Payment systems to incentivize integrated care for patients with a hip fracture in an acute setting

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Introduction
Hip fracture in older people is one area where integration of services particularly within acute care can make a real difference to the quality of life and survival of patients. Many health systems have developed clinical guidelines and/ or minimum standards for managing older people with a hip fracture within the acute care setting and beyond. In addition, some systems have also developed incentives for managing hip fracture patients according to these guidelines/ standards through funding.

In 2013 the New South Wales (NSW) Agency for Clinical Innovation (ACI) formally documented a set of Minimum Standards (MS) for the management of older patients with hip fracture. The MS include an integrated model of care within the acute care setting, including management of the patient's pain as soon as they are attended to by ambulance services and/ or present to the emergency department, orthogeriatric model of pre and post operative management (which includes review of the patient by a geriatrician and joint management by a geriatrician and orthopaedic surgeon, and a multidisciplinary team approach to get the patient 'surgery ready' as quickly as possible), timely surgery, early mobilisation post surgery (and continued management of pain), and measures to prevent refracture prior to the patient leaving the acute care setting.

Some hospitals within the state had already adopted a number of the MS, as there had been work in this area since the early 2000s. In 2014 the ACI commissioned a formative review of the MS, with the aim of evaluating the MS themselves, articulating barriers and success factors for their implementation and identifying some early impacts of the standards on patient outcomes (including survival). This paper reports on this work as well as the implications of the findings for incentivizing integrated care for hip fracture patients in the acute setting through funding.

Methods
A mixed methods approach was used for the evaluation, which was guided by an evaluation framework. Quantitative data was analysed for all NSW hospitals. It included linked patient data with the ability to track individuals with hip fracture. The data included initial presentation to an emergency department, details of the patient's hospital inpatient stay and survival post the hospital admission. The data included transfers of patients between hospitals, which is particularly relevant for rural and/ or small metropolitan hospitals that don't perform hip fracture surgery and instead transfer patient's elsewhere. In addition, six hospitals were studied in depth, including interviews with a range of key staff. Three of the hospitals were considered early adopters of the MS, and three late adopters. The six case study hospitals manage 20% of all hip fracture patients in NSW.

Results
The results show a clear benefit in terms of survival of patients amongst the early adopter hospitals of the MS compared with the later adopters after controlling for various patient characteristics, but improvements overall for all hospitals implementing the MS. They also show improvements in time to surgery for all hospitals implementing the MS, with greater improvements in the earlier adopters. The findings regarding survival and early surgery are consistent with evaluations of similar international models. There was strong support for MS from all stakeholders, and the main barrier to implementation was competing priorities with other quality and safety initiatives.

Conclusions
The formative evaluation of the NSW MS for the management of older patients with hip fracture has shown that the actual standards, which are based on an integrated model of care within the acute setting are
sound, and that they have clear benefits in terms of patient survival, time to surgery and other measures. The study provides yet more support for the need to implement evidence based guidelines/ standards for an integrated model of managing patients with hip fracture. However, hospitals have many competing priorities, and one sure fire way to ensure that guidelines/ standards are implemented is through incentivizing this through funding. Australia is currently exploring this at a national level, and one state (Western Australia) has actually implemented such a system. This paper will reflect further on this, including drawing the experiences of systems internationally to achieve integration of care of hip fracture patients within the acute care setting.

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