

The Richmond Hospital Nurse Assessment Response Program (NAR)

Dynamics 2008
By Shirley Silverwood, RN
Team Leader ICU



Why Have Outreach?

“People die unnecessarily every single day in our hospitals”.

www.saferhealthcarenow.ca

The goal of “Outreach” is to respond to a spark before it becomes a flame.



Background

- 70% of patients show evidence of respiratory deterioration within 8 hours of a cardiac arrest
- 66% of patients show abnormal signs and symptoms prior to arrest; physician notified in 25% of cases
- Chart audits identified missed deterioration that occurs up to 48 hours prior to arrest



The Problem

- 90% of patients who suffer cardiorespiratory arrest on the ward will die in the hospital
- Research shows that people heading for arrest have clear Early Warning Signs (EWS) for hours to days before
- Intervene before the patient has a full arrest and the chances of survival and good recovery are much higher



Richmond’s “Nurse Assessment Response” - NAR

- **Started March 1, 2006**
- **Modified outreach program run out of the intensive care unit**
 - “Nurse to nurse” assessment support
 - Work with patient’s most responsible physician
 - Respond to all inpatient non critical care units
- **The ICU clinical nurse leader is the NAR nurse on a shift-to-shift basis.**
- **24/7 service accessed by pager**



Role of NAR

*Critical care is a patient need;
not a patient place.*

- Assist in the early recognition of patients at risk for developing critical illness
- Extend the expertise of a critical care nurse beyond the ICU
- Provide education and support outside the ICU for patients that are becoming critically ill
- Liaison with other health care providers
- Support the changing needs of RH with the move towards sicker ward patients and less experienced ward staff

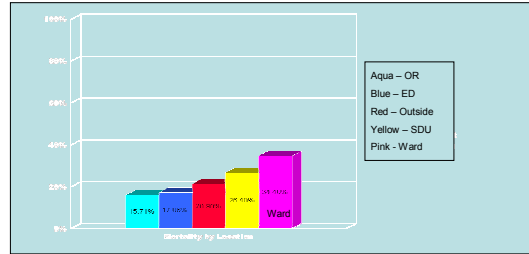


Goals of NAR

- Reduce the number of ward codes
- Eliminate “elective” ward intubations
- Reduce ICU readmission rate
- Reduce mortality and morbidity rates
 - Renal failure, septic shock, MV days
- Decreased length of stay
- Share critical care skills and expertise through educational partnerships



VGH ICU Mortality By Sending Unit



In The Beginning – An Idea

- January 2005
 - 15 months prior to implementation
 - Concept was introduced to Richmond via the Vancouver Coastal Health Critical Care Council
 - A discussion was held with:
 - ICU Program Manager
 - ICU Medical Director
 - ICU Team Leader
 - ICU Educator



In The Beginning – A Concept

- A “stacked” approach was agreed to due to lack of funding for a dedicated outreach team – both nursing and physician
 - Start with a nurse to nurse assessment and include other health care providers as needed
 - Work with the most responsible physician
 - ICU physician consult done doctor to doctor



In The Beginning – Coming Together

- Spring 2005
 - Funding was designated to implement a 6th nurse per shift in ICU (from 5.5 per shift)
 - Decision was made that this nurse would be a “Clinical Nurse Leader” (CNL) offering day to day clinical leadership
 - Code Team
 - Team mentoring and education
 - NAR nurse
 - Support given to leave this nurse with no patient assignment whenever possible

Implemented January 2006



Moving Forward

- December 2005
 - Discussion with the ICU CNLs as to their thoughts on how a “made for Richmond” approach to Outreach would look like.
- January 2006
 - Discussion with the hospital supervisors (SSCs) to build a frame work that incorporated the ICU CNL ideas as well as how the supervisors thought they could support the program.



Coming Together

- January 2006
 - ICU Program Manager and the Staff Support Coordinator Program Manager met to agree on core concepts for their staff
 - Clinical Nurse Leaders for ICU met again to review the updated framework and the role of the ICU CNL



In The Beginning – Almost There

- Draft of the program with the process and frequently asked questions was forwarded to all the key players at Richmond
- Final draft of the “made for Richmond” approach to Outreach called the “Nurse Assessment Response” (NAR) including the data collection form forwarded to all the key players.



In The Beginning – Getting Ready To Start

- February 2006
 - Ward educators and team leaders met with ICU to review the concept of Outreach, its history and research data, and the “made for Richmond” approach being offered by ICU.
 - A power point presentation was made available to them to teach their staff as well as printed handouts and color posters.
 - The ICU Educator worked with the ICU CNLs and RNs.



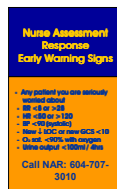
Launch Date – March 1, 2006

- The NAR pager was officially handed over to the ICU CNL of the day.
- One pager color posters outlining the program and criteria to call the NAR nurse was placed on each patient’s vital sign clip board.
- Ward staff given business size cards to attach to their hospital ID listing the Early Warning Signs to call the NAR nurse.
- NAR incorporated into monthly orientation.



Our NAR Cards

- Given to all staff
 - Hospital orientation
 - Following NAR talk
 - Students!
 - RNs, LPNs, RPNs, RTs
 - Anyone who asks



When to Act?

Early Warning Signs (EWS): The Criteria for Calling

The ward should contact the NAR and inform them of :

- Any Patient Whom You Are Seriously Worried About

OR



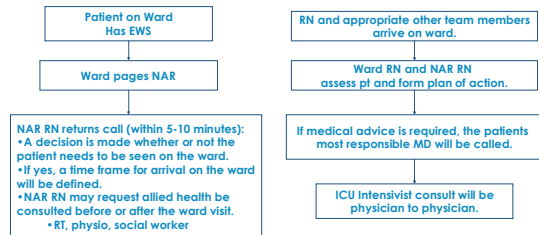
When to Act?

Early Warning Signs (EWS): The Criteria for Calling

- Any Patient With One Or More Of The Following:
 - Respiratory Rate < 8 or > 28 breaths per minute
 - Heart Rate < 50 or > 120 beats per minute
 - Systolic blood pressure < 90 mmHg
 - New decreased LOC or a new GCS <10
 - Oxygen saturation < 90% with oxygen
 - Urine output < 100 ml over the last 4 hours
- Any acute change in status or pattern



The Flowmap of NAR



The NAR Critical Care Nurse

The NAR RN will *assist* in the assessment, care and management of the patient through education and support of ward staff including the following:

- Help formulate a plan of action
- Support decision making
- Assist with calling the appropriate physician.
- Stay and assist in preparation for patient transfer to ICU, if appropriate
- NAR RN charts on the physician's progress notes.
- Ward RN charts on nurse notes.
- **Completes a "one pager" of statistics using tick boxes.**



Accessing the RH NAR Program

"Call 604-707-3010"

24 hours a day 7 days per week

- **Any staff member can call NAR to see a patient or just to ask a question. There are no wrong calls and no stupid questions.**
- **Always call the medical staff responsible for the patient's care – the NAR does not replace physician contact.**
- **ICU does not take over the care of the patient. The ward RN must stay and assist.**
- **NAR RN practices within critical care RN scope.**



NAR Followup

- No official follow up by the NAR RN.
- If the patient needs to be seen again, call the NAR pager.
- The NAR RN faxes a copy of the NAR form to the ward for the Team Leader, Clinical Resource Nurse, or educator to follow up with staff and/or patient as necessary.



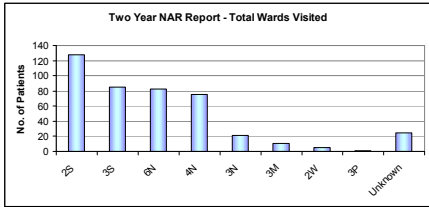
NAR Two Year Data Overview: March 1, 2006 to Feb 29, 2008

- NAR called 428 times
- Ward visit every 1 to 2 days
- Average visit takes 24 minutes



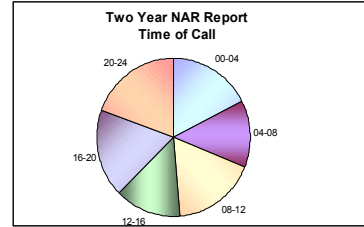
Wards Visited By NAR

- All inpatient non critical care wards that could call NAR have called



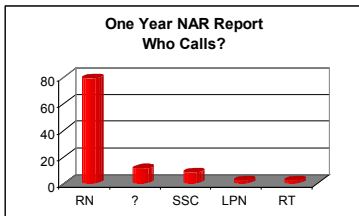
Time Of NAR Call

- NAR calls come in 24 hours a day



Who Makes The Call?

- RNs make the vast majority of NAR calls

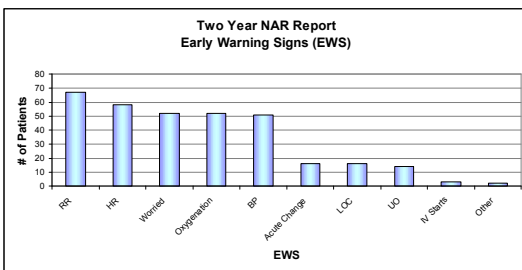


Early Warning Signs

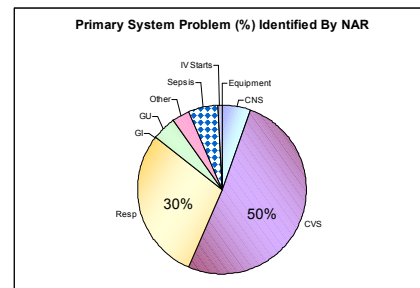
- Most common EWS in Year One was: "I have this patient I am really worried about." (58%)
- Year Two:
 - Respiratory Rate (67%)
 - Heart rate (58%)
 - oxygenation (52%)
 - blood pressure (51%)



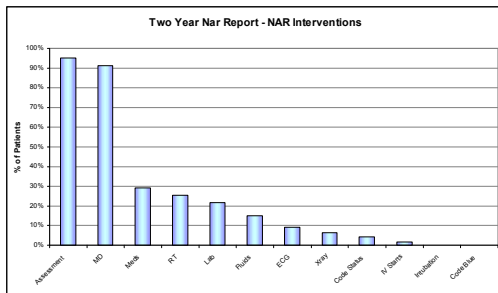
NAR Two Year Data Overview



Primary Problem With Patient

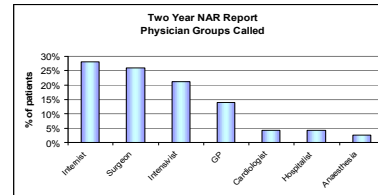


NAR Interventions

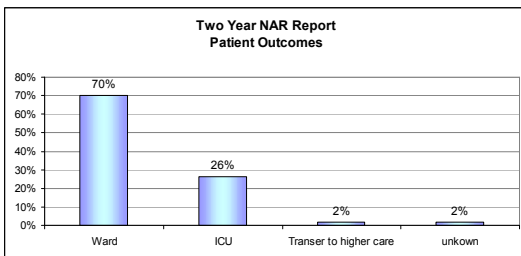


Physicians Called

- MRPs called 63% of visits Year 1
- MRPs called 90% of visits Year 2



Patient Outcomes



Has NAR Met Its Goals?

- Reduce number of ward cardiac arrests
 - Decreased from 34 in 2005 to 23 in 2007
- Eliminate elective ward intubations
 - Zero for 2007



Has NAR Met Its Goals?

- Reduce ICU readmission rate
 - Decreased from 6% in 2006 to 3% in 2007
- Decrease length of stay in ICU for ward admits
 - LOS 2005/2006 – 4 days
 - LOS 2007
 - All ward admits – 6.24 days
 - NAR ward admits – 5.25 days



Apache II on Ward Admits

- Apache II scores: (Includes all ward admits)
 - Pre NAR – 19
 - Year One – 21
 - Year Two – 22 (Both NAR and nonNAR admits)
- Conclusion: patients on the wards are more acute now than they were three years ago.



Has NAR Met Its Goals?

- Reduce mortality
 - Hospital mortality (2007)
 - All ward admits = 25%
 - NAR admits = 23%



Has NAR Met Its Goals?

- Reduce morbidity
 - Mechanical ventilation days
 - All ward admits = 53% (Average 7.3 days)
 - NAR admits = 48% (Average 6.5 days)
 - Dialysis (2007)
 - All ward admits = 2%
 - NAR admits = 3%
 - Septic Shock (2007)
 - All ward admits = 14%
 - NAR admits = 11%



Has NAR Met Its Goals?

- Share critical care skills and expertise
 - Ward staff feedback about the NAR program is very positive
 - The number one improvement to Richmond Hospital in union focus groups was NAR
 - All programs identified NAR as a support and safety system in accreditation 2006
 - Ward staff have embraced the NAR “nurse to nurse” support concept from the beginning



NAR Gaps

- NAR program is capturing up to 44% of ward admits to ICU. Ongoing education and support to ward staff is essential to their recognition and reporting of EWS.
 - Ward staff play a crucial role in the activation of the NAR program.



NAR Gaps

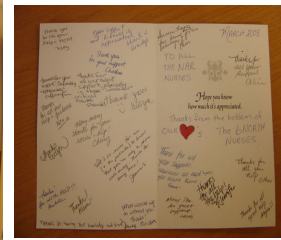
- Intensivists are contacted for 21 to 24% of all NAR calls – 7% as the MRP.
 - A fully supported outreach team has direct ICU physician access.
- No follow up available for:
 - ICU discharges
 - All NAR calls
- Minimal data collection on NAR calls



A Picture Says a Thousand Words



2South Loves NAR!



Thank You Card From 6North



The Heroes of NAR



OUR NAR TEAM



QUESTIONS?

shirley.silverwood@vch.ca

Thank you for coming!

