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Short Communication

Surviving Sepsis Campaign: Are they Creating more Solutions or Controversies?

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Since the initial sepsis guideline in 2004, several updates have been added [1,2]. The information, which were promoted and deemed to be the standard of care have been proven wrong and revised in the later guidelines [3,4]. This got even more complicated by the new sepsis III consensus definition of sepsis and septic shock [5]. The Society of Critical Care Medicine (SCCM) has favored the adoption of this definition. On the other hand, American College of Emergency Medicine (ACEM), American College of Chest Physician (ACCP) and the Latin American Sepsis Institute have opposed this definition.

These even got more complicated by the statement in April 2018 by the Surviving Sepsis Campaign (jointly supported by SCCM and European Society of Intensive Care Medicine (ESICM)), who promoted the one-hour sepsis bundle suggesting the physicians and the health care institutions to complete the 5 core requirements within the one hour [5]. These 5 parameters include a) Measurement of lactate level and repeat if it is >2mmol/L b) obtaining blood cultures prior to initiation of the antibiotics c) give 30 ml/kg bolus of crystalloid d) initiation of vasopressors if patient remains hypotensive despite fluid resuscitation e) initiation of the appropriate antibiotics. Though, these tasks seemed fascinating but the data supporting them were not.

Institutions and physicians are very well aware of the guidelines, which when marketed well turns to regulations and laws. These tools have been used in the past for penalizing the physicians and institutions in the name of quality of care. These changes do effect Emergency and Critical Care physicians and do affect the patients who are at the receiving end as well as the patients who are neglected while the check box and guidelines take precedence over their care while they wait in line for their turn [6]. In fact, the guidelines which are coming out have very few level 1 of strong evidence to suggest the implementation and many of them are just the expert consensus. The Emergency physicians are now required to spend significant time in the paper work. In one study the ED physicians were spending 65% of their time in documentation [7]. The physicians and the institutions are now-a-days bombarded by the guidelines from different societies. These guidelines keep on changing every few years. The surviving sepsis guideline when it came initially was using the bundle based on Rivers protocol, which now have mainly been modified or deleted based on new data in the guidelines as early as 2012 [8,9].

This new one-hour bundle recommendation by the Surviving Sepsis Campaign also need to be taken with the grain of salt. These one-hour parameters are applied retrospectively, whereas prospectively when the patient presents in the ED, their signs and symptoms may vary. The screening and trigger flags may and can be very expensive. Moreover, it can be taxing on the human resource of the busy ED or the ED in the community hospital where limited recourse can mean neglecting lots of patients who are in the ED. Especially, in the scenario where acute ST elevated myocardial infarction patient, a patient with cerebrovascular accident, trauma and the septic patient may present in pair or all at the same time. The high-level utilization of man power for carrying out the sepsis bundle in one hour with not having level 1 evidence for each of the 5 parameters can and may be even a disservice to the patients. This can direct the ED resources to these patients and may result in delayed care of the remaining patients in the ED or in the ED waiting area.

The widespread use of the antibiotics in the early stage of sepsis may also lead to the use of excessive and inappropriate use of

antibiotics, just in order to comply and go with the guideline. Understandingly, the early administration of antibiotics has become the accepted practice, but the benefit of that have not been well studied. The overall mortality in the study showed highest for septic shock (26%) with the delay in antibiotics when compared to sepsis was 3.9% and severe sepsis was 8.8% [10]. It would have been more prudent in the guideline to favor the early use of antibiotics in the patient with septic shock, rather than all categories of sepsis which many institutions who have been blindfolded by guidelines have jumped on.

Even the delivery of volume of 30ml/kg has been under dispute based on ProCESS, ARISE and ProMISe trials has shown no difference between goal directed fluid administration vs. standard care [11,12]. Giving high volume fluid without having adequate data in the first one hour of patient arrival can be a disservice, especially to the patient who have congestive heart failure, renal failure or cardiomyopathy.

The guidelines are designed with the right intentions but when regulators or institutions uses these guidelines, it takes the form of rules and regulations. The evidence supporting them, and the strength of the evidence are overlooked. They require all parameters to be followed, rather than one with the strong evidence which makes the implementation very complicated and creates the controversies [6].

In addition, seemingly the guidelines are becoming the tools by which some of the societies have sustained their name and branding and have made the goals of coming up with the guideline and promoting it. Moreover, many of the societies are also coming up with differences in the guidelines on the management of the same disease state, creating the gap in care and deepening the controversies further.

In conclusion, it is the authors opinion that clinicians and regulators should take the guideline with a grain of salt and should focus on the strength of evidence rather than implementing the guideline in its totality or as a commandment.

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