Bronx Lebanon Hospital Center

- Bronx-Lebanon is the largest voluntary, not-for-profit health care system serving the South and Central Bronx.
- Acute care hospital with 972 certified beds
  - (BLHC=642, Nursing homes = 330)
- Ambulatory clinics total 39
  - BLHC=20
  - Martin Luther King (MLK)=19
Hospital Sepsis Interdisciplinary Team

- Sindhaghatta Venkatram, M.D.-Director CCU
- Madanmohan Patel, M.D.-Internal Medicine
- Stacey Nunberg, M.D.-Vice-Chair Emergency Dept.
- Jane Fong, M.D.-Vice Chair Pediatrics
- Joselyn Salvador, M.D.-Pediatric Intensivist
- Stevan Gottesfeld, M.D.- Emergency Dept.
- Robert Favelukes, M.D.-Emergency Dept.
- Sahithi Muppavarapu- Medical Data Coordinator
- Swati Namballa-Research Coordinator
Hospital Sepsis Interdisciplinary Team

○ Luisa Sanchez-Performance Improvement
○ Madhavi Nagapaga, M.D.-Family Medicine
○ Cosmina Zeana, M.D.-Infectious Diseases
○ Cristina Koizumi, M.D.-Chief Information Medical Officer
○ Maida Ortiz-Data Management Coordinator
○ Mairead O’Regan, RN- Director PCS Emergency Dept.
○ Larry Chipley, RN-Nurse Educator Emergency Dept.
○ Kyoung Sil-Kang, PharmD- Assoc. Director Pharmacy
Project Description

- Development of sepsis policy-protocol that is evidence based from scientific literature for adult and pediatric sepsis.
- Sepsis screening tool for case identification in the ER
- Process implemented to ensure the early detection of severe sepsis
Project Implementation

- Use of evidence-based sepsis guidelines for early identification and treatment of sepsis.
- Medical alerts for Sepsis—Early warning system for sepsis. Nurse or physician can see the alert (vital signs & lab results) that triggers the sepsis protocol.
- The hospital’s electronic medical record (EMR) used to gather data continuously to provide a framework for developing an early warning system alert for patients at risk of sepsis.
- Protocol Initiation & Continuation Order sets
- Antibiotic order sets based on suspected source of infection.
- Sepsis protocol information tab for clinical and management information on workflow items.
Tools & Resources

- Chief Medical Information Officer
- Medical Data Coordinator
- BLHC Clinician Training and Education Team
Successful Strategies & Tips

- Maintaining engagement of all stakeholders
- Development of individual unit response reports
- Physician champions (residents) in ICU
- Incorporate sepsis care education in new hire orientation and annual nursing competencies
- Hospital staff education by newsletter, huddles, in-service, bi-annual training
- Sharing failed cases (numerator) as early as possible when rounding
- Sepsis protocol built into Allscripts
Challenges & Barriers

- Inconsistent management of sepsis patients that often lead to long delays in the initiation of life-saving measures such as blood cultures before antibiotics, antibiotic, lactate levels re-measured.
- There was not a standardized system in place for documenting sepsis patients in the units to trigger a coordinated clinician response.
- Protocol requirements were done hours before initiation.
- Protocol initiation is done hours/days after actual severe sepsis presentation.
Key Lessons Learned

- Improving communication with resources that are internal and external to the organization was essential.
- PDSA-Test small scale and determine if improvements achieved can be sustained.
- Form a hypotheses and collect data.
- Ongoing review of processes…it takes many tests to build innovations.
Outcomes & Data

Data reported to CMS on the early management bundle of severe sepsis and septic shock has gradually improved due to:

- Workflow was streamlined
- Provider alerts developed within the EMR
- Documentation with embedded order sets
Outcomes & Data

- Reasons for sepsis failed cases are mostly due to repeat lactate level with 40%.
- Crystalloid fluids, antibiotic administration, blood cultures before antibiotics each are 20%.
- Data source: Press Ganey
- Q 2- 2017
Steps for Hardwiring & Spread

- Quarterly Interdisciplinary team meetings
- Process established for prompt ICU referral of severe sepsis and septic shock cases that arrive in the ED and also those cases that develop within the hospital
- IT continuously enhancing protocols, alerts and orders
- Developing a process for reporting data captured in the EMR by unit/floor
NYS PARTNERSHIP FOR PATIENTS  Sepsis Protocol Document

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