



Rapid Process Improvement

Mistake proofing the Severe Sepsis Bundle during MET response

1/26/2012, Seattle, WA Pavla Holman, CCU RN 1

Agenda

- Introduction to VMMC and VMPS
- Rapid Process Improvement Workshop
 - Origins
 - Goals
 - Mistake Proofing
 - Outcomes
- Conclusion
- Q&A

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VMMC and VMPS

- Established in 1920
- A nonprofit organization offering integrated health services
- Vision - to be the Quality Leader and transform health care
- Mission – to improve the health and well-being of the patients we serve
- VM in numbers

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VMMC and VMPS

- Virginia Mason Production system
- Benefits of VMPS

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Rapid Process Improvement Workshop

- Introduction
 - Origins of the RPIW on Sepsis
 - Goals
 - Mistake Proofing the Severe Sepsis Bundle during MET response
 - Outcomes


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7 



Origins of RPIW of Sepsis at VMHC

- Severe sepsis mortality was 34%
- Accounted for 8% of MET calls annually if correctly recognized, otherwise even more
- Variability in recognition of RN SBAR
- Lacked in - process inspection for completion of Severe Sepsis bundle within MET response


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8 



Cont.

- Some lack of transparency towards the pharmacy or lab where patient presented with Severe Sepsis
- Inconsistent ordering and sequencing of Severe Sepsis Bundle elements
- No serum lactate re-measures as standard work
- Some confusion among team members


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9 



Cont.

- Communication barriers
- Delays
- **Problem:** Need to improve our ability to sub-target inpatient compliance during the Severe Sepsis MET response


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10 

Goals of RPIW



- Review current process of MET response, applying VMPS concept (mistake proofing)
- Ensure that a RELIABLE bundle is properly used


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11 

Mistake Proofing


- Sepsis
 - Suspected or documented infection with two or more SIRS criteria
 - SIRS criteria

Temperature	$\leq 36^{\circ} \text{C}$ or $\geq 38^{\circ} \text{C}$
Heart Rate	≥ 100 bpm
Respiratory Rate	≥ 20 breaths/min or $\text{PaCO}_2 < 32$ mmHg
White Blood Cell Count	$\geq 12,000$ or $\leq 4,000$ cells/mm ³ or $> 10\%$ bands



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12 

Mistake Proofing

- Severe Sepsis
 - Defined as Sepsis plus hypo-perfusion
 - Hypo-perfusion (one of the following)
 - SBP < 90mmHg or MAP 60mmHG
 - Lactate >4mmol/dL




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Cont.

- Severe Sepsis Bundle
 - Administration of appropriate broad spectrum antibiotics within 1hour after blood cultures have been obtained
 - IV challenge of 20ml/kg over 1hour – recommended 2l of NS or LR
 - 2x large bore peripheral IV's
 - 2x IV pumps
 - Continuous Pulse Oximetry, VSq15min, documentation of start and finish IVF challenge




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Mistake Proofing

- MET calls
 - Call 5555
 - MET responders
 - Goal




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Outcomes


- Red sepsis bundle checklist
- MET form
- MET MD book
- Screen shot
- MET Sepsis group template
- Sepsis lab kit
- Pink lab form
- CCU blue bag
- Standard process descriptions for all MET responses
- Green badge




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Conclusion



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19



Cont

- The RPIW is implemented
- Measurements 30, 60, 90 days
- Its ongoing process



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20



Questions?

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1/26/2012

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21



1/26/2012

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22

