Value-based reimbursement in a person-centred health care environment: Implications for The Australian and New Zealand Radiologist

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Introduction

Escalating health care costs in advanced health systems are unsustainable at current rates of growth. The dominant factor contributing to unsustainable health care costs is growth in volume of services per patient.¹ In particular, years lived with disability in chronic non fatal diseases, has not decreased despite advances in technology and rising health care costs. In an attempt to curb escalating costs, reimbursement policies are moving away from a fee for service model to a value-based reimbursement model.²,³ This will impact any speciality where remuneration is dependent on either activity-based funding (public system via Australian or New Zealand) or fee for service (private system via Medicare Australia or New Zealand). We should prepare for an era where remuneration may depend upon providing evidence of value rather than merely performing a health care service.

Value in health

Value is return on each dollar spent. In acute illness, value is measured as lives saved or lost per dollar spent. In chronic diseases, value is measured as Quality of life (QoL) gained or lost per dollar spent. Gathering evidence of value in acute illness may be easier in hospital radiology departments. Private radiology clinics that deal mostly with chronic conditions such as degenerative disorders of the spine and musculoskeletal system, may find it difficult to establish value. In Australia, revenue streams for public, private hospital or out of hospital radiologists depend on outpatient receipts from Medicare. Therefore, it is likely that most radiologists will be affected by a value-based reimbursement policy.

Social, economic, psychological and spiritual factors seem to have a significant bearing on QoL in chronic degenerative diseases in an ageing population. In many chronic diseases, QoL is measured using patient reported outcome measures (PROMs) instead of physician reported outcome measures. Judging health improvement in chronic diseases is dependent on how the patient ‘feels’ rather than a physician’s objective clinical endpoints. Patient reported outcome measures carry risks of inherent subjectivity and bias. Nevertheless, the QoL assigned by patients may determine value and affect revenue. For example, in patients with failed back surgery syndrome, a radiographic result of surgical spinal
fusional may not qualify for reimbursement if use of imaging does not affect QoL.

**Person-centred health care (as opposed to patient-centred medicine)**

There is a move towards ensuring that the person receiving care is at the very heart of any health care process. There is increasing emphasis on the ‘person’ rather than the ‘patient’ and ‘healthcare’ rather than ‘medicine’. Person-centred health care goes beyond a conventional patient doctor relationship. The patient is empowered to accept or refuse treatment on the basis of their belief systems, culture and their immediate social surroundings to improve the overall experience and outcome of their health. How do diagnostic radiologists provide person-centred care particularly in chronic diseases? Or perhaps, should we ask the more important question, why should radiologists provide person-centred health care and establish patient doctor relationships?

**Evidence of value**

In the not too distant future, the performance of a radiologist may not be judged on parameters that reflect preparation of imaging reports or performing procedures. Evidence of value rather than assertions of good outcome may be required for reimbursement. We should be able to establish that our work either reduces mortality and more importantly, that we improve QoL. This means, radiologists may be dependent on informatics, metrics and analytics to produce evidence for reimbursements. Evidence of health outcomes from our day to day work may become mandatory. How does this change our current working style?

**Working style**

It may become necessary to establish true patient doctor relationships to ensure patients recognise our contribution to their care. Non procedural radiologists may not be ‘seen’ by patients as contributing to their health care process. As a result, patients may not allocate diagnostic radiologists any credit for their input. This is especially relevant in high volume diagnostic imaging private practices. It may be argued that patient contact is achieved while performing an injection/ablation or supervising a musculoskeletal ultrasound. This is not enough to establish a patient doctor relationship. Radiologists will therefore be very vulnerable to incorrect perceptions and unfair control mechanisms. Incorrect perceptions about radiologists exist beyond patients within the wider health care sector. For example, both ‘Radiology’ and ‘Radiologists’ are not listed under medical services in a number of Australian hospital websites. Instead, we are listed under ‘support, other or ancillary services’, together with massage, chaplaincy, pharmacy, physiotherapy, dietician or occupational therapy. Until now, this lack of credit and recognition has not directly affected ability to deliver services and reimbursement. We cannot continue to afford such risks in the future.

Direct patient contact by most Tier B procedural radiologists has improved recently, with many establishing true patient doctor relationships. How do Tier A and non procedural or private practice radiologists engage with patients? How do we balance our reporting commitments and maintain direct patient contact? How do we make sure that patients, other stake holders and the wider public recognise that we are medical practitioners and differentiate us from imaging technologists and allied health practitioners?

The answer may be a return to bedside medicine. We should complement our radiology skills with clinical skills. For example, when we see patients with abdominal pain, we should obtain a focused history and perform a brief clinical examination of the abdomen prior to an ultrasound or CT. This may help us issue a definitive clinical-radiological report that will either stop a negative laparotomy (avoid unnecessary medical risk) or affirm prompt intervention (and prevent death from sepsis). Each unnecessary surgery prevented will add value to our existence. Increased direct patient contact may require more depth in our scope of practice. How does this affect training future radiologists?

**Training future radiologists**

Future reimbursements may be linked to what patients think about our role in their health care. This means, being visible to the patient may become fundamental to our existence. Future trainees may have to rotate through wards and outpatients of various specialities. It is impossible for a radiology trainee to examine every patient who has a chest x-ray. Specialist radiology training with a component of direct patient contact allows future radiologists to position themselves as medical practitioners in an environment where radiologists are increasingly seen as technicians or allied health practitioners. Radiology trainees may improve their clinical examination skills, routine in-hospital management of patients and also be able to manage incidental versus clinically relevant imaging diagnoses by direct clinical radiological correlation. Such significant changes to trainee placements depend on redesign and implementation of new models of care and service delivery. New models of care are usually driven by necessity and a culture of innovation by research. However, these tend to thrive only when there are favourable government policies.

**The voice of the radiologist**

Our current perception of professional excellence is largely confined to diagnostic accuracy, efficacy and cost-effectiveness of imaging. By default, most of our
scientific output has empowered the speciality of ‘Radiology’ in comparison to the specialist ‘Radiologist’. Technology has made radiology more accessible to non radiologists. More non radiologists use imaging equipment and their ability to learn radiology has been accelerated by PACS. Access to the full clinical picture adds further advantage to non radiologists. In this environment of increasing encroachment on radiology, the added possibilities posed by artificial intelligence may tip the balance and the radiologist may become less important or even dispensable.

Radiology journals should widen their platform and include articles on QoL outcome research. It is likely that little if any QoL research is presented to radiology journals. This is a result of the culture in radiology with less inclination towards research compared to other specialties, reduced access to research time/funding and lack of knowledge of the importance of QoL in health outcome. Measuring and demonstrating impact upon QoL is inherently difficult in radiology with the exceptions of interventional radiology and PET. Whilst our peak professional bodies advocate direct patient contact and health outcome measurement in training programmes, radiology journals and scientific meetings should facilitate radiologists in their efforts to publish QoL outcomes. Such scientific output may position future radiologists on par with our referring colleagues as medical practitioners rather than as allied health practitioners or medical imaging technicians.

Summary

The present-day Radiologist is at increased risk of becoming dispensable as medicine shifts towards person-centred health care and reimbursements align with value. To ensure our survival, we should truly engage with patients. We should document the evidence that we improve patients’ QoL and prepare to make the case that our input as medical practitioners improves value in health care.

References