

# NEWBORN

Estimated Time: 60 minutes



Scan to Begin



Patient Name: Nova Brooks

## CASE STUDY OVERVIEW

Nova Brooks was born a few minutes ago at 34 weeks' gestation. In the beginning of this scenario, students receive report from an RN stating that surfactant is needed STAT in the nursery. Student will need to review the Survanta Administration Protocol and then select the correct amount of surfactant from the Virtual Pharmacy shelf. Then, students receive another call indicating that antibiotics are needed. Students should compound the ordered antibiotics per individual program guidelines.

## LEARNING OBJECTIVES

Obtain and deliver medications per Provider order  
Demonstrate appropriate communication  
Follow established laws/regulations including HIPAA  
Compound IV medications  
Document accurately

## CURRICULUM MAPPING

### WTCS PHARMACY TECHNICIAN PROGRAM OUTCOMES

- Demonstrate personal/interpersonal knowledge and skills in the practice of pharmacy
- Demonstrate foundational professional knowledge and skills for the practice of pharmacy
- Prepare prescriptions/medication orders and pharmaceutical products for dispensing, distribution, and disposal
- Compound sterile and nonsterile medications
- Follow established policies and procedures for procurement, billing, reimbursement, and inventory management
- Utilize pharmacy technology and informatics
- Adhere to state and federal regulations governing the practice of pharmacy
- Apply the principles of quality assurance to the practice of pharmacy

QR CODES

<p>PATIENT</p> 	<p>REPORT</p> 	<p>FACILITATOR</p> 	<p>PATIENT ID</p> 
<p>PROTOCOL</p> 	<p>BERACTANT 4ML</p> 	<p>BERACTANT 8 ML</p> 	<p>CALFACTANT 3 ML</p> 
<p>CALFACTANT 6 ML</p> 	<p>PORACTANT ALFA</p> 	<p>AMPICILLIN IV</p> 	<p>GENTAMICIN IV</p> 

## FACILITATOR INSTRUCTIONS

This case study was designed as an interactive classroom or group experience and should be facilitator lead. While students can do many of the activities individually or in small groups, you should be aware that throughout the simulation some QR codes are necessary to the programming of the iPad content. Directions for which QR codes are required are listed in the documentation below. The QR codes are also in **BOLD** type.

Level tab – This tab “tells” the content in the iPad to change to what is needed for the next state of a simulation.

Medication QR Codes – All medications are scannable – see QR Codes listed above. When a medication scanned, students see a realistic medication label as well as a hyperlink that will take them to DailyMed, a medication reference housed by the National Library of Medicine. There they can review up-to-date medication content, labels, and package insert information.

# TEACHING PLAN

## STATE 1

iPad Prompts		Facilitator Prompts & Discussion Points
1.	Explain how the iPad works and the general instructions for this case study.	<ul style="list-style-type: none"> <li>See “Facilitator Instructions” above</li> </ul>
2.	Scan the start code.	
3.	View the “Meet Your Patient” plaque	<ul style="list-style-type: none"> <li>This is an image of the patient for this case study.</li> </ul>
4.	Discuss the “Learning Objective(s)”	<p><b>LEARNING OBJECTIVES</b></p> <ol style="list-style-type: none"> <li>Obtain and deliver medications per Provider order</li> <li>Demonstrate appropriate communication</li> <li>Follow established laws/regulations including HIPAA</li> <li>Compound IV medications</li> <li>Document accurately</li> </ol>
5.	View “Report” video	<p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>What are your priorities for this patient?</li> <li>Discuss the meaning of STAT. How does this change your prioritization of work?</li> </ul>
6.	View the “Patient Profile”	<ul style="list-style-type: none"> <li>Facilitator Note: The patient profile can be accessed at any point during the case study in the tabbed content of the iPad.</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>Do you have any concerns? If so, what are they?</li> </ul>

		<ul style="list-style-type: none"> <li>How is the information on this profile useful to a Pharmacy Technician?</li> </ul>
7.	View “New Order” plaque	<ul style="list-style-type: none"> <li>The iPad gives instructions that read, “Proceed to the Hospital Pharmacy to obtain surfactant as ordered.”</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>Discuss the policies and procedures associated with this situation.</li> <li>What is the fastest way to fill this order? What factors could influence this?</li> </ul>
8.	View “Zebra Printer”	<ul style="list-style-type: none"> <li>The iPad displays a “zebra printer” (accompanied by a sound of it printing) with text that reads, “The Hospital Pharmacy is receiving a new order.”</li> </ul>
9.	View “Surfactant Order”	<ul style="list-style-type: none"> <li>The iPad displays the surfactant order. The label reads, “SURVANTA – 1 dose STAT per Survanta Administration Protocol.”</li> <li>The Survanta Administration Protocol can be accessed in the Protocol tab of the iPad content. Students should use the protocol to determine the correct amount of Survanta needed for this patient.</li> <li>The students should use the weight provided on the Patient Profile to determine that 8.4 ml of Survanta is needed.</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>Discuss the different protocols used in a pharmacy.</li> <li>How much medication does this patient need per the provided protocol.</li> </ul>
10.	Select the appropriate surfactant from the “Hospital Pharmacy” shelf	<ul style="list-style-type: none"> <li>After students choose the correct dosage of Survanta from the Survanta Administration Protocol (8.4 ml), they should access the ARISE Virtual Pharmacy shelf by tapping on the Hospital Pharmacy tab of the iPad content.</li> <li>This shelf is a “hot spot.” Tapping on a medication on that shelf, will tell the iPad to add that medication to the pharmacy order.             <ul style="list-style-type: none"> <li>Facilitator Note: The correct medication selection is 3 boxes of 4 ml of Beractant. They can choose any 3 of the available boxes.</li> </ul> </li> </ul>

- When viewing the ARISE Virtual Pharmacy shelf, students have 4 options.
  - **Clear Selections:** If during the medication selection process students feel they tapped a medication in error, pressing this button will allow them to start over. This button must also be pressed following an incorrect medication selection attempt.
  - **Verify Order:** When students feel they have selected both the correct type of medication and the correct amount of that medication, they should press this button.

- Students get 3 attempts.
- After 3 incorrect attempts, students are prompted to *“Please see your facilitator to continue.”* To continue, **QR Code: Facilitator** must be scanned.



- If students select the wrong type of medication, the iPad reads, “You have selected one or more incorrect medications to add to the order. Try Again.”
- If an incorrect amount of medications is selected, the iPad reads, “You have selected an incorrect amount of medications. Try Again.”
- When the medications are selected correctly, the iPad reads, “The Pharmacist has approved this order. Please exit the pharmacy by pressing “Exit Pharmacy” and deliver the Survanta to the NICU.”
- **Medication Reference Website:** Students can look up the medications by tapping on this button. This will take students to the DailyMed website. To reenter the ARISE Virtual Pharmacy,

		<p>students must tap on the Hospital Pharmacy tab.</p> <ul style="list-style-type: none"> <li>○ <b>Exit Pharmacy:</b> If for any reason students want to leave the ARISE Virtual Pharmacy, they can tap this button. To reenter, they will need to tap on the Hospital Pharmacy tab.</li> <li>• The shelf must be 100% correct before the medication can be added to the order. If they leave the shelf and come back to it later, nothing is saved and they will need to start the selection process over.</li> <li>• Facilitator Note: After the order is correct, students must press the “Exit Pharmacy” button to move on in the scenario.</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>• Discuss the different types of available surfactants (QR Codes are available of all medications on the ARISE Virtual Pharmacy shelf). When would one be used over another?</li> <li>• Discuss the indications, hazards, etc... of Survanta (beractant).             <ul style="list-style-type: none"> <li>○ The DailyMed site can be accessed via a button on the ARISE Virtual Pharmacy shelf or by tapping the link located on the medication label after scanning a medication QR Code.</li> </ul> </li> </ul>
<p>11.</p>	<p>Advance to State 2</p>	<ul style="list-style-type: none"> <li>• If the medication order is selected correctly within 3 attempts, the iPad moves to State 2 automatically.</li> </ul>

STATE 2

iPad Prompts		Facilitator Prompts & Discussion Points
12.	Incoming “Phone Call”	<ul style="list-style-type: none"> <li>The iPad displays an image of a phone with the sounds of it ringing. Students should tap “Answer the Phone.”</li> </ul>
13.	Listen to “Phone Call”	<ul style="list-style-type: none"> <li>Listen to a phone call from a nurse in the NICU. She states there is an order for ampicillin IV – 50 mg/kg Q8</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>Discuss the policies and procedures related to verbal orders.</li> </ul>
14.	View “Zebra Printer”	<ul style="list-style-type: none"> <li>The iPad displays a “zebra printer” (accompanied by a sound of it printing) with text that reads, “The Hospital Pharmacy is receiving a new order.”</li> </ul>
15.	View “Antibiotic Orders”	<ul style="list-style-type: none"> <li>The iPad displays orders for two antibiotics. The first label reads, “Ampicillin 50 mg/kg (0.9% NaCL, 250 ml) – Infuse over 60 min IV piggyback every 12 hours” and the second label reads, “Gentamicin 4.5 mg/kg (0.9% NaCL, 250 ml) – Infuse over 60 min IV piggyback every 36 hours.”</li> <li>The Provider Orders and MAR are also available for view in the tabbed content of the iPad.</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>Do you have any concerns at this time? If so what are they?</li> <li>Discuss procedures related to verbal orders differing from printed orders.</li> </ul>
16.	Compound the Antibiotics	<ul style="list-style-type: none"> <li>Students should compound both antibiotics per individual program guidelines.</li> </ul> <p><b>POSSIBLE DISCUSSION POINTS</b></p> <ul style="list-style-type: none"> <li>Discuss the indications, hazards, etc... of both Ampicillin and Gentamicin.                             <ul style="list-style-type: none"> <li>The DailyMed site can be accessed via a button by tapping the link located on the medication labels after scanning <b>QR Code:</b></li> </ul> </li> </ul>

		<p><b>Ampicillin IV and QR Code: Gentamycin IV.</b></p>
<p>17.</p>	<p>End Scenario</p>	<ul style="list-style-type: none"> <li>• Students can exit at any time by scanning <b>QR Code: Facilitator</b> and tapping the Exit tab and following instructions.</li> <li>• Please have each student complete the provided survey.</li> </ul>

## SURVEY

Print this page and provide to students.

Students, please complete a brief (2-3 minute) survey regarding your experience with this ARISE simulation. There are two options:

1. Use QR Code: Survey
  - a. Note: You will need to download a QR Code reader/scanner onto your own device (smartphone or tablet). There are multiple free scanner apps available for both Android and Apple devices from the app store.
  - b. This QR Code will not work in the ARIS app.



2. Copy and paste the following survey link into your browser.

[https://ircvtc.co1.qualtrics.com/SE/?SID=SV\\_6Mwfv98ShBfRnBX](https://ircvtc.co1.qualtrics.com/SE/?SID=SV_6Mwfv98ShBfRnBX)

## CREDITS

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Medication information from National Library of Medicine: Daily Med at

<http://dailymed.nlm.nih.gov/dailymed/>

Images from Shutterstock.

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