Nursing & Medical staff perceptions of a hospital-based medical emergency response team

Catriona Booker RN, PhD & **Clint Douglas** RN, PhD

on behalf of

RBWH Patient Assessment Research Council &

QUT School of Nursing

QUT

Queensland Government
Australia

Objectives

The participant will be able to:

- Identify nurses' perceptions which may influence effective response to deteriorating patient &
- Describe behavioural strategies to support best team response

Acknowledgements

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RESEARCH METHODOLO

What factors influence nurses
the Barriers to Nurses' use o

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The primacy of vital signs –
use of physical assessment

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Nursing and Medical Perceptions of a Hospital Rapid Response System

New Process But Same Old Game?

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Perhaps, no other patient safety intervention depends so acutely on effective interprofessional teamwork for patient survival than the hospital rapid response system. Yet, little is known about nurse-physician relationships when rescuing at-risk patients. This study compared nursing and medical staff perceptions of a mature rapid response system at a large tertiary hospital. Findings indicate that the rapid response system may be failing to address a hierarchical culture and systems-level barriers to early recognition and response to patient deterioration. **Key words:** *medical emergency response team, nursing, patient deterioration, rapid response system, staff perceptions*

[AQ1]

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Responsibility for this article rests with the named authors. Mary Batch and Olivia Hollingdrake assisted with data collection.

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RAPID RESPONSE SYSTEMS (RRSs) have changed how staff working in acute care hospital wards recognize and respond to patients at risk of clinical deterioration. Rapid response systems typically include standardized medical emergency response team (MERT) criteria and escalation protocols based on vital sign monitoring. When MERT call criteria are triggered by staff at the bedside, a rapid response team with critical care expertise arrives to evaluate and stabilize the ward patient whose condition is deteriorating and often arranges for transfer to the intensive care unit

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Introduction to Literature

- RRS – standardised team & protocols aims to
  - Assess & stabilise deteriorating patient
  - Improve timely recognition
  - Overcome delays in treatment

  → target system barriers causing patient harm
- Systematic review findings [1,2]
- Future research
- National safety & quality agenda

[1] Chan PS, Jain R, Nallmothu BK, Berg RA, Sasson C. Rapid response teams: A systematic review and meta-analysis. Arch Intern Med. 2010;170(1):18-26.

[2] Winters BD, Weaver SJ, Pfoh ER, Yang T, Pham JC, Dy SM. Rapid-response systems as a patient safety strategy: A systematic review. Ann Intern Med. 2013;158(5):417-425.

Study Purpose

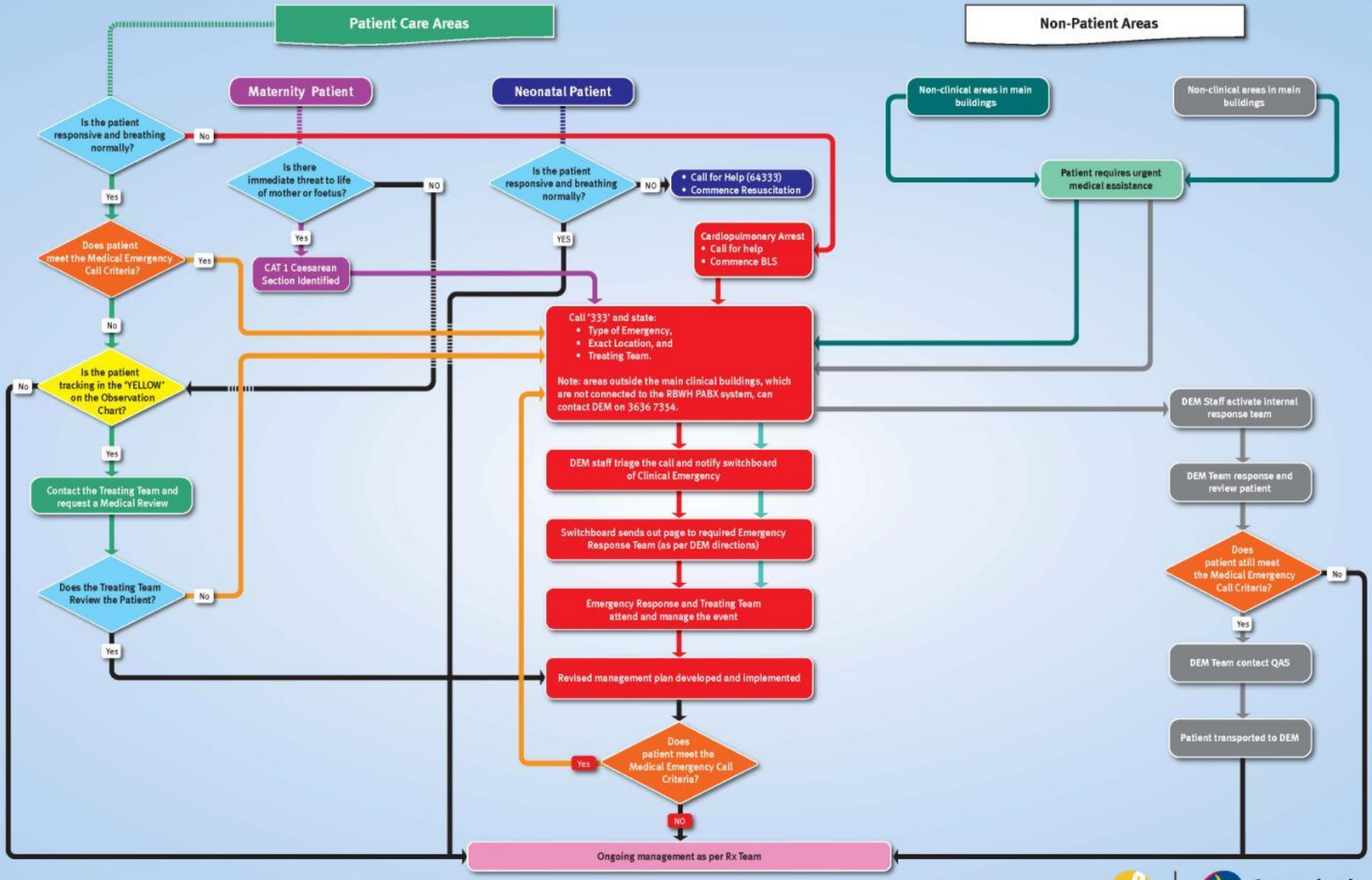
- Explore & compare nursing & medical staff perceptions of RRS
  - Barriers to Medical Emergency Response Team (MERT) activation
  - Effectiveness of MERT response
  - Effectiveness of teamwork & communication

Research Methods

- Study Design: Single site cross-sectional survey
- Setting: 929 tertiary referral teaching hospital
- Target population: RNs/RMs (grade 5-7) & MOs
- Data collection: June & July 2013
- Data Analysis survey & open ended question

Royal Brisbane and Women's Hospital

MEDICAL EMERGENCY & CODE BLUE RESPONSE FLOWCHART FOR MAIN CLINICAL BUILDINGS



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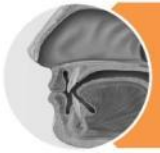
MEDICAL EMERGENCY CALL CRITERIA

ROYAL BRISBANE & WOMEN'S HOSPITAL

Queensland Government



AIRWAY

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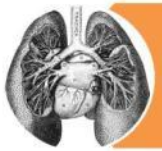

BREATHING

RESPIRATORY DISTRESS
Resp Rate <8 or 30/min
SpO_2 <90%

CIRCULATION

COMPROMISED
Pulse <40 or >140/min
Systolic BP <90mmHg

NEUROLOGY

ALTERED
GCS drop ≥2 points
Prolonged/New Seizure

WORRIED

CONCERNED
Any serious concern not triggering above criteria

Unless otherwise documented, if the patient meets Medical Emergency Call Criteria

CALL

333

MEDICAL EMERGENCY

EXACT LOCATION

TREATING TEAM

Pregnant Patient: Call 333, state Obstetric Emergency or Category 1 Caesarean
Child Patient: Call 333, state Paediatric Emergency

UNRESPONSIVE, NOT BREATHING NORMALLY, PULSELESS

Commence BLS, Call 333 & Communicate

CARDIAC ARREST ▪ EXACT LOCATION ▪ TREATING TEAM

RBWH RRCD Committee 23.09.2014 v1.0

Study Results & Discussion

Perceived benefits & usefulness of MERT

- RRS effective
- Facilitated assistance when concerned
- MERT not helpful in management of sick patients on ward

MERT impact on clinical skills & managing acutely ill pt.

- Increased workload
- Facilitated their learning
- Not reduce clinical management skills

Reasons for MERT calls

- Min. inadequate nursing or medical management

Study Results & Discussion cont.

Beliefs about MERT activations

- Most contact Treating MO before activation
- >50% unlikely to activate on 'Worried' criteria
- Less would not activate if pt. met criteria but looked unwell

Perceived Barriers

- Min. RN & MO feared criticism

Teamwork & Communication

- Understood role in MERT
- Encouraged teamwork; plans well documented

Comparison of RN & MO scores

- RN & MO rated +ve; perceived barriers low

Qualitative Findings

Nursing & Medical Perceptions of MERT:

- Effective in addressing patient deterioration
- Excellent & vital service → views moderated by context

Emerging concepts:

- Whose Call?
- The I and the They
- Creating Uncertainty

Discussion

- Implications for safe practice
- Increased understanding of perceptions
- Contraindications

Limitations

- Self-report survey
- Limited response rate
- Choice of measure

Conclusion

- Insights into how mature RRS perceived
- Major obstacles to MERT activation
- RRS may obscure root cause of preventable death
- Need to address cultural & system level problems


Questions