Sepsis Protocols: A Team Effort

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- 520 beds
- Academic
- Urban
- Magnet
- Joint Commission Primary Stroke Center
- Specialties include:
  - Cardiology
  - Oncology
  - Orthopaedics
  - Geriatrics
  - Gynecology
  - Vascular Medicine
  - Endocrinology

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The Sepsis Journey

2006
Hospital Wide Sepsis Team

2008
ED Trial Site for ProCESS Trial

2012
Grant Funded Sepsis Coordinator Position

2013
Inpatient Algorithm and Response Team Began

2015
CMS SEP-1
Defining the Team

- Physicians
  - All disciplines
- Nursing
  - Critical Care, Emergency Department
  - Medical, oncology, surgical, telemetry
- Pharmacy
- Infection Control
- Laboratory
- Radiology
- Leadership
The Algorithm

• Developing the Algorithm.
• Due to the complexity of sepsis each physician specialty had requests on when to activate the team.
• Created before the CMS SEP-1 Bundle
  • Focus on identification not treatment
• The Emergency Department was excluded due to being a trial site for the ProCESS study.

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The Sepsis Response Team

- Made up of 2 Critical Care RNs
  - Evaluate the patient
  - Initiate Nursing Sepsis Protocol
  - Hemodynamically Stable
    - Page primary team
  - Hemodynamically Unstable
    - Escalate to Condition C
      - OR
      - Page Intensivist
The Sepsis Response Team

Bedside nurse screens patient positive for Sepsis based on algorithm

Sepsis Team activated through operator paging system

Bedside Response Team Responders

Sepsis Coordinator

MICU Charge Nurse

RIC Nurse

ROC Nurse

CCM

Pharmacy

AOD

Notified via page then follow up phone call from Response Team

Supply antibiotic within 30 minutes of order

Assign ICU bed within 30 minutes of request

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 pennsylvania DEPARTMENT OF HEALTH
The Nursing Sepsis Protocol Order Set

- CBC w/ Diff and Platelets
- CMP
- Lactate
- PTT, PT/INR
- Blood Culture
- Urinalysis and Urine Culture
- Serial Vital Signs

Optional based on assessment criteria:
- Sputum culture
- Chest AP Xray
The Challenges

• Hospital specialties:
  • Oncology
  • Cardiovascular surgery
  • Neurology
  • Orthopedics
• Sepsis mimics
• No treatment protocol
• ProCESS trial site
The Greatest Challenge - Time Zero

Systolic Blood Pressure

Diastolic Blood Pressure

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Then Came SEP-1

- Algorithm simplified
- Emergency Department now engaged
- Change in focus from identification to treatment
  - System development of physician PowerPlans
  - Physician documentation tools
The Benefits

- Early identification and treatment of sepsis
  - Recognition of severe sepsis/septic shock within 4 hours of symptom onset increased from 47% to 95%
- Decrease in antibiotic administration time
  - 3.9 to 1.4 hours
- Decrease in ICU LOS
  - 11 to 4.6 days
- Decrease in Hospital LOS
  - 26.9 to 15.4 days
- Decrease in Mortality
  - 49% to 38%
Acknowledgements

• Sandy Rader, DNP, MSA, RN, NEA-BC
• Jennifer Gonzalez McComb, MD, MPH, FACP
• Denise Stromoski, BSN, RN
• Louise Oleksiuk, PharmD, BCPS
• Holly Filip, PharmD
• Judy Shovel, RN