A Trial of Telemedical Implementation of Early Goal Directed Therapy for Cases of Severe Sepsis

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Sepsis is the 11th leading cause of death in the United States, with its most severe cases affecting 750,000 US citizens each year. Recent studies have shown that early aggressive treatment with an algorithmic resuscitation bundle called Early Goal Directed Therapy (EGDT) can significantly reduce morbidity and mortality. EGDT has since been adopted as standard of care for patients with sepsis and endorsed by the surviving sepsis campaign. Implementation, however, has been inconsistent with only 2/3 of Pennsylvania EDs reporting routine use and physician-level compliance at our home institution ranging from 0% to 100%. The use of telemedicine has demonstrated promise in other conditions – classically by remote interpretation of a stored image (CT scan), but more recently for real-time decision making. High-resolution, healthcare compliant video conferencing capabilities may provide efficient means by which to translate clinical advances into direct patient care. We propose here a pilot study to test the feasibility of encouraging compliance with EGDT within our home institution’s emergency department via a telemedical interface. We anticipate that this pilot will be used as preliminary data demonstrating the feasibility of using this modality for the resuscitation of septic patients. We envision a large multi-center trial demonstrating the effectiveness of this therapy compared to education alone and to traditional care.