Solution: Implementing the Surviving Sepsis Campaign: Lessons Learned and Data Shared

Organization: Shore Health System
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IDENTIFICATION:
In 2006 in an effort to improve patient care and reduce mortality, Shore Health System (SHS), an affiliate of UMMS on the Eastern Shore, and The University of Maryland Medical System (UMMS), did a thorough data review to investigate which DRG’s contributed most significantly to mortality. A review of this data at SHS showed that Sepsis consistently had one of the highest mortality rates at both its hospitals and contributed significantly toward the overall mortality for the entire system. This analysis prompted SHS to conduct a thorough retrospective chart review for all patients admitted with sepsis in 2006 in an effort to determine whether or not evidence-based practice was in fact being followed. Our chart reviews showed that there did not seem to be a standardized process for diagnosing or treating sepsis at that time. UMMS then looked at the data for its acute care hospitals using the Care Science/Premier risk adjustment tool and determined that sepsis was in fact a major contributor to mortality throughout the entire system. At this point it became clear that adopting the Surviving Sepsis Campaign first at SHS and subsequently throughout UMMS would go far in reducing mortality within a substantial catchment area of Maryland.

The Surviving Sepsis Campaign (SSC) guidelines have been available since 2007 and although the guidelines have been published, implementing them within a hospital, especially within rural/community hospitals has proven to be quite difficult. The guidelines require resources (both human and technological), teamwork and coordination of care between nursing, pharmacy, and physicians across multiple disciplines and between multiple service lines. Shore Health System formally began to roll out its education of the SSC in the summer of 2007 and began its formal implementation in the fall of that year. UMMS set out to implement these guidelines throughout their system which at that time included 5 hospitals (1 academic and 4 community) and 2 specialty hospitals. For most of the hospitals and medical staff, there was a significant knowledge deficit at the onset of this Campaign, signaling the need for much education and thoughtful coordination across the System. This presentation will discuss the ways in which UMMS coordinated all of the facilities within the system and specifically how SHS was able to implement the Campaign guidelines, with excellent results. Shore Health System will present their results and display their hospital data from over 16 months since formally beginning the Campaign in the fall of 2007.

PROCESS:
SHS and UMMS formed independent task forces to implement the Surviving Sepsis Guidelines. The UMMS task force included intensivists, emergency department physicians, infectious disease physicians, nurses, and quality improvement specialists. In addition to SHS, each hospital then also formed their own multidisciplinary task force whose goal was to implement
the Campaign guidelines. Shore Health System will share their experiences and lessons learned throughout the presentation.

The UMMS process began with the system task force drafting a list of guidelines based on the Surviving Sepsis Campaign guidelines. This draft was then reviewed at each facility with comments back to the system task force. In this manner all documents were reviewed, including antibiotic guidelines, ED algorithm, ICU order set, sepsis management guidelines, and performance metrics. This process allowed over 60 physicians and licensed practitioners to be involved in the process throughout the UMMS system. The sharing of ideas and active requesting of input from all the hospitals (including senior leadership) allowed a feeling of ownership on the parts of administration, the staff and physicians. This approach allowed for an improved implementation since there was medical staff buy-in up front.

Shore Health System will go into detail discussing ways in which organizational obstacles to care delivery were dealt with such as the need for central line insertion and CVP monitoring on all patients with severe sepsis and the need for continuous ScvO2 measurements. In addition to formalizing the SSC guidelines, SHS was able to make these guidelines a mandatory requirement for any patient admitted with severe sepsis or septic shock. SHS will share the process by which this was accomplished.

SOLUTION:
The solutions implemented as described above have included spreading the evidence-based early goal directed therapies from the SSC throughout the organizations and the ongoing close monitoring of results. SHS began its implementation and data collection prior to the beginning of the formal UMMS sepsis task force and therefore proved to be a valuable resource to the system regarding issues that the larger task force would need to address more actively. In this way, SHS became a valuable pilot site for the system.

At this point SHS is actively collecting data from each of their two hospitals on key metrics of the surviving sepsis campaign. SHS has over 16 mos. of data to date and will share its data collection tool and process for data collection with the conference attendees. UMMS has begun formally collecting hospital-specific data on selected campaign metrics including time to antibiotics, time to transfer to ICU, compliance with initial fluid boluses in the ED, and mortality. SHS will report additional process measures they have collected in an effort to ascertain performance and encourage compliance with all elements of the sepsis pathway.

In an effort to sustain results and encourage transparency, all hospitals are submitting their data to UMMS to be displayed on the system-wide report card. SHS has hard-wired the sepsis pathway into their standard operating procedures by working with their MEC to make the sepsis pathway and ICU sepsis order sets mandatory across both hospitals. Their results reflect growing compliance and marked and sustained reductions in mortality.

In addition to tracking the process and outcome measures for the system, every 6 months the system goes through a formal process to review the current literature. This allows the guidelines that have been implemented at UMMS to remain relevant and appropriate for all patients with
sepsis based on the most up to date findings and discoveries. These Campaign updates will be shared during our presentation.

The true success of this program has come from working within both the larger UMMS system and with each of the individual hospitals to spread education and monitor crucial elements of performance. As a result, many lives have already been saved and will continue to be saved going forward.