Unplanned Hospital Readmissions

Where to from here?

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20 March 2015

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Presentation Outline

- What's the problem with Unplanned Readmissions?
- Key lessons from NSW Health's efforts to date
- Way forward
- Demonstration of the new quarterly report

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Unplanned Hospital Readmission

- The next subsequent admission of a patient to a hospital following an index hospital admission (first stay of the patient)
- A leading topic of healthcare policy and practice
- Increasingly being used in various jurisdictions across the world as a metric of the performance or quality of hospital care or treatment
- Estimated cost to the US Medicare program: $17 billion per year (out of the total of $102.6 billion)
- Associated with financial penalties for hospital providers in the US
- Used as a ‘purchasing adjustor’ in NSW

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Current NSW definition

- Unplanned readmission of a patient within 28 days following discharge to the same facility for any purpose other than mental health, chemotherapy or dialysis
  - 'Unplanned' defined as an emergency admission (required within 24 hours of diagnosis)
  - 'Readmission' defined as an admission with admission date within 28 days of discharge date of previous stay for the same patient at the same facility
- Scope: All admitted patients to public facilities in peer groups A1-D2
- Target: Reduction on previous year
- Desired Outcome: Improve quality and safety of treatment, with reduced unplanned events

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Current uses of the indicator in NSW

- As a ‘NSW 2021’ performance indicator (target: ongoing reductions in each consecutive year)
- As a ‘service measure’ listed in the LHD Service Agreements
- As a ‘purchasing adjustor’ in the activity based funding model
- As a local performance monitoring indicator at LHD/hospital level

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Problem with Unplanned Readmissions

- It is not improving (overall)!
- We are not entirely sure what it measures
- There are data quality issues affecting it
- There are definitional/measurement issues
- There is considerable variation across the State

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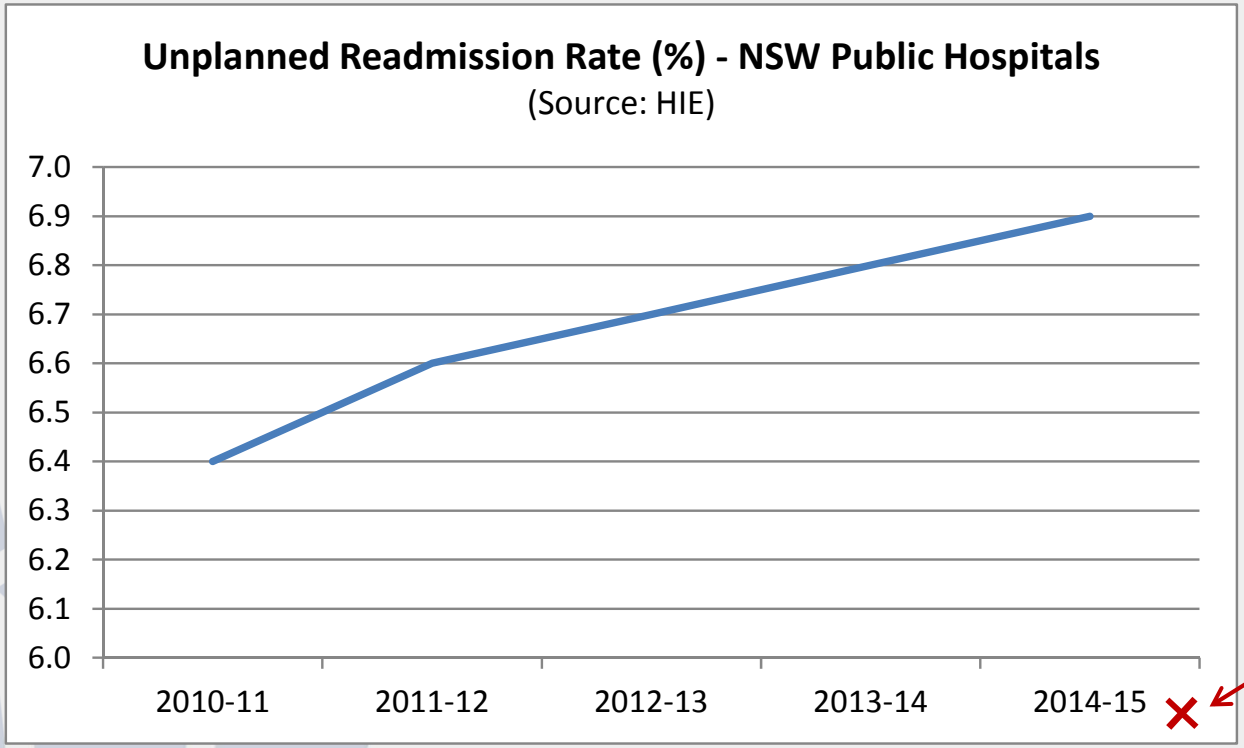
Performance over time



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Statewide Review

- Purpose of the project
  - Improve measurement of all-cause unplanned readmissions within NSW
  - Identify and recommend potential statewide strategies to reduce unplanned readmissions
- Participants
  - Clinical Excellence Commission, Directors of Clinical Governance from 6 LHDs, Ministry of Health
- Methods
  - Rapid review of evidence
  - Data analysis and modelling of new indicators
  - Identification and testing of management strategies

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Lessons to Date

- A quarter of unplanned readmissions to hospital are linked to ‘deficiencies in care’
- Patient factors, such as low socioeconomic status, low overall general health and age, are most frequently associated with unplanned readmissions
- Generalised interventions or strategies to reduce hospital readmission for general medical patients, patients with chronic diseases and patients considered at high risk of readmission show little effectiveness
- Interventions targeting specific patient populations (e.g. heart failure, certain types of elderly patients) were noted to be more successful
- Current NSW indicator does not allow for identification and targeting of problem areas
- Use of tools to review readmissions at the time patients are readmitted and still in hospital seems very promising
- Purchasing adjustor has worked in the sense that LHDs that had the adjustor all improved their performance
- Some of the improvements were in relation to data quality, others were real process improvements

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Way Forward

- Rebrand/reposition Unplanned Readmissions as ‘Continuity of Care’ indicator (rather than Safety & Quality)
- Update the definition and make it all-inclusive, but support it with analytical tools that enable rapid identification of areas for improvement
- Improve reporting to take account of uncontrollable factors (e.g. age-sex standardisation, peer group standardisation etc.)
- Continue with the purchasing adjustor but set an improvement target for all LHDs (not just those above the current NSW average)
- Promulgate the use tools to review readmissions at the time patients are readmitted and still in hospital to determine detailed causes of readmission and take action to reduce readmissions
- Implement evidence-based strategies for reduction of unplanned readmissions (link with Integrated Care Program)
- Develop an education package to assist in the understanding and reduction of readmissions (including data quality)

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Unplanned Hospital Readmissions Audit Tool

Instructions:
Please refer to the Unplanned Hospital Readmissions Audit Tool Guide for definitions and guidance when auditing.

Site ☐ Grafton ☐ Maclean ☐ Ballina ☐ Bonalbo ☐ Casino ☐ Coraki ☐ Kyogle
☐ Lismore ☐ Nimbin ☐ Urbenville ☐ Byron Bay ☐ Mullumbimby ☐ Murwillumbah ☐ The Tweed

MRN ☐☐☐☐☐☐ **DOB** ☐☐ / ☐☐ / ☐☐ **Previous discharge date** ☐☐ / ☐☐ / ☐☐ **Readmission date** ☐☐ / ☐☐ / ☐☐

1. Principal diagnosis - previous admission

2. Principal diagnosis - readmission

3. What was the readmission potentially related to the previous admission? ☐ Yes ☐ No

4. What was the readmission category as documented in EMR? ☐ Planned ☐ Emergency ☐ Inter-hospital transfer

5. Is the readmission category as documented in EMR correct? ☐ Yes ☐ No

IF READMISSION IS NOT POTENTIALLY RELATED NO FURTHER QUESTIONS APPLY

6. Patient's functional status (regarding ADL): ☐ Independent ☐ Somewhat dependent ☐ Fully dependent

7. Patient's disposition after previous admission: ☐ Home ☐ Aged Care ☐ Sub acute/transitional care ☐ Other

8. End-stage chronic disease:

a. Is the patient likely to die in the next 12 months?
☐ Strongly agree ☐ Agree ☐ Unsure ☐ Disagree ☐ Strongly disagree

b. Is the patient likely to go into residential care in the next 12 months?
☐ Strongly agree ☐ Agree ☐ Unsure ☐ Disagree ☐ Strongly disagree ☐ N/A (Patient already in aged care)

9. At the time of the previous admission, what was the Ontario HARP score for this patient? (see page 2) ☐☐

10. Please indicate whether any of the following preventable factors were relevant to this readmission:

a. Factors related to hospital care during the previous admission:
- ☐ *Missed or inaccurate diagnosis*
- ☐ *Missed or inappropriate treatment*
- ☐ *Complication of a procedure*
- ☐ *Healthcare associated infection*
- ☐ *Venous thromboembolism*

b. Factors related to transition from hospital to community-based care:
- ☐ *Transition planning*
- ☐ *Discharge summary*
- ☐ *Patient education*
- ☐ *Clinical handover to community-based care*

c. Factors related to community-based care:
- ☐ *Primary care planning*
- ☐ *Access to GP or Medical Specialist*
- ☐ *Medication management*
- ☐ *Access to community health services*
- ☐ *Access to personal care (e.g. Home Care, ComPacks)*
- ☐ *Poor coordination of community-based care*
- ☐ *Access to suitable models of chronic care (e.g. cardiac/respiratory)*
- ☐ *Inadequate transport*

d. Patient factors:
- ☐ *Patient decision (against recommended care)*
- ☐ *Patient compliance/self-management*
- ☐ *Patient awareness of community-based services*
- ☐ *Currently being managed for a mental health condition*
- ☐ *Impaired cognitive state (e.g. dementia)*
- ☐ *Can't afford medicines*
- ☐ *Can't afford personal care*
- ☐ *Can't afford transport*
- ☐ *Social isolation (e.g. living alone, not socialising, isolated from family)*
- ☐ *Failure to recognise worsening symptoms (>2 days)*

e. Other factor/s: *(please specify)*

11. Was the readmission preventable? ☐ Strongly agree ☐ Agree ☐ Unsure ☐ Disagree ☐ Strongly disagree

Unplanned Hospital Readmissions Audit Tool

Table 1: The simple algorithm for the previous admission

Variable name	Parameters	Assigned Score	Maximum score for variable	Score for this patient
Patient age group	0 - 64 years old	0	3	
	65-84 years old	2		
	85+ years old	3		
Discharge disposition	Transfer to home / other	0	6	
	Transfer to home with support	4		
	Transfer to acute care	6		
Acute care admission six months prior	0	0	12	
	1	3		
	2	6		
	3 +	12		
Emergency department visits six months prior	0	0	10	
	1	4		
	2	6		
	3	7		
	4 +	10		
Diagnosis Group (more than one may be applicable)	Chronic Obstructive Pulmonary Disease	3	10	
	Heart failure w/out coronary angiogram	4		
	Inflammatory bowel disease	5		
	Gastrointestinal obstruction	2		
	Cirrhosis/alcoholic hepatitis	10		
	Diabetes	1		

EXPLANATORY NOTES:
Unplanned Hospital Readmissions (UHR) is a performance measure in the LHD Service Agreement.
- Indicator definition: Unplanned readmission of a patient within 28 days following discharge to the same facility for any purpose other than mental health, chemotherapy or dialysis.
- Mental health, chemotherapy or dialysis are excluded from both the numerator (readmissions) and the denominator (admissions). More specifically, the exclusions are:
  - Readmissions that contain a cancer code (code between "C00" and "D48.99") in any diagnosis field.
  - Readmission for chemotherapy or dialysis (DRGs R63Z or L61Z).
  - Readmission for mental health (where patient has been admitted to psychiatric unit > 0 days).
  - Change of care type, transfers from other hospital (i.e. source of referral 4 or 5).
  - Facilities in peer groups below D2.
- Unplanned is defined as emergency_status = 1.

Notes:
- There is no "unexpected" in the UHR definition.
- Don't be dismayed by readmissions not related to the previous admission. In practice, we find approximately one half of all UHR are potentially related to the previous admission - we are focusing upon this half. A State-level working group is currently reviewing the indicator definition.
- The hospitals that matter most for the LHD Service Agreement are the hospitals which have activity-based funding for acute services (Tweed Heads, Murwillumbah, Lismore, Ballina and Grafton).
- Improving data quality:
  - Ensure planned admissions are not coded as unplanned (emergency_status = 1).
  - Ensure patients transferred from acute inpatient admission to hospital-in-the-home (HITH) are being correctly coded.
  - Ensure readmissions which occur on the day of discharge are being correctly coded.

Unplanned Hospital Readmissions Audit Tool
The purpose of this UHR Audit Tool is to identify practical factors which can be used to prevent UHR at your hospital. This will enable better targeted strategies to be planned and implemented to prevent UHR. Although it can be used for retrospective audit, the UHR Audit Tool is best used at the time of readmission.

Hospital Admission Risk Prediction (HARP)
This HARP predictive tool is used for early identification of people at-risk of hospitalisation within the next 30 days. This particular tool was developed for use in Ontario, Canada. With the ultimate aim of people at a higher-risk of UHR within 28 days being allocated higher priority for well-targeted strategies to prevent UHR, we are trialling the utility of using this predictive tool. We anticipate this version of the tool will be replaced in the future by a similar predictive tool for people at-risk of UHR within 28 days, which is based upon NSW Health UHR data.

Strategies identified to address unplanned hospital readmissions (Scott et al. 2010)

Intervention
Single component interventions (either pre- or post-discharge)
Screening of individuals at high risk of discharge failure
Multidisciplinary teams and ward rounds
Discharge planning protocols
Educational interventions and self-management approaches
Discharge coordinators
Collaboration with primary care and general practitioners in discharge processes
Post-discharge home visits or telephonic follow-up
Post-discharge community-based care coordination and access to primary care
Nurse-led intermediate care units
Multicomponent interventions (integrated pre- and post-discharge)
(Assorted combinations of the above single interventions were reported) For example, specialised programs comprising specialist nurse-led assessment, discharge planning, and patient-carer education; written care plans and medication lists; discharge summaries; coordination of post-discharge services; and home visits (at 24 h and 7-10 days) with telephone follow-up.

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