Improving Patient Flow and Experience with Short Stay Units

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Caboolture - Where are we?

- 60 minutes north of Queensland capital city
- Closest tertiary Paediatric unit 80 minutes by road
- 236 bed general adult facility with paediatric inpatients and outpatient services
- Large area supported by hospital
- Population approx 141000 people
- Forecasted 19% expected paediatric population growth
The unit itself...

• The unit is a 5 bed unit independent but attached to the inpatient ward
• Unit open 24hours a day, 7 days a week.
• Minimally nurse staffing ratio 1:5
• Governance for admitted patients falls under paediatric consultants
Background

• With construction of the Lady Cilento Children’s Hospital, funding was allocated to improve services for paediatric patients in surrounding regional hospitals
• Required to be dedicated paediatric services but the footprint of current emergency services could not support this.
• Significant number of paediatric presentations (approximately 10,200 per year) challenged us to seek an alternative. This started our journey into a different model of care
Model of Care

• Built environment determined model of care.
• ED unwilling to manage remote site.
• Initial meetings protracted, multiple challenges.
• Model changed frequently in planning.
• Clinical “ownership” essential.
Requirements

- Safe
- Efficient transfer and discharge
- Adequate numbers
- Acceptable to families
Safety

• No clinical incident of harm to a child from PESSU transfer.
• One significant case with unrecognized meningitis in 6 month old – Met call by RN on arrival in PESSU.
• Diagnostic uncertainty at transfer does not mean transfer is unsafe. Tolerate up to 10% transfer to inpatient unit.
Efficient Transfers and discharge

• Neat is equal to ED SSU (low 80%)
• Flow nurse is essential to success.
  – Accepted by ED as helps their work
  – Pulls patients identified from EDIS screen, not waiting for referral.
  – Assists both ends of transfer.
  – Helps with continuity.
Paediatric Flow Nurse

• Prompt assessment and recognition of patients suitable for transfer
• Essential role to pull kids from the ED
• Immediate access to one on one education at the bedside for staff and families.
• Efficient handover
• Assist with paediatric procedures in both the ED and Ward
Efficient Transfers and discharge

• Management plan on transfer provided by ED
• Review of child by ED senior within 30 minutes of transfer
• Criteria led discharge specified by ED for some conditions (Head injury, post procedure sedation) and by Paediatrics otherwise.
• Surgeons manage head injuries over 5 years, paeds under 5 years.
PESSU Discharges
Neat %

Year | NEAT %
--- | ---
2011/2012 | 60
2012/2013 | 65
2013/2014 | 75
2014/2015 | 80
Behaviour Management

• Paediatric doctors and nurses refuse transfer due to ambiguity and workload.
• Paediatric doctors insist on reviewing child prior to transfer.
• ED staff reluctant to refer due to loss of clinical exposure and perceived difficulty.
• ED staff using their internal adult SSU due to ease of transfer there.
Benefits of the model

• Reduce witness trauma
• More appropriate care for children – risk of delay due to addressing multiple issues.
• More appropriate environment.
• Reduce overall length of stay. (complex – reduce time in ED, longer time in PESSU)
• Improved efficiency and volume for children’s ward.
Benefits at Caboolture

- Greater willingness to accept direct presentations = Improved Access
  - Direct admission from ED to ward.
  - Direct referral of neonates to PESSU from home visiting midwives, child health nurses.
  - Direct admission from GPs for well known patients.
Other Models

- Traditional ED and Ward
- Paediatric Acute Review Clinic
- Paediatric Assessment Unit
- Paediatric Hospital in the Home
- Paediatric Short Stay Unit
US experience

• Community Hospital paediatric units combined with limited paediatric ED.
  – Greater efficiency
  – Increased volume and financial stability
  – Increased parent satisfaction.
US experience

• Observation Units Systematic Review
  – Macy et al, J Hospital Medicine 2010.
• Reviewed 21 studies over 40 years 1950-2009
• 22000 children, 11 hospitals.
• LOS, Admission from Observation Unit rates, return visit rates, costs.
Macey et al Systematic Review

- Generally 23 hour wards
- 3-23 beds
- 9 in ED, 2 in Children’s ward
- Highly variable providers and entry criteria
- Highly variable measures of LOS and follow up visits.
- Unable to compare units or determine impact on quality and cost of care due to variability.