NEW JERSEY SEPSIS LEARNING-ACTION COLLABORATIVE 2015

A YEAR OF PROGRESS

Health Research and Educational Trust of New Jersey
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New Jersey Hospital Association
Institute for Quality & Patient Safety

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Twelve months ago, 73 healthcare organizations came together to begin what would be a difficult challenge: to save lives by improving the care of patients with sepsis across the state of New Jersey. Since then, the New Jersey Sepsis Learning Action Collaborative has grown to be a multi-discipline, multi-level of care, dynamic support network for healthcare providers. We have set lofty goals to establish hospital-wide sepsis screenings and hospital-wide sepsis treatment protocols, and many of our members have achieved those goals and many others are well on their way. Our ultimate goal is to decrease sepsis mortality by 20 percent and recent data shows that we are close to achieving that goal as well.

We recently asked our collaborative members to summarize their progress over the past year. The responses we received were powerful and inspiring, so much so that we felt they should be shared for all members to see and appreciate.

On behalf of the New Jersey Sepsis Learning Action Collaborative management and faculty, thank you to all our member organizations for your commitment and immense effort over the past 12 months. We look forward to our continued work with you all, because, as one team responded, over the course of this collaborative we have been surprised at how much we have achieved already, and how much more there is to achieve.

Aline M. Holmes, DNP, MSN, RN
Senior Vice President, Clinical Affairs
Director, NJHA Institute for Quality and Patient Safety
New Jersey Hospital Association

PARTICIPANTS

Acute Care Members

St Francis Medical Center
Kennedy Health System
Memorial Hospital of Salem County
Hunterdon Medical Center
Raritan Bay Medical Center
Inspira Medical Center Vineland
Inspira Medical Center Elmer
Inspira Medical Center Woodbury
Robert Wood Johnson University Hospital
Robert Wood Johnson University Hospital Rahway
Robert Wood Johnson University Hospital Somerset
Robert Wood Johnson University Hospital Hamilton
Riverview Medical Center
Ocean Medical Center
Bayshore Community Hospital
Jersey Shore University Medical Center
Southern Ocean Medical Center
Newton Medical Center
Overlook Medical Center
Morristown Medical Center
CentraState Medical Center
CarePoint Health Hoboken UMC
CarePoint Health Christ Hospital
CarePoint Health Bayonne Medical Center
Capital Health System
Saint Clare's Health System
The Valley Hospital
Saint Michael's Medical Center
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St. Joseph's Regional Medical Center and Wayne Campus
Hackensack University Medical Center
HackensackUMC Mountainside
Virtua Memorial
Virtua Marlton
Virtua Voorhees
Community Medical Center
Clara Maass Medical Center
Newark Beth Israel Medical Center
Saint Barnabas Medical Center
Monmouth Medical Center
Jersey City Medical Center
Monmouth Medical Center South
Trinitas Regional Medical Center
Deborah Heart & Lung Center
Meadowlands Hospital Medical Center
East Orange General Hospital
JFK Medical Center
Palisades Medical Center
Cooper University Hospital
Cape Regional Medical Center
Shore Medical Center
Saint Peter's University Hospital
Englewood Hospital and Medical Center
Bergen Regional Medical Center
AtlantiCare Regional Medical Center (City and Mainland Campus)

Post-Acute Care Members

Allendale Community for Senior Living
AristaCare at Alameda Center
Preakness Healthcare Center
Fellowship Senior Living
St. Lawrence Rehabilitation Center
Voorhees Pediatric Facility
Acuity Specialty Hospital of NJ
HealthSouth Rehab Hospital Tinton Falls
HealthSouth Rehab Hospital Toms River
Windsor Garden Care Center
Bergen RMC Nursing Home
Mercerville Center Genesis Health Care

WHAT GOALS HAS YOUR TEAM BEEN ABLE TO ACHIEVE THUS FAR IN THE COLLABORATIVE?

Sepsis Team Alert process, amended policies and procedures for three and six hour bundles, increased inclusion to multidisciplinary team, provided bolus table for quick reference of CMS required documentation.

ED modified EMR to consolidate all 3 hr bundle items. EMR updated to create a separate 3 hr and 6 hr bundle. Order set compliance has improved but inconsistent monthly through changes to EMR and LIP/staff education. Revamped & re-invigorated the Sepsis Champions, with reps from each pt. care unit. Monthly Sepsis meetings - Quality reports data to committee members.

Implement hospital-wide evidence-based severe sepsis protocol. Evaluate and implement Sepsis Alert available in our EMR (automated early identification of severe sepsis/septic shock).

We have reached 100% compliance with the 3 hour bundle for the month of September 2015.

Established baseline data, Team development, Identified areas of greatest opportunities, Noted that we have similarities in practice areas as other organization, Implementation of software in November/December 2015 to assist with identification of patients with Sepsis, Educational rollout started with process mapping and algorithm.

Complete a baseline knowledge survey of M/S nurses. Create a Sepsis Core Measure checklist for M/S nurses. Develop and begin implementation of Sepsis education rollout for M/S staff. Education on the Sepsis Core measure bundles to the Critical Care Intensivist and Hospitalist. Standardization of revised Sepsis Pathway system wide.

Paper screening tool has been developed and contract for electronic Sepsis Screening tool has been signed. Sepsis education is going out to all nursing staff this week. Lactic acid and ABG lactate Critical result of 4 gets called to the floor/ED by lab. Education to ED Physicians and Hospitalist group regarding fluid resuscitation by physician champion.

Implement hospital-wide evidence-based severe sepsis protocol.

The team has been able to develop a screening tool for Sepsis, develop a standardized Order Set and educate physicians, residents, nurses, Emergency Department techs, PCAs, and Laboratory personnel.

Implementing sepsis early recognition screening in 90% of patients. Reducing mortality to 16.67.

Providing Sepsis education to Med/Surg, ER, Critical Care nurses. Revision of Hospital Sepsis Policy and Protocols. Implementation of Sepsis screening in ER. Nurse driven protocols to activate “Code Sepsis/RRT” and draw blood cultures and lactic acid levels and sepsis assessment meets criteria.

Staff awareness, Education of Nurses, pre and post survey conducted.

Our goals are: achieve 90% compliance with 3 hour Sepsis Bundle and to decrease sepsis mortality up to 10%. We have achieved 80% compliance and 3.5% decrease in Sepsis mortality (NJHA 2Q2015 mortality, no exclusions). Our current preliminary internal data shows > 10% decrease in Sepsis mortality within the last 3 months.

Screening tool in place in ED. Measuring the number of admitted patients who are screened using the tool. Measuring RN to MD communication regarding positive screens. Created process for reflex order for repeat lactate. Re-educating nurses throughout the hospital.

Residents on early sepsis were identified, and early interventions prevented hospitalization.

From involvement in the NJ Sepsis initiative and SSC collaborative, we have greatly expanding the sepsis screening process and education to the Nursing staff. We have built electronic screening tools, physician order sets and are working toward building reports for data collection along with a workflow.

Developed a protocol/order set for the ICU for Septic Shock. Developed and implemented an ED Sepsis Checklist to assure all elements of the 3 hour bundle are met as well as sepsis awareness. Begin the first phase of development and implementation of a nursing medical-surgical sepsis screening assessment.

We have been able to achieve the education and implementation of the Sepsis Protocol hospital wide.

Maintain POA severe sepsis /septic shock mortality <12%. Current mortality for POA severe sepsis/septic shock is 11%.

Our team has been able to really increase and improve our sepsis education. For one campus: The medical surgical staff was given information by our nursing education department on SIRS criteria and infection criteria, how to identify each, and what to do if you suspect sepsis. Simplified early identification tools were laminated and placed on every medication cart for the nurses' reference. There was an email that was also sent out to the nurses of the emergency department highlighting the early identification of sepsis, the 3-hour bundle, and the 6-hour bundle. For the other campus: A sepsis module was made available on our intranet system that was developed by the team lead APN and education department. This module was a mandatory education for all medical-surgical and critical care nurses and was due by June 15th, 2015. The same simplified early identification tool available at one campus was part of the module and was also placed on the intranet for the nurses to reference at any time. For both campuses: All levels of nursing staff on both campuses were able to attend a "Nursing Grand Rounds" presentation on sepsis by the team lead APN and team lead physician that offered 1.0 contact hour. The same presentation is also now being given by the APN to all critical care orientees – this includes telemetry, intensive care, post anesthesia care unit, and emergency department nurses of both campuses.

We have successfully designed and implemented a sepsis screening tool used in our critical care units.

Policy, Education Tools and Algorithms, Order Sets, Huddle Checklist for Code Sepsis, Sepsis Progress Note, Code Sepsis Activation, Code Sepsis response Team, Systemwide Teamwork.
Create and implement screening tool and order set to be automatically implemented with a positive screen, working to implement this practice throughout all system hospitals nationwide.

Marketing plan, nurse protocol for lactate and blood cultures.

Hospital wide education with pre/post testing. Sepsis quality scorecard. Monthly Sepsis reporting at Quality Leadership, ED Leadership. Sepsis Screening Module rolled out. SIRS/ Sepsis alerts. Standardized treatment protocols. Maximizing the EMR.

Sever Sepsis/Septic Shock mortality 2q 2015 baseline was 24.08%. 2nd Quarter 2015 rate is 22.54% which is 6.4% reduction. We have implemented a housewide evidence based severe sepsis protocol. We have implemented an automated early identification alert for severe sepsis and septic shock for adult patients excluding the OB patient. Baseline 2nd Q 2015 for 3 hour bundle compliance with all elements was 40.74%. 3rd Q rate was 43.66%, a 7.2% improvement.

Establishing hospital -wide Sepsis Collaborative; formalization of severe sepsis management policy.

Identified areas needing opportunity for improvement as being med/surg. Revised algorithm to reflect newest guidelines. Developed education plan for Med/Surg nursing.

Implemented the clinical staff education. Completed Attending Physician and Physiatrist education.

Revising our sepsis order form and flow chart, weekly sepsis team meetings.

Sepsis & severe sepsis/ septic shock protocols instituted house wide.

Development of Screening tool and Surveillance Tracker in EMR system.
Revised the Best Practice Alert in EMR. Developed a Nurse Driven Protocol. Incorporated Sepsis Protocol in our RRT process.

Increased 100% bundle compliance by 49% (12/31 in Jan to 30/52 in July); Increased fluid measure compliance by 294% (4/22 in Jan to 12/17 in July); Decreased severe sepsis/septic shock mortality by 47% (34% in Jan to 18% in July); Improved our FY O:E mortality from 1.02 to 0.93, putting us in approximately the 65th percentile.

We have certainly improved our drill downs of sepsis bundle missed opportunities. Cases are analyzed for any potential areas of improvement, such as changing processes or by further educating clinicians. We also had the opportunity to participate in an NJHA sepsis collaborative webinar and to share our knowledge and practices with other institutions with the hopes of providing others with tools they can use to improve clinical outcomes and save lives.

Implementation of the sepsis screening tool in ED. Started the sepsis protocol order set in ED.

Electronic screening, housewide education and roll out, CPOE electronic sepsis order sets.

Establish nurse driven protocol for early identification.

Educate staff using post- acute tool kit.

Developed and implemented a sepsis screening tool for all ED patients, Sepsis screening documented in triage note initiated in EMR, Established sepsis policy and Sepsis order menu.

The team has implemented PI Tools, sepsis education, and structured system-wide and local steering committees. System leaders have accepted the “bundle” order sets and modified those in the Emergency Departments.

To learn more about Sepsis - its early detection and management.

Rapid response sepsis assessment, fluid resuscitation 100% time for LA>4.hypotensive,initiated nurse order set for ED RNs, sepsis rounds in ICU, LA>4 made critical lab value.

We have implemented EMR technology and process to identify patients with sepsis; We have increased the number of Code SMART/Code Sepsis calls; We are on target for a 20% decrease in sepsis mortality.

Use of screening tool.

Hospital wide education on Sepsis has taken place. The whole house is now aware of sepsis, how important early recognition and treatment of sepsis is and the evidence based guidelines that are necessary to treat sepsis. Implementation of hospital wide “Code Sepsis” Teams. Sweeping house wide education and management of Sepsis using Surviving Sepsis Campaign bundles. Improve quality of care delivered to the septic patient. Improve communication between providers in the care of the septic patient. Improve awareness and early recognition of patients with severe sepsis.

Identification of staff knowledge about sepsis and provision of staff education to improve the quality of patient care.

Our larger sepsis workgroup has created 2 smaller teams POA and NPOA. Each addressing early identification and treatment of their patient population. Sepsis education tools for LIP and nursing created and distributed. POA created alerts within the ER documentation system, working with EMS to do point of care lactates and fluid delivery, obtained a pharmacist dedicated to ER for limited hours, reinforced existing nurse driven sepsis order set. The NPOA group worked on refining current alerts and actionable items associated with those alerts for unit based nurses, engaged physician staff to utilize order set for sepsis, conducting a pilot for a nurse driven lactate order set.

Team meets at least twice monthly and as necessary to establish implementation, early recognition, screening, standardized sepsis treatment protocols, response processes, and standardized documentation.

Sepsis alert.

Go from paper to electronic and go house wide with screening.

Implementation of screening tool in ED. Data collection for percent of admitted patients are screened for sepsis, RN communicating positive sepsis screen to ED MD and MD protocol orders.

Shortening time to fluids and antibiotics in ED.

Increased the amount of lactic acids drawn and recognition of sepsis prior to our alerts firing.

LOOKING BACK OVER THE PAST 9 MONTHS, IS THERE ANYTHING YOU WOULD HAVE DONE DIFFERENTLY IN YOUR IMPLEMENTATION PLAN?

Start educational and screening processes earlier. Initiate sepsis team earlier.

Request to administration for a coordinator to help improve overall tracking. Meet with the medical staff early on to discuss weak areas of sepsis care delivery and seek early buy in from those practitioners. Improve the use of advanced directives and POLST.

Yes, started earlier, but due to staffing constraints, we were unable to.

There was redundancy of work from the Six Sigma Team and the teams working on the NJHA Collaborative, Better communication could have occurred between the Six Sigma Teams and the local teams, We should have included non-licensed nursing staff and other non-nursing clinicians.

Initiated the Sepsis Six Sigma Green Belt Project sooner.

Asked for more leadership/staff support prior to introducing the screening process.

Incorporated a more extensive educational plan to include all physicians, not limited to ED, ICU Intensivists and Hospitalists. Establish relationship/communication with Extended Care Facilities at the beginning of the program, though we have had preliminary meetings together regarding developing a process for hand off communication for those patients that were identified at our hospital to ensure continuum of care.

We would have met more frequently to assess, plan, implement, and evaluate planned interventions in a more time sensitive manner.

More physician involvement at the beginning of the collaborative

Increase communication- work in progress.

We would involve the front-line staff earlier by mapping the process and plan interventions accordingly.

Not that we are aware of this time.

Probably acting more aggressive in the implementation of the sepsis interventions.

I think if we established a pilot unit it may have help us work out the kinks more smoothly, instead since we went electronical so early in the process we did not have the option of only piloting one floor.

Encouraged more physician involvement.

We would have liked to have joined the collaborative earlier and rolled out our protocol sooner.

Focus was on POA sepsis; need to also look at NPOA cases.

When starting the planning for the early identification tool, we spent a majority of our time investing into immediately putting an alert into our electronic medical record. However, due to major changes going on in our electronic record in the past few months (provider documentation and ICD-10) we were not able to move forward with that at this time. Had we known that from the beginning, we would have started planning for and implementing a paper tool sooner.

Provide more bedside staff education including a focus on their key role in the sepsis bundle.

We would have gone live with the policy and protocols sooner.

Implemented tools earlier.

I think a physician should have been lead for this committee.

Reviewed the coding/billing and documentation first.

Spent more time and effort on educating the physicians about sepsis management, documentation and order sets to ensure compliance with 3 hour bundle.

Include nursing sooner - delays with bringing everyone up to speed; initiatives heavily dependent on nursing and as such, needed their support and approval.

Not at this time. We continue to work towards our goals.

Started earlier but due to staff constraints, were unable to.

Find a Sepsis Physician champion to help implementation of protocols and to keep physicians updated.

We were hampered by the implementation of the new documentation system which resulted in many changes and delays to our plans.

Meet more frequently to ensure better communication. Challenge due to lack of buy in for the data elements that are not evidenced based.

Been more strict with the application of the 3hour timeline, move to inpatient and 6 hour pieces sooner, make a plan for key staff members vacations prior to it occurring, make the data more understandable to the staff, make a more compelling scorecard.

One important element that we could have done differently would have been to bring the different campus groups together to explain the program and ask for campus specific barriers to successful involvement from the staff.

No, I think our plan of doing a pilot in ED and then implement hospital wide is effective.

I would have wanted to go house-wide sooner.

I would have not started with a pilot unit and focused on global sepsis identification education.

Schedule more frequent sepsis team meetings.

Our system feels the implementation plan developed has been successful.

Develop strong assessment skills among nurses.

When we implemented our EMR identification of Code Sepsis, we depended on a message from EMR to a pager with our operators. Our pager system went down and we needed to develop a back- up plan of sending the message to a printer. We wish we had anticipated the need for a back- up plan.

Started earlier.

Slow the rollout so that improvements can be made real time and not trial by fire. Provide more education and hands on training to alleviate fears and confusion.

Started our POA and NPOA teams earlier, each has embraced their role in the septic patient.

Implemented the 3-6 hour bundle across all Units, Critical Care and the ED simultaneously.

Empowered more physicians to join in collaborative.

Implemented pro-calcitonin screening earlier.

Trained the whole house at the same time.

No (7 organizations responded)

PLEASE FINISH THIS STATEMENT: Over the course of this collaborative we were surprised by...

The amount of patients in our area (ESRD, DM, COPD) that come in with increased lactates and do not meet sepsis criteria (as we review all lactate levels >2). How responsive the interdisciplinary team was to sepsis initiatives.

Generalized lack of knowledge of severe sepsis EBP care of both physicians and nurses and how this ties into mortality rates and reportable measures from our org.

The receptiveness of all the staff.

How much better we were than we originally thought. We were also surprised by the various processes to treat sepsis.

Really not surprised by anything, very grateful that this project has help move our team along. Thank you.

The extended time it takes to implement changes. Feedback from those who were opposed to screening now realize the importance of screening and the impact it has on patient outcomes.

The number of Alert Sepsis cases that have been fired over the course of 2 ½ months since the go live in ED, ICU, Med/Surg. and WHU.

Over the course of this collaborative we were surprised by the fact our baseline statistics for care of the sepsis patient were as high as they were and that we did so well in comparison to the New Jersey State numbers.

The failure to recognize sepsis early.

The drastic changes in mortality from Q1 to Q2.

The number of resident with the dx of sepsis.

How complex implementing new electronic processes and how many disciplines are needed and involved when there are many competing priorities.

The difficulty identifying a process for who to call when an inpatient triggers the screen.

The amount things you can do in the facility before sending residents to hospital.

The complexity of sepsis. Sepsis seems clear by definition but each patient scenario was very unique and was a learning experience. TY.

The willingness of staff to take on this challenge.

This protocol remaining a challenge in spite of a multidisciplinary concerted effort.

At our hospital - nothing!! Great collaboration among all NJ hospitals in getting their sepsis teams up and running. Great work being done everywhere. It is wonderful to see the LTC facilities working so closely with their acute care providers.

The willingness and excitement of the staff to take on this initiative. Although an early identification tool is not mandatory at this time, the simplified tool is available and has been utilized by nurses with multiple success stories. The nursing and education departments were excited about these cases and reported them to the team. The team lead has also gotten feedback from many nurses while walking in the hallways of the hospital telling her how useful the “Nursing Grand Rounds” educational activity was and how the tool supports their decision making and implementation of best practice.

The complexity of the chart review process and data extraction.

The number of patients presenting to ED with sepsis.

The mortality rate of LTAC patients with severe sepsis.

The number of hospitals that were in a similar position regarding sepsis.

Because sepsis can impact all age groups this measure has taken every department and hospital team to successfully pull together the project. A unifying endeavor that saves many lives.

The amount of ongoing oversight required to change the culture around sepsis management. It requires constant vigilance and real time feedback to clinicians.

Lack of awareness of recent sepsis management guidelines, including CMS sepsis mandates; challenges with bringing other departments on board with severe sepsis management.

Inconsistencies within our system.

Education our clinical staff required on sepsis warning signs.

How well our IVAB compliance rate is.

Our compliance rate of the 3 hour bundle we thought we had a good handle on the bundle, however we were surprised that physicians still struggle with the presentation time.

The amount of time and number of resources both staff and technology needed for the collaborative and continued monitoring.

The nurses lack of understanding to the question – "does the patient have an infection?" Also how labor intensive this improvement would be.

Small simple fixes that were identified in real-time made vast improvements in care. Also, less than perfect care is still an improvement.

How well our team came together so quickly and with so much solidarity to find ways to achieve our goals.

The result of our chart review and identifying areas of noncompliance. We were also surprised by the high severe sepsis mortality rate.

How well the nursing staff took ownership for sepsis.

The lack of knowledge related to sepsis screening at our organization.

How little we knew about treatment for sepsis and timing for that treatment.

Once screening initiated how the documentation improved with sepsis bundles with timing. The lack of use of order sets, the lack of Standard Call Parameters, and the need of additional equipment for vital sign monitoring.

The decrease in Sepsis statistics.

How many hospitals have strong physician leadership and champions.

The number of patients who meet SIRS criteria but are not septic, as well as the ease of implementation of the EMR alert process!

Lack of knowledge of the SIRS criteria by healthcare providers.

The universal acceptance of the bundles and overall staff compliance with the process.

The degree of importance that all facilities are focusing to prevent hospital readmission and or acute care transfer.

The impact technology limitations have to enable compliance with practice.

The overall positive response to fluids and I/V antibiotics in those patients with severe sepsis and septic shock and the sense that end-of-life care must be initiated carefully and in tandem with the CORE TEAM early in the presentation to the Acute Care Facility prior to undesired treatment.

How well it is working.

How wonderfully the nurses have been with this new core measure.

How difficult it is to set up computer support for identification of sepsis cases.

The frequency of sepsis diagnosis in the absence of meeting SIRS criteria.

How much we have achieved already, and how much more there is to achieve.

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