

# Welcome!

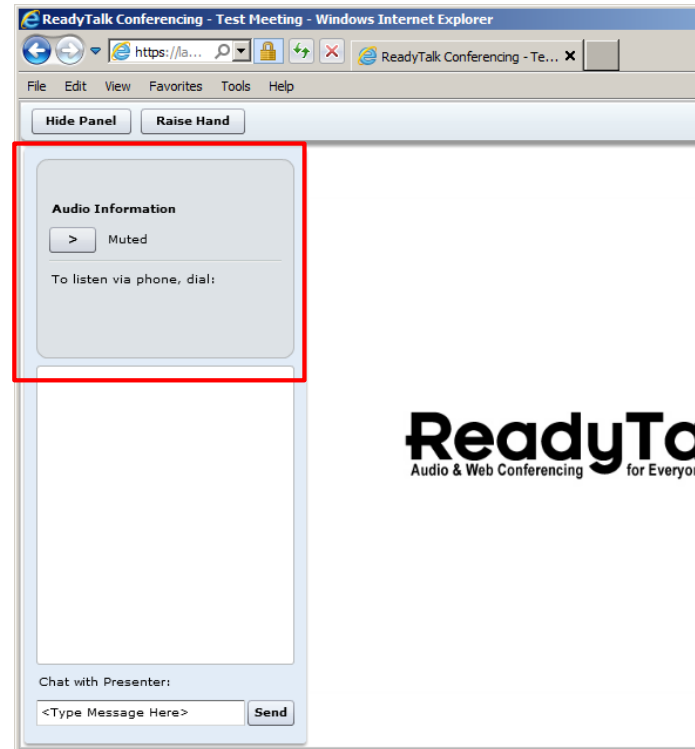
- **Audio for this event is available via ReadyTalk® Internet Streaming.**
- **No telephone line is required.**
- **Computer speakers or headphones are necessary to listen to streaming audio.**
- **Limited dial-in lines are available. Please send a chat message if needed.**
- **This event is being recorded.**



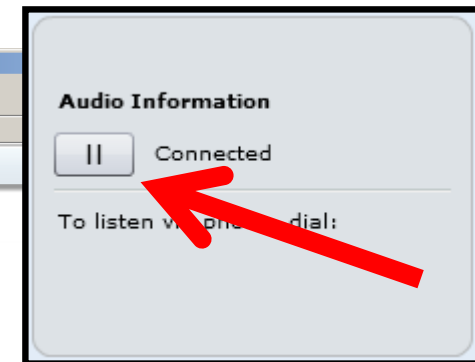
# Troubleshooting Audio

Audio from computer speakers breaking up?  
Audio suddenly stop?

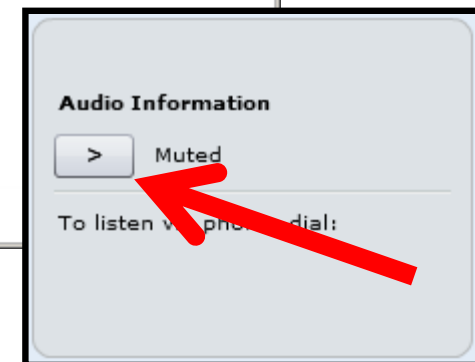
- Click Pause button
- Wait 5 seconds
- Click Play button



Location of Audio Controls



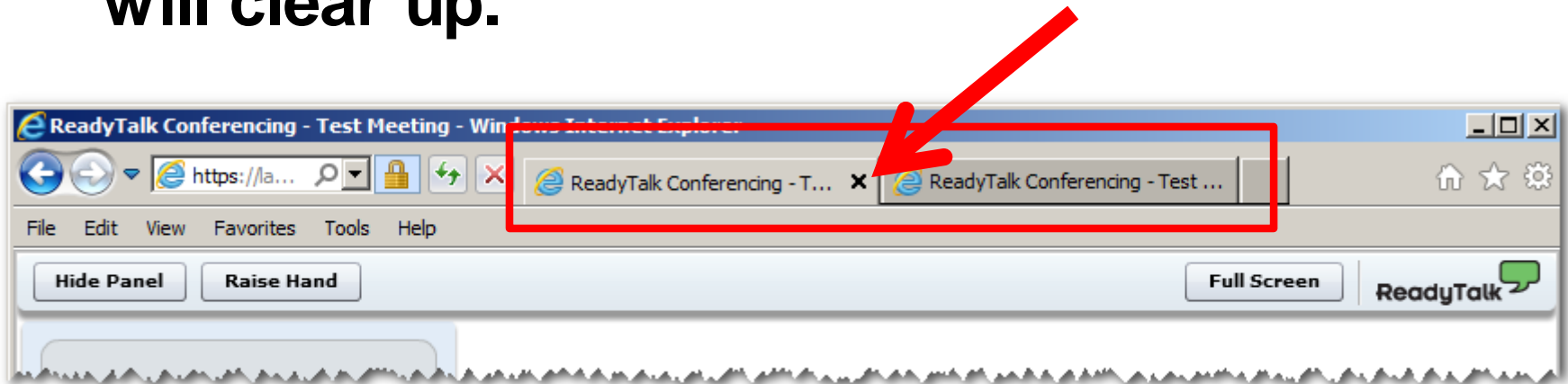
Step 1



Step 2

# Troubleshooting Echo

- Hear a bad echo on the call?
- Echo is usually caused by multiple connections to a single event.
- Close all but one browser/tab and the echo will clear up.



**Example of Two Connections to Same Event**

# Submitting Questions

Type questions in the “Chat with Presenter” section, located in the bottom-left corner of your screen.



The screenshot shows a web browser window with the CMS logo at the top. The main content area displays a presentation slide titled "Specifications Manual, Version 4.4a, Changes & Hospital VBP Program Improvement Series: MSPB" dated November 18, 2014. The slide lists three speakers: Candace Jackson, Cindy Cullen, and Bethany Wheeler. On the right side of the slide, there are two additional names: Donna Isgett and Amanda Molski. In the bottom-left corner of the browser window, there is a "Chat with Presenter" section with a text input field and a "Send" button. A yellow arrow points to this chat section.

**CMS**  
CENTERS FOR MEDICARE & MEDICAID SERVICES

**Specifications Manual, Version 4.4a,  
Changes & Hospital VBP Program  
Improvement Series: MSPB**

**November 18, 2014, 10 a.m. & 2 p.m. ET**

**Candace Jackson, RN, Hospital  
IQR Support Contract Lead**

**Cindy Cullen, Mathematica  
Policy Research**

**Bethany Wheeler, BS  
Hospital VBP Program Support  
Contract Lead**

**Donna Isgett, Sr. Vice President  
Corporate Quality and Safety  
McLeod Medical Center**

**Amanda Molski, Quality  
Coordinator Memorial Hospital  
Sweetwater County**

**Chat with Presenter:**  
Type questions here.



# **SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock Part II: Septic Shock**

**Bob Dickerson, MSHSA, RRT**

Lead Health Informatics Solution Coordinator

Hospital Inpatient and Outpatient Process and Structural Measure Development  
and Maintenance Contractor

**September 21, 2015**

# WEST NISHNABOTNA RIVER WATER TRAIL

**Legend**

- West Nishnabotna River
- City & County Parks
- River Mile Markers
- Canoe & Kayak Rentals
- Carry-Down Access
- Camping
- Open Shelter
- Restroom Facilities
- Drinking Water
- Medical Services
- Cities
- Interstate
- Highway
- County Route
- Bridge

0 0.5 1 2 3 Miles

**Access Points**

Access Point	River Mile	Distance to Next Access	Camping	GPS
Edgerton Memorial Park (Access #1)	77.4	0.4	No	41-0276 - 39-3276
Shelby (Access #2)	76.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #3)	75.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #4)	74.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #5)	73.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #6)	72.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #7)	71.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #8)	70.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #9)	69.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #10)	68.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #11)	67.4	1.0	Yes	41-0932 - 39-3488
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Edgerton Memorial Park (Access #57)	21.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #58)	20.4	1.0	Yes	41-0932 - 39-3488
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Edgerton Memorial Park (Access #61)	17.4	1.0	Yes	41-0932 - 39-3488
Edgerton Memorial Park (Access #62)	16.4			

# Purpose

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The purpose of this presentation is to help abstractors and healthcare providers better understand the SEP-1 measure data elements and algorithm flow, including:

# SEP-1 Discussion Topics

- Numerator
- Denominator
- Exclusions
- Algorithm review
  - Initial patient population
  - Septic Shock and respective data elements



# Objectives

At the end of this presentation participants will be able to:

- Identify denominator and numerator criteria
- Describe how to abstract data elements relevant to the Septic Shock portion of the measure
- Explain the flow and interaction of various data elements for the Septic Shock portion of the algorithm

# Please Note

- The focus and scope of this presentation is on the **Septic Shock** section of the SEP-1 measure **ONLY**.
- Data elements may not appear in the algorithm in the same sequence they occur clinically.
- Some algorithm images have been edited for purposes of this presentation.
  - Refer to the SEP-1 Measure Information Form for the complete algorithm.

# Denominator: Included Cases

- Inpatient discharges age 18 and over
- ICD-10-CM Principal or Other Diagnosis Codes (in Appendix A, Table 4.01)
  - Sepsis
  - Severe Sepsis
  - Septic Shock

# Excluded Cases

- Directive for Comfort Care within 3 hours of Severe Sepsis
- Directive for Comfort Care within 6 hours of Septic Shock
- Administrative contraindication to care
- Length of Stay >120 days
- Transfer in from another acute care facility
- Expire within 3 hours of Severe Sepsis presentation
- Expire within 6 hours of Septic Shock presentation
- IV antibiotics for more than 24 hours prior to Severe Sepsis

# Numerator: Severe Sepsis

- Within 3 hours of presentation of Severe Sepsis
  - Initial lactate level measurement
  - Broad spectrum or other antibiotic administration
  - Blood cultures drawn prior to antibiotics

**AND**

- Within 6 hours of presentation of Severe Sepsis
  - Repeat lactate level if initial lactate is elevated

# Numerator: **ONLY** if Septic Shock

- Within 3 hours of presentation of Septic Shock
  - Resuscitation with 30 mL/kg crystalloid fluids
    - **AND ONLY** If hypotension persists
- Within 6 hours of presentation of Septic Shock
  - Vasopressor administration
    - **AND ONLY** If hypotension persists after fluids  
OR initial lactate  $\geq 4$  mmol/L
- Within 6 hours of presentation of Septic Shock
  - Repeat volume status and tissue perfusion assessment

# Symbols and Letter Designations



= Not in Measure Population – Leads to measure outcome box “B”



= In Measure Population – Intent not met  
Leads to measure outcome box “D”



= Links to last page of algorithm – Counters evaluated

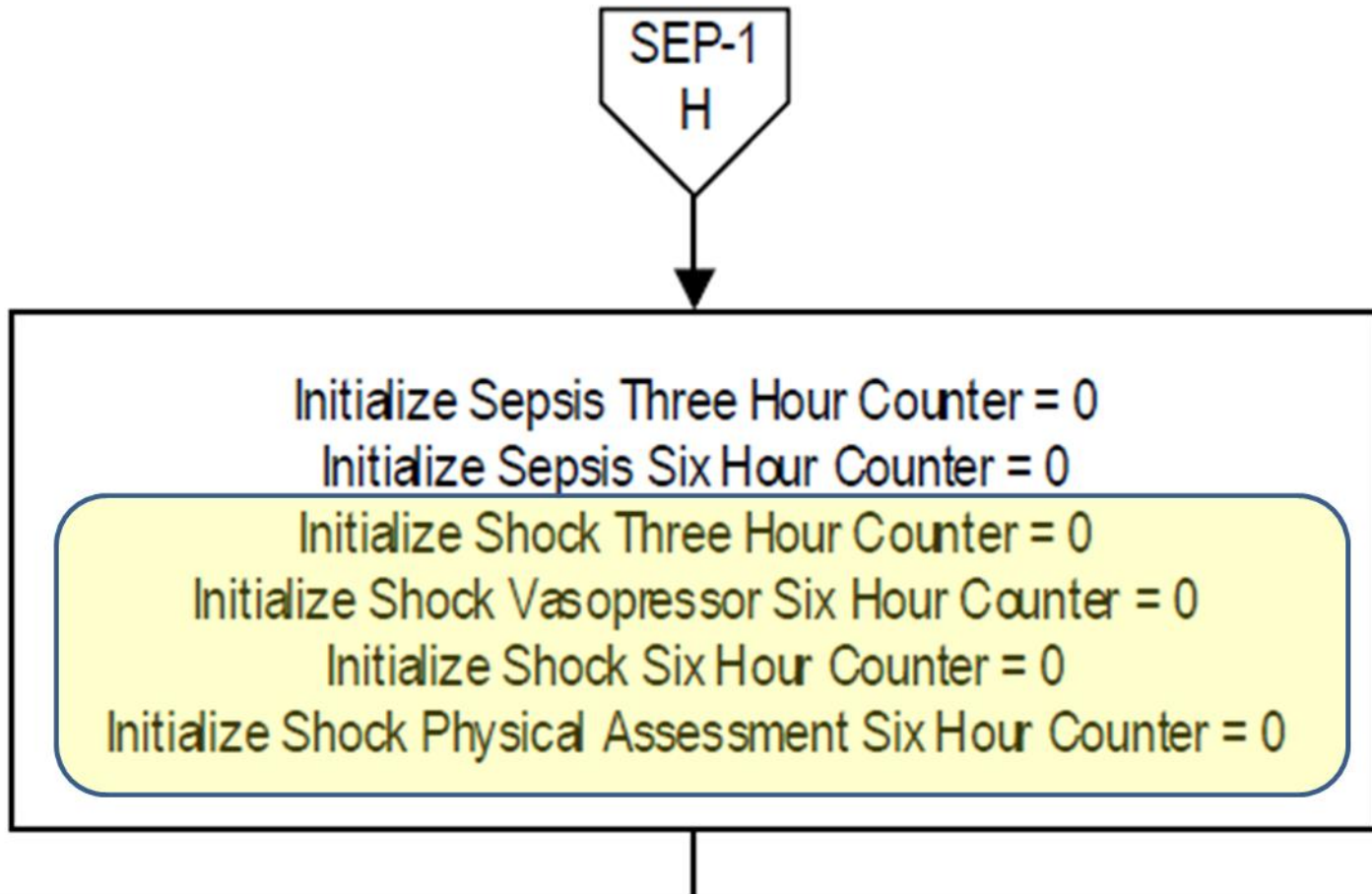


= Data missing – record rejected



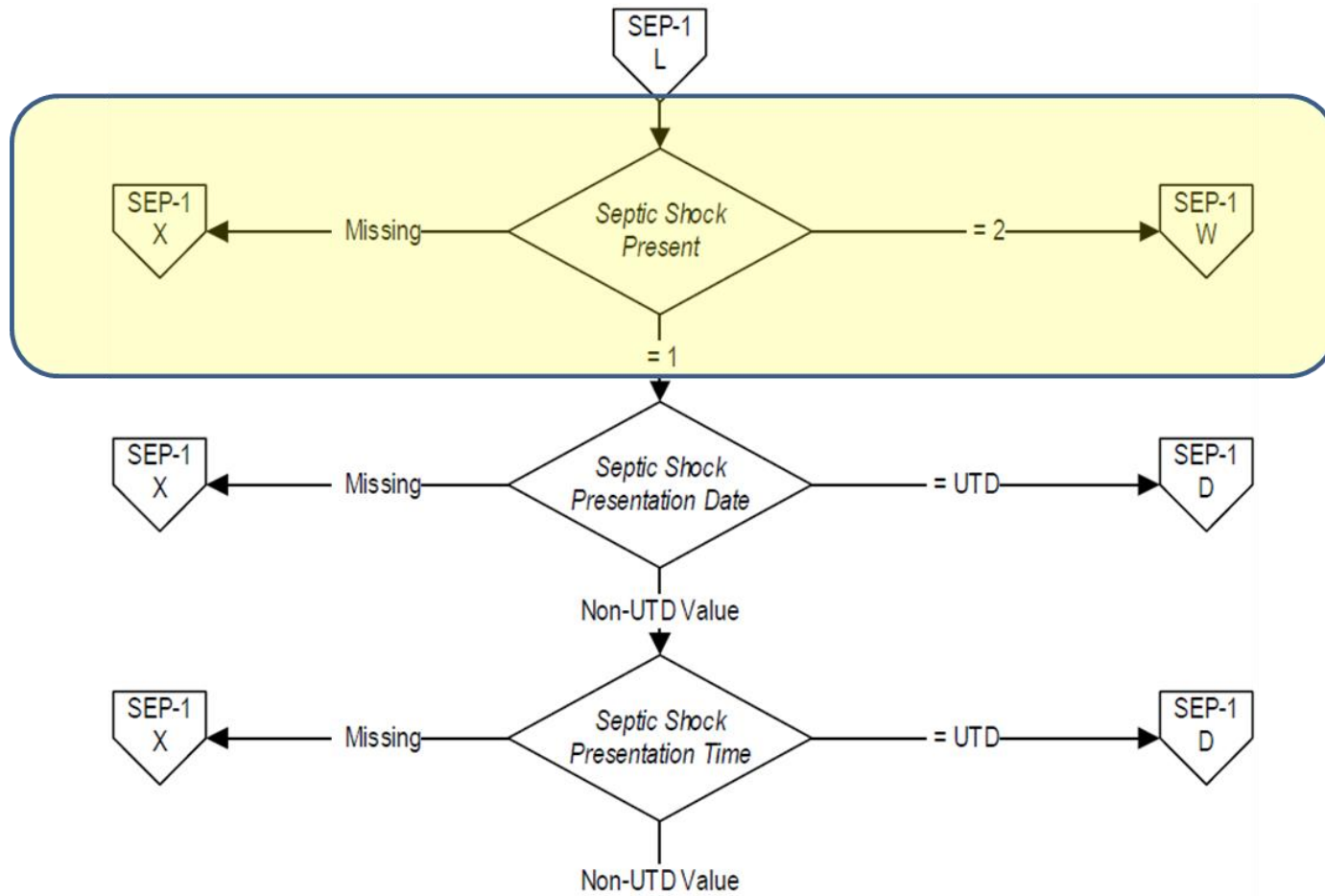
= Outcome Box – “E” in numerator population

# Septic Shock Counters





# Septic Shock Present (slide 1 of 3)



# Septic Shock Present (slide 2 of 3)

Documentation of presence of the first episode of Septic Shock

Allowable Values:

**1 (Yes)**     There is documentation of Septic Shock

**2 (No)**     There is no documentation of Septic Shock,  
or unable to determine

# Septic Shock Present (slide 3 of 3)

Things to look for: Earliest of either

- Clinical Criteria for Septic Shock
  - a. Documentation of Severe Sepsis present
  - AND**
  - b. Tissue hypoperfusion
    - Persistent hypotension
    - OR**
    - Lactate  $\geq 4$  mmol/L
  - OR**
- Physician, APN or PA documentation of Septic Shock or suspected/possible Septic Shock

# Septic Shock Present: Severe Sepsis

- Septic Shock cannot be present without Severe Sepsis.
  - Can be confirmed, suspected, or possible
  - Can be based on Severe Sepsis criteria or physician/APN/PA documentation
- If Severe Sepsis not present, choose Value “2 (No).”

**Note:** *Severe Sepsis Present*, if criteria not met, and there is no physician/APN/PA documentation of Severe Sepsis, **BUT** there is physician/APN/PA documentation of Septic Shock, this is acceptable for Severe Sepsis.

# Septic Shock Present: Hypoperfusion (slide 1 of 3)

Tissue Hypoperfusion demonstrated by **Persistent Hypotension:**

- One hour after crystalloid fluids completed (requires **30 mL/kg** to determine Septic Shock presence)
  - Systolic blood pressure (SBP) < 90 mmHg, OR
  - Mean arterial pressure (MAP) < 65 mmHg, OR
  - Decrease in SBP by > 40 mmHg from last recorded SBP considered “normal” for patient
- Documentation typically found in nursing documentation (vitals)

# Septic Shock Present: Hypoperfusion (slide 2 of 3)

Determining 30 mL/kg crystalloid fluids concluded:

- Documented time infusion ends

**OR**

- Can base upon start time and duration in order

- Example:

Order for 3000 mL (100 kg patient) over one hour.  
Infusion started at 0800. Time concluded = 0900.

# Septic Shock Present: Hypoperfusion (slide 3 of 3)

Tissue Hypoperfusion demonstrated by **Lactate Level  $\geq 4$  mmol/L**:

- Initial Lactate Level results
- Crystalloid fluids may not have been given yet, but should be given for treatment of Septic Shock
- Documentation typically found in laboratory report results

# Septic Shock Present: Physician/APN/PA Documentation

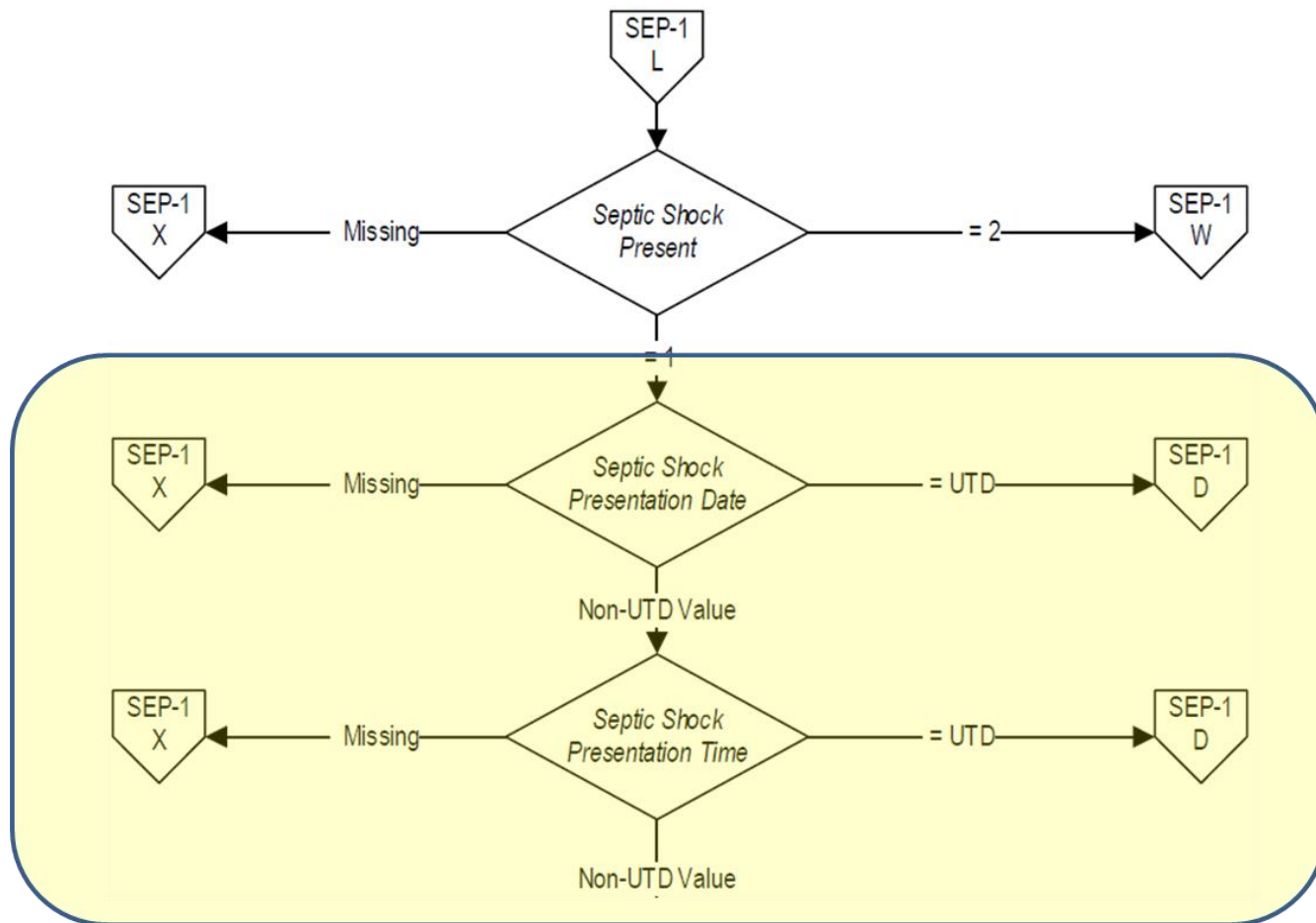
- If criteria for Septic Shock are not met, but there is physician/APN/PA documentation of Septic Shock, choose Value “1 (Yes)”
- Select “1 (Yes)” for the following:
  - Possible or suspected Septic Shock
  - Rule out Septic Shock
  - Differential diagnosis Septic Shock



# Septic Shock Present: Crystalloid Fluids Not Given

If crystalloid fluids were **NOT** administered after the presentation date and time of Severe Sepsis, select Allowable Value “2 (No).”

# Septic Shock Presentation: Date and Time (slide 1 of 2)

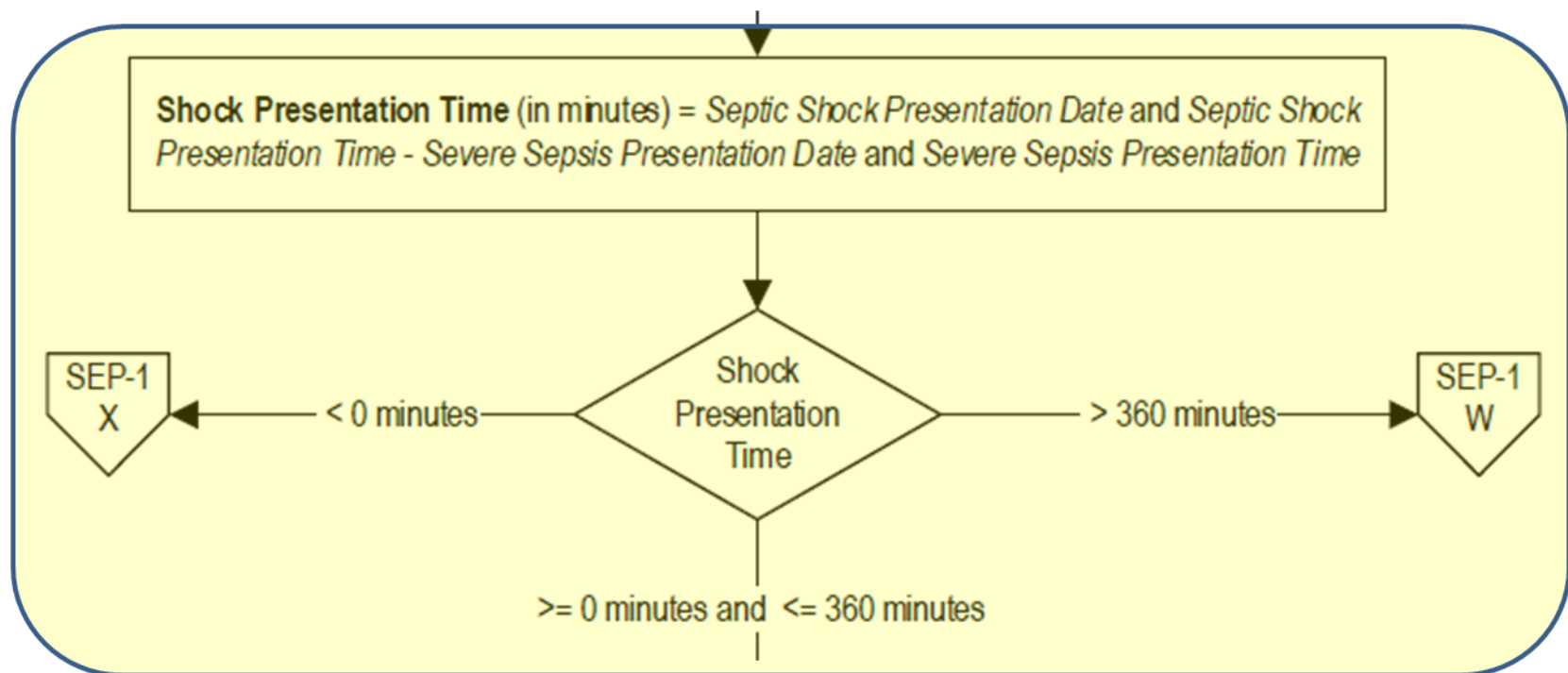


# Septic Shock Presentation: Date and Time (slide 2 of 2)

- Use Triage date and time **ONLY** if:
  - Patient arrives to the ED with Septic Shock
  - Septic Shock is identified as present or suspected during triage
- Use the Date and Time the **last sign of Septic Shock was noted or last laboratory value was reported, OR** the Date and Time of **physician/APN/PA documentation**:
  - For all cases presenting after triage time, including if still in the ED or admitted as inpatients

# Shock Presentation Time: Calculation

(slide 1 of 2)



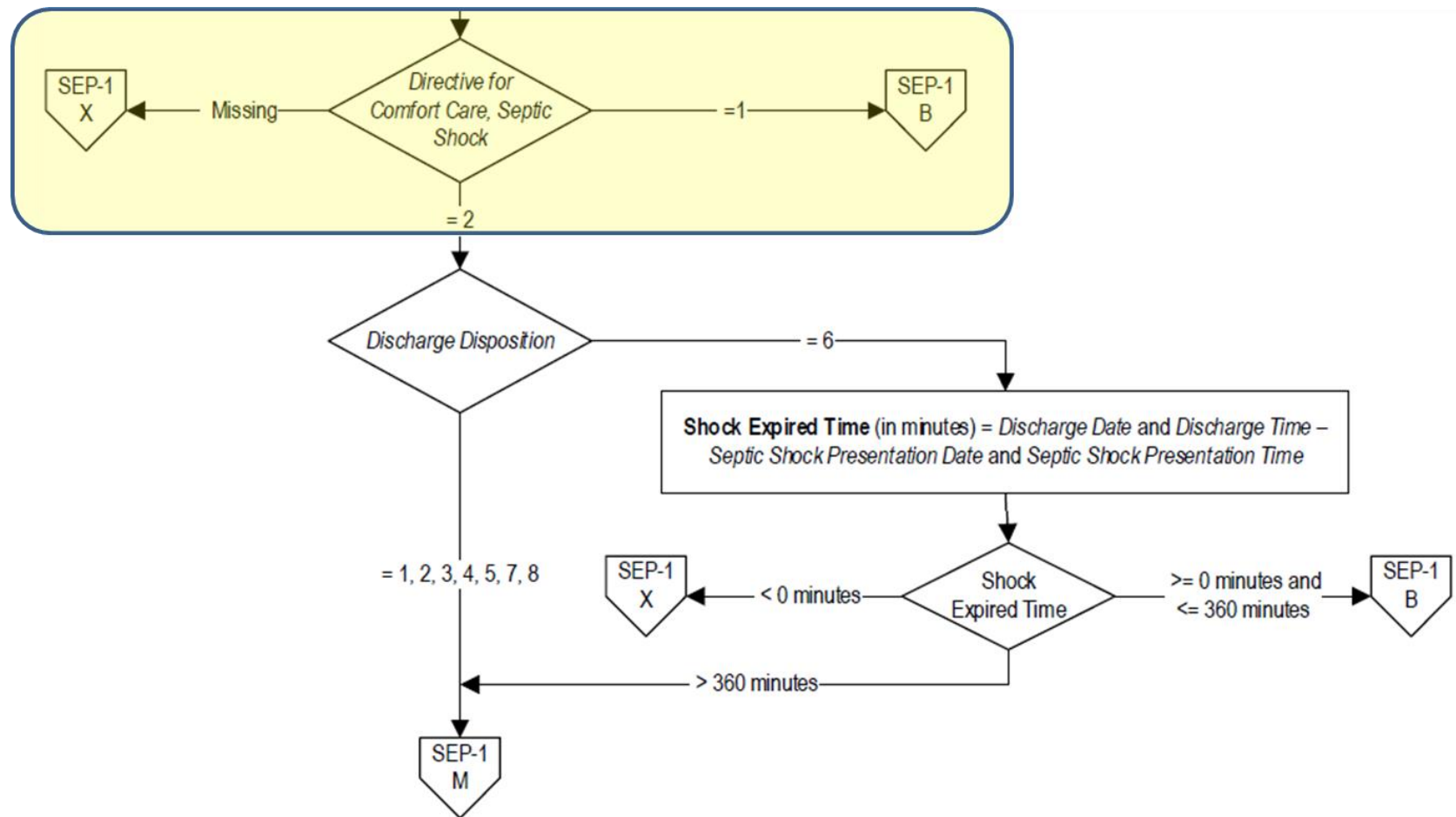
# Shock Presentation Time: Calculation (slide 2 of 2)

- Calculation in minutes of:
  - Septic Shock Presentation Date and Time – Severe Sepsis Presentation Date and Time
- Time references:
  - 360 minutes = 6 hours after Severe Sepsis presentation
  - 0 minutes = same time as Severe Sepsis presentation

# Shock Presentation Time: What Happens

- **If time is  $> 360$  minutes**  
(Septic Shock presentation is more than 6 hours after Severe Sepsis presentation)  
**Then** case is assigned category “W” and goes directly to last page of algorithm
- **If time is  $\geq 0$  minutes and  $\leq 360$  minutes**  
(Septic Shock presentation is at the same time as or within 6 hours after Severe Sepsis presentation)  
**Then** case continues to next data element

# Directive for Comfort Care, Septic Shock (slide 1 of 3)



# Directive for Comfort Care, Septic Shock (slide 2 of 3)

Physician/APN/PA documentation of *comfort measures only* prior to or within 6 hours of Septic Shock presentation (first episode)

Allowable Values:

- Y (Yes)** Physician/APN/PA documentation of *comfort measures only* was prior to or within 6 hours of presentation of Septic Shock
- N (No)** Physician/APN/PA documentation of *comfort measures only* was not prior to or within 6 hours of presentation of Septic Shock, or not documented, or time is unclear

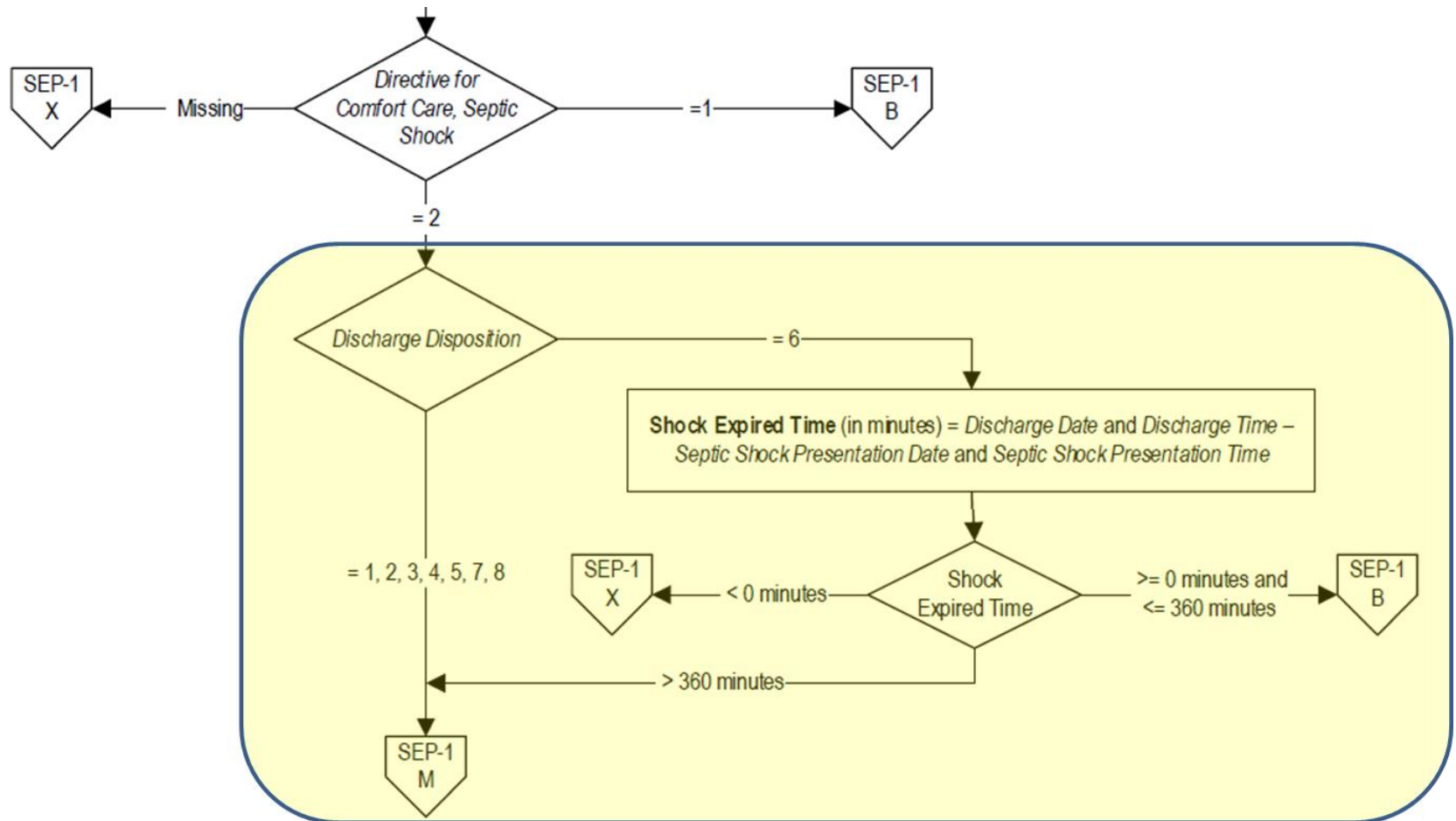


# Directive for Comfort Care, Septic Shock (slide 3 of 3)

## Things to look for:

- Specific time frame – prior to or within 6 hours after presentation of Septic Shock
- Physician/APN/PA documentation ONLY
- Terms on Inclusion Guidelines for Abstraction
- If inclusion term referenced in the “negative,” select Allowable Value “2 (No)”

# Discharge Disposition (slide 1 of 2)

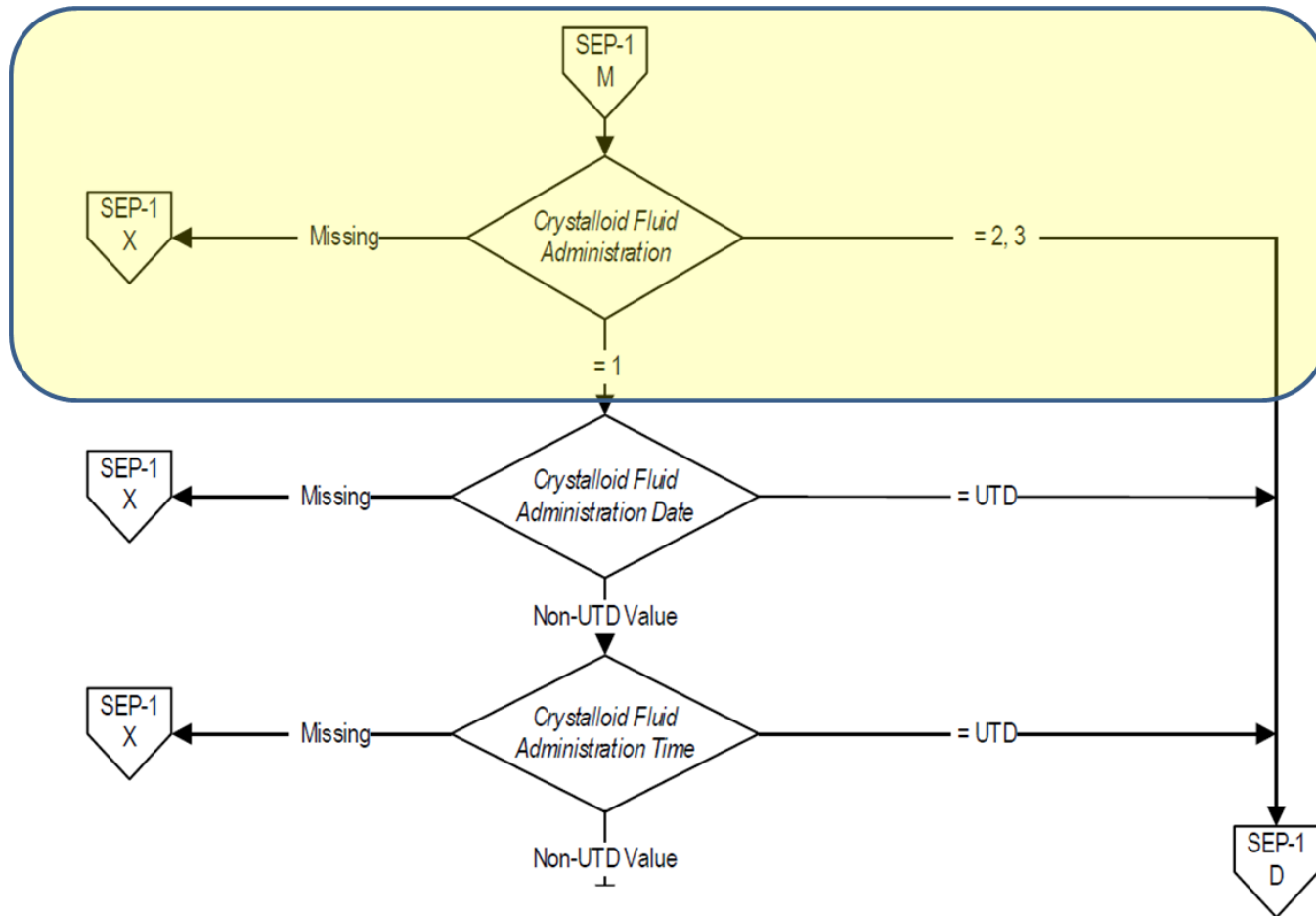


# Discharge Disposition (slide 2 of 2)

- Previously abstracted for Severe Sepsis
- Final place or setting to which the patient was discharged (on the day of discharge)
- Discharge Disposition Allowable Values:
  - 1 Home
  - 2 Hospice – Home
  - 3 Hospice – Health Care Facility
  - 4 Acute Care Facility
  - 5 Other Health Care Facility
  - 6 Expired
  - 7 Left Against Medical Advice (AMA)
  - 8 Not Documented or Unable to Determine (UTD)

# Crystalloid Fluid Administration

(slide 1 of 4)



# Crystalloid Fluid Administration

(slide 2 of 4)

Documentation that crystalloid fluids were administered at the time of or after presentation of Septic Shock

Allowable Values:

- 1 (Yes)** Crystalloid fluids were administered after the presentation of Septic Shock, or crystalloid fluids were being administered at the time of presentation of Septic Shock AND the volume ordered was 30 mL/kg.
- 2 (No)** Crystalloid fluids were administered after the presentation of Septic Shock, or crystalloid fluids were being administered at the time of presentation of Septic Shock AND the volume ordered was less than 30 mL/kg, or unable to determine.
- 3 (No)** Crystalloid fluids were not being administered at the time of presentation of Septic Shock and were not administered after the time of presentation of Septic Shock, or unable to determine.

# Crystalloid Fluid Administration

(slide 3 of 4)

## Things to look for:

- Only acceptable crystalloid fluids:
  - 0.9% Normal Saline
  - Lactated Ringers
  - **Note:** Colloids can be given in addition to crystalloids **BUT are NOT** an acceptable substitute for purposes of the measure
- To determine volume patient should have ordered:
  - Weight in pounds divided by 2.2 to find weight in kgs
  - Weight in kgs multiplied by 30 is total volume required
- Documentation must be clear crystalloid fluids were actually administered – two parts:
  - Crystalloid fluids must be given, AND
  - Ordered volume must be equivalent to 30 mL/kg

# Crystalloid Fluid Administration

(slide 4 of 4)

More things to look for:

- For purposes of the measure use actual weight or estimated weight documented closest to order
- Order must include time frame over which to give crystalloid fluids or a rate of administration
- Not a required time frame or rate, **BUT MUST** be greater than **1000 mL over 8 hours (125 mL/hour)**
- **Can** be ordered and given over a series of infusions
- Crystalloid fluids for flushing IV lines **cannot** be used

# Crystalloid Fluid Administration:

## Examples (slide 1 of 6)

### Example 1:

- Physician order: 2500 mL normal saline over 1 hour
- Patient weight = 74.5 kg ( $164 \text{ lbs}/2.2 = 74.5 \text{ kg}$ )
- Target volume total = 2236 mL ( $74.5 \text{ kg} \times 30 \text{ mL/kg}$ )
- Order written and infusion started 1 hour before Septic Shock presentation date and time
- Select Allowable Value **“1 (Yes)”**
  - Volume ordered is 30 mL/kg
  - Infusion duration is ordered



# Crystalloid Fluid Administration:

## Examples (slide 2 of 6)

### Example 2:

- Physician order: 2000 mL normal saline over 1 hour
- Patient weight = 83.6 kg ( $184 \text{ lbs} / 2.2 = 83.6 \text{ kg}$ )
- Target volume total = 2508 mL ( $83.6 \text{ kg} \times 30 \text{ mL/kg}$ )
- Order written and infusion started 15 minutes after Septic Shock presentation date and time
- Select Allowable Value **“2 (No)”**
  - Volume ordered is less than 30 mL/kg

# Crystalloid Fluid Administration:

## Examples (slide 3 of 6)

### Example 3:

- Physician order: 2000 mL normal saline stat
- Patient weight = 64.5 kg ( $142 \text{ lbs} / 2.2 = 64.5 \text{ kg}$ )
- Target volume total = 1936 mL ( $64.5 \text{ kg} \times 30 \text{ mL/kg}$ )
- Order written and infusion started 45 minutes before Septic Shock presentation date and time
- Select Allowable Value **“2 (No)”**
  - Volume ordered is at least 30 mL/kg
  - No infusion duration or rate in order

# Crystalloid Fluid Administration:

## Examples (slide 4 of 6)

### Example 4:

- Physician order: 1500 mL normal saline at 120 mL/hr
- Patient weight = 50 kg ( $110 \text{ lbs}/2.2 = 50 \text{ kg}$ )
- Target volume total = 1500 mL ( $50 \text{ kg} \times 30 \text{ mL/kg}$ )
- Order written and infusion started 20 minutes after Septic Shock presentation date and time
- Select Allowable Value **“2 (No)”**
  - Volume ordered is 30 mL/kg
  - Infusion rate is less than 125 mL/hour
  - This is a maintenance IV infusion

# Crystalloid Fluid Administration:

## Examples (slide 5 of 6)

### Example 5:

- Physician order: 30 mL/kg normal saline over 2 hours
- Patient weight = 90 kg (198 lbs/2.2 = 90 kg)
- Target volume total = 2700 mL (90 kg x 30 mL/kg)
- Order written and infusion started 45 minutes before Septic Shock presentation date and time
- IV flow sheet indicates 3000 mL were given
- Select Allowable Value **“1 (Yes)”**
  - Volume ordered is 30 mL/kg
  - At least 30 mL/kg were given

# Crystalloid Fluid Administration:

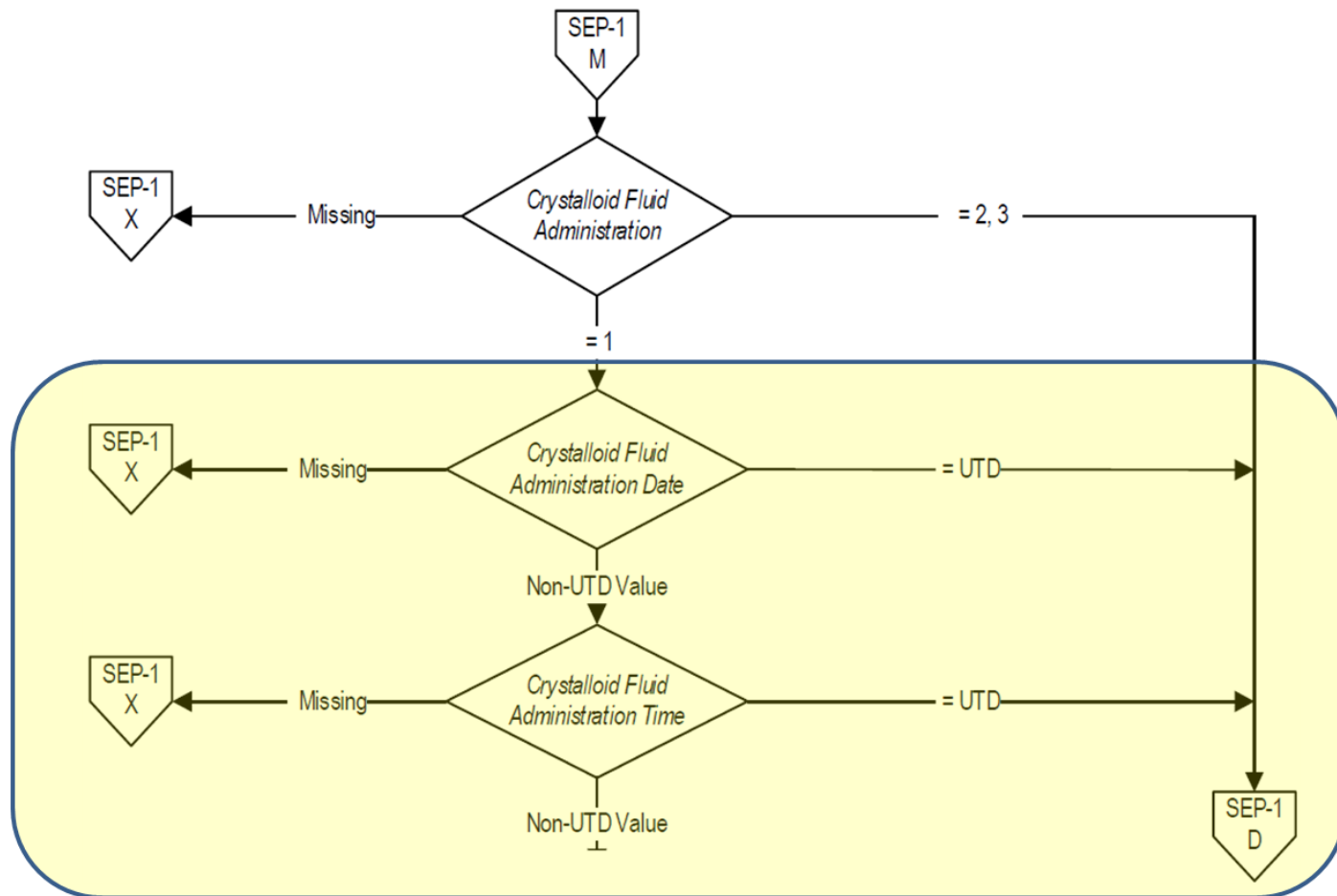
## Examples (slide 6 of 6)

### Example 6:

- 0800 order: 1000 mL normal saline over 1 hour
- 0915 order: 1000 mL normal saline over 1 hour
- 1030 order: 1000 mL normal saline over 1 hour
- 1040 physician documents “possible Septic Shock”
- Medical record indicates all three infusions were given
- Patient weight = 100 kg ( $220 \text{ lbs} / 2.2 = 100 \text{ kg}$ )
- Target volume total = 3000 mL ( $64.5 \text{ kg} \times 30 \text{ mL/kg}$ )
- Select Allowable Value “**1 (Yes)**”
  - Total volume ordered is 30 mL/kg
  - Infusion duration is in each order

# Crystalloid Fluid Administration

## Date and Time (slide 1 of 2)



# Crystalloid Fluid Administration

## Date and Time (slide 2 of 2)

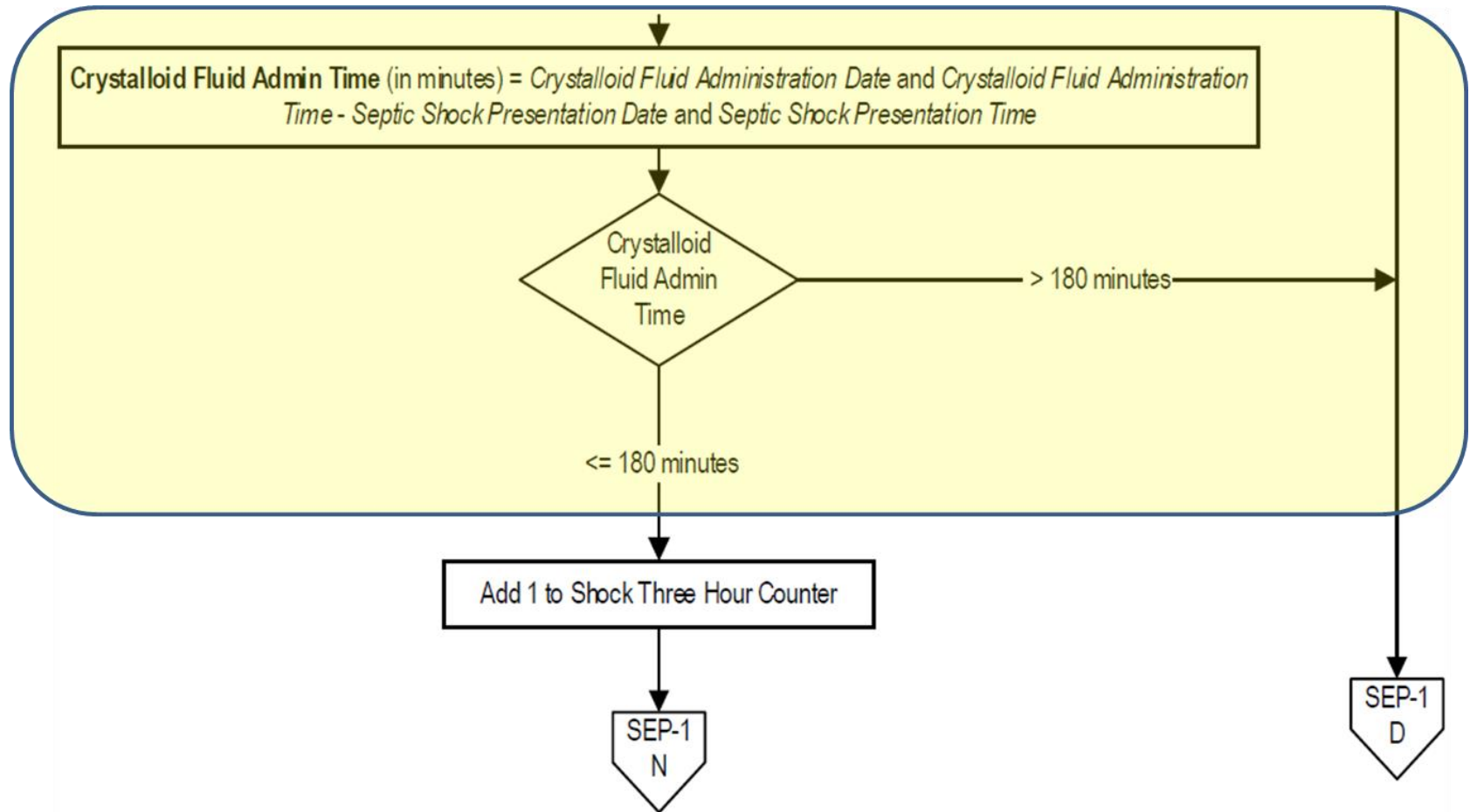
The date and time the 30 mL/kg crystalloid fluid infusion was started

Things to look for:

- Crystalloid fluids are given in large volumes (> 1000 mL)
- **DO NOT** abstract date and time:
  - Crystalloid fluids were ordered
  - IV access was started
  - Crystalloid fluids given to dilute other medications or to flush other medications or IV lines

# Crystalloid Fluid Admin Time: Calculation

(slide 1 of 2)





# Crystalloid Fluid Admin Time: Calculation (slide 2 of 2)

- Calculation in minutes of:  
Crystalloid Fluid Administration Date and Time – Septic Shock Presentation Date and Time
- Time reference:
  - 180 minutes = 3 hours after presentation

# Crystalloid Fluid Admin Time: What Happens

- **If time is  $> 180$  minutes**  
(started more than 3 hours after Septic Shock presentation)  
**Then** case is assigned to category “D” and fails the measure
- **If time is  $\leq 180$  minutes**  
(started before or within 3 hours after Septic Shock presentation)  
**Then** add 1 to the Shock Three Hour Counter and go to next page of the algorithm

# What About Multiple Crystalloid Infusions?

(slide 1 of 4)

- Orders for all of the individual infusions equivalent to 30 mL/kg need to be written and all the infusions need to be started within 3 hours of Septic Shock presentation.
- If the total volume equivalent to 30 mL/kg is not ordered and started until the last infusion order, then use the date and time the last infusion was started.

# What About Multiple Crystalloid Infusions?

(slide 2 of 4)

## Example 1:

- Septic Shock presentation time = 1330
- 100 kg patient, total of 3000 mL needs to be given
- 1st order = 1000 mL over 1 hour started at 1000
- 2nd order = 1000 mL over 1 hour started at 1115
- 3rd order = 1000 mL over 1 hour started at 1230
- Abstract date and time last 1000 mL infusion was started for Crystalloid Fluid Administration Date and Time
- 1230 is before Septic Shock presentation time (1330)
- 1 added to counter and case continues

# What About Multiple Crystalloid Infusions?

(slide 3 of 4)

## Example 2:

- Septic Shock presentation time = 1000
- 90 kg patient, total of 2700 mL needs to be given
- 1st order = 1000 mL over 1 hour started at 1020
- 2nd order = 1000 mL over 1 hour started at 1130
- 3rd order = 1000 mL over 1 hour started at 1240
- Abstract date and time last 1000 mL infusion was started for Crystalloid Fluid Administration Date and Time
- 1240 is within 3 hours (1300) of Septic Shock presentation time (1000)
- 1 added to counter and case continues

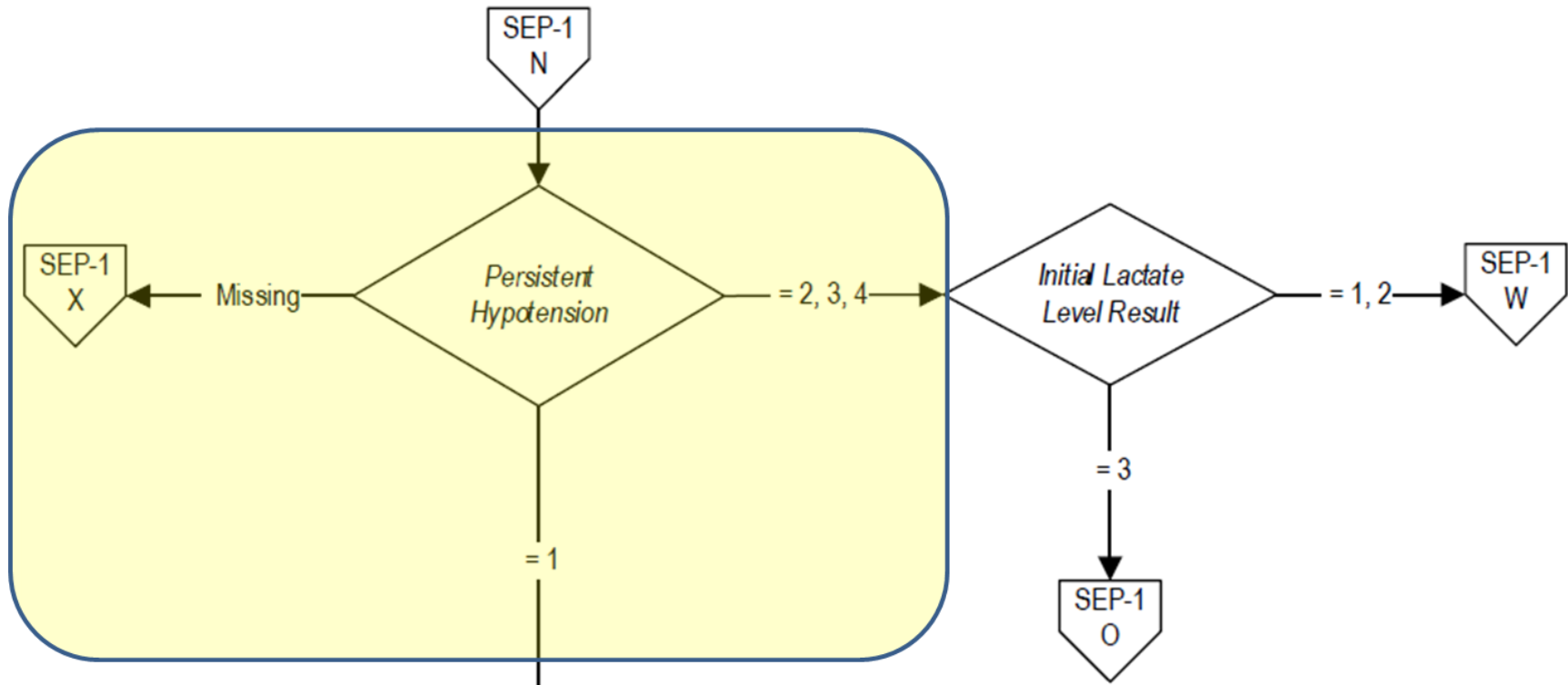
# What About Multiple Crystalloid Infusions?

(slide 4 of 4)

## Example 3:

- Septic Shock presentation time = 0900
- 75 kg patient, total of 2250 mL needs to be given
- 1st order = 1000 mL over 2 hours started at 0915
- 2nd order = 1000 mL over 2 hour started at 1130
- 3rd order = 500 mL over 1 hour started at 1345
- Abstract date and time last infusion (500 mL) was started for Crystalloid Fluid Administration Date and Time
- 1345 is more than 3 hours (1200) after Septic Shock presentation time (0900)
- Case is assigned category “D” and fails measure

# Persistent Hypotension (slide 1 of 3)



# Persistent Hypotension (slide 2 of 3)

Documentation of the presence of persistent hypotension in the hour following completion of 30 mL/kg of crystalloid fluids

Allowable Values:

- 1 (Yes)** Crystalloid fluids were administered at a volume of 30 mL/kg and persistent hypotension was present within one hour of the conclusion of fluid administration
- 2 (No)** Persistent hypotension was not present within one hour of the conclusion of fluid administration at a volume of 30 mL/kg
- 3 (No) or UTD** The patient was not assessed for persistent hypotension within the one hour after the conclusion of fluid administration at a volume of 30 mL/kg, or Unable to Determine
- 4 (Not applicable)** Crystalloid fluids were not administered, or crystalloid fluids were administered but at a volume less than 30 mL/kg



# Persistent Hypotension (slide 3 of 3)

## Things to look for:

- Start at conclusion of 30 mL/kg of crystalloid fluids
- Identified by one single blood pressure reading of:
  - SBP < 90, OR
  - MAP < 65, OR
  - Decrease in SBP for > 40 mmHg from last recorded SBP considered “normal” for patient
- If no SBP or MAP recorded in the one hour following crystalloid fluid conclusion, select Allowable Value “3 (No) or UTD”

# Persistent Hypotension: Crystalloid Fluid Conclusion

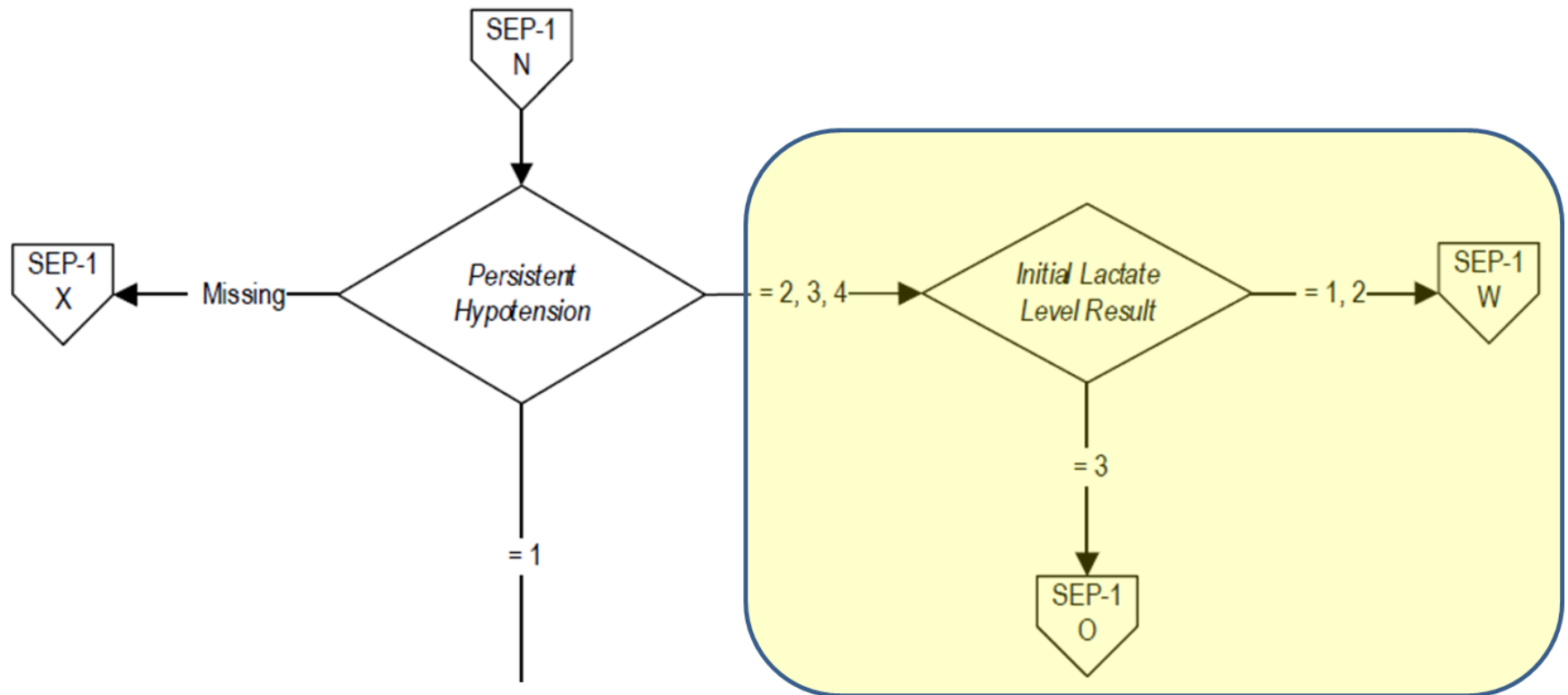
Example 1, infusion **duration** ordered:

- Order for 2500 mL normal saline over 2 hours
- Infusion started at 0900
- Add infusion duration time (2 hours) to start time (0900) for infusion end time = 1100

Example 2, infusion **rate** ordered:

- Order for 3000 mL normal saline at 1000 mL/hr
- Infusion started at 1000
- To find how long it will take to infuse, divide volume (3000 mL) by rate (1000 mL/hr) = 3 hours
- Add infusion duration time (3 hours) to start time (1000) for infusion end time = 1300

# Initial Lactate Level Result (slide 1 of 3)



# Initial Lactate Level Result (slide 2 of 3)

The result of the initial lactate level

Allowable Values:

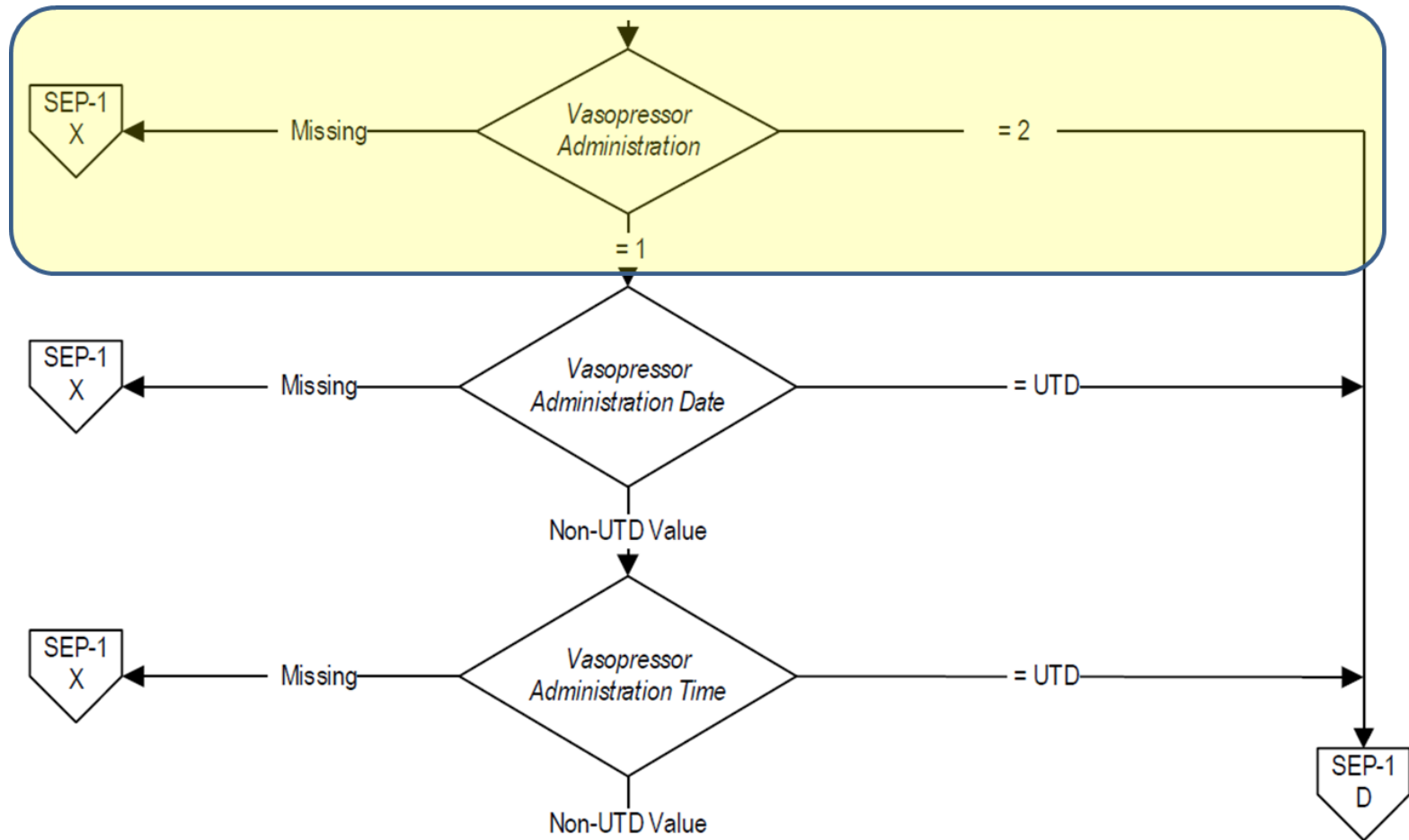
- |  |   |
|--|---|
| <b>1 (<math>\leq 2</math>)</b>                           | The initial lactate level was less than or equal to 2.0, or there was no initial lactate level collected      |
| <b>2 (<math>&gt; 2</math> and <math>&lt; 4.0</math>)</b> | The initial lactate level was greater than 2.0 and less than 4.0  |
| <b>3 (<math>\geq 4</math>)</b>                           | The initial lactate level was 4.0 or more, or there was no result in the chart, or unable to determine result |

# Initial Lactate Level Result (slide 3 of 3)

## Things to look for:

- Select Allowable Value based on results of the initial lactate level abstracted for the *Initial Lactate Level Collection* data element.

# Vasopressor Administration (slide 1 of 3)



# Vasopressor Administration (slide 2 of 3)

Documentation that an IV vasopressor was administered after presentation of Septic Shock

Allowable Values:

- 1 (Yes)** The patient was given an intravenous vasopressor after the presentation of Septic Shock, or the patient was receiving a vasopressor at the time of presentation of Septic Shock.
- 2 (No)** The patient was not given an intravenous vasopressor after the time of presentation of Septic Shock and was not receiving a vasopressor at the time of Septic Shock.

# Vasopressor Administration (slide 3 of 3)

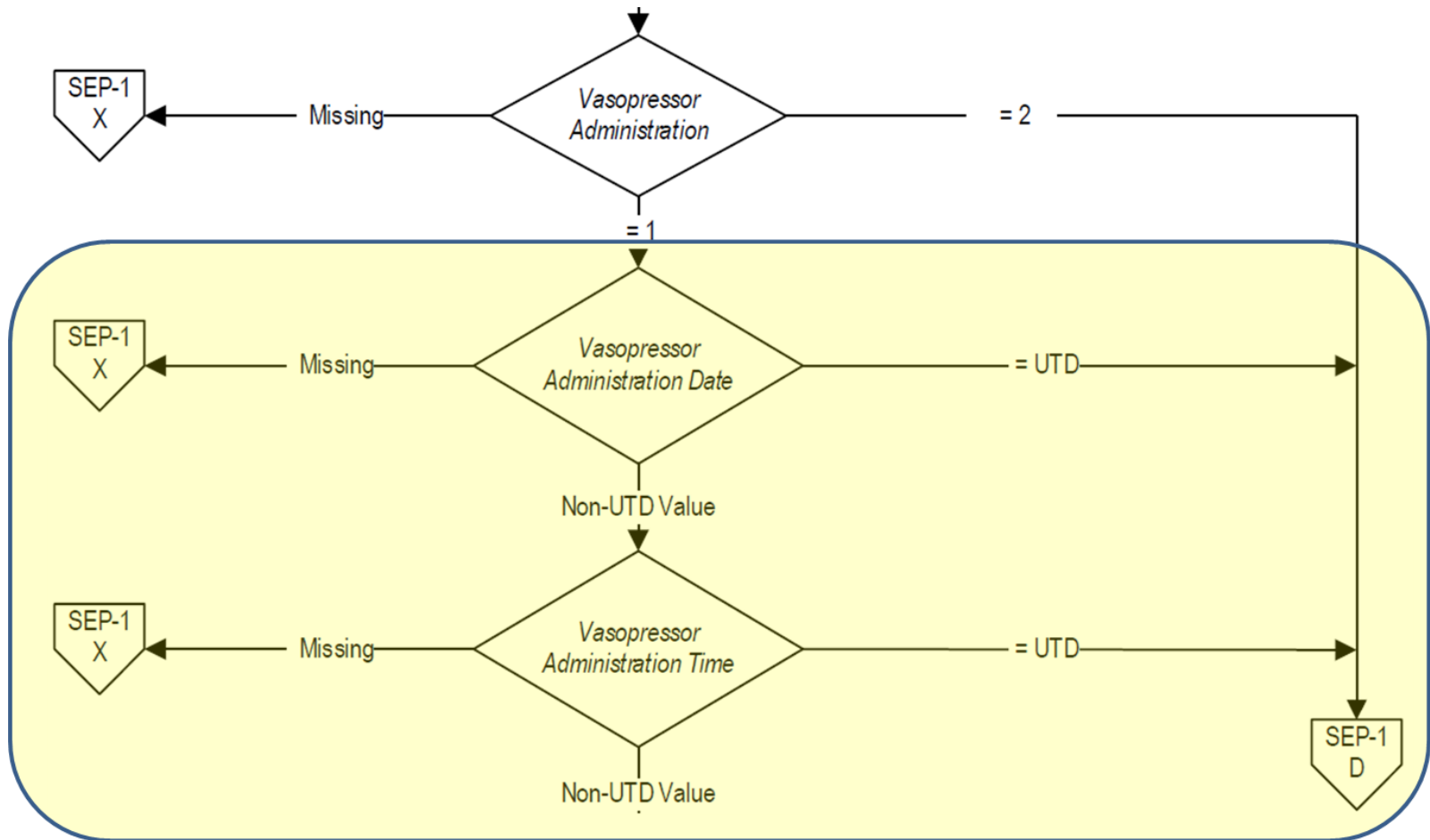
## Things to look for:

- Acceptable vasopressors in Appendix C, Table 5.2
- Documentation must demonstrate actual administration
- IV is only acceptable route
- Vasopressors started before and running at the time of Septic Shock presentation are acceptable



# Vasopressor Administration

## Date and Time (slide 1 of 2)



# Vasopressor Administration

## Date and Time (slide 2 of 2)

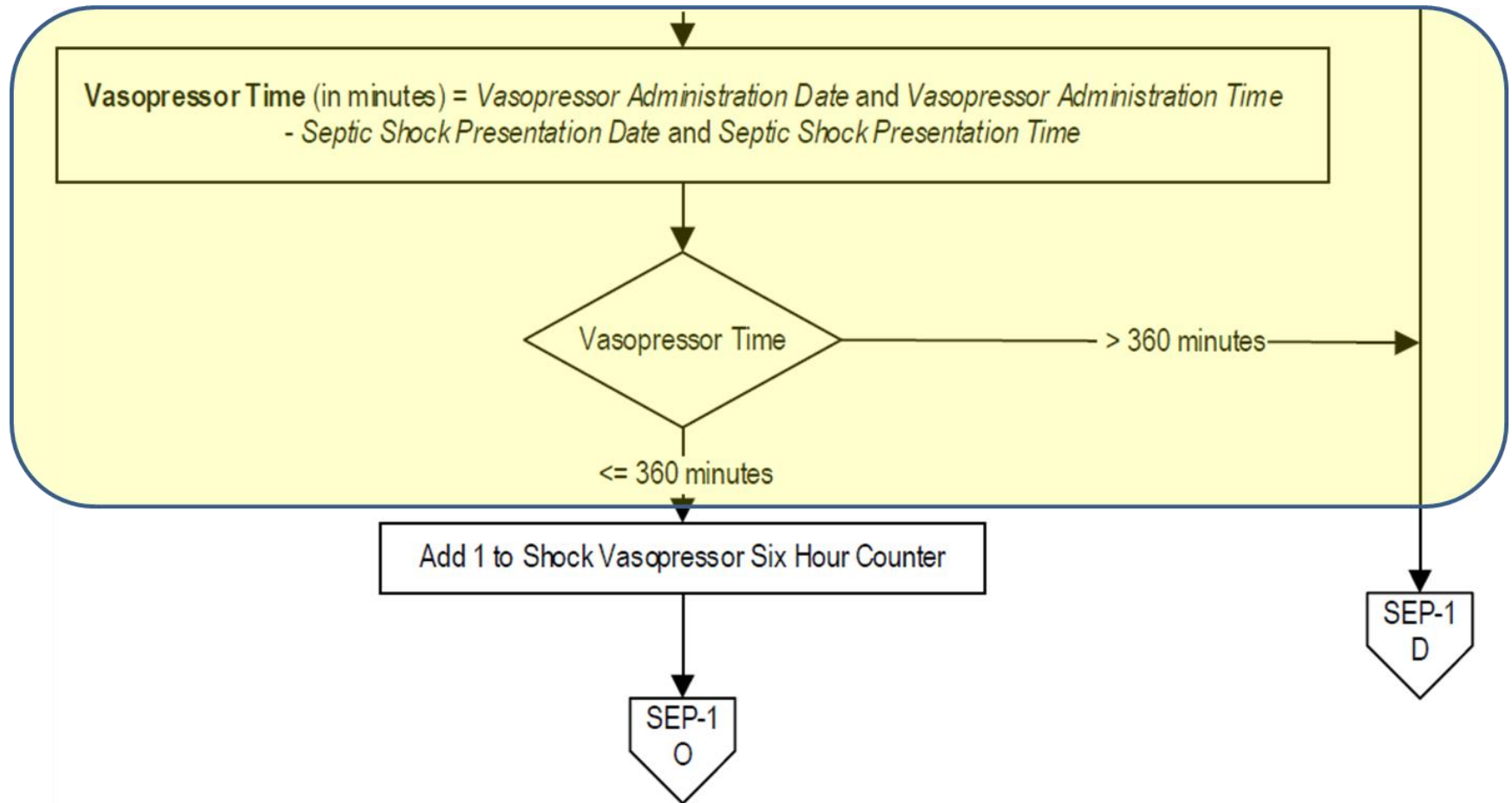
The date and time the vasopressor was started

Things to look for:

- If a vasopressor was infusing at Septic Shock presentation time, abstract the date and time the vasopressor was started.
- If multiple doses were given or multiple infusions were started **after** Septic Shock presentation time (and none before or at time of presentation), abstract the date and time of the vasopressor given closest to Septic Shock presentation time.

# Vasopressor Time: Calculation

(slide 1 of 2)



# Vasopressor Time: Calculation

(slide 2 of 2)

- Calculation in minutes of:
  - Vasopressor Administration Date and Time – Septic Shock Presentation Date and Time
- Time references:
  - 360 minutes = 6 hours after presentation

# Vasopressor Time: What Happens

- **If** time is **> 360** minutes  
(given more than 6 hours after presentation)  
**Then** case is assigned category “D” and fails the measure
- **If** time is **<= 360** minutes  
(given within 6 hours after or before presentation)  
**Then** case continues to the next page of the algorithm

# Repeat Volume Status and Tissue Perfusion Assessment

- Focused Exam:
  - Vital Signs, AND
  - Cardiopulmonary Exam, AND
  - Capillary Refill Evaluation, AND
  - Peripheral Pulse Evaluation, AND
  - Skin Examination

**OR**

- Any two of the following four:
  - Central Venous Pressure Measurement
  - Central Venous Oxygen Measurement
  - Bedside Cardiovascular Ultrasound
  - Passive Leg Raise or Fluid Challenge

# Focused Exam: Data Elements

- Time period for completion of Focused Exam
  - Starting with crystalloid fluid administration date/time and ending 6 hours after septic shock presentation date/time
- Performed data element Allowable Values
  - 1 (Yes)**      Was performed per data element specifications
  - 2 (No)**      Was not performed per data element specifications
- Date and Time data elements
  - Date and time data element was documented as performed
  - If performed multiple times within the time window, abstract the latest time it was performed

# Focused Exam: Time Calculations

(Slide 1 of 2)

## Calculation from Septic Shock Presentation

- Exam element Date/Time – Septic Shock Presentation Date/Time
- **If > 360 minutes**  
(more than 6 hours after presentation)  
**Then** case goes directly to CVP Measurement
- **If ≤ 360 minutes**  
(within 6 hours after presentation)  
**Then** case continues



# Focused Exam: Time Calculations

(Slide 2 of 2)

## Calculation from Crystalloid Fluid Administration

- Exam element Date/Time – Crystalloid Fluid Administration Date/Time
- **If < 0 minutes**  
(before crystalloid fluid administration)  
**Then** case goes directly to CVP Measurement
- **If >= 0 minutes**  
(after or same time as crystalloid fluid administration)  
**Then** case continues

# Focused Exam: Algorithm Flow

- Performed data element
  - If Allowable Value “1 (Yes)” selected, case continues
  - If Allowable Value “2 (No)” selected, case goes directly to Central Venous Pressure (CVP) Measurement
- Date and Time data elements
  - If valid date and time, case continues
  - If UTD, case goes directly to CVP Measurement
- Completing **ALL** five Focused Exam data elements
  - Add 1 to the Shock Six Hour Counter
  - Case assigned “W” – goes to last page of algorithm
  - Bypasses remaining Volume Status and Tissue Perfusion Assessment

# Vital Signs Review

Physician/APN/PA documentation of vital signs review

Things to look for:

- Requires documentation of the following ***with*** results:
  - Temperature
  - Pulse
  - Respiratory Rate
  - Blood Pressure
- For abstraction cannot combine more than one note to get all elements of the vital signs review or results
- Documentation in note can come from multiple sources
- If multiple notes with vital signs review (must have all 4 elements), abstract the latest done in the time window

# Cardiopulmonary Evaluation

Documentation indicating a cardiopulmonary exam was performed by a Physician/APN/PA

Things to look for:

- Must include assessment of both heart and lungs with findings
- For abstraction, cannot combine more than one note to get both elements of the cardiopulmonary evaluation or the findings
- If multiple cardiopulmonary evaluations were done, abstract the latest done in the time window

# Capillary Refill Examination

Documentation indicating a capillary refill exam was performed by a Physician/APN/PA

Things to look for:

- Must be documented in a physician/APN/PA note
- Note needs to make reference to “capillary” or “nail bed” refill
- If multiple capillary refill exams were done, abstract the latest done in the time window

# Peripheral Pulse Evaluation

Documentation indicating a peripheral pulse evaluation was performed by a Physician/APN/PA

Things to look for:

- Note needs to make reference to any of the following:
  - Peripheral pulse(s)
  - Radial pulse(s)
  - Dorsalis pedis pulse(s)
  - Posterior tibialis pulse(s)
- If multiple peripheral pulse evaluations were done, abstract the latest done in the time window

# Skin Examination

Documentation indicating a skin exam was performed by a Physician/APN/PA

Things to look for:

- Must be documented in a physician/APN/PA note
- Note needs to make reference to skin color
- If multiple skin exams were done, abstract the latest done in the time window

# Any Two of the Following Four

- Only if the Focused Exam is not completed
- Requires completion of any two in any combination:
  - Central Venous Pressure Measurement
  - Central Venous Oxygen Measurement
  - Bedside Cardiovascular Ultrasound
  - Passive Leg Raise or Fluid Challenge



# *Any Two: Data Elements*

- Time period for completing *Any Two*
  - Starting with crystalloid fluid administration date/time and ending 6 hours after septic shock presentation date/time
- Performed data element Allowable Values
  - 1 (Yes)      Was performed per data element specifications
  - 2 (No)      Was not performed per data element specifications
- Date and Time data elements
  - Date and time data element was documented as performed

# ***Any Two: Algorithm Flow***

- Performed data element
  - **If Allowable Value “1 (Yes)”** selected, case continues
  - **If Allowable Value “2 (No)”** selected, case bypasses Shock Physical Assessment Six Hour Counter
- Date and Time data elements
  - If valid date and time, case continues
  - If UTD, case bypasses Shock Physical Assessment Six Hour Counter

# ***Any Two: Time Calculations***

(Slide 1 of 2)

## Calculation from Septic Shock Presentation

- Exam element Date/Time – Septic Shock Presentation Date/Time
- **If > 360 minutes**  
(more than 6 hours after presentation)  
**Then** bypasses Shock Physical Assessment Six Hour Counter and case continues
- **If <= 360 minutes**  
(within 6 hours after presentation)  
**Then** case continues

# ***Any Two: Time Calculations***

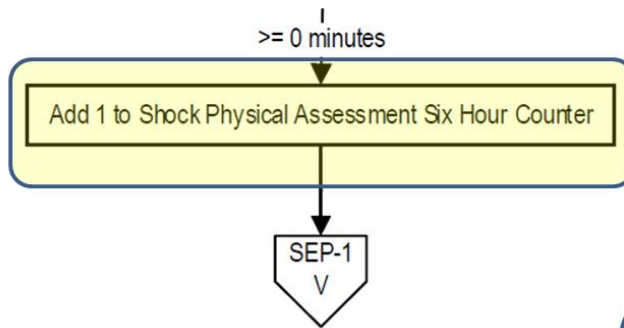
(Slide 2 of 2)

## Calculation from Crystalloid Fluid Administration:

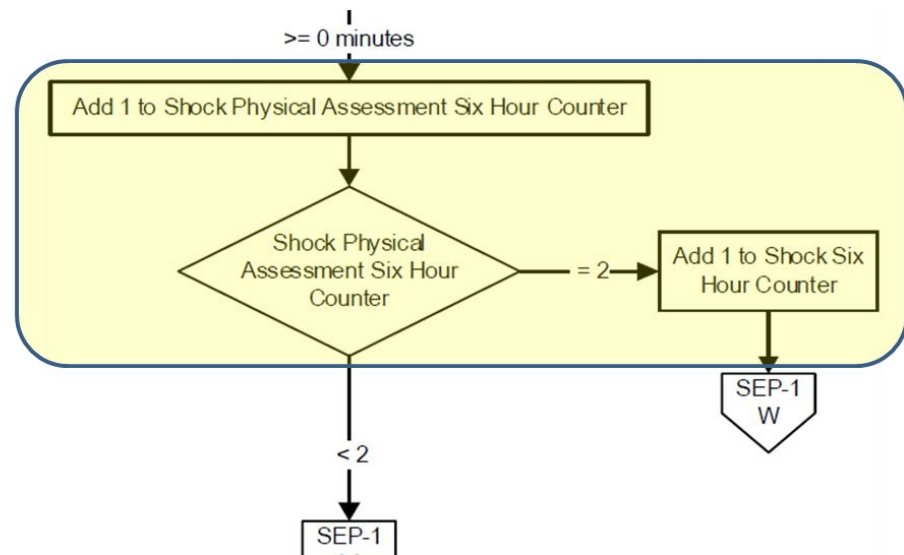
- Exam element Date/Time – Crystalloid Fluid Administration Date/Time
- **If < 0 minutes**  
(before crystalloid fluid administration)  
**Then** bypasses Shock Physical Assessment Six Hour Counter and case continues
- **If >= 0 minutes**  
(after or same time as crystalloid fluid administration)  
**Then** 1 is added to Shock Physical Assessment Six Hour Counter and case continues

# Any Two: Counters

CVP Measurement Completed



Subsequent "Other Two" Completed



# Central Venous Pressure Measurement

Documentation of central venous pressure (CVP) measurement

Things to look for:

- Must be indication reading was from a central venous catheter
- Not limited to physician/APN/PA documentation
- If multiple CVP measurements, abstract the first one after Septic Shock presentation date and time

# Central Venous Oxygen Measurement

Documentation of central venous oxygen (SvO<sub>2</sub> or ScvO<sub>2</sub>) measurement

Things to look for:

- Must be indication reading was from a central venous catheter
- Not limited to physician/APN/PA documentation
- If multiple central venous oxygen measurements, abstract the first one after Septic Shock presentation date and time

# Bedside Cardiovascular Ultrasound

Documentation indicating a bedside cardiovascular ultrasound was performed

Things to look for:

- Documentation must indicate actual performance of ultrasound
- Not limited to physician/APN/PA documentation
- If multiple bedside cardiovascular ultrasounds were done, abstract the latest done in the time window



# Passive Leg Raise or Fluid Challenge

Two different methods to assess whether cardiac output will increase with an increase in volume or cardiac preload:

- Passive Leg Raise no additional IV fluids are given
- Fluid Challenge additional IV fluids are given

**Note:** Either method is acceptable.

# Passive Leg Raise

Documentation a passive leg raise was performed by a physician/APN/PA

Things to look for:

- Documentation does not need to be made by a physician/APN/PA
- Documentation must indicate actual performance of a passive leg raise by a physician/APN/PA
- If multiple passive leg raises were performed, abstract the latest done in the time window

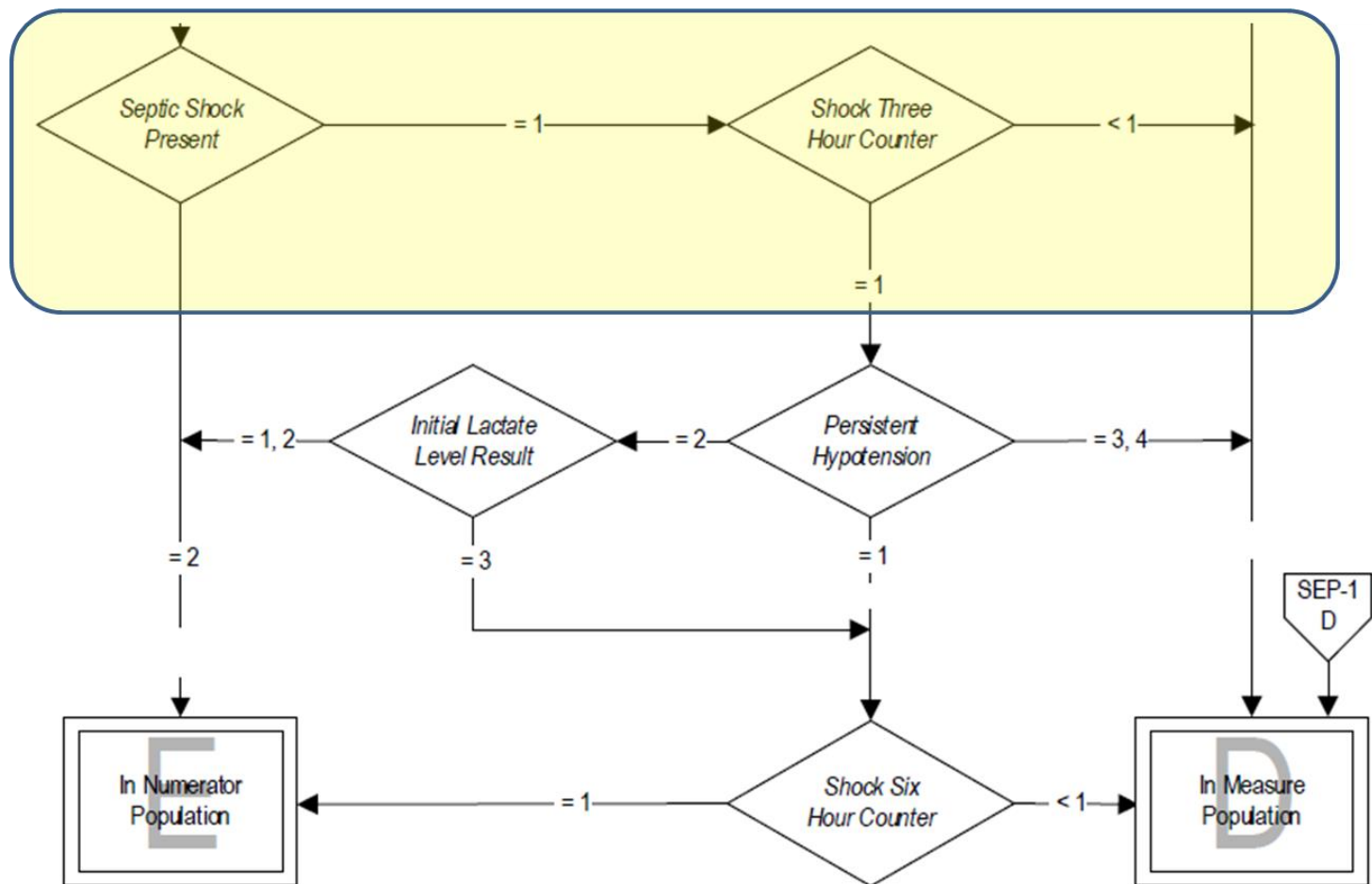
# Fluid Challenge

Documentation a fluid challenge was performed

Things to look for:

- Rapid infusion of 500 mL over 15 minutes or 1000 mL over 30 minutes of normal saline or Lactated Ringers
- Requires order for:
  - Fluid challenge, fluid bolus, rapid fluid infusion, etc.
  - Order must include IV fluid, volume, and time to infuse
- Consult IV fluid administration record or documentation of fluid challenge completed, infused, etc. acceptable
- If multiple fluid challenges were done, abstract the earliest done in the time window

# “W” Counting the Counters: Shock Three Hour Counter (slide 1 of 2)



# “W” Counting the Counters: Shock Three Hour Counter (slide 2 of 2)

**If  $< 1$**

(crystalloid fluids were **NOT** given within 3 hours of Septic Shock presentation)

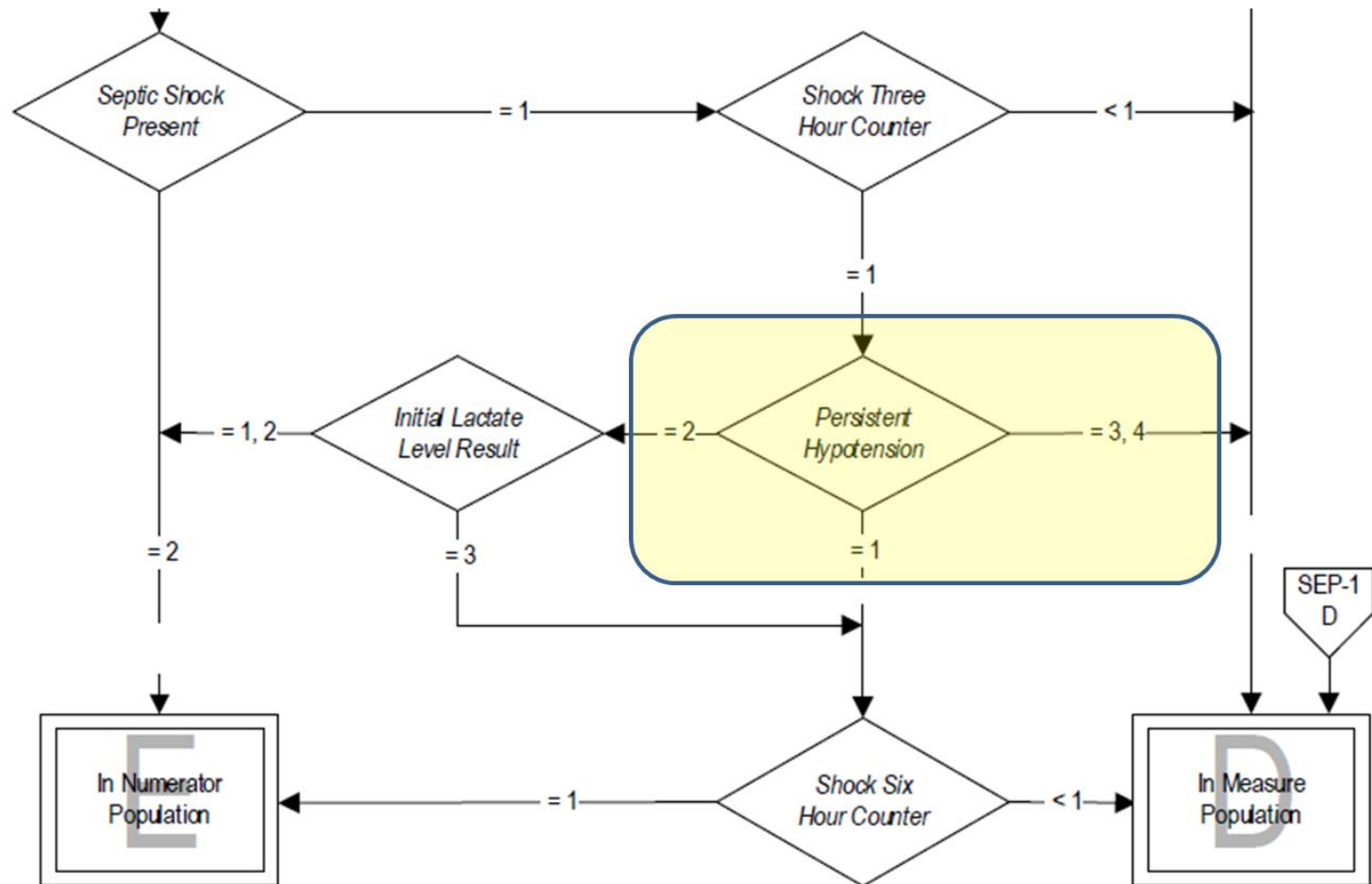
**Then** the case goes to category “**D**” and **fails** measure

**If  $=1$**

(crystalloid fluids **were** given within 3 hours of Septic Shock presentation)

**Then** the case is evaluated for presence of persistent hypotension

# “W” Counting the Counters: Persistent Hypotension (slide 1 of 2)



# “W” Counting the Counters:

## Persistent Hypotension (slide 2 of 2)

**If = 3 or 4**

(patient was **NOT** assessed for persistent hypotension OR  
crystalloid fluids were **NOT** given or volume was < 30 mL/kg)

**Then** case goes to category “D” and **fails** measure

**If = 2**

(persistent hypotension was **NOT** present)

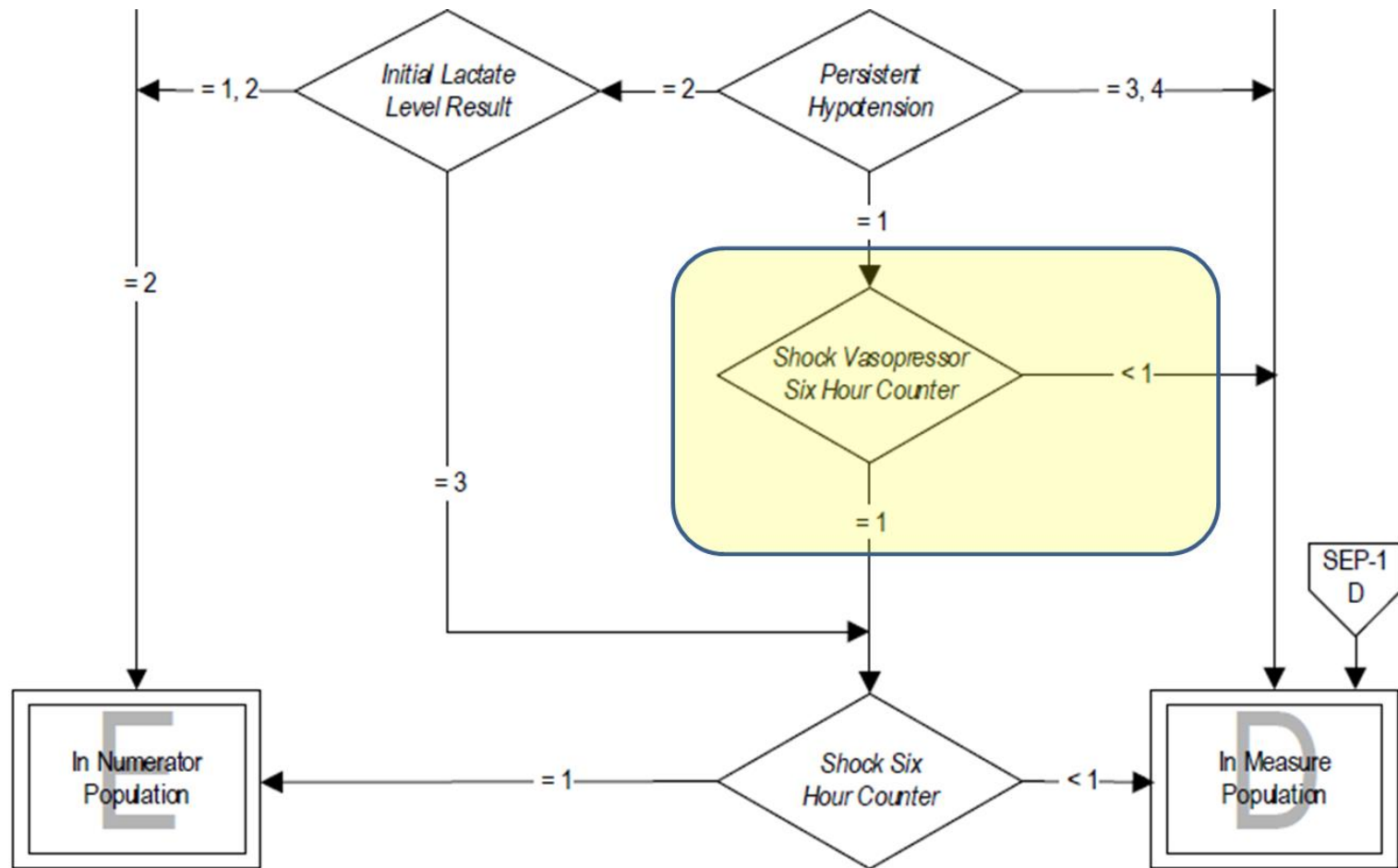
**Then** case is evaluated for Initial Lactate Level Result

**If = 1**

(persistent hypotension **was** present)

**Then** Shock Six Hour Counters are evaluated

# “W” Counting the Counters: Shock Vasopressor Six Hour Counter (slide 1 of 2)





# “W” Counting the Counters: Shock Vasopressor Six Hour Counter (slide 2 of 2)

**If  $< 1$**

(Vasopressors were **NOT** given per specifications)

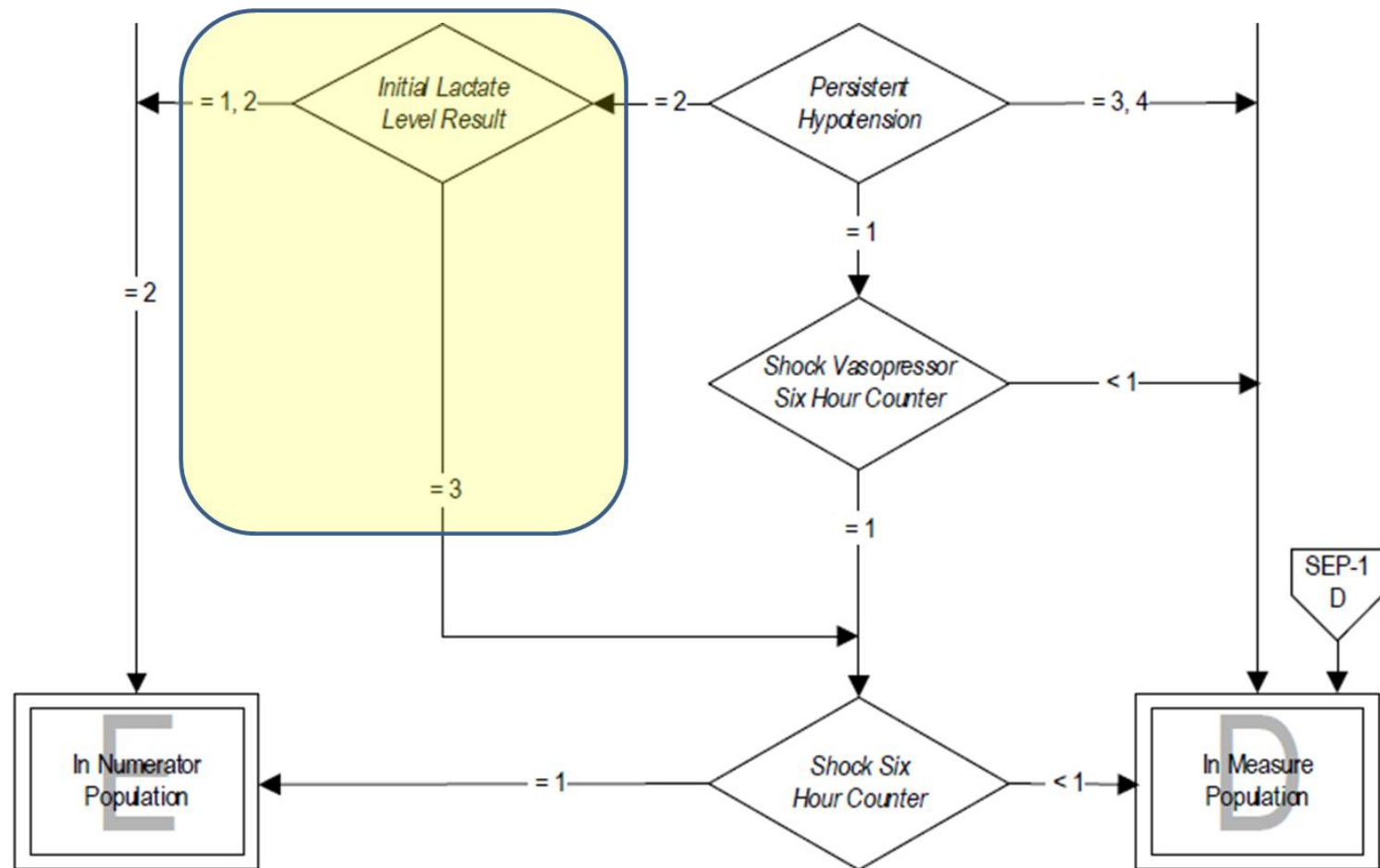
**Then** case goes to outcome box “D” and **fails** measure

**If = 1**

(Vasopressors **were** given per specifications)

**Then** Shock Six Hour Counter is evaluated

# “W” Counting the Counters: Initial Lactate Level Result (slide 1 of 2)



# “W” Counting the Counters:

## Initial Lactate Level Result (slide 2 of 2)

**If = 1 or 2**

(Initial Lactate Level is  $< 4.0$ )

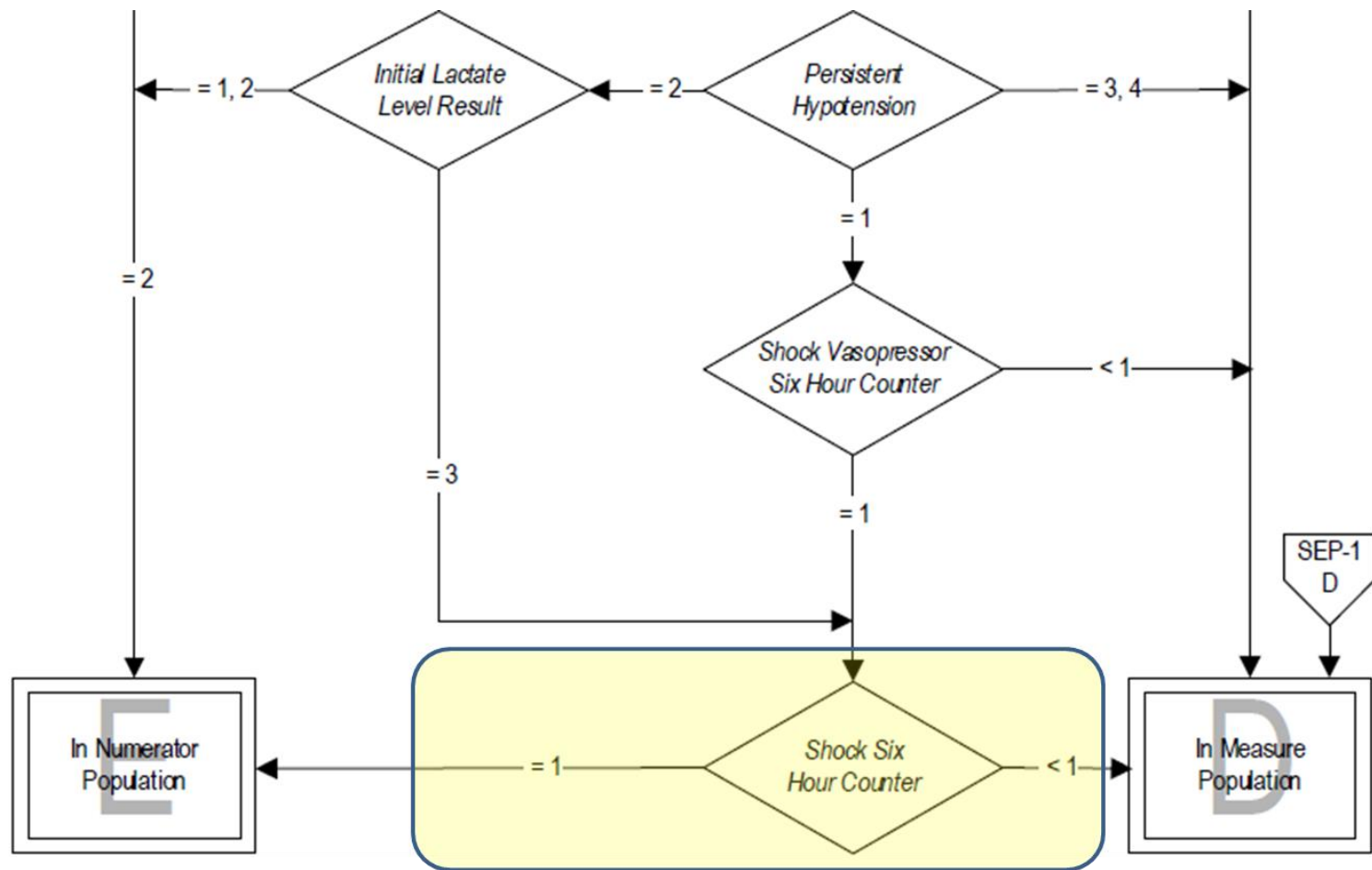
**Then** case goes to outcome box “E” and **passes** measure

**If = 3**

(Initial Lactate Level is  $\geq 4$ )

**Then** Shock Six Hour Counter is evaluated

# “W” Counting the Counters: Shock Six Hour Counter (slide 1 of 2)



# “W” Counting the Counters:

## Shock Six Hour Counter (slide 2 of 2)

**If  $< 1$**

(Repeat Volume Status and Tissue Perfusion  
Assessment was **NOT** completed per specifications)

**Then** case goes to outcome box “**D**” and **fails**  
measure

**If  $= 1$**

(Repeat Volume Status and Tissue Perfusion  
Assessment **was** completed per specifications)

**Then** case goes to outcome box “**E**” and **passes**  
measure

# The End

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Stop

Once category “**D**” or “**E**” is assigned  
abstraction stops.

**Congratulations! You Made It!**

# Resources

- SEP-1 Fact Sheet and FAQs on *QualityNet*  
<https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier3&cid=1228772869636>
- Hospital Inpatient Questions and Answers Tool on *QualityNet*  
<https://cms-ip.custhelp.com/>

# Thank You

- Your questions and feedback
  - Resulted in important revisions
  - Updates posted on *QualityNet* on May 29, 2015, as version 5.0a
  - Continuing to look at data elements based on your questions and feedback



# Continuing Education Approval

- This program has been approved for 1.0 continuing education (CE) unit for the following professional boards:
  - Florida Board of Clinical Social Work, Marriage and Family Therapy and Mental Health Counseling
  - Florida Board of Nursing Home Administrators
  - Florida Council of Dietetics
  - Florida Board of Pharmacy
  - Board of Registered Nursing (Provider #16578)
  - It is your responsibility to submit this form to your accrediting body for credit.

# CE Credit Process

- Complete the ReadyTalk® survey that will pop up after the webinar, or wait for the survey that will be sent to all registrants within the next 48 hours.
- After completion of the survey, click “done” at the bottom of the screen.
- Another page will open that asks you to register in HSAG’s Learning Management Center.
  - This is a separate registration from ReadyTalk
  - Please use your PERSONAL email so you can receive your certificate
  - Healthcare facilities have firewalls up that block our certificates

# CE Credit Process: Survey

☐ No

Please provide any additional comments

**10. What is your overall level of satisfaction with this presentation?**

☐ Very satisfied

☐ Somewhat satisfied

☐ Neutral

☐ Somewhat dissatisfied

☐ Very dissatisfied

If you answered "very dissatisfied", please explain

**11. What topics would be of interest to you for future presentations?**

**12. If you have questions or concerns, please feel free to leave your name and phone number or email address and we will contact you.**

Done

Powered by **SurveyMonkey**  
Check out our [sample surveys](#) and create your own now!

# CE Credit Process

Thank you for completing our survey!

Please click on one of the links below to obtain your certificate for your state licensure.

You must be registered with the learning management site.

**New User Link:**  
<https://lmc.hshapps.com/register/default.aspx?ID=da0a12bc-db39-408f-b429-d6f6b9ccb1ae>

**Existing User Link:**  
<https://lmc.hshapps.com/test/adduser.aspx?ID=da0a12bc-db39-408f-b429-d6f6b9ccb1ae>

**Note:** If you click the 'Done' button below, you will not have the opportunity to receive your certificate without participating in a longer survey.

Done

# CE Credit Process: New User

**HSAG** HEALTH SERVICES ADVISORY GROUP

this is a secure site  
please provide credentials to continue

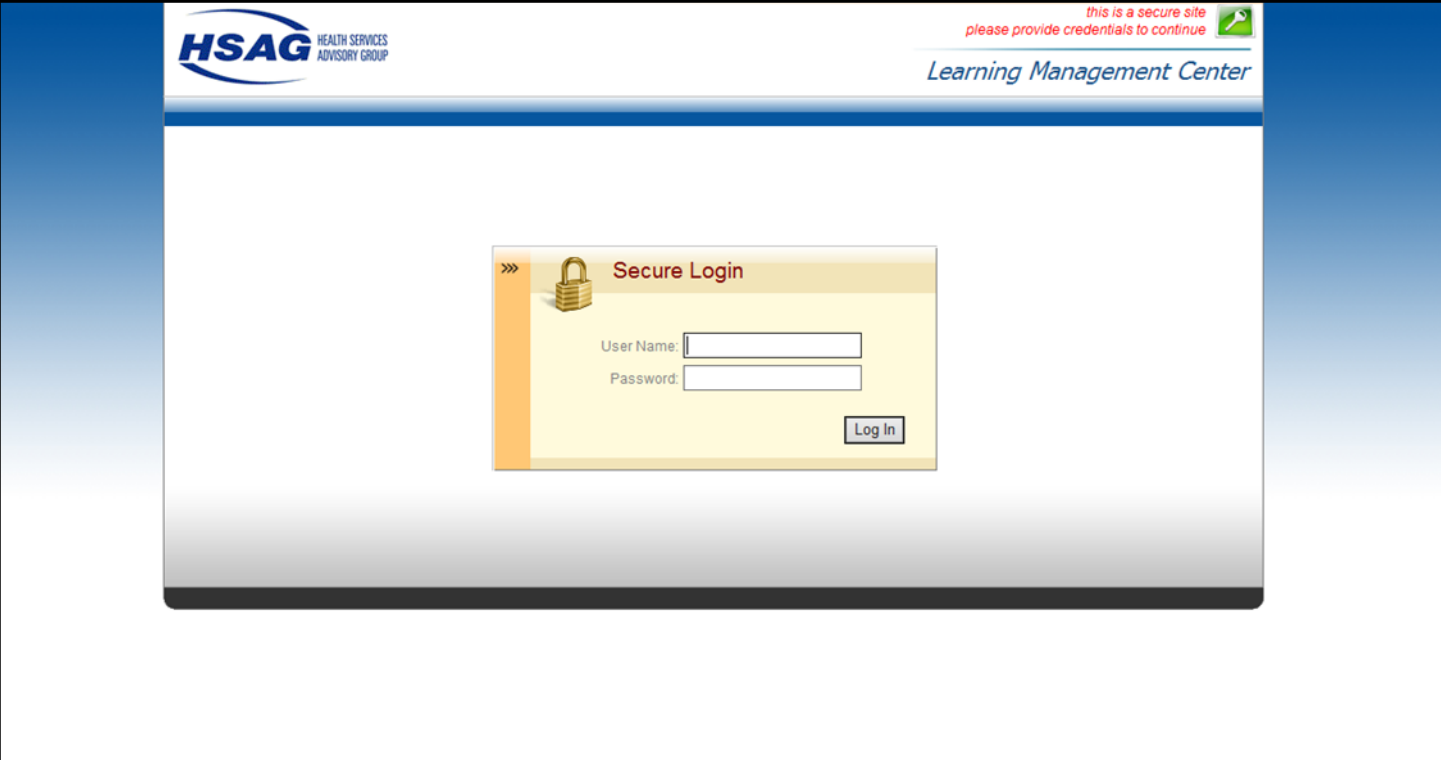
*Learning Management Center*

**Learning Center Registration: QQR: 2015 Specifications Manual Update - 1-21-2015**

First Name:  Last Name:

Email:  Phone:

# CE Credit Process: Existing User




The screenshot displays the HSAG Learning Management Center's secure login interface. At the top left is the HSAG logo with the text "HEALTH SERVICES ADVISORY GROUP". At the top right, a red warning message states "this is a secure site please provide credentials to continue" next to a small green padlock icon. Below this, the text "Learning Management Center" is visible. The main content area features a yellow "Secure Login" box with a padlock icon and a double arrow icon. Inside the box, there are input fields for "User Name:" and "Password:", and a "Log In" button at the bottom right.

HSAG HEALTH SERVICES ADVISORY GROUP

this is a secure site  
please provide credentials to continue

Learning Management Center

»»  Secure Login

User Name:

Password:

Log In

# QUESTIONS?

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# Appendix - Treatment and Control Group Differences: ProCESS, ARISE, ProMISE Trials

Clinical Trial	Cohort	Intravenous Fluids (milliliters)	Central Line Placement	Vasopressor Utilization
ProCESS May 2014	EGDT	2805 +/- 1957	411/439 (93.6%)	241/439 (54.9%)
	Usual Care	2279 +/- 1881	264/456 (57.9%)	201/456 (44.1%)
	Δ	526 mL	35.7%	10.8%
ARISE October 2014	EGDT	1964+/-1415	714/793 (90%)	528/793 (66.6%)
	Usual Care	1713+/-1401	494/798 (61.9%)	461/798 (57.8%)
	Δ	251 mL	28.1%	8.8%
ProMISE May 2015	EGDT	2000 (1150-3000)	575/624 (92%)	332/623 (53.3%)
	Usual Care	1784 (1075-2775)	318/625 (50.9%)	291/625 (46.6%)
	Δ	216 mL	41.1%	6.7%

ProCESS Investigators, Yealy DM, Kellum JA, Juang DT, et al. A randomized trial of protocol-based care for early Septic Shock. N Engl J Med 2014; 370(18):1683-1693.  
The ARISE Investigators and the ANZICS Clinical Trials Group. Goal-directed resuscitation for patients with early Septic Shock. N Engl J Med 2014; 371:1496-1506.  
Mouncey PR, Osborn TM, Power GS, et al for the ProMISe trial investigators. Trial of early, goal-directed resuscitation for Septic Shock. N Engl J Med 2015; DOI: 10.1056/NEJMoa1500896.  
Rivers E, Nguyen B, Havstad S, et al. Early goal-directed therapy in the treatment of Severe Sepsis and Septic Shock. N Engl J Med 2001;345:1368-1377