They found little evidence in the literature about the cost-effectiveness of allowing GPs to order radiology services, but they nevertheless hypothesised that if GPs were allowed to order MRI scans, 75% of CT scans ordered for MRI morbidities would be replaced by MRI scans and that they would refer to specialists 40%–50% of patients post MRI or CT scan, and 10% without testing. The authors do not indicate on what basis these figures were chosen, other than to say that the replacement rate would be less than 100% due to incomplete access to MRI facilities throughout Australia.

Using the previous cost estimates, the authors calculated that the new policy would cost between \$238 million (\$42 million saving) and \$292 million (\$12 million cost deficit), depending on the effect size of the policy on the rates of referrals for MRI scans or referrals to specialists.

The UK experience

General practitioners in the United Kingdom have referred patients with knee disorders for MRI since the mid-1990s.⁶ Studies have demonstrated that it enables prompt diagnosis and management of knee disorders in the primary care setting and results in a 41% reduction in specialist referrals.⁷ The pattern of GP referrals for MRI of the knee was similar to that of orthopaedic specialists, and appropriate guidelines were followed.⁸ More recently, a multi-centre randomised controlled trial found no significant difference in diagnosis or treatment of knee disorders when patients were referred for an MRI scan by a GP compared with an orthopaedic surgeon.⁹ However, GPs were significantly more confident in their diagnosis.¹⁰

Limitations of the research

Supporting this policy would cement the government's commitment to increasing expenditure on primary health and bring Australia in line with other developed countries, notably the UK. However, the policy needs to be properly evaluated in

the context of Australia's unique health care system. The research presented by the AMA and the University of Sydney does not address all of the issues.

Firstly, the report focuses entirely on the costs of CT and MRI scans, and specialist referrals. The study did not examine time to diagnosis. If it can be shown that direct GP MRI referrals reduce patient waiting time, then this could reduce the burden of disease in Australia for MRI morbidities, as well as reduce patient anxiety, and could result in wider economic benefits because patients can return to work sooner, but only if the policy can expedite treatment.

Secondly, although the report provided a useful commentary and analysis of MRI referral practices of GPs, there was very little evidence to support the conclusions drawn: in particular, the assumption that 75% of CT scans for MRI morbidity would be replaced with MRI scans or that GPs would order MRI scans for 50% of patients previously referred without a CT scan. The reasons why this scenario was considered most likely were not discussed and no supporting evidence was tendered. This calls into question the accuracy of the estimated costs.

Thirdly, the AMA has cited the best-case scenario of a saving of \$42 million if the policy is implemented. This represents only one end of a confidence interval, the other of which could be an additional cost of \$12 million.

Finally, the authors may have inflated the estimated total current costs of managing MRI morbidities by applying their cost estimates to all occasions on which GPs managed MRI morbidities. Not every GP occasion (with or without the policy) will result in referral to a specialist or referral for a CT or MRI scan.

Wider implications for health policy

Given the limitations of the existing research, the AMA's calls for GP access to MRI should be regarded with caution. Further research is required that investigates the effect of direct GP MRI referrals on the time to diagnosis and treatment. In addition, the Federal Government should

engage other key stakeholders, such as the AMA and Royal Australian and New Zealand College of Radiologists (RANZCR). RANZCR has previously lobbied the government to expand publicly funded MRI services, especially in rural areas,¹¹ and to restore Medicare rebates for radiology services,¹² the lack of which have left patients with increasing out-of-pocket expenses. Their insight and viewpoint would be a useful contribution.

Before widening MRI referrals to GPs, the Federal Government should ensure GPs are provided with training on the indications for direct referral for MRI and education on the interpretation and management of positive and negative MRI findings. This might involve liaising with RANZCR to update existing imaging guidelines that incorporate direct access to MRI scans for GPs.

The federal government should also ensure access to MRI facilities is enhanced, particularly in rural areas, to ensure that the system can cope with a potential increased demand. In particular, such facilities should be affordable. The AMA has stated that direct GP referrals for MRI scans will reduce time to diagnosis in rural areas where access to specialists is limited. However, this could only be achieved if the MRI facilities themselves are affordable and accessible.

Indeed, unless the federal government increases the Medicare rebate for MRI services, the potential increase in demand for MRI services as a result of such a policy might result in longer waiting lists in public hospital radiology departments because patients cannot afford community radiology services. This might be seen by the states and territories as a shift of responsibility and funding away from the federal government.

Conclusions

Although the policy appears to have been sidelined for now, the federal government has announced plans to increase the number of Medicare-eligible MRI services throughout Australia.¹³ This should be commended, as it will improve equality of access to imaging services for rural

and remote Australians. Although Australia can learn from experiences in the UK and other developed countries, the allocation of resources for imaging services is a good example of how health policy research must reflect the geographic, demographic and economic realities that exist in Australia.

Competing interests

The author declares that he has no competing interests.

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