When To Test?
When to Submit a Urine Specimen for Testing?

Anna Eslinger, RN, Infection Preventionist
On Behalf of the
Wisconsin Healthcare-Associated Infections (HAIs) in Long-Term Care Coalition

When to Test

"Test the urine when there is a reasonable chance of a urinary tract infection being present based on the presence of signs and symptoms localizing to the urinary tract."

What is a UTI?

- There is no gold standard definition of UTI, but several consensus definitions have been suggested and revised over time
- These definitions differ slightly, but all require the presence of signs and symptoms localizing to the urinary tract
Urinary Tract Signs and Symptoms Include*

- Dysuria
- New onset
  - Frequency
  - Urgency, or
  - Incontinence
- Flank pain or tenderness
- Suprapubic pain
- Gross hematuria
- Focal tenderness or swelling of testis, epididymis or prostate
- Recent catheter trauma, obstruction, or purulent drainage around the catheter

* Nace, et al.

What about Non-Communicative Residents?

- Residents frequently have non-specific geriatric symptoms and are unable to tell us what is bothering them
- Non-specific symptoms are:
  - Fever
  - Functional decline
  - Aggressive behaviors
  - Mental status changes
- Unfortunately, these symptoms are just that: non-specific

Nace, et al. JAMDA 15 (2014) 133-139

What about Non-Communicative Residents?

- For residents who cannot reliably self-report symptoms, the presence of fever, leukocytosis, or hemodynamic instability alone (without signs of infection in a site other than the urinary system) may be adequate to justify initiation of antimicrobial therapy, and therefore testing

  AMDA Choosing Wisely Campaign (See Item 3)

Nace, et al. JAMDA 15 (2014) 133-139
Is a Change in Mental Status, Fatigue, or a Fall a Symptom of a UTI?

- Sometimes, but most commonly NOT
- UTI is less likely without specific urinary symptoms
- Non-specific Geriatric Symptoms, such as change in mental status, fatigue, or a fall may be due to a variety of non-infectious causes including:
  - Constipation, Dehydration
  - Depression, Medication Side Effects
  - Pain, Poor Sleep

Non-specific Geriatric Symptoms May Accompany a UTI but...

Without another localizing urinary symptom or fever or leukocytosis and no other identified source of infection, these non-specific symptoms are unlikely a sign of UTI AND

A urine specimen should NOT be sent

Non-Specific Symptoms in Absence of Urinary Symptoms

- Should be evaluated to determine the correct cause of the symptom or behavior. So, update care plan...
  - Monitor vital signs and symptoms for several days
  - Review meds, bowel pattern, social milieu
  - Encourage fluids if appropriate
  - Perform ongoing assessments
  - Watch closely for progression of symptoms or change in clinical status
  - Consider blood work
- Wait and watch and re-evaluate... Notify provider as indicated
**Non-Specific Symptoms in Absence of Urinary Symptoms**

It is important to consider a range of possible causes for non-specific geriatric symptoms to prevent missing the real diagnosis because....

---

**... Under Normal Condition**

- The skin surface is not sterile...
- The mouth is not sterile...
- The colon is not sterile...
- *And in many residents the bladder is not sterile*
- *Up to 50% of LTC residents have bacteria in their urine but no infection is present*

---

**Asymptomatic Bacteriuria ≠ UTI**

- Asymptomatic bacteriuria is frequently mistaken for a UTI. It is important to understand this to avoid unnecessary testing and the error of inappropriate treatment with antibiotics
Wisconsin Healthcare-Associated Infections in LTC Coalition

**Treating Asymptomatic Bacteriuria: All harm, No Benefit**

- **HIGH PREVALENCE OF ASYMPTOMATIC BACTERIURIA**
  - Positive urinary tract infections in at least 30% of LTC residents
  - A positive uropathogen culture in the absence of symptoms
  - Invasive manipulation, which is the presence of symptoms
  - Treatment of asymptomatic bacteriuria is not recommended

- **IT'S HARD TO IGNORE A POSITIVE TEST**
  - Habitual
  - Prevalent
  - Unnecessary prescriptions
  - Testing
  - Colonization
  - A missing the real diagnosis

- **UNNECESSARY TREATMENT WITH ANTIBIOTICS**
  - Nonspecific symptoms
  - Treat other complications
  - Increase of multi-drug-resistant bacteria

Massachusetts Coalition for Patient Safety

---

**No Localizing Urinary Tract Symptoms**

**DO NOT TEST**

**DO NOT TREAT**

---

**Do Not Test, Do Not Treat Asymptomatic Bacteriuria**

- **Criteria for testing**
  - Urine culture with symptoms
  - Two of the following symptoms (low or elevated):
    - Fever
    - Urine symptoms (blood, white blood cells, pus, etc.)
    - Pain or discomfort
    - Nausea or vomiting
    - Leukocytosis
    - Hematuria
    - Acute hemorrhagic

- **No symptoms of UTI**
  - Do not test urine
  - Do not treat if a urine culture is positive by someone else or for "routine""
Wisconsin Healthcare‐Associated Infections in LTC Coalition

### Urine Characteristics

- Dark concentrated and / or strong smelling urine are **NOT** specific urinary symptoms suggesting UTI
- Without specific urinary tract signs and symptoms, concentrated urine or strong smelling urine **DOES NOT** require urine testing

---

### When Symptoms are Absent:

- “Positive” urine dip is meaningless
- “Positive” urinalysis is meaningless
- “Positive” urine culture is just Asymptomatic Bacteriuria

  Regardless of symptoms:
  - Poor urine collection technique causes false‐positive urinalysis
  - See unit on proper urine collection technique

---

### In other words...

Don’t think urine first in a resident with a change in condition and no localizing urinary tract signs and symptoms
How Do We Improve?

Sometimes there are systemic triggers to inappropriate urinalysis testing within systems and policies of the nursing home to include but not limited to standing orders.

It is recommended that all such systemic triggers for inappropriate or automatic urine collection and testing be considered and eliminated.

How Do We Improve?

Know the signs and symptoms of a UTI.

Educate the Line Nursing Staff about the signs and symptoms of UTI.

Develop minimum criteria to collect and test urine.

• Consider use of surveillance criteria* to guide the decision to test urine.

• Alternatively, create your own consensus-based criteria** to guide decision to test.

• Incorporate your criteria into a QAPI project to improve your rate of appropriate urine testing within your facility.

**“Revisiting the McGeer Criteria” ICHE 2012;35(10):965-977
For example, working criteria for sending a sample for urinalysis might consist of something like...

---

**Revised McGeer: Without Indwelling Catheter**

(A) Clinical (At least one of the following must be met)

1. Acute dysuria or
2. Acute pain, swelling or tenderness of testes, epididymis, or prostate

(B) Lab (At least one of the following must be met)

1. Voided specimen: positive urine culture (>105 CFU/ML)
2. Straight cath specimen: positive urine culture (>102 CFU/ML)

---

**Revised McGeer: Resident With Indwelling Catheter**

(A) Clinical (At least one of the following must be met with no alt. explanation)

1. Fever
2. Rigors
3. New onset hypotension
4. Elbow wound, change in mental status or acute functional decline, with no alternate diagnosis AND febrile
5. New onset marked change in physical exam
6. New onset purulent drainage

(B) Lab (Must be met)

1. Positive urine culture (>105 CFU/ML) in any organism

---

Loeb Minimum Criteria

**Without Indwelling Catheter**

- Acute dysuria alone OR
- Fever* plus 1 or more of the symptoms below (new or increased) OR
- If no fever, at least 2 of the symptoms below (new or increased)
  - Costovertebral angle tenderness
  - Suprapubic Pain
  - Gross Hematuria
  - Urinary Incontinence
  - Urgency
  - Frequency

*Fever > 100° or 2.4° F above baseline


---

Loeb Minimum Criteria

**With Indwelling Catheter**

At least one or more of the symptoms below (new or increased)

- Fever > 100° or 2.4° F above baseline
- Costovertebral angle tenderness
- Rigors (shaking chills)
- New onset delirium


---

**Summary – When to Test**

- Establish facility criteria for testing urine
- Test the urine only when there are specific urinary tract signs or symptoms
- Perform assessment of facility rate of appropriate testing
- Improve appropriate testing rate to lower the avoidable harm of inappropriate treatment
# References


“Clinical Uncertainties in the Approach to Long Term Care Residents With Possible Urinary Tract Infection” Nace, et.al. JAMDA 15 (2014) 133-139

“Treatment of Bacteruria Without Urinary Signs, Symptoms, or Systemic Infectious Illness (S/S/S)” Drinka JAMDA 10 (2009) 516-519

—


**Is MD Contact Necessary?**

**Resident:** Jimmy Issick  
**Provider:** Dr. Wesby

**Date:** 11/7/15 8:00PM

**Chief Complaint:** Acute onset of dysuria and fever over the last two hours.

**Situation:** Jimmy has sudden onset of acute dysuria and frequency. Gross hematuria is present with small clots. There is no suprapubic or costovertebral tenderness.

**Vitals:** Temperature 102.3 (oral), Pulse 104 apical and irregular, Respirations 30 and shallow, B/P 150/80, O2 Sat on room air is 86%.

**Finger-stick Blood Sugar:** 166

**Background**

**Diagnoses:** Dementia, COPD, Type II DM, CHF, Hx CVA with left hemiplegia, MRSA carrier

**Recent antibiotics:** Had Trimeth/Sulfa 10 days for lower respiratory infection 9/12-9/22

**Allergies:** Ciprofloxin

**Anticoagulants, Hypoglycemic, Digoxin:** None

**Code Status:** DNR

**Resident evaluation:** He has mildly increased confusion since mid-afternoon today. He has had a functional decline requiring an increase in staff assist with bed mobility, transfers, and other ADLs. His appetite is diminished and oral fluid intake in the last 16hr is 600 CCs. Lungs are clear. Bowel sounds are present in all 4 quadrants. Abdomen is non-tender with no vomiting or diarrhea. His urine is dark colored and has mucous shreds.

**Appearance:** Localizing signs and symptoms present? Warning signs and symptoms present? Assessment/appearance based off information presented above?

**Review/Notify:** What are we requesting?
Case Study 2

Wisconsin Healthcare –Associated Infections in LTC Coalition

Is MD Contact Necessary?

Resident: Tommy Needalittlehelp

Provider: Dr. Wesby

Date: 11/7/15 3:00PM

Chief Complaint: Acute onset of dysuria, urgency and frequency starting after lunch today.

Situation: Tommy is complaining of acute dysuria, urgency and frequency. He has been incontinent three times today which is unusual for him. Urine is clear and amber in color. He has no costovertebral angle tenderness or suprapubic tenderness. He is not otherwise in distress.

Vitals: Temperature 98 (oral), Pulse 78 apical, Respirations 20 and unlabored, B/P 112/68, O2 Sat 94%.

Finger-stick Blood Sugar: 166

Background

Diagnoses: COPD, mild CHF, HTN

Recent antibiotics: None

Allergies: Trimeth / Sulfa

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full code

Resident evaluation: He’s had no recent medication changes. He has no change in mental status and is oriented to person, place and time and follows commands. He is independent with ADLs. He’s eating and drinking and is on a 1400 cc 24 hr. fluid restriction and took in 1400 ccs in the last 24 hours. His weight is stable. There is no shortness of breath, chest or abdominal pain and he is not vomiting. Bowel sounds are active in all quadrants.

Appearance: Localizing signs and symptoms present? Warning signs and symptoms present? Assessment/appearance based off information presented above?

Review/Notify: What are we requesting?
Case Study 3

Wisconsin Healthcare – Associated Infections in LTC Coalition

Is MD Contact Necessary?

Resident: Larry Needtonotify

Provider: Dr. Wesby

Date: 10/21/15 4:00PM

Chief Complaint: Acute confusion with fever beginning at noon today and worsening through the day.

Situation: Larry is 71 y/o male six days post-op cholecystectomy who has a complaint of general discomfort. He has no site specific pain. He says, “I just don’t feel good. I want to go home.” He has had a mental status change of acute confusion with some lethargy but excitable and trying to go home. His appetite has been poor and he refused lunch today. He has been continent and independent of bowel and bladder since he arrived and he has no evidence of any localizing urinary symptoms.

Vitals: Temperature 102.4 (oral), Pulse 108 apical, Respirations 28 and shallow, B/P 112/58, O2 Sat 88% on room air.

Finger-stick Blood Sugar: >300

Background

Diagnoses: Post-op cholecystectomy 10/15/15, history of alcohol abuse, no history of diabetes

Recent antibiotics: Had post-op cephalexin for 5 days ending yesterday

Anticoagulants, Hypoglycemic, or Digoxin: None

Allergies: Ciprofloxin

Resident evaluation: There is no cough, vomiting, diarrhea, or rash or skin sores. He has no incontinence, denies dysuria and we see no localized signs or symptoms of UTI. He has a past history of alcohol abuse and no prior history of diabetes or heart condition.

Appearance: Localizing signs and symptoms present? Warning signs and symptoms present?

Assessment/appearance based off information presented above?

Review/Notify: What are we requesting?
Case Study 4

Is MD Contact Necessary?

Resident: Suzi Notsosick

Provider: Dr. Wesby

Date: 10/21/15 4:30PM

Chief Complaint: Generalized discomfort and mild confusion since lunch today.

Situation: She complains of generalized discomfort. She has had a change in her mental status and is currently exhibiting mild lethargy, mild confusion and a tendency to wander but is able to be reoriented. She didn’t go to activities this afternoon and her appetite has been poor since this morning. She remains alert. She has a recent med change consisting of addition of gabapentin 300 mg bid oral for pain.

Vitals: Temperature 97.2 (oral), Pulse 68 and regular, Respirations 20, B/P 120/62, O2 Sat on room air is 97%.

Finger-stick Blood Sugar: 106

Background

Diagnoses: Compression fractures of vertebral body-multiple, osteoporosis, osteoarthritis, GERD, Hx of mastectomy.

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full Code

Resident Evaluation: She has not recently fallen. Lungs are clear and there is no chest pain. She has had no change in BMs with last one yesterday and there is no vomiting or diarrhea. There are no localizing urinary symptoms or signs. There are no skin rashes or sores, and no new joint, chest, or abdominal pains. There is no exposure to infectious residents or visitors.

Appearance: Localizing signs and symptoms present? Warning signs and symptoms present? Assessment/appearance based off information presented above?

Review/Notify: What are we requesting?
Case Study 5

Wisconsin Healthcare–Associated Infections in LTC Coalition

Is MD Contact Necessary?

Resident: Suzi Notsosick
Provider: Dr. Wesby

Date: 10/22/15 8:00PM

Chief Complaint: Changing condition during 24 Hr. observation period now with tachypnea and hypoxia.

Situation: She has been on 24 hr. observation since 4:00PM yesterday for increase of mild non-localized pain with poor appetite and mild lethargy. In past four hours she has developed sustained rapid breathing and a drop in her O2 sat while on room air. She has only eaten 10% in the last 24 hrs. with fluid intake of 400cc only.

Vitals: Temperature 98.8 (Buccal), Pulse 100 and regular, Respirations 34, B/P 120/62, O2 Sat on room air is 88%. There is no weight change in last three weeks.

Finger-stick Blood Sugar: 166

Background:

Diagnoses: Compression fractures of vertebral body-multiple, osteoarthritis, osteoporosis, frailty, GERD, Hx of mastectomy.

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Resident evaluation: She remains alert but has difficulty focusing and is incoherent for brief periods. There has been no recent exposure to infectious residents or visitors. Lungs are clear and there is no chest pain. She had a normal bowel movement last night and there is no vomiting or diarrhea. There are no localizing urinary signs or symptoms, hematuria, abdominal or flank pain. There are no skin rashes or sores, and no new joint or abdominal pains.

Appearance: Localizing signs and symptoms present? Warning signs and symptoms present? Assessment/appearance based off information presented above?

Review/Notify: What are we requesting?
Case Study 6

Is MD Contact Necessary?

Resident: Suzi Notsosick
Provider: Dr. Wesby

Date: 10/23/15 4:00PM

Chief Complaint: No improvement of pain, mild confusion and poor appetite after a 48 hr. period of observation that began on 10/21 at 4:00 PM.

Situation: She has been on 24-48 hr. observation for the complaint of generalized discomfort and mild confusion with recent addition of gabapentin to her medication regimen. These symptoms have continued without improvement in spite of using prn acetaminophen and encouraging oral intake. She has had no worsening pain, no new significant complaints or signs or symptoms of other infection, other illness, and no localized urinary signs or symptoms.

Vitals: Temperature 97.2 (oral), Pulse 68 and regular, Respirations 20, B/P 120/62, O2 Sat on room air is 97%.

Finger-stick Blood Sugar: 122

Background:

Diagnoses: Compression fractures of vertebral body-multiple, osteoarthritis, osteoporosis, frailty, GERD, Hx of mastectomy.

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full Code

Resident evaluation: She was observed and treated with prn acetaminophen according to standing orders. She continues with same complaints without increase of pain or confusion. She is alert and oriented x3. She denies headache, dyspnea, chest pain, abd pain or dysuria. She had a bowel movement yesterday with normal consistency. There is no rash or sores. Lungs clear.

Appearance: Localizing signs and symptoms present? Warning signs and symptoms present?
Assessment/appearance based off information presented above?

Review/Notify: What are we requesting?
Is MD Contact Necessary?

Resident: Suzi Notsosick

Provider: Dr. Wesby

Date: 10/23/15 8:00PM

Chief Complaint: Symptoms resolved. Resident condition returns to baseline.

Situation: She has been on 24-48 hrs. of skilled nursing observation for the complaint of generalized discomfort and mild confusion. Her mental status, intake and activity have returned to baseline. She says her pain is improved with scheduled acetaminophen within limits of her current orders. She had no new significant complaints or signs or symptoms of focal infection. She has continued on her regular medication regimen including new gabapentin order from a week ago.

Vitals: Temperature 97.2 (oral), Pulse 68 and regular, Respirations 20, B/P 120/62, O2 Sat on room air is 97%.

Finger-stick Blood Sugar: Not done

Background:

Diagnoses: Compression fractures vertebral body-multiple, osteoarthritis, osteoporosis, GERD, Hx/o mastectomy

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full Code

Appearance: Localizing signs and symptoms present? Warning signs and symptoms present? Assessment/appearance based off information presented above?

Review/Notify: What are we requesting?
Resident: Jimmy Issick  Provider: Dr. Wesby

Date: 11/7/15 8:00PM

This message is to inform you of a change in condition:

Chief Complaint: Acute onset of dysuria and fever over the last two hours.

Situation: Jimmy has sudden onset of acute dysuria and frequency. Gross hematuria is present with small clots. There is no suprapubic or costovertebral tenderness.

Vitals: Temperature 102.3 (oral), Pulse 104 apical and irregular, Respirations 30 and shallow, B/P 150/80, O2 Sat on room air is 86%.

Finger-stick Blood Sugar: 166

Background

Diagnoses: Dementia, COPD, Type II DM, CHF, Hx CVA with left hemiplegia, MRSA carrier

Recent antibiotics: Had Trimeth/Sulfa 10 days for lower respiratory infection 9/12-9/22

Allergies: Ciprofloxin

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: DNR

Resident evaluation: He has mildly increased confusion since mid-afternoon today. He has had a functional decline requiring an increase in staff assist with bed mobility, transfers, and other ADLs. His appetite is diminished and oral fluid intake in the last 16hr is 600 CCs. Lungs are clear. Bowel sounds are present in all 4 quadrants. Abdomen is non-tender with no vomiting or diarrhea. His urine is dark colored and has mucous shreds.

Appearance: This resident is exhibiting localizing urinary tract signs and symptoms with hypoxia and warning signs of fever and tachycardia.

Review/Notify: According to our understanding of best practices and our facility protocols, the information is sufficient to indicate an active urinary tract infection. We request an order to obtain a urinalysis and culture. Please advise regarding further treatment.

KH RN
MAY FAX

Resident: Tommy Needalittlehelp                      Provider: Dr. Wesby

Date: 11/7/15 3:00PM

This message is to inform you of a change in condition:

Chief Complaint: Acute onset of dysuria, urgency and frequency starting after lunch today.

Situation: Tommy is complaining of acute dysuria, urgency and frequency. He has been incontinent three times today which is unusual for him. Urine is clear and amber in color. He has no costovertebral angle tenderness or suprapubic tenderness. He is not otherwise in distress.

Vitals: Temperature 98 (oral), Pulse 78 apical, Respirations 20 and unlabored, B/P 112/68, O2 Sat 94%.

Finger-stick Blood Sugar: 166

Background

Diagnoses: COPD, mild CHF, HTN
Recent antibiotics: None
Allergies: Trimeth / Sulfa
Anticoagulants, Hypoglycemic, Digoxin: None
Code Status: Full code

Resident evaluation: He’s had no recent medication changes. He has no change in mental status and is oriented to person, place and time and follows commands. He is independent with ADLs. He’s eating and drinking and is on a 1400 cc 24 hr. fluid restriction and took in 1400 ccs in the last 24 hours. His weight is stable. There is no shortness of breath, chest or abdominal pain and he is not vomiting. Bowel sounds are active in all quadrants.

Appearance: This resident is exhibiting localizing symptoms suggesting the need to obtain a urinalysis.

Review/Notify: According to our understanding of best practices and our facility protocols, the information is sufficient to indicate an active urinary tract infection. We request permission to obtain a urinalysis, continue to encourage fluids within resident’s fluid restriction guidelines and continue to observe. This resident does NOT need an immediate prescription for an antibiotic, but may need further evaluation and treatment. We will update MD with lab results.

KH RN

January 2016
Resident: Larry Needtonotify 
Provider: Dr. Wesby 

Date: 10/21/15 4:00PM

This message is to inform you of a change in condition:

Chief Complaint: Acute confusion with fever beginning at noon today and worsening through the day.

Situation: Larry is 71 y/o male six days post-op cholecystectomy who has a complaint of general discomfort. He has no site specific pain. He says, “I just don’t feel good. I want to go home.” He has had a mental status change of acute confusion with some lethargy but excitable and trying to go home. His appetite has been poor and he refused lunch today. He has been continent and independent of bowel and bladder since he arrived and he has no evidence of any localizing urinary symptoms.

Vitals: Temperature 102.4 (oral), Pulse 108 apical, Respirations 28 and shallow, B/P 112/58, O2 Sat 88% on room air.

Finger-stick Blood Sugar: >300

Background

Diagnoses: Post-op cholecystectomy 10/15/15, history of alcohol abuse, no history of diabetes

Recent antibiotics: Had post-op cephalexin for 5 days ending yesterday

Anticoagulants, Hypoglycemic, or Digoxin: None

Allergies: Ciprofloxin

Resident evaluation: There is no cough, vomiting, diarrhea, or rash or skin sores. He has no incontinence, denies dysuria and we see no localized signs or symptoms of UTI. He has a past history of alcohol abuse and no prior history of diabetes or heart condition.

Appearance: This resident is post-op day 6. He has acute confusion with fever and hypoxia. He has no localizing signs or symptoms of obvious infection. His blood sugars are elevated.

Review/Notify: According to our understanding of best practices and our facility protocols, the information is insufficient to indicate an active urinary tract infection. However, we request help in further evaluation with an order for a STAT CBC, blood culture, and possible chest x-ray in the morning. We also request your help for further treatment. Please advise.

KH RN
Resident: Suzi Notsosick

Provider: Dr. Wesby

Date: 10/21/15 4:30PM

This message is to inform you of a change in condition:

Chief Complaint: Generalized discomfort and mild confusion since lunch today.

Situation: She complains of generalized discomfort. She has had a change in her mental status and is currently exhibiting mild lethargy, mild confusion and a tendency to wander but is able to be reoriented. She didn’t go to activities this afternoon and her appetite has been poor since this morning. She remains alert. She has a recent med change consisting of addition of gabapentin 300 mg bid oral for pain.

Vitals: Temperature 97.2 (oral), Pulse 68 and regular, Respirations 20, B/P 120/62, O2 Sat on room air is 97%.

Finger-stick Blood Sugar: 106

Background

Diagnoses: Compression fractures of vertebral body-multiple, osteoporosis, osteoarthritis, GERD, Hx of mastectomy.

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full Code

Resident Evaluation: She has not recently fallen. Lungs are clear and there is no chest pain. She has had no change in BMs with last one yesterday and there is no vomiting or diarrhea. There are no localizing urinary symptoms or signs. There are no skin rashes or sores, and no new joint, chest, or abdominal pains. There is no exposure to infectious residents or visitors.

Appearance: This resident is an elderly female with 24-36 hours of complaint of poorly localized general discomfort with mild confusion and poor appetite. She has no warning signs, no localizing urinary signs or symptoms and no signs or symptoms of other focal infection.

Review/Notify: According to our understanding of best practices and our facility protocols, the information is insufficient to indicate an active urinary tract infection. The resident does NOT need an immediate prescription for an antibiotic or urine testing. We are asking for an order for a 24-48 hour period of observation and will call physician with resident change of condition. Please advise.

KH RN
This message is to inform you of a change in condition:

**Chief Complaint:** Changing condition during 24 Hr. observation period now with tachypnea and hypoxia.

**Situation:** She has been on 24 hr. observation since 4:00PM yesterday for increase of mild non-localized pain with poor appetite and mild lethargy. In past four hours she has developed sustained rapid breathing and a drop in her O2 sat while on room air. She has only eaten 10% in the last 24 hrs. with fluid intake of 400cc only.

**Vitals:** Temperature 98.8 (Buccal), Pulse 100 and regular, Respirations 34, B/P 120/62, O2 Sat on room air is 88%. There is no weight change in last three weeks.

**Finger-stick Blood Sugar:** 166

**Background:**

**Diagnoses:** Compression fractures of vertebral body - multiple, osteoarthritis, osteoporosis, frailty, GERD, Hx of mastectomy.

**Recent antibiotics:** None

**Allergies:** Doxycycline

**Anticoagulants, Hypoglycemic, Digoxin:** None

**Resident evaluation:** She remains alert but has difficulty focusing and is incoherent for brief periods. There has been no recent exposure to infectious residents or visitors. Lungs are clear and there is no chest pain. She had a normal bowel movement last night and there is no vomiting or diarrhea. There are no localizing urinary signs or symptoms, hematuria, abdominal or flank pain. There are no skin rashes or sores, and no new joint or abdominal pains.

**Appearance:** This resident is an elderly female who developed new tachypnea and hypoxia while she was undergoing a period of observation for the complaint of poorly localized general discomfort with mild confusion and poor appetite. She continues to show no signs or symptoms of focal infection and there are no localizing urinary tract signs or symptoms.

**Review/Notify:** According to our understanding of best practices and our facility protocols, the information is insufficient to indicate an active urinary tract infection. The resident does NOT need an immediate prescription for an antibiotic, but may need further evaluation and treatment. We request oxygen therapy and advice for further evaluation and treatment.

KH RN
Resident: Suzi Notsosick
Provider: Dr. Wesby

Date: 10/23/15 4:00PM

This message is to inform you of a change in condition:

Chief Complaint: No improvement of pain, mild confusion and poor appetite after a 48 hr. period of observation that began on 10/21 at 4:00 PM.

Situation: She has been on 24-48 hr. observation for the complaint of generalized discomfort and mild confusion with recent addition of gabapentin to her medication regimen. These symptoms have continued without improvement in spite of using prn acetaminophen and encouraging oral intake. She has had no worsening pain, no new significant complaints or signs or symptoms of other infection, other illness, and no localized urinary signs or symptoms.

Vitals: Temperature 97.2 (oral), Pulse 68 and regular, Respirations 20, B/P 120/62, O2 Sat on room air is 97%.

Finger-stick Blood Sugar: 122

Background:

Diagnoses: Compression fractures of vertebral body-multiple, osteoarthritis, osteoporosis, frailty, GERD, Hx of mastectomy.

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full Code

Resident evaluation: She was observed and treated with prn acetaminophen according to standing orders. She continues with same complaints without increase of pain or confusion. She is alert and oriented x3. She denies headache, dyspnea, chest pain, abd pain or dysuria. She had a bowel movement yesterday with normal consistency. There is no rash or sores. Lungs clear.

Appearance: She has been on 48 hr. observation for change of condition consisting of mild increase of diffuse pain and mild confusion. She is not better. She has no localized urinary tract signs or symptoms or other S/S of focal infection.

Review/Notify: According to our understanding of best practices and our facility protocols, the information is insufficient to indicate an active urinary tract infection. The resident does NOT need an immediate prescription for an antibiotic, but may need additional observation and medical evaluation. Additionally, we request a physician problem visit with scheduled rounds tomorrow or as soon as possible. Please advise.

KH RN

*Please see reference to AMDA Clinical Practical Guidelines: Acute Change of Condition in the Long-term Care Setting. (Not intended to be part of this script)
STEP 9 Monitor the patient’s progress. Nurses, nursing assistants, and other direct care staff should closely monitor each patient who is being treated for an ACOC. Nursing assistants in particular are critical participants in the monitoring process. Nursing managers and charge nurses should advise nursing assistants what to look for as they care for the patient and when to report their observations to a nurse, as well as about any changes anticipated in the patient’s care plan. Table 17 provides examples of staff roles and responsibilities during the monitoring phase. Caregiving staff should understand that symptoms and abnormal test results related to an ACOC do not necessarily resolve quickly. For example:

Fever may persist for several days after appropriate treatment for infection is instituted.
(Or), a chest X-ray may remain positive for weeks after pneumonia is clinically resolved.
(Or) urine cultures will often remain positive despite successful treatment of a symptomatic urinary tract infection.

A nurse should evaluate the patient with an ACOC at least once during every shift while the patient is unstable or significantly symptomatic and should document relevant findings in the patient’s record. Additionally, a review of the overall progress of each patient with an ACOC should be documented at least daily until the patient is stable and mostly asymptomatic. The review should include a summary of the patient’s overall condition and a comparison of actual progress with expected progress as noted in the original care plan. Some facilities use an incident follow-up form to document the condition of a patient with an ACOC during each shift for 3 days. This ensures that staff pay attention to the patient’s status until the ACOC is stable or resolved.

Nurses and other appropriate staff should provide practitioners with enough detailed information to allow them to determine the patient’s progress and identify possible complications. At least one meaningful communication (by phone or fax) should occur between the nurse and the practitioner within 24 hours of the onset of an ACOC or of identification of the fact that the patient’s condition is not stable or improving as anticipated. Interventions should be adjusted based on the practitioner’s review of the patient’s progress, underlying causes of the acute episode of illness, and the patient’s goals, wishes, and prognosis. Practitioners must be available to examine the patient and follow up as needed. If treatment is initiated at the facility but the patient’s condition fails to stabilize or improve, the practitioner should re-examine the original review of causes and reconsider the appropriateness of current treatments. The practitioner may need to see a patient within 24 to 48 hours of being notified that the individual is not responding to treatment as anticipated.

STEP 10 Adjust interventions and goals based on the patient’s response to treatment. Maintain or modify current treatments, reassess the patient’s prognosis, and adjust the goals of care accordingly. For example, a new or different cause of the patient’s problems may be identified, current treatments may be ineffective, or complications may occur. With input from the practitioner, caregiving staff should document the rationale for maintaining or changing the treatment regimen.

If the patient is not progressing as expected after resolution of an ACOC, the practitioner should reassess the situation and determine whether a complication, new illness, or other problem is occurring. If symptoms persist or recur, or if new symptoms emerge, the practitioner should re-evaluate the patient and review his or her current drug regimen.

Copyright AMDA, all rights reserved.
This message is to provide you with an update following 24 hr. skilled nurse observation for increased pain and mild confusion beginning 10/21/15 at 4:00PM

Chief Complaint: Symptoms resolved. Resident condition returns to baseline.

Situation: She has been on 24-48 hrs. of skilled nursing observation for the complaint of generalized discomfort and mild confusion. Her mental status, intake and activity have returned to baseline. She says her pain is improved with scheduled acetaminophen within limits of her current orders. She had no new significant complaints or signs or symptoms of focal infection. She has continued on her regular medication regimen including new gabapentin order from a week ago.

Vitals: Temperature 97.2 (oral), Pulse 68 and regular, Respirations 20, B/P 120/62, O2 Sat on room air is 97%.

Finger-stick Blood Sugar: Not done

Background:

Diagnoses: Compression fractures vertebral body-multiple, osteoarthritis, osteoporosis, GERD, Hx/o mastectomy

Recent antibiotics: None

Allergies: Doxycycline

Anticoagulants, Hypoglycemic, Digoxin: None

Code Status: Full Code

Appearance: She had no new significant complaints or signs or symptoms of localized infection or other illness. She was observed and treated according to standing orders. She has resumed normal activity and intake.

Review/Notify: We have provided skilled observation for 48 hrs. According to our understanding of best practices and our facility protocols, the information is insufficient to indicate an active urinary tract infection. The resident does NOT need an immediate prescription for an antibiotic. We request that her baseline care plan be resumed.

KH RN
When to Test Urine – Nursing Tool

Wisconsin Healthcare-Associated Infections in LTC Coalition

Box A
Nursing Assessment¹,²
Complete Nursing Assessment
See Nursing Assessment on reverse side of this tool

Box B
Localizing Urinary S/S³,⁴
- Acute dysuria
- New or worsening frequency
- New or worsening urgency
- New or worsening incontinence
- Gross hematuria
- Suprapubic pain
- Costalvertebral angle pain
- New scrotal / prostate pain
- Urethral purulence

Box C
Non-localizing / Non-Specific Geriatric S/S¹,⁵,⁶,⁷
- Behavior Changes
- Fever
- Functional Decline
- Mental Status Change
- Falls
- Restlessness
- Fatigue
- “Not Being Her-Himself”

Box D
Warning Signs⁶
- Fever
- Clear-cut Delirium
  - Altered LOC
  - Disorganized Thinking
  - Psychomotor Retardation
- Rigors (shaking chills)
- Hemodynamic Instability
  - Hypotension
  - Tachycardia

Resident Change in Condition

Complete Nursing Assessment (Box A)

Localizing Urinary S/S (Box B)

Yes → Warning Signs Present (Box D)

Yes → Consult Provider
See Script 1

No → Consult Provider
See Script 2

Non-localizing S/S – Nonspecific Geriatric S/S (Box C)

Yes → Warning Signs Present (Box D)

Yes → Consult Provider
See Script 3

No → Consult Provider
See Script 4

Consult Provider
See Script 4
Observe / Monitor 24-48 hours

Consult Provider
See Script 5

Worse

Consult Provider
See Script 5

Improved

No Urine Testing Necessary
See Script 7

No Change

Consult Provider
See Script 6
Monitor per Medical Director Protocol

Consult Provider
See Script 6
Monitor per Medical Director Protocol

Consult Provider
See Script 7
When to Test Urine – Nursing Tool

Box A – Nursing Assessment\(^1,2\)
Fever defined as Single oral temperature > 100° F; or repeated oral temperatures >99°F or rectal temperature >99.5°F; increase in temperature of >2° above baseline

<table>
<thead>
<tr>
<th>Measure vital signs to include:</th>
<th>Assessment to include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Temperature</td>
<td>• Conjunctiva</td>
</tr>
<tr>
<td>• Heart rate</td>
<td>• Oropharynx</td>
</tr>
<tr>
<td>• Blood pressure</td>
<td>• Chest</td>
</tr>
<tr>
<td>• Respiratory rate</td>
<td>• Heart</td>
</tr>
<tr>
<td>• Oxygen saturation</td>
<td>• Abdomen</td>
</tr>
<tr>
<td>• Finger stick glucose</td>
<td>• Skin (including sacral, perineum, and perirectal area)</td>
</tr>
<tr>
<td></td>
<td>• Mental status</td>
</tr>
<tr>
<td></td>
<td>• Functional status</td>
</tr>
<tr>
<td></td>
<td>• Hydration status</td>
</tr>
<tr>
<td></td>
<td>• Indwelling devices if present</td>
</tr>
<tr>
<td></td>
<td>• Medication review</td>
</tr>
</tbody>
</table>

2. INTERACT Care Paths - [https://interact2.net/tools_v4.html](https://interact2.net/tools_v4.html) Accessed 08/25/15

Box B - Localizing Urinary S/S\(^3,4\)

Box C – Non-localizing / Non-specific Geriatric S/S

Box D – Warning Signs