

Sepsis Improving Outcomes through FMEA

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Maryview Medical Center



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Objectives

- **DESCRIBE** the use of FMEA to improve Sepsis outcomes
- **EXPLAIN** the spread of FMEA analysis
- **IDENTIFY** the importance of early Sepsis recognition



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3

FMEA

- **Failure Mode Effects Analysis**
 - Process improvement tool
 - Stakeholders identify a process
 - Discuss the steps that could **FAIL**
 - Discuss the **EFFECT** the failure would produce
 - **ANALYZE** the severity of the effect
 - Design interventions to improve the effects with the highest severity



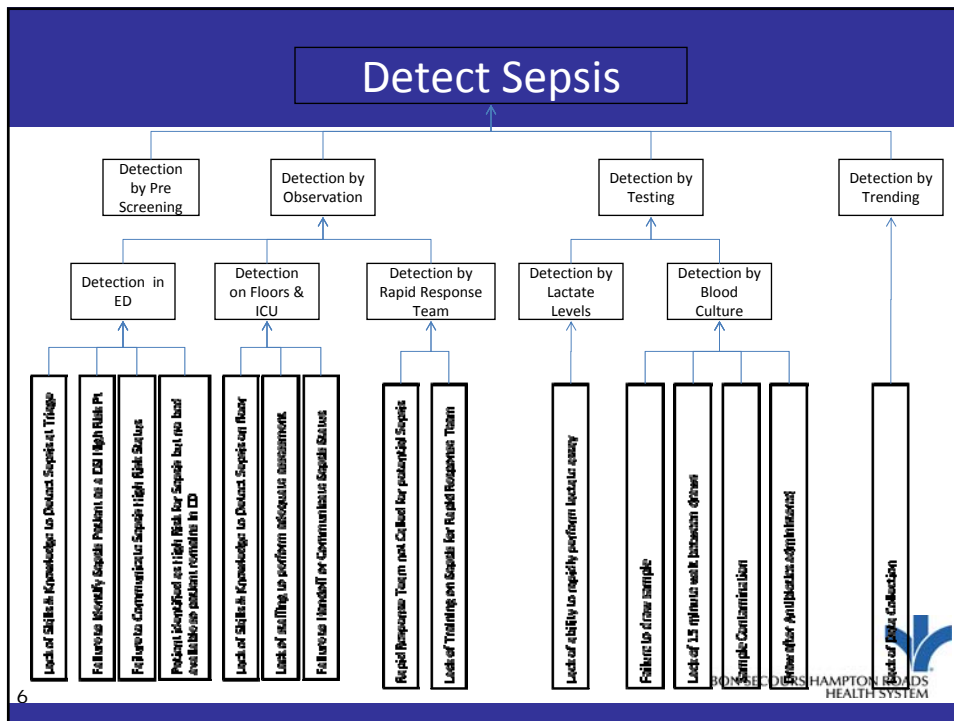
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4

Highest Severity Failure Modes

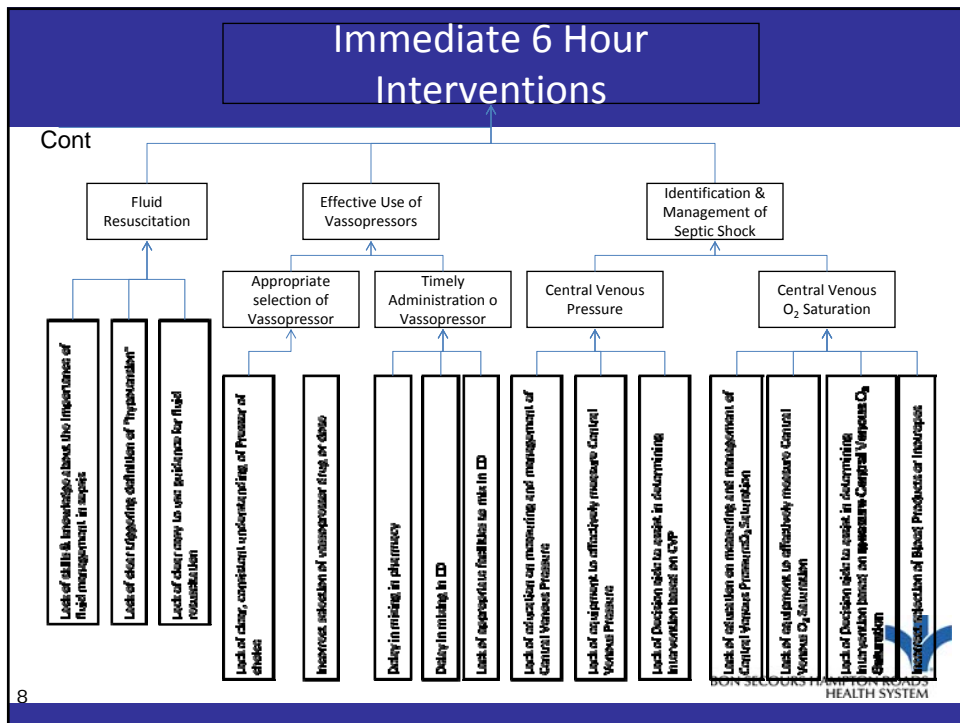
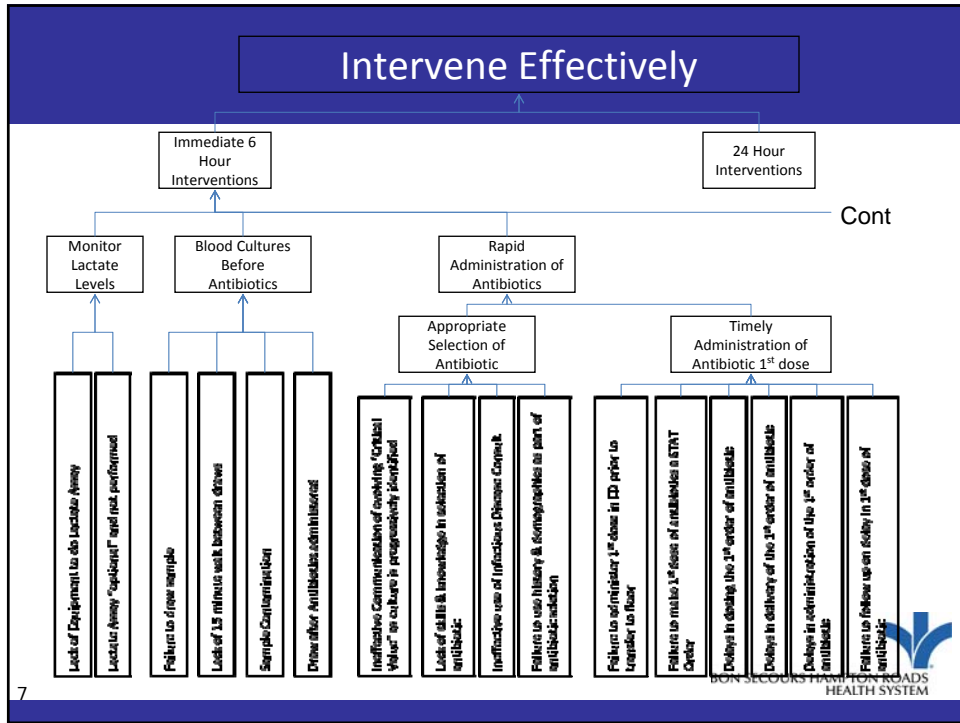
- **Detection**
- Early **intervention** within 6 hours
- Continued interventions for next 24 hours
- **Prevention** measures
- Use of IHI Sepsis Bundle to plan interventions

5



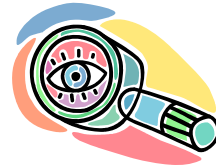
6





Detection

- Skin – Mottled/Discoloration (especially knees)
- Heart Rate > 90
- Blood Pressure – Sys BP < 100 or MAP < 60
- Temp > 100.4 or < 96.8
- Respiratory Rate > 20



Any two findings indicate consideration of Sepsis

9

Intervention

- **Intervene Effectively**
 - Implement IHI Sepsis Care Bundle
 - Blood Cultures
 - Appropriate Antibiotic Selection
 - Administer Antibiotic Timely
 - Fluid resuscitation
 - Draw lactate levels
- **Actions**
 - Provided Sepsis Care Bundle
 - Administer antibiotic early after drawing blood cultures
 - Fluid resuscitation
 - Consult ID early for antibiotic management
 - Lactate levels are optional but do provide evidence of Sepsis



10

Prevention

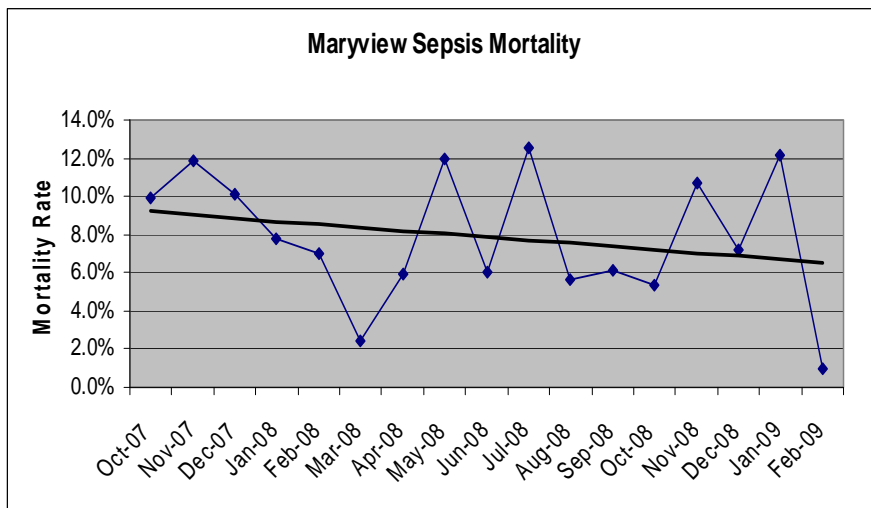
- **Prevention**
 - Central Line Insertion
 - VAP
 - CAUTI
 - Post-op
 - Medical
- **Actions**
 - Central Line site selection
 - Insertion PPE, Skin Prep
 - Sterile dressing changes
 - RRT protocol
 - Hand Hygiene



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11

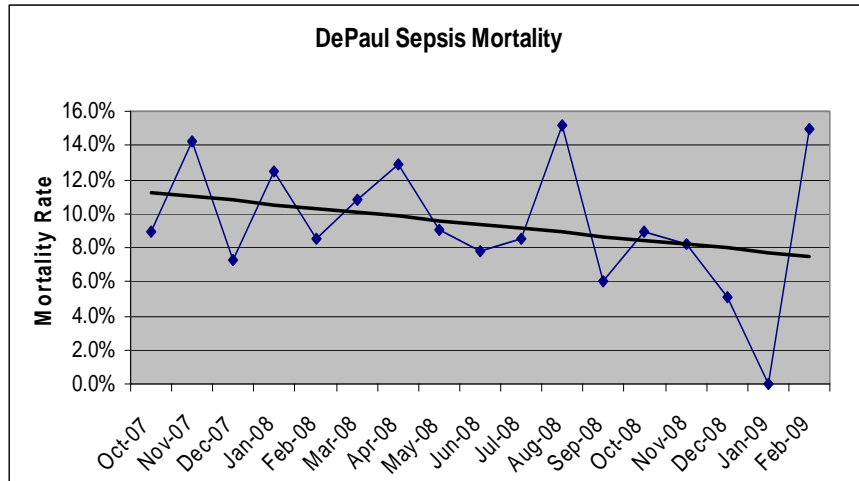
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12

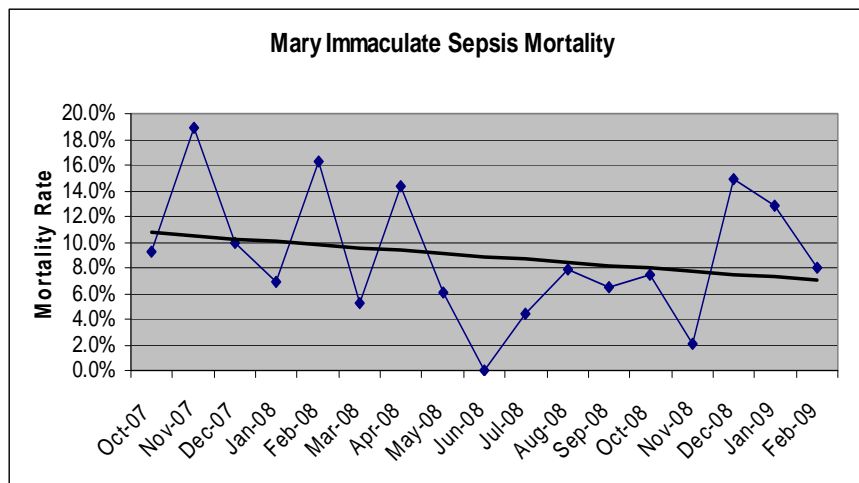
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13

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Mary Immaculate Hospital



14

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Spread the Knowledge

- The failure modes identified are transferable to other facilities
- Shared the FMEA outcomes with Mary Immaculate Hospital and DePaul Medical Center
- Similar results at all facilities
- Use same process for hospital acquired Sepsis

15



Unexpected Advantages

- Pharmacy formulary
- Antibiotic Stewardship



16



Thank You

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