Purpose
Utilize Clinical Decision Support (CDS) tools within the electronic health record (EHR) to facilitate early sepsis identification and treatment to improve AtlantiCare’s sepsis mortality rate by 20%.

Relevance & Significance
National
- Sepsis kills an American every two minutes; implicated in as many as 50% of all hospital deaths & is the most expensive condition treated in US hospitals
- 80% of deaths are preventable - early intervention increases the chance of survival
- Identified “Sepsis Belt” - clustered mortalities
- Surviving Sepsis Campaign aligns with The Centers for Medicare & Medicaid Services (CMS) SEP-1 Measure evaluating quality of sepsis care at hospitals
- Screening tools & protocols improve outcomes; by streamlining tasks & collaborative adherence to early management bundles (EMB)

Local
- AtlantiCare sepsis mortality rate in 2014 was comparable to NJ state average of 32%
- AtlantiCare introduced a hospital wide sepsis protocol & sepsis team in 2015
- Member of New Jersey Sepsis Learning & Action Collaborative (NJ Hospital Association NJHA) in 2015
- 2015 a Plan-Do-Check-Act (PDCA) team formed to reduce sepsis mortality by 20%

Strategy & Implementation
Go Live- Oct’15
Clinical Decision Support
- Cerner St John’s Cloud algorithm mines patient data
- Fires real-time SIRS or Severe Sepsis alerts if criteria met
- EMB & electronic pathway
- Automated documentation

System Enhancements
- Analytics for compliance & outcome tracking
- Mitigation plan for system failures- “alert for the alert”
- Automated repeat lactate
- Focused assessment alert

Evaluation
- Implemented
- Chart elements updated in 2016
- Triggers instituted
- EMB status changes in 2017

Clinical Decision Support & Clinical Workflow

Implications for Practice
Facilitates Transitions of Care
- EMB
- Electronic pathway
- Admissions & discharges
- ED nurse protocol
- Identifies “Sepsis Belt”

Guides Practice
- Sepsis protocol & bundle
- Groups tasks
- Defines roles
- Guides transitions of care

Outcomes
- PDCA mortality goal of 20% met - check cycle drives new action plans
- Hospital-wide sepsis protocol resulted in earlier recognition of sepsis with improving rate of adherence to CMS EMB bundles
- Early recognition alerts are 76% accurate in diagnosing sepsis
- Received Healthgrades Distinguished Hospital of Clinical Excellence in 2017 (30.5% less risk of dying from Sepsis)

Performance Improvement
Pre-hospital care
- EMS sepsis protocol & “Code Sepsis”
- Skilld Nursing Facility outreach
- Public sepsis awareness & advocacy

Transitions of care
- ED Provider & Nurse EMB hand-offs
- Sepsis survivor education
- Admissions & readmissions

Acknowledgements & References
Empowers RN
- Critical thinking
- Early treatment
- Triggers Sepsis Response Team
- ED nurse protocol

Fosters Teamwork
- Partnering to save tissue & lives
- Educators & champions
- Interprofessional steer team
- Quality Team abstracting, trending & tracking of SEP-1/EMB & celebrating success & exploring opportunities

Questions? Email: pamela.walch@atlanticare.org | pamelawalch@atlanticare.org

References
- Sepsis Campaign - New Jersey - Do It Now - Time to Act - SEP Check - Relevance & Significance - Mortality
- Reducing Sepsis Mortality: A Quality Improvement Initiative, Leveraging Technology to Empower Nurses
- Pamela Walch, MSN, RN-C (Quality Management)
- Summer Tinkcom, RN, (Nurse Informatics Specialist)