How Zipit Helps: Collaboration & Response to Sepsis

Why all the Interest in Sepsis?

Sepsis was named as the most expensive in-patient cost in American hospitals in 2011, at over $20 billion each year.

Sepsis ranks as the **3rd leading cause of death** in the U.S. (after heart disease and cancer), with more than 258,000 lives lost per yr.

Sepsis became a core measure in Oct of 2015, meaning it could be **one of the 12 chosen** by CMS to be measured regarding Value Based Purchasing. Essentially, VBP will result in hospitals receiving incentive payments for providing high-quality care. Sepsis could affect VBP in three of its four components: process of care and core measures, cost efficiency, and possibly outcomes and 30-day mortality rates.

Sepsis Treatment

EARLY RECOGNITION with Implementation of a severe sepsis-screening tool

Severe Sepsis = Suspected infection +   2 or > SIRS criteria   +   Acute Organ Dysfunction

Temp $\geq$100.4 or $\leq$ 96.8 HR > 90 bpm RR >20 bpm OR PaCO2 <32 mmHg WBC >12,000 OR <4,000 cells/mm^3 OR >10% bands	SBP <90 mmHg OR MAP <65mmHG Creatinine >2 mg/dL Bilirubin >2 mg/dL Platelet ct <100,000uL Lactate >2 mmol/L Coagulopathy (INR >1.5 or aPTT >60 sec) ALI w/ increasing FiO2 requirements

Initial screening tools were paper and pencil. As hospitals move toward Electronic Medical Records (EMRs), many have implemented EMR based screening tools. Decreasing time requirements and providing real-time notification of patients at risk.

Zipit can integrate with EMRs and communicate positive sepsis screening results to: physicians, nurses, rapid response, etc. Allowing immediate assessment and intervention for the patient.

PROMPT ESCALATION with "Code Sepsis" Activation

Prehospital Management: Good prehospital management can make a profound difference in a septic patient's outcome. Initiation of "Code sepsis" with emergency room and EMS collaboration can make time sensitive interventions.

Acute Care Management: Once identified, activation of a multidisciplinary team armed with knowledge, education and protocols, can make improve timely intervention and improve a patient's outcome.

Zipit can notify simultaneously the entire acute care team: pharmacists, respiratory therapists, lab technicians, nursing supervisors and unit secretaries, not to mention doctors and bedside nurses.

Zipit can receive and transmit information (including clinical pictures/short videos/ 12 lead EKG) prior to the patient's arrival in the ED.

TIMELY INTERVENTION with implementation of 3 hr. bundle for patients with severe sepsis

    a. Measure Lactate to quantify and stratify critical illness

    b. Obtain Blood Cultures Prior to the Administration of Antibiotics if possible

    c. Administer Broad-Spectrum Antibiotics within in the first hour

    d. Administer 30mL/kg IV Fluid for low blood pressure or Lactate Levels >4mmol/L

TIMELY INTERVENTION with implementation of 6 hr. bundle for patients with septic shock

    a. Administer Vasopressors

    b. Re-Assess Need for additional IV fluid to Ensure Adequate blood pressure

    c. Re-Measure Lactate

Zipit can transmit lactate values to the appropriate provider in real-time for appropriate and timely intervention.

References

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