

NURSE

SEPSIS CASE STUDY

Margaret is an 87 year old resident living in your long term care neighborhood. She developed a stage 2 wound on her buttocks about 2 weeks ago and receives daily wound dressing changes.

Recently the area around the wound looks inflamed and has some exudate and Margaret has been complaining of increased pain in the area.

You medicate Margaret for pain and take her vital signs:

Heart rate 110

Blood pressure 100/68

Temperature 100.8 p o

Lung sounds clear

She is shaking and states she is really cold and would like another blanket. She seems more confused today and keeps asking what time it is and where is her mother?

Actions:

Refer to the Post-Acute Care Sepsis Early ID and Treatment Pathway

Fill out the SBAR

What do you think is going on? What will you request from the physician?

Call the physician

Sepsis Nursing Case Study #2:

83-year-old female, Claire, is admitted to sub-acute Rehab after hospitalization for fall at home with left hip fracture and ORIF. Today, three days after admission, develops a productive cough (thin clear mucous initially now thin, pale yellow) and relates this cough has had a gradual onset for the past month. The cough did not bother her in the hospital, possibly because she was heavily medicated for pain with narcotics. She has a history of asthma and psoriasis but has not required oxygen or nebulizer treatments since admission. Her associated symptoms with the cough include generalized weakness, decreased appetite, mild SOB starting today, and dizziness.

Vital signs this morning: T 97.8; BP 127/58; HR 90; RR 18; SpO2 94% on room air

This afternoon Claire following therapy, she develops increased shortness of breath, increased cough with sputum now thick, dark yellow/green. Current vital signs:

Temperature 100.4

Blood pressure 100/68

Heart Rate 101

Respirations 21

SpO2 87% on room air.

Actions:

Review your sepsis educational material

What will you tell your supervisor when you report the vital signs?

Call your supervisor

ACT FAST!

Early detection of SEPSIS requires fast action

If resident has suspected infection AND two or more:

- Temperature >100°F or <96.8°F
- Pulse >100
- SBP <100 mmHg or >40 mmHg from baseline
- Respiratory rate >20/SpO2 <90%
- Altered mental status

Plan for:

- Review advance directive
- Contact the physician
- Contact the family

If transferring resident to hospital:

- Prepare transfer sheet
- Call ambulance
- Call in report to hospital
- Report positive sepsis screen

If resident stays in facility, consider options below that are in agreement with resident's advance directives:

- Labs: CBC w/diff, lactate level (if able)
- UA/UC, blood cultures, as able from 2 sites, not from lines
- Establish IV access for IV 0.9% @ 30ml/kg
- Administer IV, PO or IM antibiotics
- Monitor for worsening in spite of treatment, such as:
 - Urine output <400ml in 24 hours
 - SBP <90 despite IV fluids
 - Altered mental status
- Comfort care:
 - Pain control
 - Analgesic for fever
 - Reposition every 2-3 hrs
 - Oral care every 2 hrs
 - Offer fluids every 2 hrs
 - Keep family informed
 - Adjust care plan as needed
- Consider transferring to another level of care such as palliative care, hospice or hospital

Every hour a resident in septic shock doesn't receive antibiotics, the risk of death increases 7.6%

Call the doctor!



Is their **temperature** above 100?



Is their **heart rate** above 100?



Is their **blood pressure** below 100?

And does the resident just not look right? Tell the nurse, **screen for sepsis** and notify the physician immediately.

ACT FAST!

Early detection of sepsis requires fast action

STOP AND WATCH (INTERACT™)

S - Seems different than usual

T - Talks or communicates less 

O - Overall needs more help

P - Pain: new or worsening; participated less in activities

A - Ate less 

N - No bowel movement in three days or diarrhea

D - Drank less 

W - Weight change 

A - Agitated or nervous more than usual

T - Tired, weak, confused or drowsy 

C - Change in skin color or condition

H - Help with walking, transferring and toileting more than usual

seeing sepsis

Intermediate care and assisted living algorithm for adults

Suspected infection *and* 2 or more SIRS criteria

Suspected infection

Fever/chills
 Currently on antibiotics
 Cough/SOBS
 Cellulitis/wound drainage
 Weakness

SIRS criteria

Temp ≥ 100.0 or ≤ 96.8
 Pulse ≥ 100
 BP < 100 or > 40 mmHg from baseline
 Resp. rate > 20 /SpO₂ $< 90\%$
 Altered mental status

SIRS = Systemic Inflammatory Response Syndrome

Early detection tool
 100-100-100



NO

Negative screen for sepsis

YES

Positive screen for sepsis

Prior to calling provider

- Educate resident/family about status
- Review Advance Directives and options

Notify provider

Transfer

- Prepare transfer sheet
- Call ambulance
- Call report to hospital
- *Report positive sepsis screen*

Stay in facility

If Advance Directives and/or resident's wishes are in agreement, consider some or all of following order options:

- Administer new oral antibiotics
- Encourage oral fluid intake
- Comfort care

Monitor for progression into *Multisystem Organ Dysfunction Syndrome*

Examples

- Progression of symptoms despite treatment
- Altered mental status

Consider transferring to another level of care - hospital, SNF, palliative or hospice)

Comfort care

- Pain control
- Antipyretic for fever
- Reposition every 2-3 hrs
- Oral care every 2 hrs
- Keep family informed
- Adjust care plan as needed

seeing sepsis

Skilled nursing facility sepsis algorithm for adults

Suspected infection *and* 2 or more SIRS criteria

Suspected infection

Fever/chills
Currently on antibiotics
Cough/SOB
Cellulitis/wound drainage
Weakness

SIRS criteria

Temp ≥ 100.0 or ≤ 96.8
Pulse ≥ 100
BP < 100 or > 40 mmHg from baseline
Resp. rate > 20 /SpO₂ $< 90\%$
Altered mental status

SIRS = Systemic Inflammatory Response Syndrome

Early detection tool
100-100-100



NO

Negative screen for sepsis

YES

Positive screen for sepsis

Prior to calling provider

- Educate resident/family about status
- Review Advance Directives and options

Notify provider

Transfer

- Prepare transfer sheet
- Call ambulance
- Call report to hospital
- Report positive sepsis screen

Stay in facility

If Advance Directives and/or resident's wishes are in agreement, consider some or all of following order options:

- Labs: CBC w/Diff, lactate level (if possible), UA/UC, blood cultures if able; from 2 sites, not from lines. *Send all labs ASAP.*
- Establish IV access for the following:
 - IV normal saline 0.9% normal saline/sodium chloride @ 30ml/kg if BP < 100
 - Administer IV, IM or PO antibiotics
 - Comfort care

Monitor for progression into *Multisystem Organ Dysfunction Syndrome*

Examples:

- Progression of symptoms despite treatment
- Urine output < 400 ml in 24 hours
- SBP < 90 despite IV fluids
- Altered mental status

Consider transferring to another level of care - hospital, palliative, or hospice

Comfort care

- Pain control
- Antipyretic for fever
- Reposition every 2-3 hrs
- Oral care every 2 hrs
- Offer fluids every 2 hrs
- Keep family informed
- Adjust care plan as needed

SBAR Communication Form

and Progress Note for RNs/LPN/LVNs



Before Calling the Physician / NP / PA / other Healthcare Professional:

- Evaluate the Resident:** Complete relevant aspects of the SBAR form below
- Check Vital Signs:** BP, pulse, and/or apical heart rate, temperature, respiratory rate, O₂ saturation and finger stick glucose for diabetics
- Review Record:** Recent progress notes, labs, medications, other orders
- Review an INTERACT Care Path or Acute Change in Condition File Card,** if indicated
- Have Relevant Information Available when Reporting**
(i.e. medical record, vital signs, advance directives such as DNR and other care limiting orders, allergies, medication list)

SITUATION

The change in condition, symptoms, or signs observed and evaluated is/are _____

This started on ____ / ____ / ____ Since this started it has gotten: Worse Better Stayed the same

Things that make the condition or symptom **worse** are _____

Things that make the condition or symptom **better** are _____

This condition, symptom, or sign has occurred before: Yes No

Treatment for last episode (if applicable) _____

Other relevant information _____

BACKGROUND

Resident Description

This resident is in the facility for: Long-Term Care Post Acute Care Other: _____

Primary diagnoses _____

Other pertinent history (e.g. medical diagnosis of CHF, DM, COPD) _____

Medication Alerts

Changes in the last week (describe) _____

Resident is on (Warfarin/Coumadin) Result of last INR: _____ Date ____ / ____ / ____

Resident is on other anticoagulant (direct thrombin inhibitor or platelet inhibitor)

Resident is on: Hypoglycemic medication(s) / Insulin Digoxin

Allergies _____

Vital Signs

BP _____ Pulse _____ (or Apical HR _____) RR _____ Temp _____ Weight _____ lbs (date ____ / ____ / ____)

For CHF, edema, or weight loss: last weight before the current one was _____ on ____ / ____ / ____

Pulse Oximetry (if indicated) _____ % on Room Air O₂ (_____)

Blood Sugar (Diabetics) _____

Resident /Patient Name _____

(continued)

SBAR Communication Form

and Progress Note for RNs/LPN/LVNs (cont'd)



Resident Evaluation

Note: Except for Mental and Functional Status evaluations, if the item is not relevant to the change in condition check the box for "not clinically applicable to the change in condition being reported".

1. Mental Status Evaluation (compared to baseline; check all changes that you observe)

- | | | |
|--|--|--|
| <input type="checkbox"/> Decreased level of consciousness (<i>sleepy, lethargic</i>) | <input type="checkbox"/> New or worsened delusions or hallucinations | <input type="checkbox"/> Other (<i>describe</i>) |
| <input type="checkbox"/> Increased confusion or disorientation | <input type="checkbox"/> Other symptoms or signs of delirium (<i>e.g. inability to pay attention, disorganized thinking</i>) | <input type="checkbox"/> No changes observed |
| <input type="checkbox"/> Memory loss (<i>new or worsening</i>) | <input type="checkbox"/> Unresponsiveness | |

Describe symptoms or signs _____

2. Functional Status Evaluation (compared to baseline; check all that you observe)

- | | | |
|--|--|--|
| <input type="checkbox"/> Decreased mobility | <input type="checkbox"/> Swallowing difficulty | <input type="checkbox"/> Other (<i>describe</i>) |
| <input type="checkbox"/> Needs more assistance with ADLs | <input type="checkbox"/> Weakness (<i>general</i>) | <input type="checkbox"/> No changes observed |
| <input type="checkbox"/> Falls (one or more) | | |

Describe symptoms or signs _____

3. Behavioral Evaluation

- | | | |
|---|--|---|
| <input type="checkbox"/> Danger to self or others | <input type="checkbox"/> Suicide potential | <input type="checkbox"/> Personality change |
| <input type="checkbox"/> Depression (<i>crying, hopelessness, not eating</i>) | <input type="checkbox"/> Verbal aggression | <input type="checkbox"/> Other behavioral changes (<i>describe</i>) |
| <input type="checkbox"/> Social withdrawal (<i>isolation, apathy</i>) | <input type="checkbox"/> Physical aggression | <input type="checkbox"/> No changes observed |

Describe symptoms or signs _____

Not clinically applicable to the change in condition being reported

4. Respiratory Evaluation

- | | | |
|---|---|--|
| <input type="checkbox"/> Abnormal lung sounds (<i>rales, rhonchi, wheezing</i>) | <input type="checkbox"/> Inability to eat or sleep due to SOB | <input type="checkbox"/> Symptoms of common cold |
| <input type="checkbox"/> Asthma (<i>with wheezing</i>) | <input type="checkbox"/> Labored or rapid breathing | <input type="checkbox"/> Other respiratory changes (<i>describe</i>) |
| <input type="checkbox"/> Cough (<input type="checkbox"/> Non-productive <input type="checkbox"/> Productive) | <input type="checkbox"/> Shortness of breath | <input type="checkbox"/> No changes observed |

Describe symptoms or signs _____

Not clinically applicable to the change in condition being reported

5. Cardiovascular Evaluation

- | | | |
|---|---|--|
| <input type="checkbox"/> Chest pain/tightness | <input type="checkbox"/> Irregular pulse (<i>new</i>) | <input type="checkbox"/> Other (<i>describe</i>) |
| <input type="checkbox"/> Edema | <input type="checkbox"/> Resting pulse >100 or <50 | <input type="checkbox"/> No changes observed |
| <input type="checkbox"/> Inability to stand without severe dizziness or lightheadedness | | |

Describe symptoms or signs _____

Not clinically applicable to the change in condition being reported

6. Abdominal / GI Evaluation

- | | | |
|--|---|--|
| <input type="checkbox"/> Abdominal pain | <input type="checkbox"/> Distended abdomen | <input type="checkbox"/> Jaundice |
| <input type="checkbox"/> Abdominal tenderness | <input type="checkbox"/> Decreased appetite/fluid intake | <input type="checkbox"/> Nausea and/or vomiting |
| <input type="checkbox"/> Constipation
(<i>date of last BM ____/____/____</i>) | <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Other (<i>describe</i>) |
| <input type="checkbox"/> Decreased/absent bowel sounds | <input type="checkbox"/> GI Bleeding (<i>blood in stool or vomitus</i>) | <input type="checkbox"/> No changes observed |
| | <input type="checkbox"/> Hyperactive bowel sounds | |

Describe symptoms or signs _____

Not clinically applicable to the change in condition being reported

Resident/Patient Name _____

(continued)

SBAR Communication Form

and Progress Note for RNs/LPN/LVNs (cont'd)



7. GU/Urine Evaluation

- | | | |
|---|--|--|
| <input type="checkbox"/> Blood in urine | <input type="checkbox"/> New or worsening incontinence | <input type="checkbox"/> Other (describe) |
| <input type="checkbox"/> Decreased urine output | <input type="checkbox"/> Painful urination | <input type="checkbox"/> No changes observed |
| <input type="checkbox"/> Lower abdominal pain or tenderness | <input type="checkbox"/> Urinating more frequently or urgency with or without other urinary symptoms | |

Describe symptoms or signs _____

- Not clinically applicable to the change in condition being reported

8. Skin Evaluation

- | | | |
|--|---|--|
| <input type="checkbox"/> Abrasion | <input type="checkbox"/> Itching | <input type="checkbox"/> Skin tear |
| <input type="checkbox"/> Blister | <input type="checkbox"/> Laceration | <input type="checkbox"/> Splinter/sliver |
| <input type="checkbox"/> Burn | <input type="checkbox"/> Pressure ulcer | <input type="checkbox"/> Wound (describe) |
| <input type="checkbox"/> Contusion | <input type="checkbox"/> Puncture | <input type="checkbox"/> Other (describe) |
| <input type="checkbox"/> Discoloration | <input type="checkbox"/> Rash | <input type="checkbox"/> No changes observed |

Describe symptoms or signs _____

- Not clinically applicable to the change in condition being reported

9. Pain Evaluation

Does the resident have pain?

- No Yes (describe below)

Is the pain?

- New Worsening of chronic pain

Description/location of pain: _____

Intensity of Pain (rate on scale of 1-10, with 10 being the worst): _____

Does the resident show non-verbal signs of pain (for residents with dementia)?

- No Yes (describe) _____
(restless, pacing, grimacing, new change in behavior)

Other information about the pain _____

- Not clinically applicable to the change in condition being reported

10. Neurological Evaluation

- | | | |
|---|--|---|
| <input type="checkbox"/> Abnormal Speech | <input type="checkbox"/> Seizure | <input type="checkbox"/> Other neurological symptoms (describe) |
| <input type="checkbox"/> Decreased level of consciousness | <input type="checkbox"/> Weakness or hemiparesis | <input type="checkbox"/> No changes observed |
| <input type="checkbox"/> Dizziness or unsteadiness | | |

Describe symptoms or signs _____

- Not clinically applicable to the change in condition being reported

Advance Care Planning Information (the resident has orders for the following advanced care planning)

- Full Code DNR DNI (Do Not Intubate) DNH (Do Not Hospitalize) No Enteral Feeding Other Order or Living Will (specify)

Other resident or family preferences for care _____

Resident/Patient Name _____

(continued)

SBAR Communication Form

and Progress Note for RNs/LPN/LVNs (cont'd)



APPEARANCE

Summarize your observations and evaluation: _____

REVIEW AND NOTIFY

Primary Care Clinician Notified: _____ Date ____/____/____ Time (am/pm) _____

Recommendations of Primary Clinicians (if any) _____

b. Check all that apply

Testing

- Blood tests
- EKG
- Urinalysis and/or culture

- Venous doppler
- X-ray
- Other (describe) _____

Interventions

- New or change in medication(s)
- IV or subcutaneous fluids

- Increase oral fluids
- Oxygen (if available)
- Other (describe) _____

- Transfer to the hospital (non-emergency) (send a copy of this form)
- Call for 911
- Emergency medical transport

Nursing Notes (for additional information on the Change in Condition)

Name of Family/Health Care Agent Notified: _____ Date ____/____/____ Time (am/pm) _____

Staff Name (RN/LPN/LVN) and Signature _____

Resident/Patient Name _____

Report Suspecting Sepsis

Situation: _____

Name of community/agency (on call MD): _____ Code Status: _____

Resident's Name: _____ RM#: _____ Age: _____ Sex: _____

Diagnosis: _____

I am calling because this patient has met screening criteria for possible sepsis: _____

_____ Urgernt: Yes ___ No ___

Background: _____

History: _____

Patient has met the following (2) screening criteria:

Temperature greater than 100 F OR 96.8 F: _____ Heart rate above 100/min: _____

Blood Pressure below 100: _____ Respiratory rate greater than 20/min: _____

Altered Mental Status: _____ WBC more than 12(cells/mcL): _____

AND suspected infection: _____ OR confirmed: _____

On PO/IV antibiotics currently or last time: _____

Assessment: I am concerned that the patient possibly has sepsis because: _____

Current Vital Signs: T: ___ HR: ___ BP: ___ HR: ___ O2 sat: ___ WBC: ___ Blood Sugar: ___

Fevers in the last week/history/baseline: _____

Current labs/recent C&S: _____

Lung Sound: _____ Allergies: _____

Skin: _____ IV site: _____ Wounds: _____

Foley _____ Last BM: _____ Abd: _____

Recommendation: _____

Pending Labs: _____

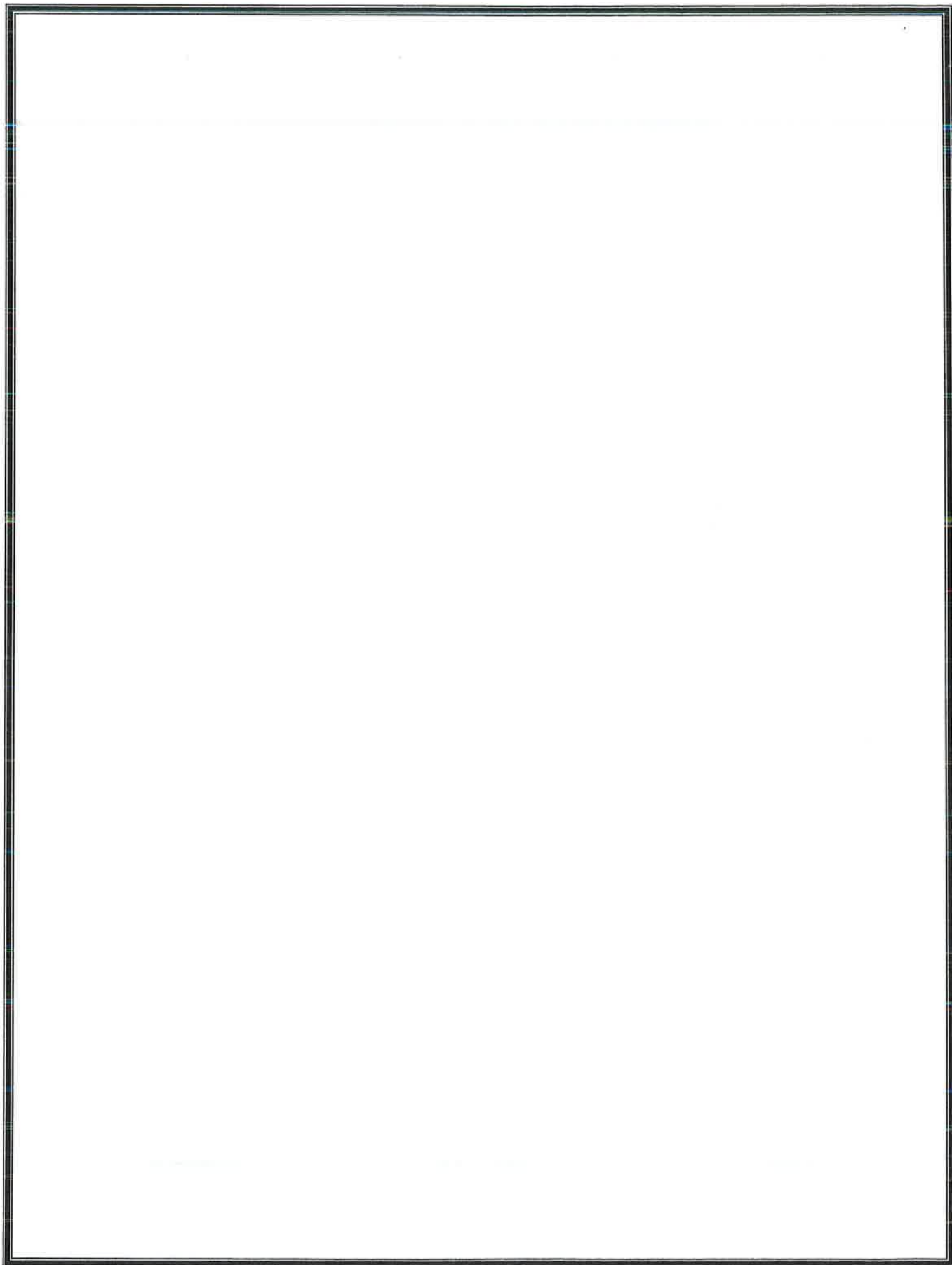
Nursing concerns: _____

How often do want vital signs? _____

If no improvement when would you want us to call you again? _____

Possible orders received:

- | | | |
|---|--|---|
| <input type="checkbox"/> Chest X-ray | <input type="checkbox"/> BMP | <input type="checkbox"/> Urine C&S |
| <input type="checkbox"/> Urine C&S | <input type="checkbox"/> IVF; | <input type="checkbox"/> Blood culture |
| <input type="checkbox"/> Labs: | NS ___ LR ___ | <input type="checkbox"/> Transfer to hospital |
| <input type="checkbox"/> CBC with Diff | <input type="checkbox"/> Resp. treatment | |
| <input type="checkbox"/> Lactic Acid (i stat) | <input type="checkbox"/> ABG's | |



Nursing Home to Hospital Transfer Form



Resident Name (last, first, middle initial) _____
 Language: English Other _____ Resident is: SNF/rehab Long-term
 Date Admitted (most recent) ____/____/____ DOB ____/____/____
 Primary diagnosis(es) for admission _____

Sent To (name of hospital) _____
 Date of transfer ____/____/____
Sent From (name of nursing home) _____ Unit _____

Contact Person _____
 Relationship (check all that apply)
 Relative Health care proxy Guardian Other
 Tel (_____) _____
 Notified of transfer? Yes No
 Aware of clinical situation? Yes No

Who to Call at the Nursing Home to Get Questions Answered
 Name/Title _____
 Tel (_____) _____

Primary Care Clinician in Nursing Home MD NP PA
 Name _____
 Tel (_____) _____

Code Status Full Code DNR DNI DNH Comfort Care Only Uncertain

Key Clinical Information
 Reason(s) for transfer _____
 Is the primary reason for transfer for diagnostic testing, not admission? No Yes Tests: _____
 Relevant diagnoses CHF COPD CRF DM Ca (active treatment) Dementia Other _____
 Vital Signs BP _____ HR _____ RR _____ Temp _____ O2 Sat _____ Time taken (am/pm) _____
 Most recent pain level _____ (N/A) Pain location: _____
 Most recent pain med _____ Date given ____/____/____ Time (am/pm) _____

Usual Mental Status:
 Alert, oriented, follows instructions
 Alert, disoriented, but can follow simple instructions
 Alert, disoriented, but cannot follow simple instructions
 Not Alert

Usual Functional Status:
 Ambulates independently
 Ambulates with assistive device
 Ambulates only with human assistance
 Not ambulatory

Additional Clinical Information:
 SBAR Acute Change in Condition Note included
 Other clinical notes included
 For residents with lacerations or wounds:
 Date of last tetanus vaccination (if known) ____/____/____

Devices and Treatments
 O2 at _____ L/min by Nasal canula Mask (Chronic New)
 Nebulizer therapy; (Chronic New)
 CPAP BiPAP Pacemaker IV PICC line
 Bladder (Foley) Catheter (Chronic New) Internal Defibrillator
 Enteral Feeding TPN Other _____

Isolation Precautions
 MRSA VRE
 Site _____
 C. difficile Norovirus
 Respiratory virus or flu
 Other _____

Allergies

Risk Alerts
 Anticoagulation Falls Pressure ulcer(s) Aspiration Seizures
 Harm to self or others Restraints Limited/non-weight bearing: (Left Right)
 May attempt to exit Swallowing precautions Needs meds crushed
 Other _____

Personal Belongings Sent with Resident
 Eyeglasses Hearing Aid
 Dental Appliance Jewelry
 Other _____

Nursing Home Would be able to Accept Resident Back Under the Following Conditions
 ER determines diagnoses, and treatment can be done in NH VS stabilized and follow up plan can be done in NH
 Other _____

Additional Transfer Information on a Second Page:
 Included Will be sent later

Form Completed By (name/title) _____ **Signature** _____
Report Called in By (name/title) _____
Report Called in To (name/title) _____ Date ____/____/____ Time (am/pm) _____

Nursing Home to Hospital Transfer Form *(additional information)*



Not critical for Emergency Room evaluation; may be forwarded later if unable to complete at time of transfer.

RECEIVER: PLEASE ENSURE THIS INFORMATION IS DELIVERED TO THE NURSE RESPONSIBLE FOR THIS PATIENT

Resident Name *(last, first, middle initial)* _____
 DOB _____ / _____ / _____ Date transferred to hospital _____ / _____ / _____

Contact at Nursing Home for Further Information
 Name / Title _____
 Tel (_____) _____

Social Worker
 Name _____
 Tel (_____) _____

Family and Other Social Issues *(include what hospital staff needs to know about family concerns)* _____

Behavioral Issues and Interventions

Primary Goals of Care at Time of Transfer
 Rehabilitation and/or Medical Therapy with intent of returning home
 Chronic long-term care
 Palliative or end-of-life care
 Receiving hospice care Other _____

Treatments and Frequency *(include special treatments such as dialysis, chemotherapy, transfusions, radiation, TPN)*

Diet
 Needs assistance with feeding? No Yes
 Trouble swallowing? No Yes
 Special consistency *(thickened liquids, crush meds, etc...)?* No Yes

 Enteral tube feeding? No Yes *(formula/rate)* _____

Skin/Wound Care
 Pressure Ulcers *(stage, location, appearance, treatments)*

Immunizations
 Influenza:
 Date _____ / _____ / _____
 Pneumococcal:
 Date _____ / _____ / _____

Physical Rehabilitation Therapy
 Resident is receiving therapy with goal of returning home? No Yes
 Physical Therapy: No Yes
 Interventions _____
 Occupational Therapy: No Yes
 Interventions _____
 Speech Therapy: No Yes
 Interventions _____

ADLs: Mark I = Independent D = Dependent A = Needs Assistance
 Bathing _____ Dressing _____ Transfers _____
 Toileting _____ Eating _____
 Can ambulate independently _____
 Assistive device *(if applicable)* _____
 Needs human assistance to ambulate _____

Impairments - General
 Cognitive Speech Hearing
 Vision Sensation
 Other _____

Impairments - Musculoskeletal
 Amputation Paralysis Contractures
 Other _____

Continence
 Bowel Bladder
 Date of last BM _____ / _____ / _____

Additional Relevant Information _____

Form Completed By *(name/title)* _____
 If this page sent after initial transfer: Date sent _____ / _____ / _____ Time *(am/pm)* _____
 Signature _____

Signs of infection and sepsis at home

Common infections can sometimes lead to sepsis. Sepsis is a deadly response to an infection. If you think you have sepsis, act NOW!



Green zone

No signs of infection.



Yellow zone

Take action today. Call your doctor or nurse:



Red zone

Take action now! Call or see your doctor now!



Do I have a fever?	No fever in the past 24 hours and not taking medicine for a fever.	Fever between 100 °F to 101.4 °F.	Fever is 101.5 °F or greater.
Do I feel cold?	I don't feel cold.	<ul style="list-style-type: none"> I feel cold and can't get warm. I'm shivering or my teeth are chattering. 	<ul style="list-style-type: none"> Temperature is below 96.8 °F. Skin or fingernails are pale.
How is my energy?	My energy level is as usual.	I'm too tired to do most of my usual activities.	I'm too weak to get out of bed.
How is my thinking?	Thinking is clear.	Thinking feels slow or not right.	My caregivers tell me I'm not making sense.
Are there changes in how I feel after a hospitalization, procedure, infection, or change in wound or I.V. site?	<ul style="list-style-type: none"> I feel well. I had pneumonia, a urinary tract infection (UTI) or another infection. I had a wound or I.V. site. It is healing. 	<ul style="list-style-type: none"> I don't feel well. I have a bad cough. My wound or I.V. site looks different. I haven't urinated (peed) for 5 or more hours. Urine (pee) burns, is cloudy, dark or smelly. 	<ul style="list-style-type: none"> I feel very sick. My wound or I.V. site is painful, red, smells or has pus. I haven't urinated (peed) for 6 or more hours. Urine (pee) is very dark.
Do I need to call 911 or go to the Emergency Room?	<p>I don't need to call 911 or my doctor:</p> <ul style="list-style-type: none"> My heartbeat is as usual. Breathing is normal for me. No fever in the past 24 hours. 	<p>I don't need to call 911 but call my doctor if:</p> <ul style="list-style-type: none"> Heartbeat is faster than usual. Breathing is more difficult and faster than usual. Home blood pressure is 20 points (top number) lower than usual. 	<p>Call 911 if:</p> <ul style="list-style-type: none"> Heartbeat is very fast. Breathing is very fast. Home blood pressure is 40 points (top number) lower than usual. Fever of 103.5 °F or greater. My skin or fingernails are blue.

My plan for preventing infection at home

Things I can do to prevent infection:

- Wash my hands often, using soap and water, especially after touching door knobs.
- Stay away from people who have coughs or colds. Stay away from crowds unless your doctor says it's OK.
- Get recommended vaccines (shots) like flu, whooping cough and pneumonia.
- Eat healthy foods and drink water.
- If just discharged from the hospital, change out toothbrush now. Change out toothbrush every 4 weeks.
- Keep my wounds or I.V. site clean.
- Have a plan for getting help when I am in the yellow zone.

Look for signs of infection:

- Do a daily check up using this stoplight form
- Report any signs of an infection in the yellow right away!
- Watch for sepsis. Sepsis is a very dangerous response to an infection by your body. Sepsis can lead to tissue damage, organ failure and death. **Any one of the signs in the red zone can be a sign of sepsis.** Tell your doctor "I'm concerned about sepsis."

How I will do these things:



SEPSIS FACT SHEET

A POTENTIALLY DEADLY OUTCOME FROM AN INFECTION

What should I do if I think I have an infection or sepsis?

- Call your doctor or go to the emergency room immediately if you have any signs or symptoms of an infection or sepsis. This is a medical emergency.
- It's important that you say, "I am concerned about sepsis."
- If you are continuing to feel worse or not getting better in the days after surgery, ask your doctor about sepsis. Sepsis is a common complication of people hospitalized for other reasons.

What is sepsis?

Sepsis is a complication caused by the body's overwhelming and life-threatening response to an infection, which can lead to tissue damage, organ failure, and death.

When can you get sepsis?

Sepsis can occur to anyone, at any time, from any type of infection, and can affect any part of the body. It can occur even after a minor infection.

What causes sepsis?

Infections can lead to sepsis. An infection occurs when germs enter a person's body and multiply, causing illness and organ and tissue damage. Certain infections and germs lead to sepsis most often. Sepsis is often associated with infections of the lungs (e.g., pneumonia), urinary tract (e.g., kidney), skin, and gut. *Staphylococcus aureus* (staph), *Escherichia coli* (*E. coli*), and some types of *Streptococcus* (strep) are common germs that can cause sepsis.

Are certain people with an infection more likely to get sepsis?

Anyone can develop sepsis from an infection, especially when not treated properly. However, sepsis occurs most often in people aged 65 years or older or less than 1 year, have weakened immune systems, or have chronic medical conditions (e.g., diabetes).

A CDC evaluation found more than 90% of adults and 70% of children who developed sepsis had a health condition that may have put them at risk.

Ask your doctor about your risk for getting sepsis. If you suspect sepsis, ask your doctor, "Could it be sepsis?"

What are the symptoms of sepsis?

There is no single sign or symptom of sepsis. It is, rather, a combination of symptoms. Since sepsis is the result of an infection, symptoms can include infection signs (diarrhea, vomiting, sore throat, etc.), as well as **ANY** of the **SYMPTOMS** below:



Shivering, fever, or very cold



Extreme pain or discomfort



Clammy, or sweaty skin



Confusion or disorientation



Short of breath



High heart rate



Centers for Disease Control and Prevention
National Center for Emerging and Zoonotic Infectious Diseases

How is sepsis diagnosed?

Doctors diagnose sepsis using a number of physical findings like fever, increased heart rate, and increased breathing rate. They also do lab tests that check for signs of infection.

Many of the symptoms of sepsis, such as fever and difficulty breathing, are the same as in other conditions, making sepsis hard to diagnose in its early stages.

How is sepsis treated?

People with sepsis are usually treated in the hospital. Doctors try to treat the infection, keep the vital organs working, and prevent a drop in blood pressure.

Doctors treat sepsis with therapy, such as appropriate use of antibiotics, as soon as possible. Many patients receive oxygen and intravenous (IV) fluids to maintain normal blood oxygen levels and blood pressure.

Other types of treatment, such as assisting breathing with a machine or kidney dialysis, may be necessary. Sometimes surgery is required to remove tissue damaged by the infection.

Are there any long-term effects of sepsis?

Many people who have sepsis recover completely and their lives return to normal. But some people may experience permanent organ damage. For example, in someone who already has kidney problems, sepsis can lead to kidney failure that requires lifelong dialysis.

How can I prevent sepsis?



- 1 GET VACCINATED** against the flu, pneumonia, and any other infections that could lead to sepsis. Talk to your doctor for more information.



- 2 PREVENT INFECTIONS** that can lead to sepsis by:

- **Cleaning** scrapes and wounds
- Practicing good **hygiene** (e.g., hand washing)



- 3 LEARN THE SIGNS AND SYMPTOMS** of sepsis. If sepsis is suspected, seek medical attention immediately.



Where can I get more information?

- Centers for Disease Control and Prevention (CDC)—CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, stem from human error or deliberate attack, CDC is committed to responding to America's most pressing health challenges.
cdc.gov/sepsis
cdc.gov/cancer/preventinfections
- The Rory Staunton Foundation for Sepsis Prevention— Supports education and outreach efforts aimed at rapid diagnosis and treatment of sepsis, particularly in children.
rorystauntonfoundationforsepsis.org
- Sepsis Alliance®—Created to raise sepsis awareness among both the general public and healthcare professionals. Sepsis Alliance offers information on a variety of sepsis-related topics. Visit sepsis.org/library to view the complete series of titles.
sepsis.org

GET AHEAD OF SEPSIS

KNOW THE RISKS. SPOT THE SIGNS. ACT FAST.

PROTECT YOUR PATIENTS FROM SEPSIS.

Infections put your patients at risk for sepsis. Be alert to the signs and, if suspected, act fast.

Sepsis is the body's extreme response to an infection. It is life-threatening, and without prompt treatment, often rapidly leads to tissue damage, organ failure, and death.

SEPSIS STATS

More than

1.5 MILLION

people get sepsis
each year in the U.S.

At least

250,000

Americans die from
sepsis each year

About

1 IN 3 PATIENTS

who die in a hospital
have sepsis

WHAT CAUSES SEPSIS?

The most frequently identified pathogens that cause infections that can develop into sepsis include *Staphylococcus aureus* (staph), *Escherichia coli* (E. coli), and some types of *Streptococcus* (strep).

Four types of infections that are often linked with sepsis:



Lungs
(e.g., pneumonia)



Urinary tract
(e.g., kidney)



Skin



Gut

Anyone can get an infection, and almost any infection can lead to sepsis. Certain patients are at increased risk for developing sepsis:

WHO IS AT RISK?

65+

Adults 65
or older



People with chronic
medical conditions,
such as diabetes, lung
disease, cancer, and
kidney disease



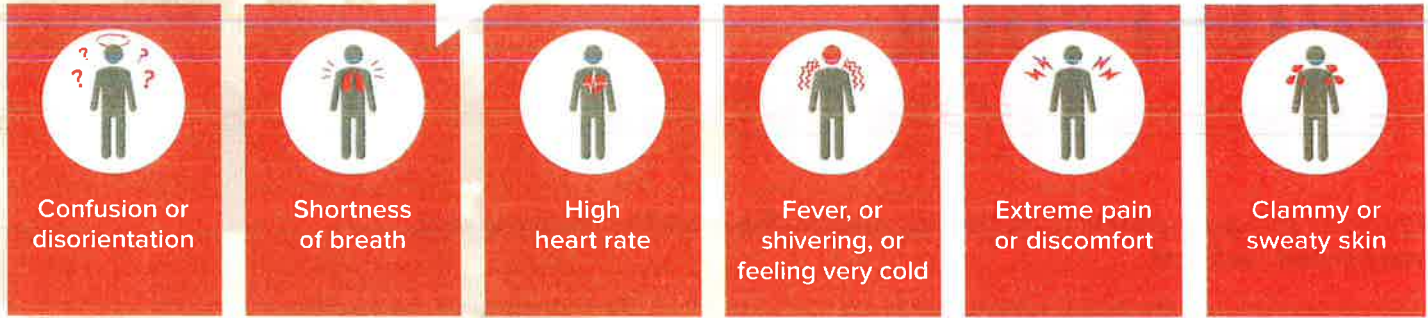
People with
weakened
immune
systems



Children
younger
than one

SEPSIS SIGNS

There is no single symptom of sepsis. Signs of sepsis can include a combination of any of the following:



HOW CAN I GET AHEAD OF SEPSIS?

Healthcare professionals can:

- **Know sepsis signs** to identify and treat patients early.
- **Act fast** if you suspect sepsis.
- **Prevent infections** by following infection control practices (e.g., hand hygiene, catheter removal) and ensuring patients receive recommended vaccines.
- **Educate your patients and their families about:**
 - Preventing infections.
 - Keeping scrapes and wounds clean.
 - Managing chronic conditions.
 - Recognizing early signs of worsening infection and sepsis and seeking immediate care if signs are present.

Sepsis is a medical emergency. Protect your patients by acting fast. Delayed recognition and treatment of sepsis increases your patients' risk of death.

WHAT SHOULD I DO IF I SUSPECT SEPSIS?

- **Immediately alert clinician in charge if it is not you.**
- **Know your facility's existing guidance for diagnosing and managing sepsis.**
- **Start antibiotics as soon as possible, in addition to other therapies appropriate for that individual patient.**
- **Check patient progress frequently.** Reassess antibiotic therapy 24-48 hours to stop or change therapy as needed. Be sure antibiotic type, dose, and duration are correct.

Learn more about sepsis and how to prevent infections:

www.cdc.gov/sepsis.

KNOW THE RISKS. SPOT THE SIGNS. ACT FAST.

LIFE AFTER SEPSIS FACT SHEET

WHAT SEPSIS SURVIVORS NEED TO KNOW

ABOUT SEPSIS

What is sepsis?

Sepsis is a complication caused by the body's overwhelming and life-threatening response to an infection, which can lead to tissue damage, organ failure, and death.

What causes sepsis?

Any type of infection that is anywhere in your body can cause sepsis. It is often associated with infections of the lungs (e.g., pneumonia), urinary tract (e.g., kidney), skin, and gut. An infection occurs when germs enter a person's body and multiply, causing illness and organ and tissue damage.

LIFE AFTER SEPSIS

What are the first steps in recovery?

After you have had sepsis, rehabilitation usually starts in the hospital by slowly helping you to move around and look after yourself: bathing, sitting up, standing, walking, taking yourself to the restroom, etc. The purpose of rehabilitation is to restore you back to your previous level of health or as close to it as possible. Begin your rehabilitation by building up your activities slowly, and rest when you are tired.

How will I feel when I get home?

You have been seriously ill, and your body and mind need time to get better. You may experience the following physical symptoms upon returning home:

- General to extreme weakness and fatigue
- Breathlessness
- General body pains or aches
- Difficulty moving around
- Difficulty sleeping
- Weight loss, lack of appetite, food not tasting normal
- Dry and itchy skin that may peel
- Brittle nails
- Hair loss

*Many survivors
are left with*
LIFE-CHANGING
challenges.



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Zoonotic Infectious Diseases

It is also not unusual to have the following feelings once you're at home:

- Unsure of yourself
- Not caring about your appearance
- Wanting to be alone, avoiding friends and family
- Flashbacks, bad memories
- Confusing reality (e.g., not sure what is real and what isn't)
- Feeling anxious, more worried than usual
- Poor concentration
- Depressed, angry, unmotivated
- Frustration at not being able to do everyday tasks

What can I do to help myself recover at home?

- Set small, achievable goals for yourself each week, such as taking a bath, dressing yourself, or walking up the stairs
- Rest and rebuild your strength
- Talk about what you are feeling to family and friends
- Record your thoughts, struggles, and milestones in a journal
- Learn about sepsis to understand what happened
- Ask your family to fill in any gaps you may have in your memory about what happened to you
- Eat a balanced diet
- Exercise if you feel up to it
- Make a list of questions to ask your doctor when you go for a check up

Are there any long-term effects of sepsis?

Many people who survive sepsis recover completely and their lives return to normal. However, as with some other illnesses requiring intensive medical care, some patients have long-term effects. These problems may not become apparent for several weeks (post-sepsis), and may include such consequences as:

- Insomnia, difficulty getting to or staying asleep
- Nightmares, vivid hallucinations, panic attacks
- Disabling muscle and joint pains
- Decreased mental (cognitive) functioning
- Loss of self-esteem and self-belief
- Organ dysfunction (kidney failure, respiratory problems, etc.)
- Amputations (loss of limb(s))

What's normal and when should I be concerned?

Generally, the problems described in this fact sheet do improve with time. They are a normal response to what you have been through.

Some hospitals have follow-up clinics or staff to help patients and families once they have been discharged. Find out if yours does or if there are local resources available to help you while you get better.

However, if you feel that you are not getting better, or finding it difficult to cope, or continue to be exhausted call your doctor.

Where can I get more information?

- Centers for Disease Control and Prevention (CDC)—CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, stem from human error or deliberate attack, CDC is committed to responding to America's most pressing health challenges. cdc.gov/sepsis
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