Purpose of the tool: The Uterine Tachysystole In Situ Simulation tool provides a sample scenario for labor and delivery (L&D) staff to practice teamwork, communication, and technical skills in the unit where they work. Upon completion of the Uterine Tachysystole In Situ Simulation, participants will be able to do the following:

* Demonstrate effective communication with the patient and support person during a labor complicated by uterine tachysystole.
* Demonstrate effective teamwork and communication with clinical team members during assessment of the patient, changes in the patient’s clinical status, and actions required for the optimum patient outcome.
* Demonstrate timely and accurate clinical intervention for the findings of uterine tachysystole.
* Demonstrate the efficient use of checklists, protocols, or similar cognitive aids for responding to a labor complicated by uterine tachysystole.

**Who should use this tool:** Simulation facilitators

**How to use this tool:** This tool should be used in connection with the “Facilitation Instructions for Conducting In Situ Simulations” to prepare, conduct, assess, and debrief In Situ simulations on L&D units. Simulation facilitators can adapt, modify, and further tailor this sample scenario to meet the training needs of their unit staff or resources available in their facility.

**Note:** The information presented in this document does not necessarily represent the views of AHRQ. Therefore, no statement in this document should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services. Outside resources identified do not represent an endorsement of those resources and do not reflect the position of AHRQ or the Federal Government.

Sample Scenario for Uterine Tachysystole In Situ Simulation

This document provides a sample scenario for anIn Situ simulation for uterine tachysystole. This document contains the following:

* Preparation Required
* Clinical Context, Triggers, Distractors, and Expected Behaviors for the Simulation
* Uterine Tachysystole Simulation Assessment Tool
* Clinical Context, Triggers, and Distractors Formatted for Printing Separately

Refer to the document titled “Facilitation Instructions for Conducting In Situ Simulations” for general guidance and instructions regarding presimulation planning, presimulation briefing, simulation assessment, and simulation debriefing.

# During the simulation, participants are encouraged to practice the use of protocols, checklists, or cognitive aids the unit has developed or adapted for evaluating and treating uterine tachysystole.

# Preparation Required

This simulation requires people to play the roles of the patient and the patient’s support person:

* The actor playing the patient should wear a patient gown, padding (to simulate a postpartum belly), and a wrist identification band and should lie in bed. The simulated patient (“actor”) should wear scrubs under the gown to ensure her privacy.
* The actor playing the support person should be briefed on his or her disposition and how to interact with others in the simulation.

In addition, the following props (i.e., simulated equipment and materials) are required:

* Simulated intravenous (IV) fluids and medications, as needed. The team should order and access simulated fluids and medication in the way it would normally order these items—for example, through electronic order entry, a Pyxis machine, or a rapid response kit or cart. This allows the team to experience the normal passage of time required to order and access necessary supplies for treatment. Prior planning and coordination with the pharmacy for these simulated items will help make the simulation as realistic as possible.
* Fetal heart rate (FHR) simulator or FHR strips for teams to assess. Simulator should be capable of simulating a Category I tracing, late decelerations, and prolonged fetal bradycardia. If a simulator is not available, old FHR paper strips can be used.

**Clinical Context, Triggers, Distractors, and Expected Behaviors for the Simulation**

The content of this simulation is divided up in to four parts: Clinical Context, Triggers, Distractors, and Expected Behaviors. The Clinical Context is provided at the beginning of the simulation in the form of a patient handoff and introduces that simulated patient and her clinical history. The handoff is followed by a series of Triggers and Distractors, events or actions that introduce new information and shape the context of the clinical response. The simulation facilitator introduces the Triggers and Distractors throughout the course of the simulation. A set of Expected Behaviors is also provided for the Clinical Context and each set of Triggers and Distractors. The Expected Behaviors offer a list of ideal actions that the clinical team might take in response to each set of events in the simulation with particular regard to those that foster effective teamwork and communication. The Expected Behaviors can also serve as a tool to use in evaluating the performance of the simulation participants.

**Clinical Context**

*The facilitator provides the clinical context to person in the role of nurse. This can be done using a verbal report and handoff from one nurse to another nurse during change of shift.*

“Welcome to your shift. Your patient tonight is Janet Hanson, a 23-year-old G1P0, who came in for an induction this morning at 39 weeks and 5 days. She had an uncomplicated prenatal course except she is positive for Group B strep and occasionally uses an inhaler for her asthma. She has an allergy to povidone-iodine (Betadine®), which she found out about with an appendectomy 5 years ago.

"Her labor has progressed slowly. She’s now 4 cm/90% effaced and +1 station. She ruptured membranes about 30 minutes ago, and it was clear.

"Her vitals have been within normal limits all day. She’s been at an oxytocin rate of 20 milliunits/min since about noon. She doesn’t want an epidural yet. Her husband just left 15 minutes ago to get some dinner.”

## Expected behavior/performance (not in any particular order):

* Nurse introduces self to the patient and begins assessment.

**Trigger #1**

*Patient moans with every contraction, requests pain medication.*

“My contractions are getting a lot more painful.”

**Clinical information provided on cards (one at a time) in response to assessment actions taken by team. For example, after team measures blood pressure (BP), the BP value is provided to team on a card.**

Pulse 90

BP 135/85

Temp 37.2

FHR 140, Category 1

Tocography: Contractions every 90 seconds, lasting 45 seconds, without return to resting tone in between.

Abdomen: Obvious signs of a tightening abdomen and patient discomfort during contraction, some discomfort in between contractions.

Patient has no vaginal bleeding.

*The facilitator may provide answers to team as needed to help maintain the flow of the simulation.*

**Distractors**

Partner gets back from dinner, appears anxious about his wife’s pain.

Partner asks nurse for pain medication for his wife.

Partner asks when the baby will be delivered.

Partner asks questions, but is not listening to the answers and repeats himself.

## Expected behavior/performance:

* Nurse reassures patient and support person.
* Nurse reassesses maternal and fetal status.
* Nurse calls for additional help, provider, or activates a rapid response.
* Nurse begins appropriate clinical response as per any protocols, checklists, or cognitive aids.
* Situation-Background-Assessment-Recommendation (SBAR) is used to inform others of the situation when they arrive. Additional help might be attending physician, anesthesiology, nursing, or rapid response team.

**Trigger #2**

*Patient continues to moan with every contraction.*

Contractions are now lasting 60 seconds and occurring every 90 seconds with very little return to baseline. Patient is now having severe discomfort even between contractions.

**Clinical information provided on cards (one at a time) in response to assessment actions taken by team. For example, after team measures BP, the BP value is provided to team on a card.**

Pulse 110

BP 140/85

Resp Rate 20

FHR: 130; late decelerations are occurring with each contraction (Category III).

*The facilitator may provide answers to team as needed to help maintain the flow of the simulation. The existing contraction pattern and FHR should continue while the team attempts various measures to address.*

**Distractors**

Partner is increasingly concerned, asking repeated questions about the safety of the patient.

## Expected behavior/performance (not in any particular order):

* Nurse reassesses maternal and fetal status.
* Nurse begins or continues standing orders for tachysystole per unit guidelines.
* Nurse calls for additional help, provider, or a rapid response.
* SBAR is used to inform others of the situation when they arrive. Additional help might be attending physician, anesthesiology, nursing, or rapid response team.
* Provider speaks to patient and support person or delegates to another team member to inform and answer questions.
* All team members use closed-loop communication and provide mutual support to one another.
* All team members call out critical patient information.
* Provider clearly demonstrates leadership role.
* Leader may call team huddle.
* Team uses CUS (concerned, uncomfortable, safety) or the facility’s “stop the line” phrase, if needed.

**Trigger #3**

A late deceleration does not recover to baseline and evolves into a prolonged fetal bradycardia with FHR of 65.

**Clinical information provided on cards (one at a time) in response to assessment actions taken by team. For example, after team measures BP, the BP value is provided to team on a card.**

Pulse 128

BP 130/80

Resp Rate16

Temp 37.5 C

FHR 65, prolonged bradycardia continues

Tocography: Contractions every 90 seconds, lasting 60 to 70 seconds, minimal return to resting tone

*The facilitator may provide answers to team as needed to help maintain the flow of the simulation. This may include providing interval maternal and fetal assessments in response to team actions. This may vary to include physical assessments, etcetera. The tachysystole and rigid abdomen, as well as prolonged bradycardia, should continue while the team attempts various measures to address.*

*Facilitator ends the simulation after no further opportunities for teamwork and communication are apparent.*

**Distractors**

Partner continually asks what is happening.

Partner shows agitation with so many people coming into the room.

Partner gets very emotional and starts crying when team suggests movement to the operating room [OR] for cesarean section.

*“Is the baby going to be all right? We don’t want to have to do a cesarean section. We want a natural birth.”*

## Expected behavior/performance (not in any particular order):

* Clinical management for tachysystole.
* SBAR is used to inform others of the situation when they arrive.
* Provider clearly demonstrates leadership role.
* Leader may call team huddle.
* All team members use closed-loop communication and provide mutual support to one another.
* Team uses appropriate communication techniques for handoff or transition of patient to a separate OR team.
* Team initiates appropriate clinical response as per any protocols, checklists, or cognitive aids for a safe cesarean section as the team gathers in the OR.

Uterine Tachysystole Simulation Assessment Tool (Optional)

This tool provides a list of expected behaviors in response to the Clinical Context and each set of Triggers and Distractors in the simulation and can be used as a tool in evaluating the performance of the simulation participants.

Trigger 1: Patient Experiencing Pain

| Targeted Behavioral Response | Observed | Not Observed | Notes |
| --- | --- | --- | --- |
| Nurse reassures patient and support person. |  |  |  |
| Nurse reassesses maternal and fetal status. |  |  |  |
| Nurse calls for additional help, provider, or activates a rapid response. |  |  |  |
| Nurse begins appropriate clinical response as per any protocols, checklists, or cognitive aids. |  |  |  |
| SBAR is used to inform others of the situation when they arrive. |  |  |  |

Trigger 2: Uterine Tachysystole and Category III Tracing

| Targeted Behavioral Response | Observed | Not Observed | Notes |
| --- | --- | --- | --- |
| Nurse reassesses maternal and fetal status. |  |  |  |
| Nurse begins or continues standing orders for tachysystole per unit guidelines. |  |  |  |
| Nurse calls for additional help, provider, or a rapid response. |  |  |  |
| SBAR is used to inform others of the situation when they arrive. |  |  |  |
| Provider speaks to patient and support person or delegates to another team member to inform and answer questions. |  |  |  |
| All team members use closed-loop communication and provide mutual support to one another. |  |  |  |

Trigger 2: Uterine Tachysystole and Category III Tracing (cont'd)

| Targeted Behavioral Response | Observed | Not Observed | Notes |
| --- | --- | --- | --- |
| All team members call out critical patient information. |  |  |  |
| Provider clearly demonstrates leadership role. |  |  |  |
| Leader may call team huddle. |  |  |  |
| Team uses CUS or the facility’s “stop the line” phrase, if needed. |  |  |  |

Trigger 3: Prolonged Fetal Bradycardia

| Targeted Behavioral Response | Observed | Not Observed | Notes |
| --- | --- | --- | --- |
| Team performs clinical management for tachysystole. |  |  |  |
| SBAR is used to inform others of the situation when they arrive. |  |  |  |
| Provider clearly demonstrates leadership role. |  |  |  |
| Leader may call team huddle. |  |  |  |
| All team members use closed-loop communication and provide mutual support to one another. |  |  |  |
| Team uses appropriate communication techniques for handoff or transition of patient to a separate OR team. |  |  |  |
| Team initiates appropriate clinical response for a safe cesarean section as per any protocols, checklists, or cognitive aids as the team gathers in the OR. |  |  |  |

**Clinical Context, Triggers, and Distractors Formatted for Printing Separately**

The Clinical Context, Triggers, and Distractors used in this simulation scenario are provided on the next several pages in a format suitable for printing on cardstock in preparation for facilitating this in situ simulation using printed cards. The printed cards can be handed to the simulated patient or participating staff members at appropriate intervals during the simulation.

Clinical Context

“Welcome to your shift. Your patient tonight is Janet Hanson, a 23-year-old G1P0, who came in for an elective induction this morning at 39 weeks and 5 days. She had an uncomplicated prenatal course except she is positive for Group B strep and occasionally uses an inhaler for her asthma. She has an allergy to povidone-iodine (Betadine®), which she found out about with an appendectomy 5 years ago.

"Her labor has progressed slowly. She’s now 4 cm/90% effaced and +1 station. She ruptured membranes about 30 minutes ago, and it was clear.

"Her vitals have been within normal limits all day. She’s been at an oxytocin rate of 20 milliunits/min since about noon. She doesn’t want an epidural yet. Her husband just left 15 minutes ago to get some dinner.”

Trigger #1

*Patient moans with every contraction, requests pain medication.*

Patient: “My contractions are getting a lot more painful.”

Clinical information to be provided to team in response to their assessment after trigger #1

Pulse 90

BP [blood pressure] 135/85

Temp 37.2

FHR [fetal heart rate] 140, Category 1

Tocography: Contractions every 90 seconds, lasting 45 seconds, without return to resting tone in between.

Abdomen: Obvious signs of a tightening abdomen and patient discomfort during contraction, some discomfort in between contractions.

Patient has no vaginal bleeding.

Distractors (Trigger # 1)

* Partner gets back from dinner, appears anxious about his wife’s pain.
* Partner asks nurse for pain medication for his wife.
* Partner asks when the baby will be delivered.

Partner asks questions, but is not listening to the answers and repeats himself.

Trigger #2

*Patient continues to moan with every contraction.*

Contractions are now lasting 60 seconds and occurring every 90 seconds with very little return to baseline. Patient is now having severe discomfort even between contractions.

Clinical information to be provided to team in response to their assessment after trigger #2

Pulse 110

BP 140/85

Resp Rate 20

FHR: 130; late decelerations are occurring with each contraction (Category III).

Distractors (Trigger # 2)

* Partner is increasingly concerned, asking repeated questions about the safety of the patient.

Trigger #3

A late deceleration does not recover to baseline and evolves into a prolonged fetal bradycardia with FHR of 65.

Clinical information to be provided to team in response to their assessment after trigger #3

Pulse 128

BP 130/80

Resp Rate16

Temp 37.5 C

FHR 65, prolonged bradycardia continues

Tocography: Contractions every 90 seconds, lasting 60 to 70 seconds, minimal return to resting tone

Distractors (Trigger # 3)

* Partner continually asks what is happening.
* Partner shows agitation with so many people coming into the room.
* Partner gets very emotional and starts crying when team suggests movement to the operating room [OR] for cesarean section.
* “Is the baby going to be all right? We don’t want to have to do a cesarean section. We want a natural birth.”

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