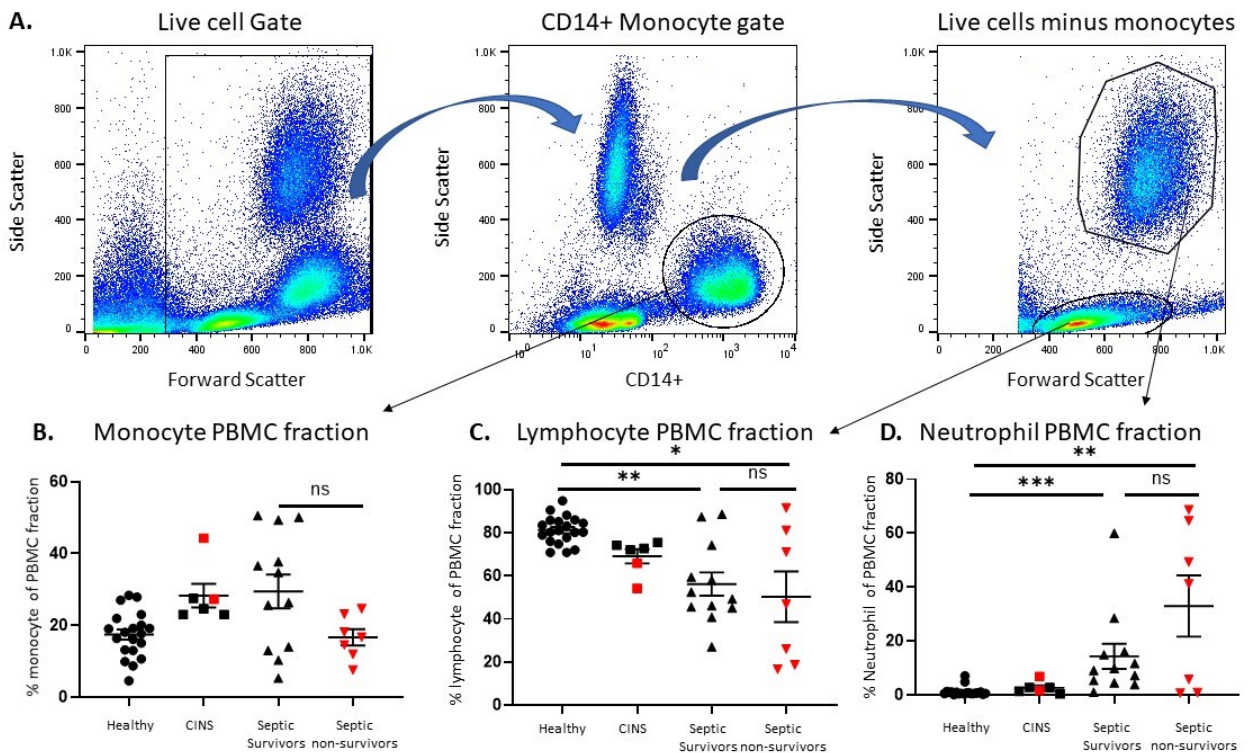


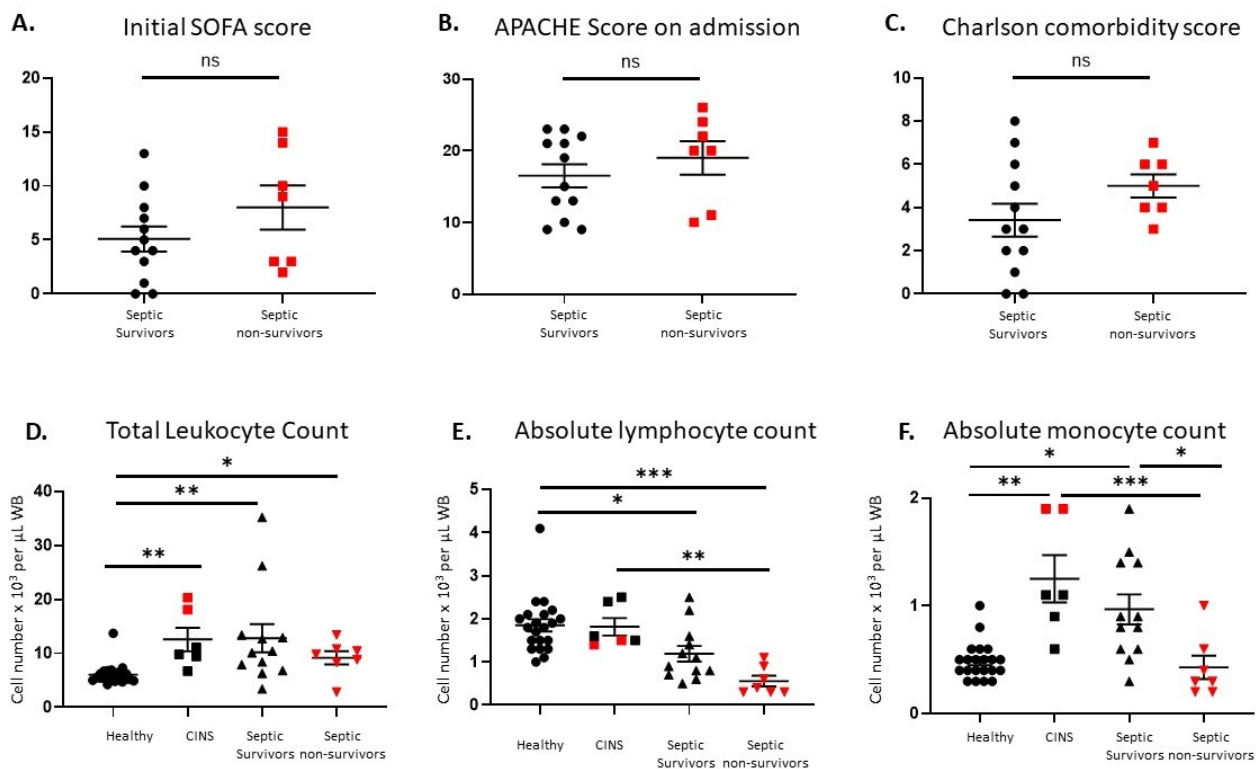
**Supplemental Table 1: Septic Patient Etiologies**

<b>Cohort</b>	<b>Subjects</b>	<b>Primary Diagnosis</b>	<b>Source of Infection</b>	<b>Organism</b>
Sepsis	Patient 1	GI Bleed	Wound Infection	Acinetobacter, Pseudomonas, Enterococcus faecium, B. Fragilis, Stenotrophomonas maltophilia
Sepsis	Patient 2	Respiratory Failure	Peritonitis	Mixed gram positive microorganisms
Sepsis	Patient 3	Septic Shock	PNA	Escherichia coli, MRSA
Sepsis	Patient 4	Pneumatosis Coli	Peritonitis	Staphylococcus species
Sepsis	Patient 5	MSSA Bacteremia	Wound Infection	Staphylococcus aureus
Sepsis	Patient 6	Arterial Thromboembolus	Peritonitis	Unknown
Sepsis	Patient 7	Toxic Metabolic Encephalopathy	Peritonitis	Unknown
Sepsis	Patient 8	Acute on Chronic Respiratory Failure	Wound Infection	Staphylococcus epidermidis
Sepsis	Patient 9	Diabetic Ketoacidosis	PNA	Unknown
Sepsis	Patient 10	Septic Shock	PNA	Coronavirus HKU1 RNA
Sepsis	Patient 11	Sepsis due to Urinary Tract Infection	UTI	Enterobacter species
Sepsis	Patient 12	Perforated Diverticulum	Peritonitis	Unknown
Sepsis	Patient 13	Septic Shock	UTI	Escherichia coli
Sepsis	Patient 14	Septic Shock	PNA	Streptococcus species
Sepsis	Patient 15	Necrotizing Pancreatitis	UTI	Escherichia coli, Enterococcus faecalis
Sepsis	Patient 16	Leg Ulceration	Peritonitis	Escherichia coli
Sepsis	Patient 17	Syncope	PNA	Unknown
Sepsis	Patient 18	Altered mental status	Central Nervous	Unknown
Sepsis	Patient 19	Gunshot Wound	PNA	Unknown
CINS	Patient 1	Polytrauma, Skull Fracture and Subarachnoid Hemorrhage		
CINS	Patient 2	Surgical Repair for Closed Fracture of Thyroid Cartilage		
CINS	Patient 3	Pelvic Ring Fracture		
CINS	Patient 4	Popliteal Arterial Occlusion, left		
CINS	Patient 5	Motor Vehicle Collision		
CINS	Patient 6	Desmoid Tumor Resection, paraspinal		



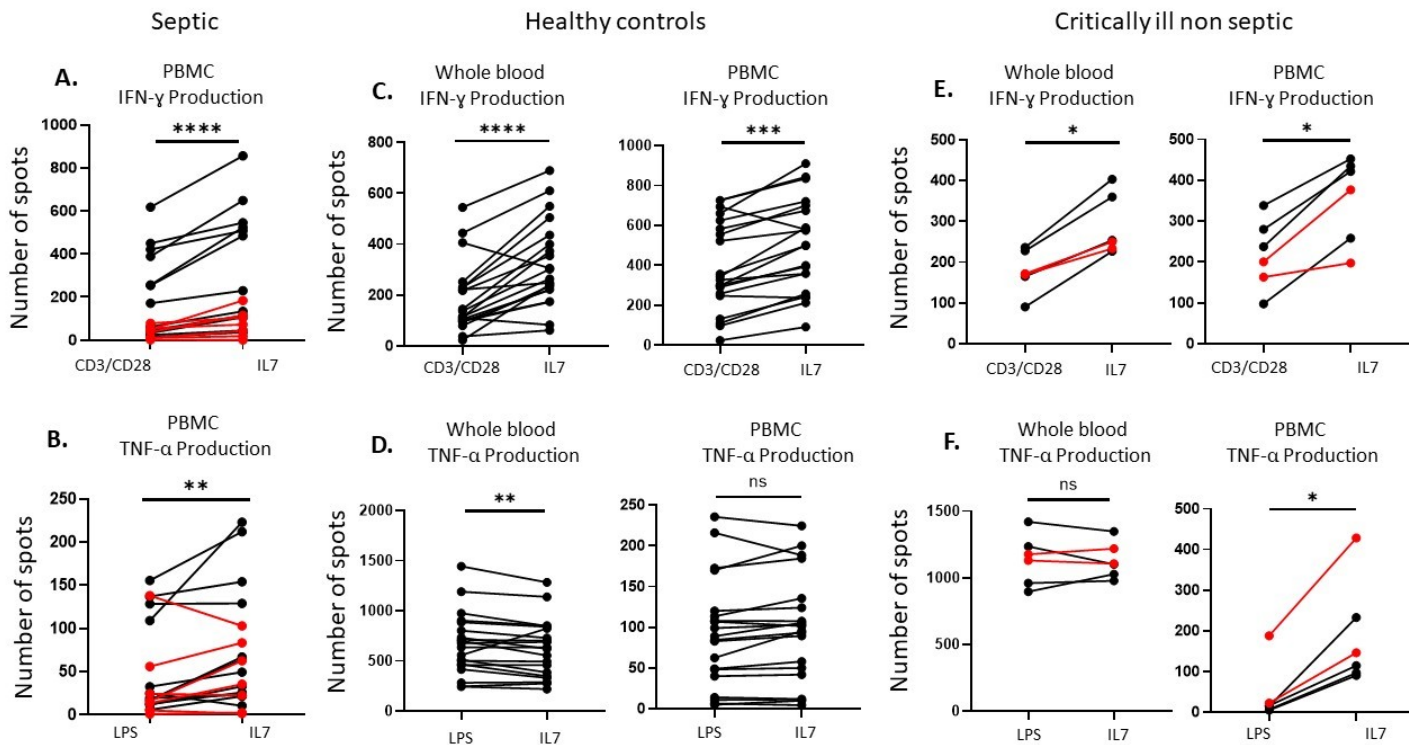
## Supplemental figure 1:

Gating strategy for cell typing by flow cytometry. (A) A preliminary size gate on a Forward x Side scatter plot was created to discern cells from debris. This gate was interrogated for CD14 positivity (Monocytes). A subsequent gate which excluded the monocytes (Boolean “not” gate) was utilized to determine lymphocyte and granulocyte population percentages on a Forward x Side scatter plot. Dot plots showing relative percentages of cell types forming the PBMC fraction in healthy controls (n=20), CINS (n=6), sepsis survivors (n=12) and sepsis non-survivors (n=7). (B) Monocyte fraction of PBMCs, (C) lymphocyte fraction of PBMCs and (D) neutrophil fraction of PBMCs. Bars represent mean +/- SEM. Statistical analysis performed with Kruskal Wallis test with multiple comparisons corrected using Dunn’s test (\*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$ ). Red dots represent mortalities.



## Supplemental figure 2:

Comparison between surviving and non-surviving patients with sepsis in terms of severity scoring and comorbidities. There is no significant difference between sepsis survivors (n=12) vs. non-survivors (n=7) for sequential organ failure assessment (SOFA) score (A), Acute physiology and chronic health evaluation (APACHE) II score (B), or Charlson comorbidity score (C). (D, E, F) Dot plots of absolute leukocyte, lymphocyte and monocyte counts based on clinical labs on the day of initial blood draw for healthy control (n=20), CINS (n=6), sepsis survivors (n=12) and sepsis non-survivors (n=7). Bars represent mean +/- SEM. Group comparison using Kruskal Wallis test with multiple comparisons corrected for false discovery rate (\*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$ , \*\*\*\*:  $p < 0.0001$ ).



Supplemental figure 3:

IFN- $\gamma$  and TNF- $\alpha$  production in response to *ex vivo* IL-7 administration for whole blood and PBMC ELISpot in healthy controls (n=20), CINS (n=6) and septic patients (n=19). (A) Change IFN- $\gamma$  SFU to IL-7 in septic PBMC assay. (B) Change in TNF- $\alpha$  SFU to IL-7 for septic PBMC assay. (C) Change in IFN- $\gamma$  production in response to IL-7 for healthy controls. (D) Change in TNF- $\alpha$  production in response to IL-7 for healthy controls. (E) Change in IFN- $\gamma$  production in response to IL-7 for CINS. (F) Change in TNF- $\alpha$  production in response to IL-7 for CINS. The number of spots is reported as total number of spots per well and are not corrected for blood volume or cell number. Lines in red depict mortality. Statistical analysis performed using paired Wilcoxon ranked sum test (\*:  $p < 0.05$ , \*\*:  $p < 0.01$ , \*\*\*:  $p < 0.001$ , \*\*\*\*:  $p < 0.0001$ ).