The Power of Innovation

A health care system to meet our needs

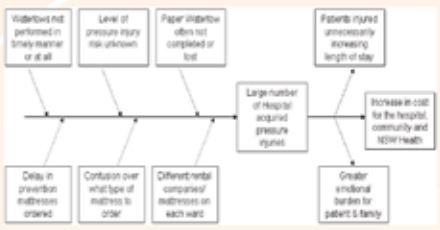
NSW Health Symposium Oct 2012

Waterlow Wednesday – Preventing Pressure Injury Improvement in Patient Safety

Introduction

Pressure injuries are associated with increased risk of death; one study found that elderly patients with pressure injury are three times more likely to die than those without.

Risk assessment and intervention based on risk level are key to prevention; recommended by pressure injury prevention guidelines .



Cause and effect diagram for pressure injury in Liverpool Hospital

Aim

To reduce the occurrence of hospital acquired pressure injury at Liverpool Hospital from 13% to 7% by increasing compliance with the Waterlow Risk assessment tool and appropriate preventive measures.

Suspected deep tissue Pressure injury on a heel

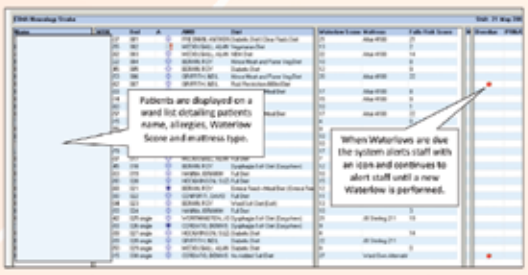
Method

An audit in April 2009 demonstrated hospital-acquired point prevalence for pressure injury was 13%, and only 37% of patients had an up to date Waterlow Risk Assessment completed. Only 54% of patients deemed at risk were on appropriate pressure injury prevention mattresses.

A Mattress Rental Guide was developed, and weekly auditing introduced to monitor whether the Waterlow tool was being used and appropriate mattresses selected. Audits were conducted on Wednesday – thus "Waterlow Wednesday" was introduced.

Liverpool Hospital compulsory mattress rental chart

Working with the eMR Team, the system was automated and reports written to replace the manual audit process.



eMR List showing Waterlow Scores, mattress in use and risk assessments due

Results

Compliance with Waterlow completion and mattress selection improved with the manual audit but the process was time consuming and not sustainable.

The eMR version includes a prompt to remind staff when the assessment is due and requires completion of the prevention section if the Waterlow score is greater than 15.

Hospital acquired pressure injury & severity rates 2009 - 2011

Hospital acquired point prevalence for pressure ulcers reduced from 13% to 9%.

The severity of pressure ulcer grades reduced from 27% deep tissue ulceration in 2009 to 3% deep tissue ulceration in 2010 and 2011.

Waterlow & appropriate mattress utilisation rates 2009 - 2011

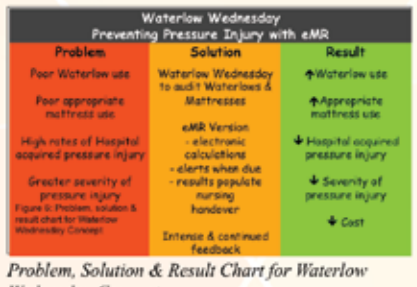
Increase in Waterlow usage from 37% to 92% in 12 months.
Increase in appropriate mattresses utilisation from 41% to 89% in 12 months

Conclusion

Standardised procedures and compliance audit with regular feedback contributed to prevention of pressure injuries.

Use of eMR provides reminders when assessments are due and easy to use audit reports, saving around 151 hours per week from manual audit processes.

Approximately 43 patients avoided pressure injuries over 24 months of the project, with a conservative saving to the Hospital estimated at $600,000



Problem, Solution & Result Chart for Waterlow Wednesday Concept

Acknowledgements

Many thanks to the eMR Team from Sydney & SWS LHD Information Management & Technology Division.

This project also owes its success to the nurses of Liverpool Hospital

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