A model of care for refracture prevention – urban and rural implementation in Australia

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BACKGROUND

Minimal trauma refracture admissions to hospitals in New South Wales (NSW) occur at a rate of 36% of those presenting for a first fracture. People admitted for a refracture have an average stay of 22 days in hospital and early mortality is seen in 17% of this cohort.

To address this social and health system problem the NSW Agency for Clinical Innovation’s Musculoskeletal Network launched a model of care (MOC) for osteoporotic refracture prevention in 2011. To inform state-wide implementation a Formative Evaluation was conducted that aimed to consider urban, regional and rural needs and resources.

AIMS

• To assess the effectiveness of the MOC in NSW settings
• To assess the ability to implement the MOC at very different sites in NSW – urban, regional and rural
• To assess the participant outcomes in the very different sites

METHODS

Three sites under study:
• Royal Prince Alfred Hospital (RPAH), central Sydney, NSW
• Royal Newcastle Centre (RNC), regional NSW
• Wagga Wagga Base Hospital (WWBH) rural NSW

RPAH and RNC have been functioning for greater than four years. WWBH was a ‘green field’ site implementing the MOC.

Each site participated in providing qualitative and quantitative data:
• The MOC used at their site
• Outcomes of up to 40 successive participants
• Processes used at their site to embed the MOC in their localities.

Health system data was sought for osteoporotic fracture admissions.

RESULTS: REFRACTURES

• 46.5% of people aged 50 years of age at ‘first’ minimal trauma fracture are likely to refracture within 24 months
• 10% reductions in all Minimal Trauma Fractures achieved after three years of full implementation
• Refracture rates after full implementation of the MOC at RPAH and RNC are 4.8% and 5.1% respectively

RESULTS: ACTIVITY & COSTS

• 250,000 bed days could be used for other patients
• Notional savings of $238 million realised
• 22,000 patient separations could be avoided
• 42,000 national weighted activity units (NWAUs) would be saved
• 242,000 refractures of previously admitted patients prevented
• 150,000 patient readmissions within 28 days avoided

CONCLUSION

The NSW Model of Care for Osteoporotic Refracture Prevention is suitable for implementation across a variety of geographical areas with a variety of demographics and resources.

Implementation will mean improved outcomes for people in NSW who have osteoporosis and for improved use of the NSW health system.

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