Critical Care Outreach: Tear Down the Walls!

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What is “Outreach”? 
- Non-physician responders
- Extend ICU beyond walls within hospital
  - Response to medical emergencies
  - Follow up patients recently discharged
    - Higher risk of death if readmit
    - Risk factors (e.g., recently extubated)
      - Metnitz PG, Fieux F, Jordan B, Lang T, Moreno R, La Gall JR
        Intensive Care Med. 2003 Feb;29(2):241-8
- Education of floor staff
- Extend ICU beyond walls outside of hospital
  - “Extreme” outreach

Role of ICU outreach team
- Patient interventions
- Support for ward staff
- Liaison between ward and ICU
- Hospital-wide impact

Endacott R and Chaboyer W. Nurs Crit Care 2006;11(2)

Role of outreach staff
Context:
- Floor staff overwhelmed
- Inexperienced
- Unsupported by senior staff
- Gaps and delays in patient care

Chellel A, Higgs D and Scholes J. Nurs Crit Care 2006;11(1)

Role of outreach staff
Interventions:
- Action
  - Make decisions and execute
- Focus and vision
  - Concentrate on one patient and vision solutions
- Orchestration
  - Communicate and coordinate
- Expertise
  - Bring critical care experience and skills to the bedside

Chellel A, Higgs D and Scholes J. Nurs Crit Care 2006;11(1)
Floor nurse

- Recognize patient with life-threatening problem
- Activate CCRT response
- Implement basic measures to start stabilizing patient

Floor nurse

- Assist triage determination
- Provide orders for investigation and therapy

CCRT Responder

CCRT Physician

Preliminary data for Toronto CCRT – ICU Length of Stay

- 7.3 d
- 2.2 d

Median ICU Length of Stay

Preliminary data for Toronto CCRT – APACHE II Admit Score

- Mean APACHE II Score
- Pre-CCRT: 22.2
- Post-CCRT: 17.6

Preliminary data for Toronto CCRT – ICU Mortality

- ICU Mortality (%)
- Pre-CCRT: 13.9%
- Post-CCRT: 8.3%

CCRT Experience—TGH/UHN

- 16.3% of patient interactions were new consults (remainder are follow-up calls)
- 78.2% of patients remained on home unit
- Decreased cardiac (decreased by 17%) and respiratory arrest (decreased by 26%) rates

Data courtesy of Dr. Stuart Reynolds, Site Lead MD, Toronto General Hospital CCRT Program


Preliminary data for Toronto CCRT –
Time to ICU admit

Non-physician outreach

- Outreach team = in-hospital paramedics?
  - Advanced assessment skills
  - Triage
  - Stabilize
  - Automated defibrillation
  - Transport (in this case to ICU)
  - Patch with remote physician for orders
  - Medical directives/standing orders

- “Stay and play” versus “load and go”

Non-physician outreach

- Outreach team = physician extenders?
  - Focus on education for ward nurses, physicians and other staff
  - Identify declining high-risk patients early through follow-up and routine visits to high-acuity non-ICU areas
  - Safety net
  - Identify end-of-life planning mismatch
  - Increase efficiency for review of consults
    - Active data gathering
    - Prioritize patients
    - Identify system/safety problems
    - Conflict resolution

“Extreme” outreach

- Many hospitals in Ontario have small ICUs and/or no intensivists
  - Some have no ICU, no ventilators
- Early recognition of deterioration may lead to:
  - Obtaining expert advice earlier
  - More rapid transport of patients to tertiary care facility
- Training Emergency Department nurses?
- Use non-ICU physicians for CCRT supervision?
- Remote oversight of CCRT nurses through telemedicine?