NSPO – “Nursing matters”

Evidence Based Nursing Sensitive Patient Outcomes

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> Context: the RAH CTICU
> Nursing Sensitive Patient Outcomes (NSPO),
>  What are they?
>  How did we create a framework for evidence based outcomes focused nursing care?
>  NSPO – Interventional Hygiene
> Conclusion
Our clinical context

> 50 years of Cardiothoracic Surgery
> Heart surgery, Surgery of the Aorta, Lung surgery
> High levels of technology, but emphasis on caring
Nursing Sensitive Patient Outcomes

> A model for evidence based outcome focused nursing care in CTICU

> “You can’t change what you don’t measure”

(Dr Paddy Phillips, 2013, Heart Foundation Conference)
What are NSPO’s?

NSPO’s result in improvements in our patients...

- Symptom experience (Pain, immobility, constipation)
- Safety
- Functional status
- Psychological distress
- Improved cost effectiveness

Sensitive to the quality of nursing care
Linked to evidence
Within the scope of nursing

Oncology Nursing Society

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Creating the CTICU NSPO framework
For NSPO’s to be useful...

- Relevant to the patient experience
- Specific – to clinical context, patient population, type of intervention
- Supported by evidence
Our journey so far

Identified outcomes
- Safety
- Symptom control
- Patient & Family Satisfaction

EOI to join CTICU NSPO working party
- Development of proposed NSPOs
- Establishment of teams

Research to identify current evidence base for each outcome

Current framework

Ongoing development

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<table>
<thead>
<tr>
<th>Outcome Structure</th>
<th>Interventions &amp; Indicators</th>
<th>Outcome Statement &amp; measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bundles of Care</strong></td>
<td><strong>Interventional Hygiene</strong></td>
<td><strong>Freedom from Constipation</strong></td>
</tr>
<tr>
<td></td>
<td>(Preventing Hospital Acquired Infections - HAI)</td>
<td>Currently under review</td>
</tr>
<tr>
<td></td>
<td>Catheter Related Blood Stream Infections (CRBSI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surgical Site Infections (SSI)</td>
<td></td>
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<tr>
<td></td>
<td>Multi-Resistant Organism (MRO) acquisition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ventilator Acquired Pneumonia (VAP)</td>
<td></td>
</tr>
<tr>
<td><strong>Patient &amp; Family Satisfaction with Care</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental elements of care</td>
<td>Pain, Sedation &amp; Delirium Management</td>
<td></td>
</tr>
<tr>
<td>Provision of information</td>
<td>Education (patient &amp; nurses)</td>
<td></td>
</tr>
<tr>
<td>Clinical care</td>
<td>Patient monitoring</td>
<td></td>
</tr>
<tr>
<td>Emotional support</td>
<td>Titrations of opioids</td>
<td></td>
</tr>
<tr>
<td>Interpersonal care</td>
<td>Non-pharmacological comfort measures</td>
<td></td>
</tr>
<tr>
<td>and competence</td>
<td>Sedation &amp; delirium management</td>
<td></td>
</tr>
<tr>
<td>Patient participation</td>
<td>“coming soon”</td>
<td></td>
</tr>
<tr>
<td>Personalised care</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision of information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassurance</td>
<td></td>
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<tr>
<td>Proximity to patient</td>
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</tbody>
</table>

**Outcomes**

- Patient & Family Satisfaction with Care
- Pain, Sedation & Delirium Management
- Freedom from Constipation

**Standard of Care Statement**

- Bundles of Care
- Interventions & Nursing Sensitive Indicators
- Patient Outcome Statement
- Outcome measures

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Standard of Care

- Series of fundamental, interdependent and scientifically grounded nursing steps grouped into care bundles aimed at controlling microorganisms on the skin and in the oropharynx for which the CTICU RN has sole responsibility to implement.

Care Bundles

- Catheter Related Blood Stream Infection (CRBSI)
- Surgical Site Infection (SSI)
- Multi-Resistant Organism acquisition (MRO)
- Ventilator Associated Pneumonia (VAP)

Nursing Sensitive Interventions & Indicators

- Specific nursing assessment indicators for each care bundle such as oral cavity assessment score and 30 degree Head of bed elevation.
- 70% benchmark set to validate nursing compliance and performance
- Quarterly surveillance/reporting of the indicators of each IH care bundle

Patient Outcome Statement and measures

- Freedom from CRBSI  SSI  MRO  VAP
- Outcome measures: Quarterly surveillance of acquisition rates
Ventilator acquired pneumonia (VAP)

> Sub-type of hospital acquired pneumonia

> Reported Incidence 9 – 27%

> Increased LOS, mortality, burden of pain and suffering for patients

> Cost $30,000AUD per case

(Milstone et al, 2008; INICC, 2012; Fields, 2008; NHMRC, 2010)
Causes of Ventilator Acquired Pneumonia

- Colonisation of the oropharynx (Milstone et al., 2008)
- Exogenous acquisition of microbes (INICC, 2012)
- Aspiration of oropharyngeal and gastric secretions into the lower respiratory tract (Fields, 2008)
- Patient positioning with the head of the bed not elevated to 30-45°
- Prolonged ventilation
- Advanced age
- Malnutrition (NHMRC, 2010)
Ventilator Acquired Pneumonia

Standard of Care
• Series of fundamental, interdependent and scientifically grounded nursing steps grouped into bundles aimed to control microorganisms in the oropharynx for which the CTICU RN has sole responsibility

Nursing Sensitive Interventions & Indicators
• Limit use of mechanical ventilation
• Prevent aspiration of secretions
• Prevent nasal and oro-pharyngeal colonisation
• Prevent use of contaminated respiratory equipment
• Early mobilisation

Nursing Sensitive Interventions & Indicators
• Specific nursing assessment indicators such as daily assessment of readiness to wean and nursing intervention indicators such as the use of cuffed ETT with above cuff aspirate
• 70% benchmark set to validate nursing compliance and performance
• Quarterly surveillance/reporting of the indicators of each VAP prevention bundle with consideration of broader infection control dashboard indicators

Patient Outcome Statement & Measures
• Freedom from VAP
• Outcome measure: Quarterly surveillance of VAP rates.

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What sustains the NSPO model?

- Clinical Champion portfolio holders
- Education
- Communication
- Teamwork
- Commitment, enthusiasm and persistence!

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Conclusion – “Nursing Matters”

- NSPO - A model for evidence based outcome focused nursing care in CTICU
- Translating evidence into practice.
- An ongoing journey to improve patient outcomes and meeting patients needs.
Nursing sensitive interventions for the reduction of ventilator associated pneumonia risk in a cardiothoracic intensive care unit: A preliminary report

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Summary The purpose of this paper is to describe an improvement initiative designed to implement nurse sensitive interventions known to reduce patients’ risk for ventilator associated pneumonia (VAP), in cardiothoracic intensive care patients. This initiative is a part of one Australian critical care unit’s efforts to identify and measure compliance with key nursing interventions known to improve cardiac surgical patients’ outcomes. The premise behind the initiative is that improved nursing process and surveillance systems allow emerging trends to catalyze action and motivate nurses to reduce patients’ risk for infection acquisition. At five and nine months following implementation of the initiative a >70% compliance rate in 11 out of the 15 nurse sensitive interventions known to reduce patients’ risks for VAP and a drop in VAP incidence from 13.45 to 7.66% from per 1000 ventilator days was accomplished.

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Implications for Clinical Practice

- Assists nurses to transition from task focused to outcome based care.
- Promotes implementation of evidence based recommendations.


