When to Test Urine

Nursing Tool:
Application to Case Studies and Development of Provider Communication Scripts

The Nursing Process – 5 Steps

Assessment

-a systematic, dynamic way to collect and analyze data

Diagnosis

-the nurse's clinical judgment about the patient's response to actual or potential health conditions or needs

Outcomes / Planning

-based on the assessment and diagnosis, the nurse sets goals for the patient

Implementation

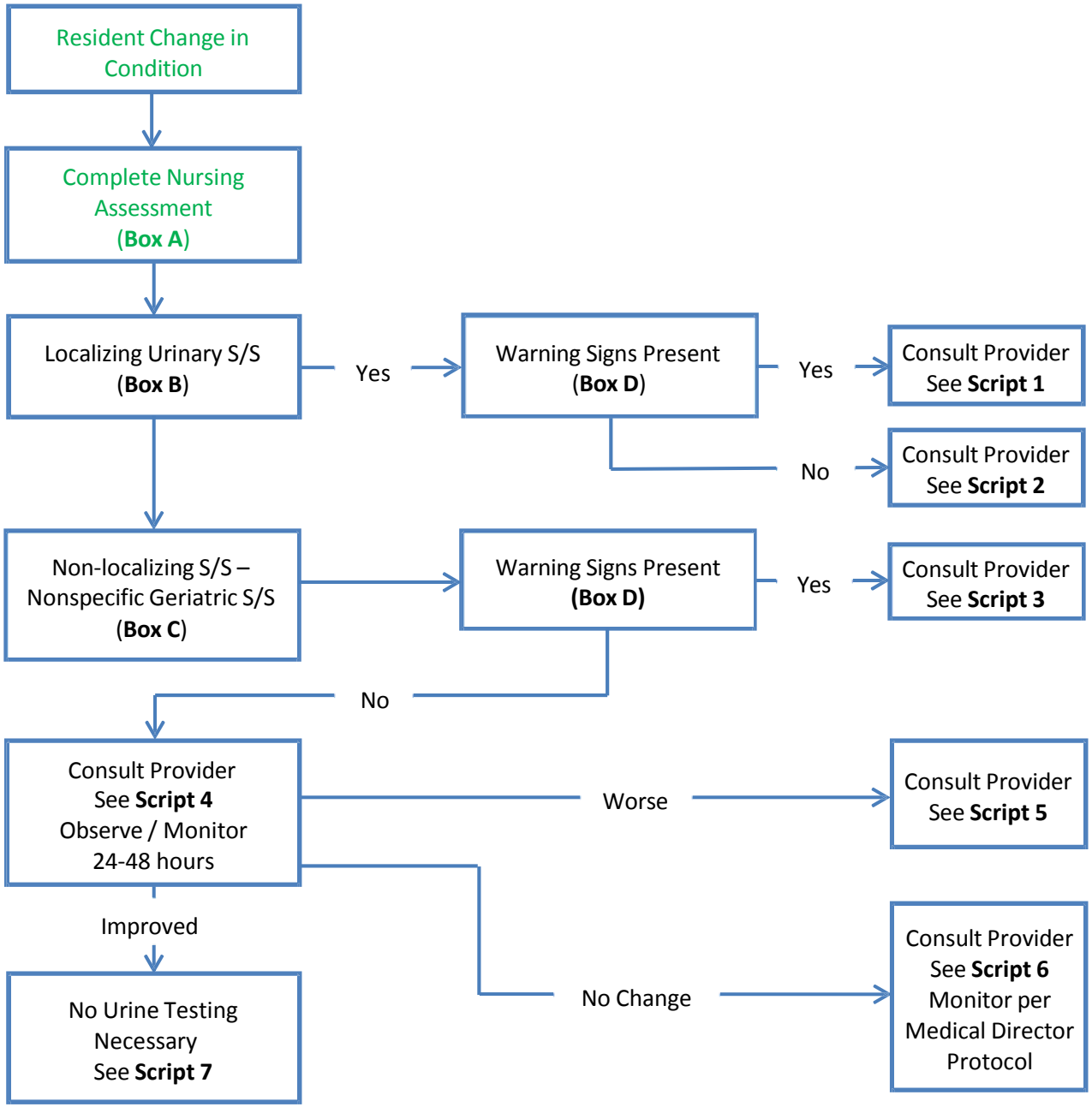
-nursing care is implemented according to the care plan

Evaluation

-both the patient's status and the effectiveness of the nursing care must be continuously evaluated, and the care plan modified as needed.

When to Test Urine – Nursing Tool

Wisconsin Healthcare-Associated Infections in LTC Coalition



Box A

Nursing Assessment

Complete Nursing Assessment

See Nursing Assessment on reverse side of this tool

Box B

Localizing Urinary S/S

- 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/S

- Behavior Changes
- Functional Decline
- Mental Status Change
- Falls
- Restlessness
- Fatigue
- "Not Being Her-Himself"

Box D

Warning Signs

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

When to Test Urine – Nursing Tool

First Step: - Assess resident change of condition

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)

Measure vital signs to include:

- Temperature
- Heart rate
- Blood pressure
- Respiratory rate
- Oxygen saturation
- Finger stick glucose

Assessment to include:

- Conjunctiva
- Oropharynx
- Chest
- Heart
- Abdomen
- Skin (including sacral, perineum, and perirectal area)
- Mental status
- Functional status
- Hydration status
- Indwelling devices if present
- Medication review

1. High KP, Bradley SF, et al. Clinical Practice Guideline for the Evaluation of Fever and Infection in Older Adults Residents of Long-Term Care Facilities: 2008 Update by the Infectious Disease Society of America. Clinical Infectious Diseases 2009;48:149-171
2. INTERACT Care Paths - https://interact2.net/tools_v4.html Accessed 08/25/15

Case 1: Acute onset of dysuria & Fever

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

Vitals

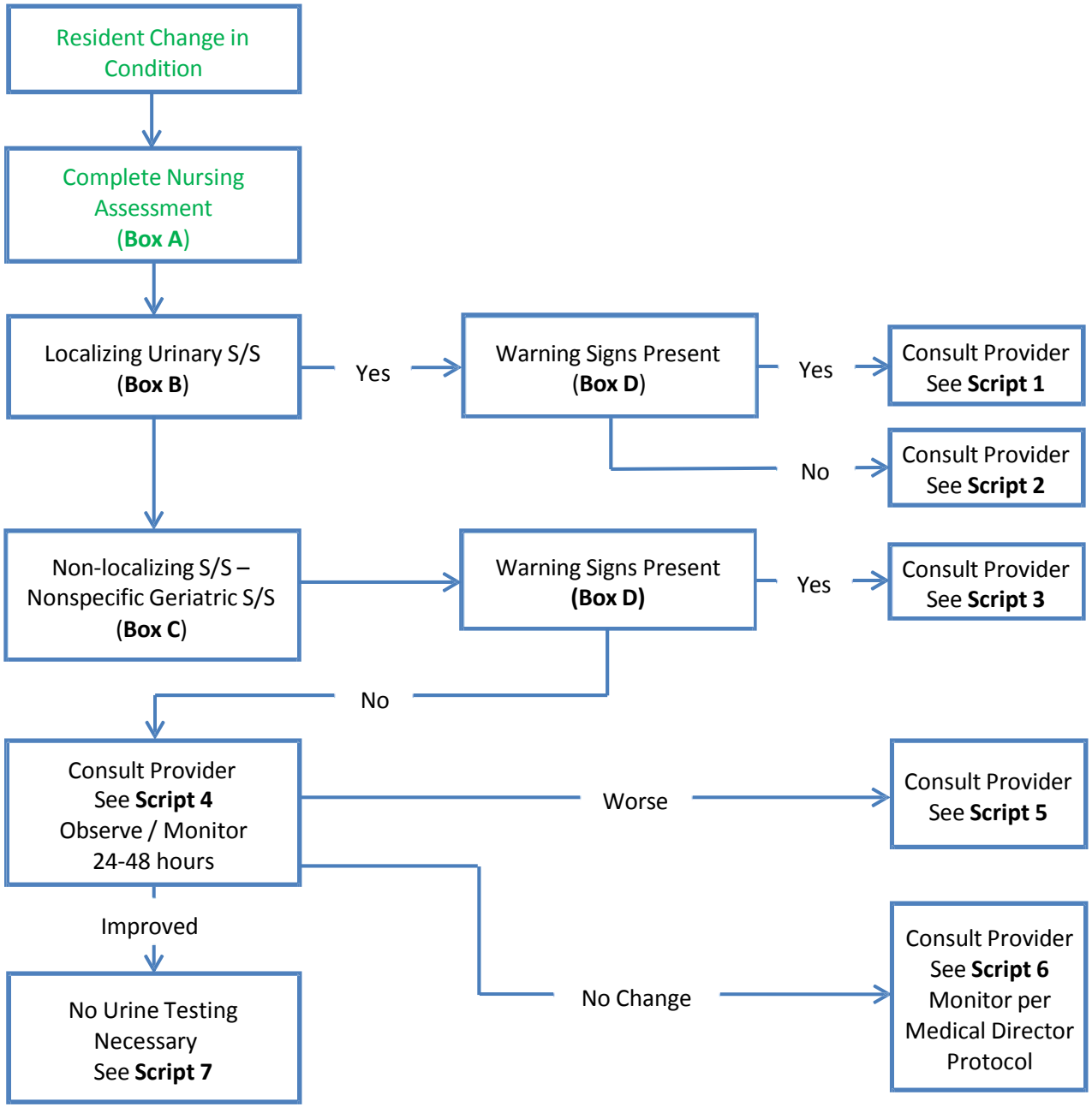
- **Temperature**: 102.3 (oral), **Pulse**: 104 apical irregular, **Respirations**: 30 and shallow, **B/P**: 150/80, O2 Sat on room air is 86%.
- **Finger stick Blood Sugar**: 166

Background

- **Diagnoses**: Dementia, COPD, Type II DM, CHF, Hx CVA with left hemiplegia, MRSA carrier
- **Recent antibiotics**: 10 days for uncomplicated UTI 9/12-9/22
- **Allergies**: Ciprofloxin
- **Anticoagulants, Hypoglycemic, Digoxin**: None
- **Code Status**: DNR

When to Test Urine – Nursing Tool

Wisconsin Healthcare-Associated Infections in LTC Coalition



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Non-localizing / Non-Specific Geriatric S/S

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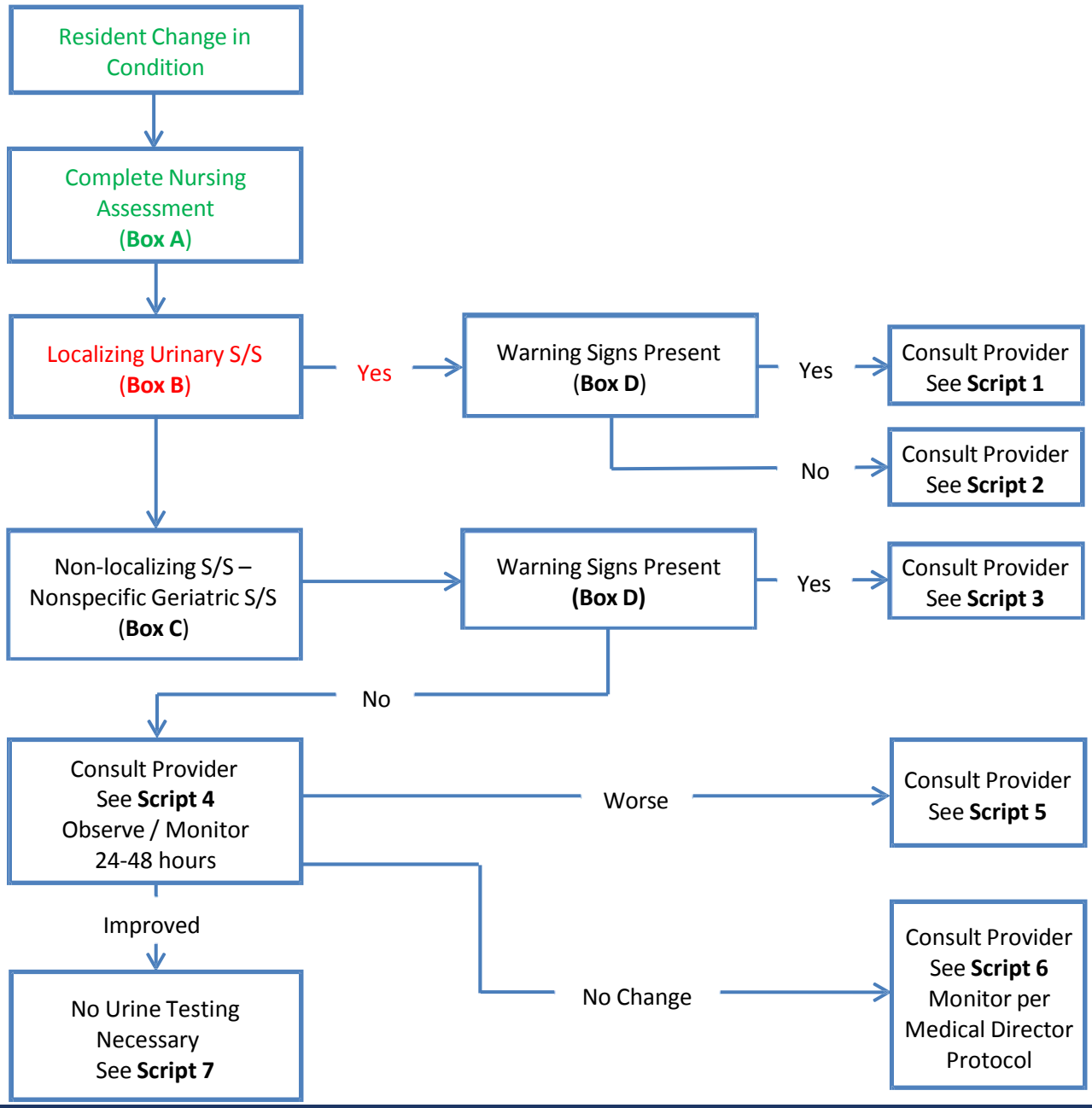

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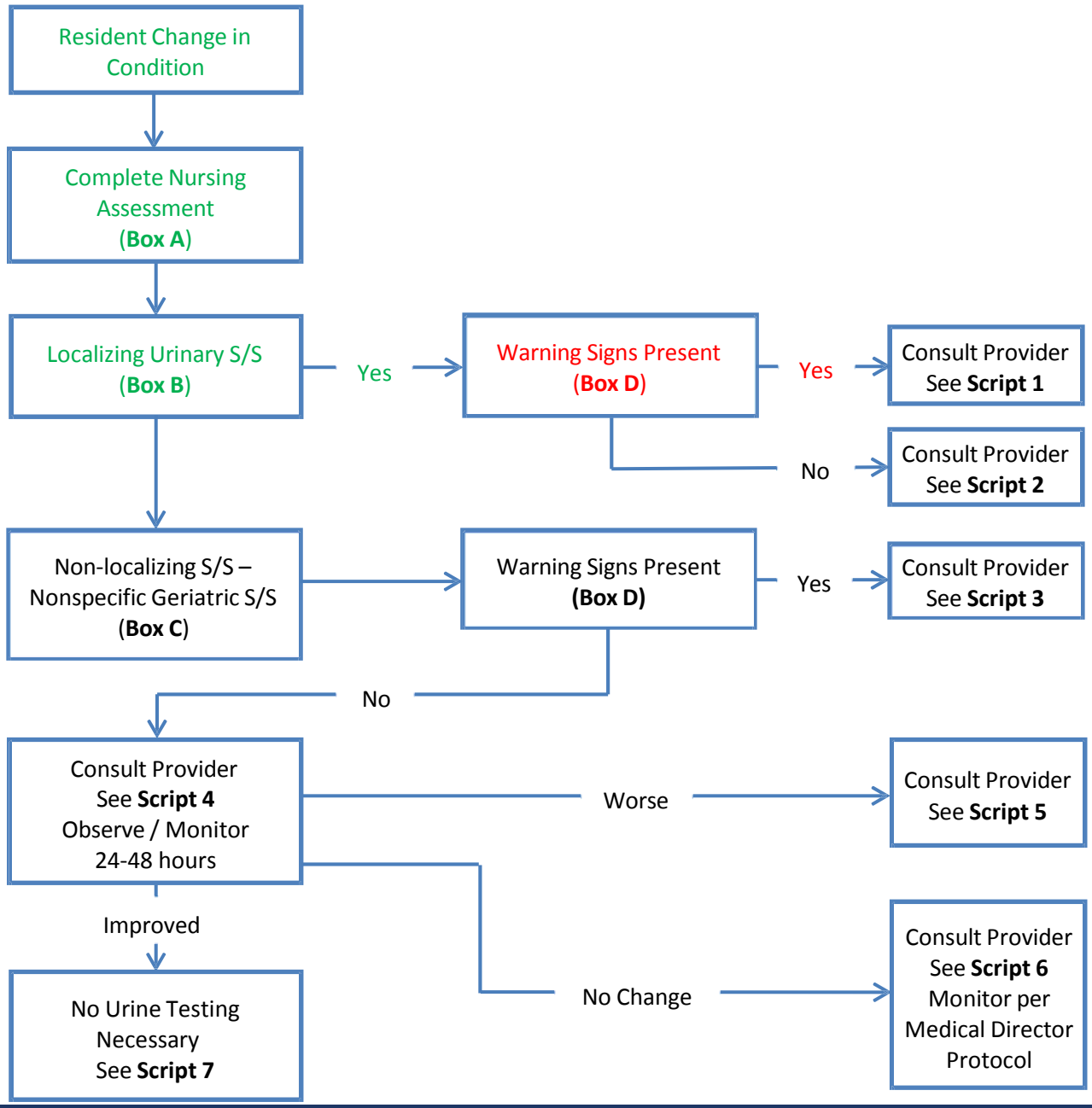

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When to Test Urine – Nursing Tool

Wisconsin Healthcare-Associated Infections in LTC Coalition

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**)

→ Warning Signs Present **(Box D)**

Yes → Consult Provider See **Script 3**

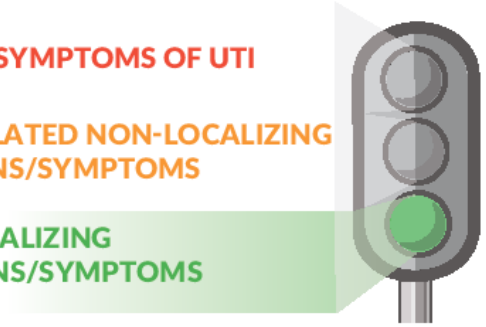
No

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

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



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- Hemodynamic Instability
  - Hypotension
  - Tachycardia

Script 1:Physician Communication Localizing Signs and Symptoms with Warning Signs

Phone contact necessary

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 2 DM, CHF, Hx CVA with left hemiplegia, MRSA carrier
Recent antibiotics: Had Trimeth/Sulfa 10 days for Lower Resp Infx 9/12-9/22
Allergies: Ciprofloxin
Anticoagulants, Hypoglycemics,
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 ADL's. 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. He has mucous shreds, urine is dark colored.

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

Box A

Nursing Assessment

Complete Nursing Assessment

Box B

Localizing Urinary S/S

- 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/S

- Behavior Changes
- Functional Decline
- Mental Status Change
- Falls
- Restlessness
- Fatigue
- "Not Being Her-Himself"

Box D[6]

Warning Signs

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

Script I Physician Communication Localizing Signs and Symptoms with Warning Signs

Wisconsin Healthcare-Associated Infections in LTC Coalition

PHONE CONTACT NECESSARY

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 2 DM, CHF, Hx CVA with left hemiplegia, MRSA carrier

Recent antibiotics: Had Trimeth/Sulfa 10 days for Lower Resp Infx 9/12-9/22

Allergies: Ciprofloxin

Anticoagulants, Hypoglycemics, 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 ADL's. 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. He has mucous shreds, urine is dark colored.

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

Role Playing Between Nurse and Provider Using Case Study 1 Script

Nursing Tool: Case Study 2

Case 2 - Localizing Signs/Symptoms w/o Warning Signs

Situation: Tommy has acute onset of dysuria, urgency and frequency with no costo-vertebral or suprapubic tenderness. Urine is clear and amber

Resident evaluation: He has no recent med changes or change in mental status. His oral intake is unchanged, weight is stable, follows commands and is oriented in person, place, and time. He has no shortness of breath, chest or abdominal pain and he has not vomited. Bowel sounds are normal

Appearance: The resident is exhibiting localizing signs and symptoms of a localized urinary tract infection without warning signs.

Vitals

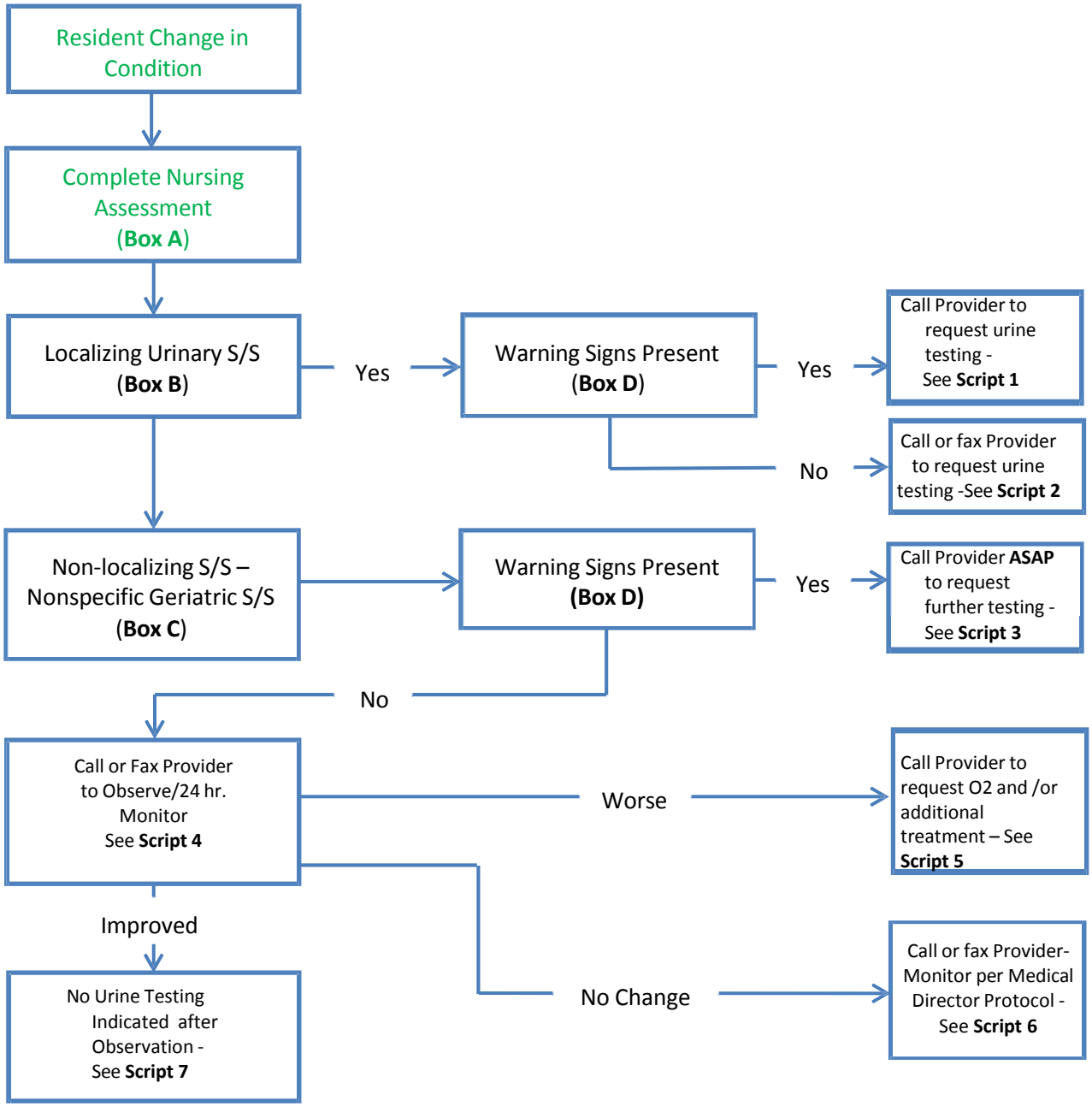
Temperature: 98 (Oral)
Pulse: 78 (apical)
BP: 112/68
O2 Sat: 94% RA
Finger stick Blood Sugar: 166

Background

Diagnoses: COPD, mild CHF, HTN
Recent antibiotics: None
Allergies: Trimeth/sulfa
Anticoagulants, Hypoglycemics, Digoxin: none
Code Status: Full Code

When to Test Urine – Nursing Tool

Wisconsin Healthcare-Associated Infections in LTC Coalition



Box A

Nursing Assessment

Complete Nursing Assessment

See Nursing Assessment on reverse side of this tool

Box B

Localizing Urinary S/S

- 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/S

- Behavior Changes
- Functional Decline
- Mental Status Change
- Falls
- Restlessness
- Fatigue
- "Not Being Her-Himself"

Box D

Warning Signs

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

When to Test Urine – Communication Blank Script

Blank Script - PHYSICIAN COMMUNICATION

Localizing Signs and Symptoms with Warning Signs

Mode of Communication: PHONE ☐ FAX ☐

Resident:

Provider:

Date:

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

Chief Complaint:

Situation:

Vitals: Temperature Pulse Resp B/P O2 Sat

Finger - stick Blood Sugar:

Background

Diagnoses:

Recent antibiotics:

Allergies:

Anticoagulants, Hypoglycemic, Digoxin:

Code Status:

Resident evaluation:

Appearance:

Review/Notify:

Box A
Nursing Assessment
- Complete nursing assessment

Box B
Localizing Urinary S/S
- ☐ 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/S
- ☐ Behavior Changes
- ☐ Functional Decline
- ☐ Mental Status Change
- ☐ Falls
- ☐ Restlessness
- ☐ Fatigue
- ☐ "Not Being Her or Himself

-

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

Case Study 2 – Answer Keys

When to Test Urine – Nursing Tool
Case Study 2 – **Nursing Tool Answer Key**

Wisconsin Healthcare-Associated Infections in LTC Coalition

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**)

Warning Signs Present (**Box D**)

Yes → Consult Provider See **Script 3**

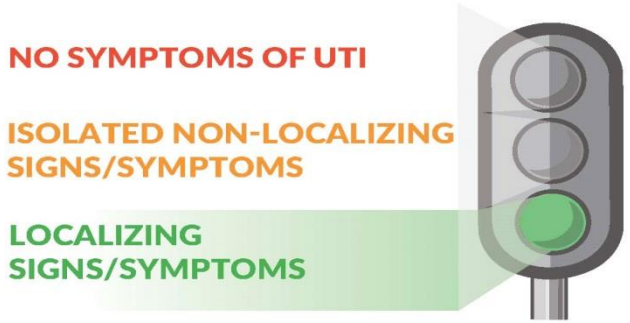
No

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

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



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

Box B
Localizing Urinary S/S
- Acute dysuria
- New or worsening frequency
- New or worsening urgency
- New or worsening incontinence
- Gross hematuria
- Suprapubic pain
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- New scrotal / prostate pain
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Box C
Non-localizing / Non-Specific Geriatric S/S
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Warning Signs
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- Rigors (shaking chills)
- Hemodynamic Instability
  - Hypotension
  - Tachycardia

SCRIPT 2 - PHYSICIAN COMMUNICATION
Localizing Signs and Symptoms without Warning Signs

MAY FAX

Resident: Tommy Needalittlehelp
Date: 11/7/15 3:00PM

Provider: Dr. Wesby

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.

May Role Play Using Case Study 2 Script