

Supplemental data – Definition of organ failure and sepsis by ICD9 discharge and procedure codes

Organ System Failures	
1. Cardiovascular	
Discharge Diagnosis (ICD-9-CM codes)	
458.0: Hypotension, postural	
785.5: Shock	
785.51: Shock, Cardiogenic	
785.59: Shock, circulatory or septic	
458.8: Hypotension, specified type, not elsewhere classified	
458.9: Hypotension, arterial, constitutional	
2. Respiratory	
Discharge Diagnosis (ICD-9-CM codes)	
518.81: Acute respiratory failure	
518.82: Other pulmonary insufficiency, not elsewhere classified	
518.84: Acute and chronic respiratory failure	
518.5: Pulmonary insufficiency following trauma and surgery	
799.1: Respiratory arrest	
Procedure (ICD-9-CM codes)	
96.7: Ventilator management	
39.65: ECMO	
3. Renal	
Discharge Diagnosis (ICD-9-CM codes)	
584.x: Acute renal failure	
580.x: Acute glomerulonephritis	
585.x: Renal shutdown, unspecified	
4. Hepatic	
Discharge Diagnosis (ICD-9-CM codes)	
570: Acute hepatic failure or necrosis	
572.2: Hepatic encephalopathy	
573.3: Hepatitis, septic or unspecified	
5. Sepsis	
Discharge Diagnosis (ICD-9-CM codes)	
Discharge Diagnosis (ICD-9-CM codes)	
038.0: Streptococcal septicemia	
038.1: Staphylococcal septicemia	
038.10: Staphylococcal septicemia, unspecified	
038.11: Staphylococcus aureus septicemia	
038.19: Other staphylococcal septicemia	
038.2: Pneumococcal septicemia	
038.3: Septicemia due to anaerobes	
038.4: Septicemia due to other gram-negative organisms	
038.40: Gram-negative organism, unspecified	
038.41: Haemophilus influenzae [H. influenzae]	
038.42: Escherichia coli	
038.43: Pseudomonas	
038.44: Serratia	
038.49: Other	
038.8: Other specified septicemias	
038.9: Unspecified septicemia	
785.52: Septic shock	
995.91: Systemic inflammatory response syndrome due to infectious process without organ dysfunction	
995.92: Systemic inflammatory response syndrome due to infectious process with organ dysfunction	