Early Detection of Sepsis Using Capnography

Sepsis is a common, costly, and even deadly condition when patients do not receive early diagnosis and treatment upon presentation of symptoms. As we learn more about the symptoms of sepsis, clinicians recognize the importance of early detection and treatment, often starting in the prehospital environment. While lactate monitoring has traditionally been one of the most reliable ways to detect sepsis, these technologies are not always available in the field. Capnography’s quantitative waveform has proven to be a reliable way to detect respiratory distress and metabolic distress, allowing for early intervention and ongoing patient monitoring after treatment has been administered.

Sepsis is the most expensive condition treated in U.S. hospitals, costing over $20 billion in 2011.

In developing nations, sepsis accounts for nearly 80 percent of deaths.

Sepsis hospitalizations in the U.S. in 2008 doubled since 2000.

Sepsis has a mortality rate in the U.S. ranging from 28-50 percent.

How capnography can be used to identify sepsis, by Kelly Grayson, EMS.com Columnist

SMART CAPNOLINE CO2 SAMPLING LINE, WITH O2 TUBING, DISPOSABLE

Phillips MRx and Zoll X Series. Features and Benefits:

- Patented Uni-junction™ design: assures effective oral and nasal sampling even at low tidal volumes, with no dilution of waveform during O2 delivery
- Patented O2 delivery: enables effective oxygen therapy and reduces the O2 drying effect on sensitive mucus membranes
- Built-in water trap with hydrophobic filter: prevents moisture from entering the monitor while maintaining the laminar flow and excellent waveforms
Early Sepsis Intervention with CPAP

Respiratory distress and hypoxia are two of the most common indications of Sepsis, so it is important to ensure patients are properly oxygenated. Once a Sepsis Alert is activated, CPAP can provide a safe and effective intervention for patients experiencing respiratory distress, preventing further compromise or the risks of intubation. Advancements in disposable CPAP technology now allow for ease of application and patient treatment of respiratory distress in the prehospital environment. Together, capnography and CPAP can provide early indication and intervene in life-threatening sepsis cases.

O2 MAX BITRAC ED MASK W/NEB AND CO2 SAMPLING LINES

With the closed system nebulization port, you have the flexibility to nebulize when your patient needs it, while delivering positive and consistent pressure. Kit also contains a disposable Smart Capnoline Plus non-intubated, oral/nasal CO2 sampling line.

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