

2010 Showcase in Excellence Award Recipient

Banner Desert Medical Center

The S.E.P.S.I.S. Project

“Strategies to Eliminate the Progression of Severe Irreversible Sepsis”



Company Information:

Highest Ranking Official:
Todd Werner, CEO

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Type of work:
Banner Desert Medical Center is a flagship facility for Banner Health, one of the largest non-profit hospital systems in the United States. This 549 bed facility in the East Valley of metropolitan Phoenix serves as a tertiary healthcare referral center, providing comprehensive services and community education to all age patients.

Workforce: 3700 employees

Testimonial of Value of the Arizona Performance Excellence Award Program:

“Banner Desert Medical Center is honored to be a recipient of the AQA Showcase in Excellence Award for our clinical excellence in the elimination of severe Sepsis. This award is a confirmation of our Banner Health mission of excellence in patient care. It also showcases our dedication to industry leadership in clinical performance outcomes. We look forward to building a framework throughout Banner Health to replicate this program for the safety of our patients and the continued education of our employees. Thank you for this opportunity to celebrate and to share in this honored award program.”

Todd Werner, CEO

Highlights of Organizational Process:

As a non-profit organization, Banner Desert Medical Center (BDMC) is deeply committed to our mission: “To make a difference in people’s lives through excellent patient care.” This mission is embodied in our vision “to be a national leader recognized for clinical excellence and innovation, preferred for a highly coordinated patient experience, and distinguished by the quality of our people.” Core competencies expected of every employee reflect our organizational values of 1) “people above all” demonstrated through patient centered, collaborative practice, 2) “excellence” demonstrated through integrity, ownership, and an attitude of continual pursuit of the highest quality care and service, 3) “results” demonstrated in accountability for outcomes exceeding the expectations of those we serve and ourselves, and 4) “leadership” demonstrated through identification and optimal application of organizational talent, shaping the future of our own and industry wide performance .

Process Identification:

Severe sepsis and septic shock are the #1 cause of death in non-coronary Intensive Care Units, with mortality rates exceeding 30%; is the 10th leading cause of death worldwide; and is increasing in incidence at 1.5% annually. Additionally, the implementation of clinically proven, life-saving therapy in the care of patients with sepsis is one of the highest financial burdens incurred by acute care facilities, accounting for 40% of total intensive care expenditures. The S.E.P.S.I.S. Project objective and mission statement was to achieve clinical excellence by defining, developing, and implementing mechanisms for early recognition and patient identification across the adult inpatient population, facilitating consistent implementation of evidence-based, time-sensitive therapy, resulting in reduction in mortality by 25% within five years. This goal was derived in accordance with the national Surviving Sepsis Campaign under the auspices of the Society of Critical Care Medicine. Baseline data collection did reveal overall mortality rate at BDMC to be 40.42% vs. a national average of 28.6%, confirming our prioritization to improve clinical process and outcome performance in the care of this population.

Process Improvement Methodology and Key Strategies:

The S.E.P.S.I.S. Project was a multi-pronged quest to define current performance, to design tools and processes supporting consistent implementation of bundled care recommendations, to evolve data abstraction and analysis facilitating timely responsiveness, and to increase awareness of and education to all stakeholders, with the ultimate and primary goal of reducing mortality. Utilizing a DMAIC (Define, Measure, Analyze, Improve, Control) model for process improvement, design and implementation steps included:

- To assess organizational and provider readiness
- To identify key stakeholders and solicit administrative, physician, and nurse champions
- To develop a work team, including content experts, key stakeholders, and point of care providers
- To develop communication and education content and distribution plan
- To analyze current workflows and revise to support desired performance
- To evolve tools to facilitate consistent process implementation and individual compliance
- To assess opportunity for technology enhancements to support this clinical initiative
- To create a methodology and tool for data abstraction
- To establish performance targets
- To measure and benchmark performance against self, internal, and external sources as available
- To establish report chain to assure objective performance feedback and sustained alignment with organizational initiatives

Specific improvement strategies utilized included rapid cycle testing of small to large components of care; the development of key partnerships, both internal across level of care specialties and within areas of expertise, as well as externally at the regional and national level; the reinforcement of the human connection through patient testimonials and success stories; and continual networking and dialogue at all levels to share and incorporate mutual learning, best-practices, and common barriers. Ongoing evaluation of performance was conducted through an interdisciplinary, multi-specialty team, who regularly reviewed outcome measures, focused on identification of performance gaps, barriers, or challenges, and explored potential solutions. Root cause analysis and dialogue differentiated process issues from compliance issues, providing direction for targeted interventions. Broad stakeholder interface and feedback was achieved through a regular report process to department, facility, and senior administrative committee structures.

Performance Improvement Results:

The S.E.P.S.I.S. Project fulfilled its mission by achieving a 40% improvement in the all-or-none resuscitation bundle compliance, resulting in a 30% absolute mortality reduction from severe sepsis/septic shock at Banner Desert Medical Center. This achievement exceeded the team's five year goal of a 25% reduction in mortality and surpassed the accomplishment of participating hospitals in the national Surviving Sepsis Campaign. The 153 additional lives saved as a result of this work exemplifies Banner Health's mission to "make a difference in people's lives through excellent patient care."