**Supplement 2. Diagnostic criteria for SIRS, sepsis, severe sepsis and septic shock.a**

Systemic Inflammatory Response Syndrome (SIRS):

*Need > 2 of 4 criteria, one of which is a temperature or leukocyte aberration*:

* Core temperature > 38.5⁰C or < 36⁰C
* Mean heart rate > 2 SD above normal for age [or bradycardia < 2 SD below normal for age for children less than 1 year] not explained by pain or medication effect
* Mean respiratory rate > 2 SD above normal for age or acute need for mechanical ventilation
* Leukocyte count outside the normal range for age or with > 10% immature neutrophils

Sepsis:

SIRS in presence of suspected/proven infection or syndrome likely associated with infection

Severe Sepsis:

Sepsis in presence of cardiovascular dysfunction or acute respiratory distress syndrome or dysfunction in >2 other organ systems.

Septic Shock:

 Sepsis in the presence of cardiovascular dysfunction.

Definitions:

Cardiovascular dysfunction

 *Need one of the following:*

* Hypotension to <5th percentile for age or systolic blood pressure < 2 SD below normal for age
* Need for vasoactive medication to maintain normal blood pressure (dopamine dosing > 5µg/kg/min or any dose of epinephrine , norepinephrine, dobutamine)
* Two or more of the following:
	+ Unexplained metabolic acidosis (base deficit > 5mEq/L)
	+ Arterial lactate twice the upper limit of normal
	+ Urine output < 0.5mL/kg/hr
	+ Capillary refill > 5 seconds
	+ Core-peripheral temperature gradient > 3⁰C

Neurologic dysfunction

 *Need one of the following:*

* Glasgow Coma Score < 11
* Acutely altered mental status with decrease in Glasgow Coma Score by > 3 from baseline

Hematologic dysfunction:

*Need one of the following:*

* Platelet count < 80,000/mm3 or decrease to 50% of highest value documented in 72 hour-period
* International normalized ratio > 2

Renal dysfunction:

* Serum creatinine increase to twice the normal value for age or twice the patient’s baseline

Hepatic dysfunction:

*Need one of the following:*

* Total bilirubin > 4mg/dL (non-neonates)
* ALT increase to twice the normal value for age

aModified from Goldstein B, Giroir B, Randolph A et al. International pediatric sepsis consensus conference: Definitions for sepsis and organ dysfunction in pediatrics. *Pediatr Crit Care Med.* 2005;6(1):2-8.