

### Specific Duties for Front v Back Doc

**Front:** phone calls, department flow, base station calls, triage PA supervision, screening EKGs

<--currently, the front physician also gets the pharmacy calls, as well as abnormal over-reads from radiology, plus abnormal labs---+blood cultures.

**Back:** traumas, RME/RPM PA supervision

Supervision of PAs, residents, and interns: PA chart review, seeing ALL house staff patients, attestation,

<--Please make sure ALL charts have resident signature at the bottom. All charts now have 3 important compliance related elements with \*\*\* to help providers:

Resident/PA: \*\*\*

Attending: \*\*\*

Attestation: \*\*\*

Please do not just delete this if you are working with residents.

**Consults:** medicine v trauma v STEMI v CVA (tPA window) v burn v other services

### Chain of command if needed for conflict resolution:

Intern, resident, attending, chair, MAOC

**Admissions:** medicine v other services

**Disposition:** self v custody v EPS v SNF

**Transfer:** Kaiser v EMQ v other (most often Stanford or Buncke); require paperwork and EMTALA form

Please do NOT click "transfer" if moving patient from XC to ED.

**Accepting transfers:** Red box trauma v VHP v other transfers (need specialty accepting physician, NOT ER). First option should be to have the transferring physician talk to the transfer line. Next line of communication is discussing with ED Charge if we have capacity and if the ED charge can remind the PURC nurse to directly transfer the patient to the appropriate floor.

**Attending-only patients:** SART, employee exposure

**Pharmacy:** ED Pharmacist Hours 7 days/week

(8am-12 Midnight)

Pager#: (408)236-0358 (Available on Amion)

There are two order panels for the ED that can help you with ordering medications:

- “Emergency Department (ED) Hyperkalemia Treatment Order Panel”- has calcium gluconate, D50W, insulin, furosemide, kayexalate, sodium bicarb & albuterol all dosed and ready to go so you don’t have to enter them one by one, just “x” out the ones you don’t want to order.
- “Vancomycin Adult Loading Dose (ED)”- helps select an appropriate vancomycin loading dose based on what weight range your patient falls into. This is only appropriate for non-dialysis patients & targets loading doses ~25 mg/kg (dialysis patients should target 20-25 mg/kg).

**Radiology:** need to protocol all CTs with IV contrast and US on weekends

(After 10pm on Friday and before 10pm on Sunday night)

## ED Trauma Alert

**Potential Mechanism** – no significant anatomic injury except for fracture distal to knee or elbow, abrasions, lacerations or contusions

### CRITERIA

- Death of occupant in car
- Consider risk based on age > 55 or < 5 or known cardiac, respiratory, metabolic disease, drug/alcohol influence.
- Falls < 15 ft. adult, < 10 ft. child
- Found down for unknown reason
- Helmet to helmet contact with  $\pm$  neurologic changes
- Long bone fx w/mechanism of ground level fall
- EM or Trauma Attending Discretion

### Overhead Page in ED Only

Team Member Response:

**EMERGENCY DEPT**  
Attending TCN  
ED Resident Trauma Tech  
Pharmacist  
ED Registration

**Expedite advanced imaging and/or Coag labs as appropriate**

**Consult Trauma Surgery as needed**

## Minor Trauma

**Anatomic findings** or high risk mechanism without significant physiologic compromise.

### CRITERIA

- GCS 9-13 with trauma mechanism
- Significant blunt injury to head, including pre-hospital witnessed CNS changes
- Major facial injuries w/o airway compromise
- Flail or crushed chest
- Suspected pelvic fracture
- long bone fx (femur or humerus) not from ground level fall
- Amputation proximal to wrist or ankle
- Penetrating extremity injury distal to knee or elbow
- Pregnant > 20 weeks gestation
- High speed MVC > 40 mph
- Roll over, unrestrained
- Prolonged extrication
- Ejection or partial ejection
- Auto deformity > 20" or intrusion into passenger space
- Cycle crash > 20 mph (bike, motorcycle, ATV) or rider thrown
- Pedestrian vs Auto > 5 mph impact; thrown or run over
- Falls > 15 ft. adult, > 10 ft. child
- EM or Trauma Attending Discretion

### Page 11111 Notification

Team Member Response:

**TRAUMA**  
Attending or chief/senior  
PG 1/2

**ED**  
Attending  
PG 2/3  
TCN x 2  
Trauma Tech  
Pharmacist

**ANCILLARY**  
ED MUC  
X-Ray Tech  
ED Registration  
CT scanner

## Major Trauma

**Physiologic compromise**

### CRITERIA

- Airway compromise, obstruction or prehospital intubation
- Respiratory distress < 10 or > 29
- Pediatric: nasal flaring, retraction, stridor, cyanosis
- Confirmed SBP < 90 at any time
- Child 1 – 10 years with SBP < 70 - 90
- Child < 1 years with SBP < 60
- GCS < 9 with Trauma mechanism
- GSW or Penetrating trauma to
  - Head or neck
  - Chest, abdomen or pelvis
  - Extremities proximal to knee or elbow
- Traumatic paraplegia or quadriplegia
- Transfer in patients receiving blood or vasopressors to maintain vital signs
- Burn > 30% or burns with
  - Facial burns or suspected inhalation injury
  - Electrical injury
  - Intubated pt. transferred from another facility
- EM or Trauma Attending Discretion

### Page 00000 Notification

Team Member Response:

**TRAUMA**  
Attending or chief/senior  
PG 1/2

**ED**  
Attending  
PG 2/3  
TCN x 2  
Trauma Tech  
Pharmacist

**ANCILLARY**  
Respiratory  
X-Ray Tech  
ED MUC  
ED Registration  
CT Scanner

# CORE MEASURE SEP-1: SEVERE SEPSIS and SEPTIC SHOCK

SEP-1 is a national core measure that monitors compliance with the **SEVERE SEPSIS 3-HOUR** and **SEPTIC SHOCK 6-HOUR** care bundles as outlined below. Compliance with SEP-1 can reduce mortality, organ failure, length of stay, and expense.

1-12-16

## SEPSIS

**INFECTION** (actual or suspected)  
*and*

**SIRS CRITERIA** (2 or more due to infection):

- T >100.9 or <96.8F (>38.3 or <36C)
- HR >90
- RR >20
- WBC >12000 or <4000 or 10% bands

## INITIAL WORKUP

1. **Labs:** lactate, CBC, platelets, INR, PTT, chems
2. **Assess for SEVERE SEPSIS** which is **NEW ORGAN DYSFUNCTION** of at least one organ felt to be due to sepsis:

- Hypotension\*
- Altered mental status
- **Lactate >2**
- Creatinine >2.0
- Urine <0.5 mL/kg/hr (2 hr)
- INR >1.5 or PTT >60 (not on AC)
- Platelets <100,000
- Bilirubin >2.0
- Acute resp failure (new need for ventilator or BiPAP)

## SEVERE SEPSIS

**SEPSIS** (infection and 2 SIRS CRITERIA)  
*and*  
**NEW ORGAN DYSFUNCTION**

## 3-HOUR BUNDLE

1. **Blood culture & lactate**
2. **IV Antibiotics**
3. **30 mL/kg (NS or Ringers)** for hypotension\* or lactate ≥4

ALL ABX, SINGLE or DOUBLE COVERAGE, MUST START, NOT FINISH, WITHIN 3 HRS

- FLUID MUST START, NOT FINISH, <3 HRS
- MUST STATE VOLUME + TIME FRAME (OR RATE), NOT BOLUS OR WIDE OPEN
- EXAMPLES FOR 70 KG PATIENT:
  - NS, 30 ML/KG OVER 30 MINUTES
  - NS, 2100 ML OVER 1 HOUR

LACTATE NOTES

- Lactate ≥4 = septic shock regardless of SBP
- Repeat lactate within 6 hours if initial >2.0

## SEPTIC SHOCK

**SEVERE SEPSIS with LACTATE ≥4**  
*or*  
**SEVERE SEPSIS with PERSISTENT HYPOTENSION\***

## 6-HOUR BUNDLE

1. **Vasopressor for persistent hypotension\*** such as norepinephrine (Levophed), 2-20 mcg/min, titrate to MAP ≥65
2. **Repeat lactate** if initial >2
3. **Reassessment of volume status and tissue perfusion** in a note by MD/DO/PA/NP. Note must include the following:

### \* HYPOTENSION DEFINITIONS FOR SEP-1:

- **HYPOTENSION:**  
SBP <90 OR MAP <65 OR SBP ↓ >40 FROM LAST READING DEEMED NORMAL FOR PATIENT
- **PERSISTENT HYPOTENSION:**  
HYPOTENSION ON 2 CONSECUTIVE READINGS DURING FIRST HR AFTER 30 ML/KG COMPLETED

### ALL OF THESE:

- Repeat vital signs →
- Heart/lung exam
- Capillary refill
- Peripheral pulses
- Skin color (pallor, cyanosis, etc.)

RN CAN OBTAIN VS BUT NOTE BY MD/PA/NP MUST STATE ALL 4 VS

### OR TWO OF THESE:

- Central venous pressure
- Bedside cardiovascular US
- Central venous O<sub>2</sub>
- Passive leg raise or fluid challenge (500mL/15 min)

WHEN DOES THE CLOCK START?	WHICH RESULTS NOT SENT TO CMS?	WHAT ABOUT FLUIDS IN CHF or ESRD?
When the following is in the chart: <ul style="list-style-type: none"> <li>• <b>SEVERE SEPSIS CLOCK:</b> Infection (actual/suspect) + 2 SIRS + new organ dysfunction</li> <li>• <b>SEPTIC SHOCK CLOCK:</b> Infection (actual/suspect) + 2 SIRS + persistent hypotension <u>or</u> lactate ≥4</li> <li>• <b>EITHER CLOCK</b> can also start, even without data, if MD/DO/PA/NP note states diagnosis is, or may be, present.</li> </ul>	<ul style="list-style-type: none"> <li>• Age &lt;18</li> <li>• Transfer from other hospital</li> <li>• Refusal of labs, fluids, or abx</li> <li>• IV abx for &gt;24 hrs before ED</li> <li>• Comfort care order within 3 hrs of presentation of severe sepsis, or 6 hrs for shock</li> </ul>	<ul style="list-style-type: none"> <li>• The studies showing efficacy of SEP-1 did not show statistically significant higher rates of intubation due to fluid overload in CHF or ESRD patients.**</li> <li>• Septic CHF and ESRD patients, if hypotensive or lactate ≥4, have hypoperfusion due to intravascular volume depletion. This must be corrected quickly with fluids to reduce high risk of mortality.</li> <li>• Patient may need intubation to allow continuation of fluids to correct hypoperfusion.</li> </ul> <p>** ProCESS, ProMISe, ARISE</p>