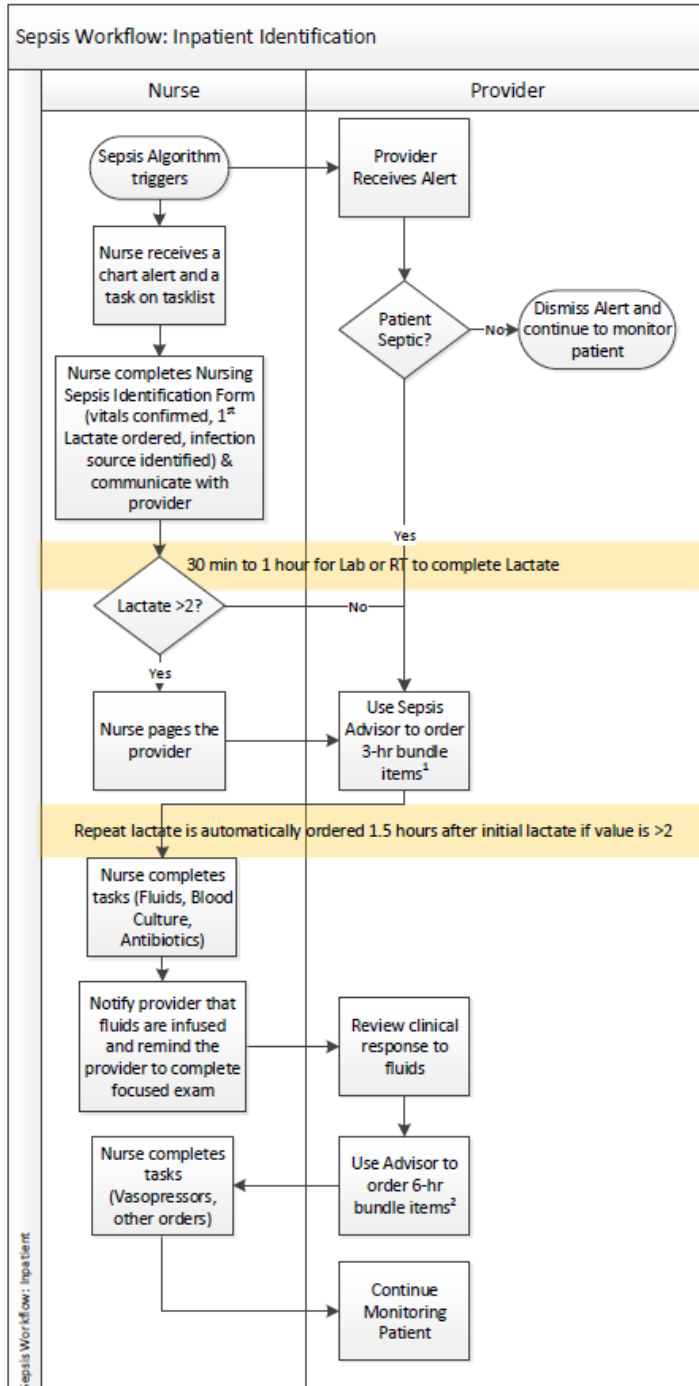


# Inpatient Sepsis WorkFlow Process

This document contains the following information:

Sepsis WorkFlow diagram	Page 1
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Provider Process with Sepsis Advisor	Page 4-7



**Legend:**

- <sup>1</sup> Lactate, Blood Culture, Antibiotics, Fluids
- <sup>2</sup> Vasopressors, Complete Focused Exam, repeat lactate is auto-ordered if initial lactate is >2

# Inpatient Sepsis Process

## NURSE

Sepsis Alert triggered upon opening the patient's chart.

The Alert displays the criteria that suggests the patient may have sepsis.

Discern: Open Chart - UH, DA MICU3 (1 of 1)

**Cerner**

**Sepsis**

NAME: UH, DA MICU3      DOB: September 16, 1960      MRN: 01-52-43-88-5  
LOCATION: MICU3 ; 3042      AGE: 56 Years

**SEPTIC SHOCK ALERT:** The following information suggests that your patient may have septic shock. Early resuscitation decreases mortality. Consider immediate resuscitation and treatment, including STAT intravenous antimicrobials, IV fluids and/or advanced monitoring.

SIRS Criteria:  
01/31/17 07:00:00 Heart Rate = 120 bpm (L) [greater than or equal to 95]  
01/31/17 07:00:00 Temperature (Celsius) = 39 C (H) [greater than or equal to 38.3]  
01/31/17 07:00:00 Respiratory Rate = 28 bpm (H) [greater than or equal to 22]

Organ Dysfunction:  
01/31/17 07:00:00 SBP NIBP = 80 mmHg (L) [less than or equal to 90]

Click 'Open Chart' to further assess patient's condition and access the Nursing Sepsis Identification Form.

Open Chart

Charted data that suggests possible sepsis

From the Sepsis Alert the nurse will click the **Open Chart** button to further assess the patient's condition

Nurse receives a task on the tasklist regarding the Sepsis Alert. The nurse launches the Sepsis Identification Form from the task.

Task List

Monday, January 09, 2017 23:59:00

Nursing Tasks    Unit Clerk Tasks    Medications

Task retrieval completed

Task Status	Scheduled Date and Time	Task Description	Order Details
Pending	PRN	Nursing Sepsis Identification	01/05/17 14:24:03, P Order placed by sys

Click the **Sepsis Task** to launch and chart the *Sepsis Identification Form*

## Charting the Nursing Sepsis Identification Form

Follow the steps listed in the green areas of the form to chart, then sign the form.  
Page the Provider you identified in Step 3 on the form.

The screenshot shows the 'Nursing Sepsis Identification Form - UH, DA MED2' interface. It includes a header with the date '01/09/2017' and time '1538', and the user 'By: TRNNURSEIP10 RN, TRAIN'. The form is divided into three main steps:

- Step 1: Confirm triggers for SIRS/Sepsis alert are accurate (temp, resp. rate, heart rate, BP, WBCs). Step 2: Determine if there is a new potential source of infection.**
  - Verify Vital Signs Are Accurate:** Radio buttons for 'Yes' and 'No'.
  - Patient History Suggests New Infection:** A grid of checkboxes for various symptoms such as 'None Noted', 'Rash or Redness of Skin', 'Abdominal Pain', 'Nausea/Vomiting', 'Headache', 'Diarhea', 'Joint Pain/Swelling', 'Frequent Voiding', 'Increased Cough/Sputum', 'Recent S...', 'Hardware', and 'Other:'.
- Step 3: Notify provider to evaluate for possible sepsis (resource = Sepsis Management Guidelines). Initial lactate, if not already ordered, will be ordered per protocol upon signing this form.**
  - Provider Notified Sepsis Alert:** A text field with a search icon.
  - Provider Notified - Sepsis Date/Time:** A date and time selection area.
  - Sepsis Nursing Notes:** A rich text editor with a toolbar and the text 'Segoe UI'.

Three yellow callout boxes provide instructions:

- 'Verify the accuracy of the Vital Signs' points to the 'Verify Vital Signs Are Accurate' section.
- 'Document any patient history suggesting new infection' points to the 'Patient History Suggests New Infection' section.
- 'Identify the provider who was notified, along with the date and time of the notification' points to the 'Provider Notified Sepsis Alert' and 'Provider Notified - Sepsis Date/Time' sections.

Notice in Step 3, the first Lactate is ordered per protocol (if not already ordered) upon signing the *Sepsis Identification Form*.

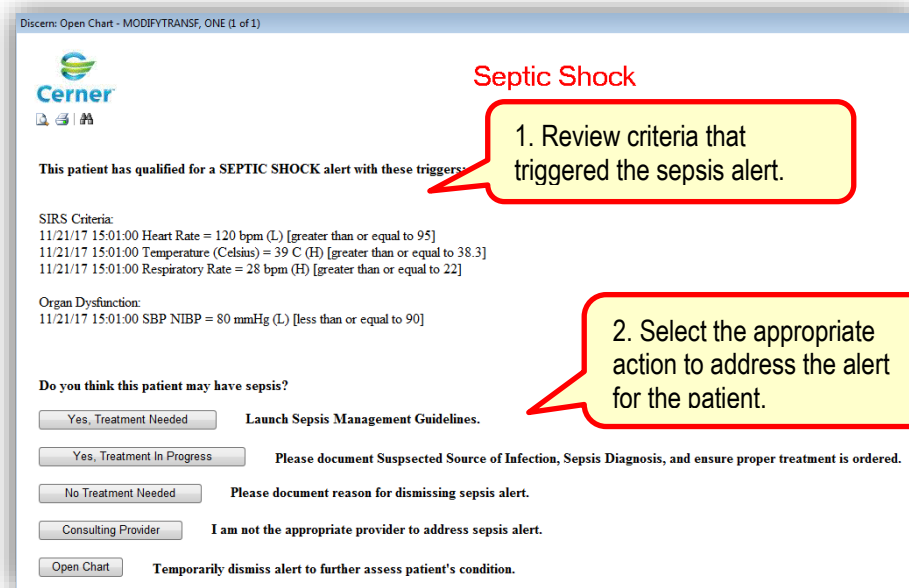
Respiratory Care			
<input checked="" type="checkbox"/>	66'	Lactate lactic acid RC (Lactate (lactic acid) R...	Ordered 01/10/17 14:34:26, Venous, Frequency Once, Stat, 01/10/17 14:34:26 Order placed by system per nurse documentation on the Nursing Sepsis Identification form.

## PROVIDERS

### Launching the Sepsis Advisor

The provider will be paged by the nurse about a possible sepsis or they will receive a Sepsis Alert upon opening the patient's chart.

Providers can launch the Sepsis Advisor from within the Alert; or if they dismiss the alert, the provider can order the *Sepsis Management Guidelines PowerPlan* from PowerOrders to launch the Advisor and follow the recommendations.



**Septic Shock**

This patient has qualified for a SEPTIC SHOCK alert with these triggers:

SIRS Criteria:  
 11/21/17 15:01:00 Heart Rate = 120 bpm (L) [greater than or equal to 95]  
 11/21/17 15:01:00 Temperature (Celsius) = 39 C (H) [greater than or equal to 38.3]  
 11/21/17 15:01:00 Respiratory Rate = 28 bpm (H) [greater than or equal to 22]

Organ Dysfunction:  
 11/21/17 15:01:00 SBP NIBP = 80 mmHg (L) [less than or equal to 90]

Do you think this patient may have sepsis?

Launch Sepsis Management Guidelines.

Please document Suspected Source of Infection, Sepsis Diagnosis, and ensure proper treatment is ordered.

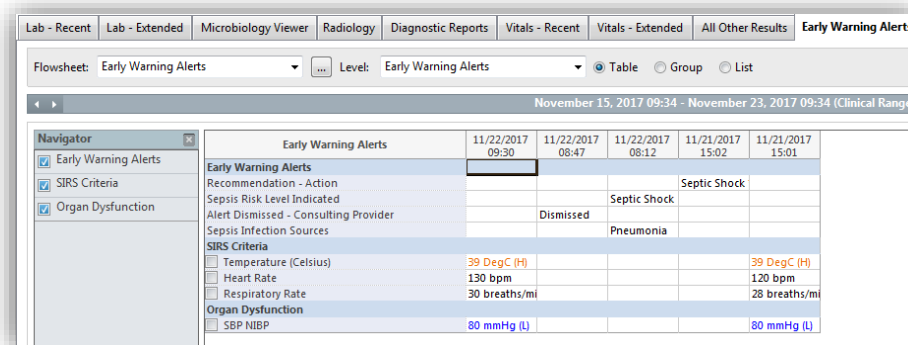
Please document reason for dismissing sepsis alert.

I am not the appropriate provider to address sepsis alert.

Temporarily dismiss alert to further assess patient's condition.

Actions that occur when the above responses are selected in response to the question: "Do you think this patient may have sepsis?"

- **Yes, Treatment Needed:** Sepsis Adviser is launched. Proceed with new treatment in the Sepsis Management Guidelines. Completing this documentation will suppress the alerting for 7 days, unless there is a change in condition.
- **Yes, Treatment In Progress:** Sepsis Adviser is launched. Confirming the ongoing treatment is appropriate. Completing this documentation will suppress the alerting for 7 days, unless there is a change in condition.
- **No Treatment Needed:** Sepsis Not Indicated PowerForm is launched. Complete PowerForm documentation for alert dismissal. Completing this documentation will suppress the alerting for 7 days, unless there is a change in condition.
- **Consulting Provider:** Allows the provider to access the patient chart and will suppress all further alerts for this provider when accessing the patient's chart. This action will be documented in All Results under Early Warning Alert documented as *Alert Dismissed – Consulting Provider*. And removed from the Sepsis Not Indicated PowerForm.



Flowsheet:	Early Warning Alerts	Level:	Early Warning Alerts	Table	Group	List
November 15, 2017 09:34 - November 23, 2017 09:34 (Clinical Range)						
Navigator	Early Warning Alerts	11/22/2017 09:30	11/22/2017 08:47	11/22/2017 08:12	11/21/2017 15:02	11/21/2017 15:01
Early Warning Alerts	Early Warning Alerts				Septic Shock	Septic Shock
SIRS Criteria	Recommendation - Action					
Organ Dysfunction	Sepsis Risk Level Indicated					
	Alert Dismissed - Consulting Provider		Dismissed			
	Sepsis Infection Sources			Pneumonia		
	SIRS Criteria					
	Temperature (Celsius)	39 DegC (H)				39 DegC (H)
	Heart Rate	130 bpm				120 bpm
	Respiratory Rate	30 breaths/mi				28 breaths/mi
	Organ Dysfunction					
	SBP NIBP	80 mmHg (L)				80 mmHg (L)

- **Open Chart:** Allows the provider to access the patient chart, upon closing the chart the provider will receive the Sepsis Alert reminder and will need to complete Sepsis Advisor or Sepsis Not Indicated PowerForm documentation.

**Using the Sepsis Advisor** (appears when Yes, Treatment Needed or Yes, Treatment in Progress is selected)

**Step 1 is Evaluate Patient Risk**

**Interdisciplinary Sepsis Advisor**

Patient Name: DA MED2

Discern Advisor: Sepsis Management Advisor

**Evaluate Patient Risk** | Select Recommendations | Document and Sign

**Evaluate Patient Risk**

Current State

This patient shows signs of: Septic Shock

Sepsis Severity Definitions: Last Alert: Septic Shock 01/09/2017 16:11

Allergies: NKA

Relevant Results: Last 24 hours: No results found

Antibiotic Orders: Last 90 Days

Antibiotic	Order Type	Order Details	Last Dose	Duration
piperacillin-tazobactam (ZOSYN) PMX	Inpatient Rx	4.5 g, 100 mL, 200 mL/hr, IV, Once	01/05/2017 14:46	--
piperacillin-tazobactam (ZOSYN) PMX	Inpatient Rx	3.375 g, 50 mL, 12.5 mL/hr, IV, q8h	--	--

Microbiology: Last 6 Results: No results found

Vital Signs: Last 96 Hours

Vital Sign	Latest	Previous	Previous
Temp	--	--	--
BP	--	--	--
MAP	--	--	--
HR	120 01/09/2017 15:00	--	--
RR	28 01/09/2017 15:00	--	--

Map less than or equal to 65 or SBP less than or equal to 90

**The Current State section displays charted data pertaining to the patient**

**Select up to 2 suspected sources**

Select up to two (2) suspected sources

Patient displays no signs or symptoms

Biliary Source

Endocarditis\*

Febrile Neutropenia

Intravascular Catheter Infection

Meningitis

Pneumonia\*

Source Unclear (Not Neutropenic)

Urinary Source

Bone Infection/Osteomyelitis

**Suspected Infection Factors**

Pneumonia

Community Acquired - Non ICU

Community Acquired - ICU No Risk Factor

Hospital Acquired - Pseudomonas

Hospital Acquired

**Select Recommendations**

**Reset** **Exit**

**If you select either of the sources with red asterisks, the Suspected Infection Factors section opens for you to select a factor**

Once Infections Sources (and Factors) have been selected, the Select Recommendations button becomes active.

Click the **Select Recommendations** button to continue to Step 2 (Select Recommendations in the Advisor)

Step 2 is Select Recommendations

Each section is separated by a blue header line

Circles indicate only 1 item can be selected

Square boxes indicate multiple orders can be selected

Select Recommendations

Currently Active Relevant Medications

Select any active antibiotic orders to be cancelled.

Active Antibiotic Orders

piperacillin-tazo (ZOSYN) PMX 3q, q8h, IV Last Dose: --

A broad spectrum antibiotic was initiated for a suspected infection other than severe sepsis and continue until the time of presentation with severe sepsis.

Special Dosing Recommendations

Renal Function

Creatinine Clearance: -- *The weight being used in the advisor is a Measured weight: 80 kg*

Estimated Creatinine Clearance: --

Normal Dosing  Renally adjust dose using: [ ]

Single Dose  Dialysis Patient: [ ]

Antibiotic Recommendations

waiting for selection from special dosing recommendations

Fluid Therapy Recommendations

Pharmacologic

sodium chloride 0.9% - NS IV, Start date: T:N, Infuse as fast as clinically feasible, ADVSR

Diagnostic Studies

3 HR Bundle - Per CMS guidelines, the following should be completed within 3 hrs of sepsis identification: 1. Draw Lactate 2. Draw Blood Cultures (prior to antibiotic start) 3. Antibiotics ordered 4. Normal Saline (>30 mL/kg)

<input type="checkbox"/> Lactate lactic acid RC T:N, Venous, Frequency Once, Stat, ADVSR	Documented	<input type="checkbox"/> Culture Blood Central Line, T:N, Stat, Stat, Nurse Collect	Documented
<input type="checkbox"/> Culture Blood Peripheral, T:N, Stat, Stat, Nurse Collect	Ordered 01/10/2017 14:34	<input type="checkbox"/> sodium chloride 0.9% - NS IV, Start date: T:N, Infuse as fast as clinically feasible, ADVSR	

6 HR Bundle - Per CMS guidelines, the following should be completed within 6 hrs of sepsis identification: 1. Start vasopressors if NS doesn't maintain blood pressure 2. Repeat Lactate 3. Physician follow up (Focused Exam)

<input type="checkbox"/> NOREPINEPHRINE 8 MG/250 ML NS STD DRIP	Documented	<input type="checkbox"/> Lactic Acid Stat collect, PLASMA, Nurse Collect, Start date T:N	Documented
<input type="checkbox"/> DOPamine 800 mg/250 mL D5W Premix IV, Start date: T:N, Start at 2.5 mcg/kg/min titrate by 2.5 mcg/kg/min every 5 Minutes to max of 40 mcg/kg/min, using lowest necessary May titrate OFF medication, ADVSR		<input type="checkbox"/> Document Sepsis Focused Exam T:N, ADVSR	

Additional Diagnostics - Select additional diagnostics below for further assessment of patient condition.

<input type="checkbox"/> BMP Stat collect, Blood, Nurse Collect, Start date T:N	Documented	<input type="checkbox"/> Sputum Culture Sputum, T:N, Stat, Stat, Nurse Collect	Documented
<input type="checkbox"/> CBC with Auto Differential Stat collect, Blood, Nurse Collect, Start date T:N		<input type="checkbox"/> Hepatic Function Panel Stat collect, Blood, Nurse Collect, Start date T:N	
<input type="checkbox"/> C Reactive Protein Quantitative Stat collect, Blood, Nurse Collect, Start date T:N		<input type="checkbox"/> INR - PT Stat collect, Blood, Nurse Collect, Start date T:N	
<input type="checkbox"/> ABG Analysis RC T:N, Venous, Frequency Once, Stat, ADVSR		<input type="checkbox"/> PTT Stat collect, Blood, Nurse Collect, Start date T:N	
<input type="checkbox"/> XR Chest Portable Radiology Protocol, Sepsis, T:N, Stat, ADVSR		<input type="checkbox"/> Fibrinogen Level Stat collect, Blood, Nurse Collect, Start date T:N	
<input type="checkbox"/> UA Stat collect, Urine, Nurse Collect		<input type="checkbox"/> D Dimer Quantitative Stat collect, Blood, Nurse Collect, Start date T:N	
<input type="checkbox"/> Culture Wound Wound, T:N, Stat, Stat, Nurse Collect		<input type="checkbox"/> Platelet Count Stat collect, Blood, Nurse Collect, Start date T:N	

Vasopressors

Provider Documentation - Please find the vasopressor orders in the 6 hour bundle grouping of the Diagnostics section, above, for septic shock patients.

Document Sepsis Focused Exam T:N, ADVSR

Confirm

Reset Exit

Once you have made your selections, click the Confirm button

**Step 3 is Document and Sign**

Discern Advisor®: Sepsis Management Advisor

Evaluate Patient Risk | Select Recommendations | **Document and Sign**

Evaluate Patient Risk

Select Recommendations

Document and Sign

**Document**

- ✓ Suspected Infection Source of Pneumonia

**Currently Active Relevant Medications**

- ✓ Continue piperacillin-tazo (ZOSYN) PMX 3g, q8h, IV

**Antibiotic Recommendations**

No new orders.

**Fluid Therapy Recommendations**

No new orders.

**Diagnostic Studies**

- ✓ Culture Blood Peripheral, T;N, Stat, Stat, Nurse Collect
- ✓ Culture Blood Central Line, T;N, Stat, Stat, Nurse Collect
- ✓ BMP Stat collect, Blood, Nurse Collect, Start date T;N
- ✓ PTT Stat collect, Blood, Nurse Collect, Start date T;N

**Vasopressors**

No new orders.

Add Septic Shock to the diagnosis list

**Sign Orders**

Reset

Exit

This page displays all of the items you have selected within the Advisor

Clicking *Exit* will remove all orders and close the Advisor.

If you need to change an order, you can do it on the next step

Checking this box will add Septic Shock to the diagnosis list upon signing

Click the **Sign Orders** button to load orders to the scratch pad in PowerOrders

Orders for Signature

Order Name	Status	Start	Details
MED 2; 5W19; 01 Fin#:226272835 Admit: 01/05/2017 13:04:21 CST			
Laboratory			
Culture Blood	Order	01/19/2017 14:09	Peripheral, 01/19/2017 14:09, Stat, Stat, Nurse Collect, Print Label Y/N, Hold Until Collected, First Available, Orig Ref Doc Referred, Self ADVSR
Culture Blood	Order	01/19/2017 14:09	Central Line, 01/19/2017 14:09, Stat, Stat, Nurse Collect, Print Label Y/N, Hold Until Collected, First Available, Orig Ref Doc Referred, Self ADVSR
Metabolic Panel	Order	01/19/2017 14:09	Stat collect, Blood, Nurse Collect, Start date 01/19/2017 14:09, First Available, Orig Ref Doc Referred, Self <b>ADVSR</b>
	Order	01/19/2017 14:09	Stat collect, Blood, Nurse Collect, Start date 01/19/2017 14:09, First Available, Orig Ref Doc Referred, Self ADVSR

0 Missing Required Details | Dx Table | Orders For Cosignature

Sign

Right-click to remove any order, if needed

Orders placed through the Advisor are indicated by ADVSR at the end of the details

Now the orders are on the scratch pad in PowerOrders; click the **Sign** button to place these orders

## Physician Sepsis Focused Assessment Form

When the provider selects the **Document Sepsis Focused Exam** within the **6 hr bundle section** on the Sepsis Advisor and upon clicking the Confirm button, this **Focused Assessment Form** will automatically launch for charting.

The screenshot shows the 'Diagnostic Studies' section of the Sepsis Advisor. It is divided into two main bundles: '3 HR Bundle' and '6 HR Bundle'. The '6 HR Bundle' section includes a checkbox for 'Document Sepsis Focused Exam', which is highlighted with a red box. Below the bundles are 'Additional Diagnostics' and a 'Confirm' button at the bottom.

Instructions for this form are listed in blue at the top of this form

Review & any relevant information listed in this window

Then complete the yellow required sections 1 through 6

Instructions on how to sign this form; green check mark, top left of form

The screenshot shows the 'Sepsis Focused Assessment' form. At the top left, a green checkmark icon is highlighted with a red box. The form contains a text area for notes and a 'Focused Exam Sections' area with six numbered sections (Vital Signs, Capillary Refill, Peripheral Pulse, Cardiac Exam, Pulmonary, Skin Exam), each with yellow checkboxes. At the bottom right, a blue instruction box with a green checkmark icon is highlighted with a red box.

**Using the Sepsis Advisor (appears when No Treatment Needed selected)**

3. Sign

1. Select Reason Sepsis Treatment Not Indicated

2. Only if Patient or Family Refusal Reason was selected, then this box will be required.

**Sepsis Not Indicated**

You indicated that a patient had who alerted for possible SIRS/Sepsis does not show indications of Sepsis. Please document the appropriate reason why, below.

**Reason Sepsis Treatment Not Indicated**

- Clinical picture not consistent with sepsis
- Patient or family refusal
- Comfort Care

**Patient or Family Refusal Reason**

- Blood draw
- Fluid administration
- Antibiotic administration

Female DOB: 12/15/1966 FIN: 226272835 UH INPATIENT ADMIT: 01/05/2017  
MRN:01-52-43-93-1 Most Recent Weight (kg) MU Health:Never Invt... Physician Contact: <N

Search: sepsis

**Sepsis Management Guidelines**

- Document Sepsis Focused Exam
- ED Sepsis
- ICU Sepsis/Septic Shock SP
- Nursing Sepsis Identification
- SIRS Sepsis Alert to CareAware
- ED Nursing - Sepsis
- ED Suspected Sepsis
- Initiate Severe Sepsis Alert
- dexamethasone IV for sepsis advisor
- dexamethasone IV for sepsis advisor (0.15 mg/kg, form: IV Soln, IV, q6h, NOW)
- myStation Diabetes\_Skin\_and\_Foot\_Care\_a\_Million\_Steps(VIDEO:3016)
- 0.15 mg "Enter" to Search
- myStation Diabetes\_Skin\_and\_Foot\_Care\_a...

UH, DA MED2 - 01-52-43-93-1 Done