



GIC Scenarios

NAME: _____ DATE: _____

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Newborn Essential Solutions and Technologies–Education
Generic Instructor Course (GIC)

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The authors have made every effort to check the accuracy of all information and suggested steps in the clinical treatment of patients. As knowledge base continues to expand, readers are advised to check current product information provided by the manufacturer of each device, instrument, or piece of equipment to verify recommendations for use and/or operating instructions.

In addition, all forms, instructions, checklists, guidelines, and examples are intended as training resources to meet national and local health care settings’ needs and requirements.

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Clinical Scenarios

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

1. Neonatal resuscitation of a term baby

Scenario Overview

This scenario is about neonatal resuscitation. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment and for scenarios teaching.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety of the staff and patient
Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

A term baby is delivered after a LSCS for prolonged second stage and low foetal heart rate. The baby makes no immediate cry as the cord is being cut. There is no meconium. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on warmed resuscitation table and start clock		
2	Dry the baby, remove wet cloth, wrap in a dry cloth and observe: <ul style="list-style-type: none">• Cry / respiratory effort• Tone• Colour	The baby does not cry The baby is floppy and pale	
3	Assess Airway Open the airway (neutral position)	There are no secretions in the mouth	
4	Assess breathing Look, Listen and Feel for breathing	There is no breathing	
5	Call for help	Help is unavailable	
6	Establish effective bag, mask ventilation	Bag Valve mask ventilation is commenced and the chest is moving	
7	Give 30 assisted breaths for 1 minute		
8	Assess for heartbeat by auscultating the heart or feeling for a pulse at the base of the cord	The heart rate is 90 bpm	
9	There is no need for cardiac compressions		
10	Re-assess Airway, Breathing	The airway is clear There is no spontaneous breathing	
11	Continue with assisted ventilation at 30 breaths for 1 minute		

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#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
12	Re-assess Airway, Breathing and Circulation (3 minutes of resuscitation so far)	The airway is clear There is intermittent gasping (<10 b/min) The pulse is 140 bpm	
13	Continue with assisted ventilation for 1–2 minutes		
14	Re-assess Airway, Breathing and Circulation (5 minutes of resuscitation so far)	The airway is clear Breathing is about 30 b/min and regular The pulse is 140 bpm	
15	Stop assisting with ventilation Observe for 1 minute and reassess Airway, Breathing and Circulation	The airway remains clear Breathing is 25–30 b/min and irregular Pulse is 130 bpm	
16	Give oxygen with nasal prongs 0.5 L/min	With oxygen the respirations are regular and the baby appears more active	
17	Make arrangements for transfer to nursery for continued medical assessment and observation		

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

2. Breathing difficulties in an infant with a chest infection

Scenario Overview

This scenario is of a baby with pneumonia. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment and for scenarios teaching.

Reminder to Facilitator

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Shout for help

Begin Scenario

SETTING THE SCENE

You are asked to see an 11-day-old girl in the ward who is said to have difficulty breathing. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe for signs of collapse or very severe illness	The baby is lying in the cot but seems distressed and obviously breathing fast	
2	Assess Airway, (baby is breathing, no need to position) and check for noisy breathing / for airway obstruction	There is no noisy breathing - the airway is clear	
3	Assess the breathing Look, Listen and Feel	The baby has obvious respiratory distress but is breathing regularly at a rate of about 80 b/min	
4	Continue to assess the breathing in detail <ul style="list-style-type: none"> Head nodding Nasal flaring Cyanosis Grunting Chest wall indrawing Deep / acidotic breathing Auscultate for added sounds Pulse oximetry 	There is evidence of severe respiratory distress: No cyanosis, but there is grunting, marked chest indrawing and bilateral crackles are heard on auscultation SpO ₂ = 90%	
5	Marked respiratory effort and low oxygen saturations Oxygen is needed - nasal prongs 0.5-1 L/min	Insert nasal prongs and give oxygen at 0.5-1 L/min	
6	Assess central circulation at brachial or femoral pulse	Pulse is approximately 180 bpm	
7	Assess peripheral circulation <ul style="list-style-type: none"> Pallor Cold hands Temperature gradient Peripheral pulse (rate and volume) Capillary refill time Assess for signs of dehydration <ul style="list-style-type: none"> Sunken eyes Skin pinch Check ability to drink before classifying level of dehydration	The hand is warm and pink There is a strong pulse Other signs are normal The baby is not dehydrated	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	Assess Disability - establish level of consciousness (AVPU)	The child is lying in the cot, distressed but with open eyes: AVPU = A	
9	Feeding the baby: more safely fed by NGT with expressed breast milk	The baby wants to suck but tires frequently and sometimes coughs when on the breast	

THANK YOU



INFECTION PREVENTION AND CONTROL

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CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

3. Two-person cardiac compressions in a neonatal resuscitation

Scenario Overview

This scenario is of a newborn requiring cardio-pulmonary resuscitation. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful for skills and scenarios teaching.

Reminder to Facilitator

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Shout for help

Begin Scenario

SETTING THE SCENE

A term baby is delivered after prolonged second stage and low foetal heart rate. The baby makes no immediate cry as the cord is being cut. There is no meconium. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on a warmed resuscitation table and start clock		
2	Dry the baby, remove wet cloth and wrap in a dry cloth Observe: <ul style="list-style-type: none"> • Cry / respiratory effort • Tone • Colour 	There is no cry on being dried The baby is floppy and pale	
3	Call for help	Help is coming	
4	Look in the mouth	There are no secretions in the mouth	
5	Asses Airway Open the airway (neutral position)	Airway is patent	
6	Assess breathing Look, Listen, and Feel for breathing	There is no sound of breathing and no chest movement	
7	Establish effective bag, mask ventilation	The chest is moving	
8	Give 30 assisted breaths for 1 minute	BVM ventilation is given at 30b/min [Help arrives]	
9	Assess for heartbeat by auscultating the heart or feeling for a pulse at the base of the cord	The heart rate is less than 60 bpm	
10	Landmark for external cardiac compressions Two persons giving cardiac compressions	At the junction of the upper 2/3rds and lower 1/3rd of the sternum Encircle the chest with both hands, thumbs adjacent on the sternum and push down vertically	

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#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
11	Depth of compressions	Compress to about 1/3rd of the chest depth	
12	Provide CPR at a ratio of 3:1 (3 compressions to 1 breath) Rate is 30-40 cycles per minute	Check chest moves Confirm correct depth / rate of compressions	
13	When and what to reassess	Reassess pulse and respiration after 60 seconds of CPR	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

4. Septic shock in an infant

Scenario Overview

This scenario is of an infant with septic shock. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment and for scenarios teaching.

Reminder to Facilitator

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Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

You are asked to see a 10 day old baby girl in A&E who has marked respiratory distress and is very lethargic.
What do you do?

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe for signs of collapse / altered consciousness – stimulate if necessary	The baby is lying in the mother's arms; not alert and seems floppy	
2	The right setting for assessing the baby	Mother is asked to bring the baby. She accompanies you to the resuscitation area and places the baby on a couch	
3	Assess Airway Open airway in neutral position Check for noisy breathing/ for airway obstruction	There is no noisy breathing - the airway seems clear	
4	Assess the breathing Look, Listen and Feel	The baby is breathing at a rate of about 75 b/min	
5	Continue to assess the breathing in detail <ul style="list-style-type: none"> • Head nodding • Nasal flaring • Cyanosis • Grunting • Chest wall indrawing • Deep / acidotic breathing • Auscultate for added sounds • Pulse oximetry Consider need for oxygen	There is no heading nodding, nasal flaring, grunting or cyanosis There is marked chest indrawing but on auscultation there are no added sounds SpO ₂ = 95%	
6	Assess central circulation Check brachial or femoral pulse	There is a fast pulse of approximately 190 bpm	
7	Assess peripheral circulation <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse (rate and volume) • Capillary refill time Assess for signs of dehydration <ul style="list-style-type: none"> • Sunken eyes • Skin pinch 	There is no palmar pallor The hands and feet are cold, with the legs only warming at the knee The peripheral pulse is rapid and weak The capillary refill time is 5 seconds No sunken eyes and skin pinch takes 3 seconds	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>Identify shock – there is no severe pallor, no dehydration and no severe malnutrition. This is probably septic shock</p> <p>Weigh the baby to decide fluid and drug doses</p> <p>Establish IV access, take bloods, estimate weight and give fluids [Fluids are used with caution in septic shock, give with frequent reassessment]</p>	<p>IV access is established</p> <p>Blood samples are taken for blood glucose and, depending on availability, FBC, blood gases, U&Es, Creatinine, Culture</p> <p>Baby is weighed = 3 kg</p> <p>IV fluids are commenced at RL 10 mL/kg over 1 hour (= 30 mL) and reassess</p>	
9	<p>Assess Disability, establish level of consciousness (AVPU)</p> <p>Check blood glucose</p>	<p>AVPU = P</p> <p>Blood glucose is 6 mmol/L</p>	
10	<p>Give first dose of antibiotics IV as soon as possible</p>	<p>Give penicillin and gentamicin according to weight and age using the wall chart</p>	
11	<p>Take full history and complete examination</p> <p>Monitor input and vital signs</p>	<p>Try to come to a definitive diagnosis and investigate and manage appropriately</p>	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

5. Hypoglycaemia in an infant 1

Scenario Overview

This is a scenario about an infant with hypoglycaemia. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful for scenarios teaching.

Reminder to Facilitator

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Shout for help

Begin Scenario

SETTING THE SCENE

A small but full term baby is delivered after prolonged second stage and low foetal heart rate. The baby makes no immediate cry as the cord is being cut. There is no meconium. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on prewarmed resuscitation table and start clock Dry the baby, remove wet cloth, wrap in a dry cloth and observe: <ul style="list-style-type: none"> • Cry / respiratory effort • Tone • Colour 	The baby moves a little and opens eyes on stimulation but does not cry	
2	Assess Airway Open the airway (neutral position) Check for noisy breathing	The airway is clear There is no noisy breathing	
3	Assess breathing Look, Listen, and Feel for breathing	The chest is moving	
4	Further assess for breathing, check for: <ul style="list-style-type: none"> • Head nodding • Nasal flaring • Grunting • Cyanosis • Chest wall indrawing • Deep / acidotic breathing • Auscultate for added sounds 	The baby is breathing at a rate of about 65 b/min There is no sign of respiratory distress	
5	Assess central circulation Feel for brachial or femoral pulse	There is a fast, femoral pulse of approximately 180 bpm	
6	Assess peripheral circulation <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse (rate and volume) • Capillary refill time Assess for signs of dehydration <ul style="list-style-type: none"> • Sunken eyes • Skin pinch 	There is no palmar pallor The hands and feet are cool, the peripheral pulse is rapid but difficult to assess for weakness The capillary refill time is 3 seconds The eyes are not sunken and skin pinch is normal	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
7	Is their severe circulation impairment (shock), or dehydration	Circulation is not severely impaired (no shock), there is no dehydration	
8	Assess Disability – establish level of consciousness (AVPU) Check blood glucose [Note: normal 2.5–6 mmol/L] Normalise blood glucose level using baby's weight	The child is floppy, with sluggish responses AVPU = V, but the baby will not suck Blood glucose is 1 mmol/L Needs IV 10% glucose 2 mL/kg Baby weighs 2 kg Requires 4 mL of 10% glucose	
9	After the bolus of glucose, ongoing maintenance glucose and fluids are needed Assess safety of feeding by nasogastric tube – conscious state, possible aspiration	Set up an IV of 10% solution to run at maintenance rate Baby is lethargic, best to observe before using an NGT	
10	Take full history and complete examination and do necessary investigations	Try to come to a definitive diagnosis	

THANK YOU

INFECTION PREVENTION AND CONTROL

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CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

6. Impaired circulation, shock and dehydration in an infant

Scenario Overview

This scenario is about an infant with severely impaired circulation due to dehydration. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment and for scenarios teaching.

Reminder to Facilitator

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Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

You are asked to see a 28-day-old baby girl in A&E who is said to have had some diarrhoea for two days. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe for signs of activity or altered consciousness – stimulate if necessary	The child is lying on the mother's lap not alert and floppy	
2	The right setting for assessing the baby	Mother is asked to bring the baby and accompany you to the resuscitation couch	
3	Assess Airway Open the airway (neutral position) Check for noisy breathing / obstruction	The airway is clear There is no noisy breathing	
4	Assess the breathing and Look, Listen and Feel for breathing	The baby is breathing at a rate of about 80 b/min	
5	Continue to assess the breathing in detail <ul style="list-style-type: none"> • Head nodding • Nasal flaring • Cyanosis • Grunting • Chest wall indrawing • Deep / acidotic breathing • Auscultate for added sounds • Pulse oximetry 	There are no abnormal respiratory signs SpO ₂ = 95%	
6	Assess central circulation Check the brachial or femoral pulse	Pulse = 180 bpm It is difficult to assess volume	
7	Assess peripheral circulation <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse (rate and volume) • Capillary refill time Assess for signs of dehydration <ul style="list-style-type: none"> • Sunken eyes • Skin pinch Assess for severe circulatory impairment (shock) or dehydration	There is no palmar pallor The hands and feet are cold, with the legs only warming at the knee The peripheral pulse is rapid and difficult to feel CRT = 5 seconds The child has sunken eyes and skin pinch takes 3 seconds The child is shocked – cold peripheries, prolonged capillary refill, weak and fast pulse	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	Assess the severity of dehydration [sunken eyes, skin >2 seconds and unable to feed]	Severe dehydration	
9	Identify management of hypovolaemic shock Establish IV access, take bloods, estimate weight and give fluids Which fluid, how much and how fast?	IV access is established Blood samples taken for glucose, U&Es, creatinine, blood gas and culture if available Baby weighs 2.7 kg Infusion commenced of RL 30 mL/ kg in 1st hour = 81 mL	
10	Assess Disability, establish level of consciousness (AVPU) Check blood glucose Manage blood glucose levels	AVPU = P Blood glucose = 1 mm/L. Give bolus of 10% glucose 2 mL/kg = 5.4 mls	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

7. Single-person cardiac compressions in a newborn requiring CPR

Scenario Overview

This scenario is of a baby requiring cardiopulmonary resuscitation by a single resuscitator. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful for skills teaching with continuous assessment.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

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Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

A baby who is 8 hours old is referred to the nursery from a local health centre and on arrival found to be pale and unresponsive. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on bed / resuscitation couch and stimulate Ensure warmth	There is no response	
2	Call for help	Help is on the way	
3	Look in the mouth to check for obstruction	There is thick mucus in the mouth	
4	Clear mucus from the mouth with suction if available, or gauze	The mucus is removed	
5	Assess the Airway Open the airway (neutral position)	There are no breathing sounds	
6	Assess breathing Look, Listen, and Feel for breathing	The chest is not moving	
7	Establish effective bag mask ventilation (with oxygen)	Bag Valve Mask ventilation with oxygen is commenced	
8	Check ventilation by seeing the chest move	The chest moves on bagging	
9	Give 30–40 assisted breaths in 1 minute		
10	Assess for a heartbeat by auscultating the heart or feeling for a pulse at the base of the cord	There is no pulse	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
11	Landmark for external cardiac compressions Single person giving cardiac compressions	At the junction of the upper 2/3rds and lower 1/3rd of the sternum Use 2 adjacent fingers, usually index and middle fingers and push down vertically on the sternum	
12	Depth of compressions	Compress to about 1/3rd of the chest depth	
13	Provide CPR at a ratio of 3:1 (3 compressions to 1 breath) Rate is 30-40 cycles per minute	Check that chest is moving with each ventilation Confirm correct depth / rate of compressions	
14	When and what to reassess Ensure warmth at all times	Reassess pulse and respiration after 60 seconds of CPR	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

8. Breathing difficulties in an infant with pneumonia

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

This is a scenario about an infant with severe breathing difficulties. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment and for scenarios teaching.

Reminder to Facilitator

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Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

You are asked to see a 14-day old baby girl in admissions who is said to have difficulty breathing for one day. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe for signs of very severe illness	The child is lying in the mother's arms but seems distressed and is obviously breathing fast	
2	Assess Airway Open the airway (neutral position) Check for noisy breathing / obstruction	The airway is clear There is no noisy breathing/stridor	
3	Assess breathing Look, Listen, and Feel for breathing	The baby has obvious respiratory distress but is breathing regularly at a rate of about 80 b/min and looks pink	
4	Continue to assess the breathing in detail <ul style="list-style-type: none"> • Head nodding • Nasal flaring • Cyanosis • Grunting • Chest wall indrawing • Deep / acidotic breathing • Auscultate for added sounds • Pulse oximetry 	There is evidence of severe respiratory distress: head nodding, grunting, indrawing and crackles on auscultation Start oxygen (0.5-1 L/min by nasal prongs) before continuing SpO ₂ = 90%	
5	Assess Circulation Feel for brachial or femoral pulse	The femoral pulse is fast 190 bpm, but of good volume	
6	Assess peripheral circulation <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse (rate and volume) • Capillary refill time Assess for signs of dehydration <ul style="list-style-type: none"> • Sunken eyes • Skin pinch 	The baby is pink The hands are warm Pulse is good volume, 190 bpm CRT = 2 seconds Eyes are not sunken and skin pinch is less than 2 seconds	
7	There is no evidence of circulatory failure	There are no signs of shock or dehydration	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	Assess Disability / establish level of consciousness (AVPU)	The child is in the mother's arms, responds to voice but unable to breastfeed, i.e., AVPU = V	
9	Assess for hypoglycaemia	Blood glucose is 4 mmol/L	
10	Full history and examination should be done Further urgent treatment with antibiotics	Definitive diagnosis likely severe pneumonia Cannula inserted, bloods taken for FBC, CRP, culture, gas analysis, if available First dose penicillin and gentamicin IV given	
11	Assess for feeding	NGT expressed breast feeds	

THANK YOU

 INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

9. Hypoglycaemia in an infant 2

Scenario Overview

This scenario is of a hypoglycaemic infant. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment.

Reminder to Facilitator

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Begin Scenario

SETTING THE SCENE

You are asked to see a 6-day-old baby girl in the ward who is said to not be feeding and is very sleepy. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe for signs of collapse / altered consciousness – stimulate if necessary Ensure warmth	Baby lying in the cot and appears drowsy	
2	Assess Airway Open the airway (neutral position) Check for noisy breathing	There is no noisy breathing – the airway is clear	
3	Check the breathing Look, Listen and Feel Is the chest rising and falling with each breath?	The chest is moving and the baby is breathing at a rate of about 70 b/min	
4	Continue to assess the breathing in detail <ul style="list-style-type: none"> • Head nodding • Nasal flaring • Cyanosis • Grunting • Chest wall indrawing • Deep / acidotic breathing • Auscultate for added sounds • Pulse oximetry 	There is no sign of respiratory distress SpO ₂ =94%	
5	Assess central circulation – at brachial or femoral pulse	There is a fast pulse of approximately 160 bpm	
6	Assess peripheral circulation <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse (rate and volume) • Capillary refill time Assess for signs of dehydration <ul style="list-style-type: none"> • Sunken eyes • Skin pinch Check ability to drink before classifying level of dehydration The baby is not dehydrated	There is no palmar pallor The hands and feet are warm The peripheral pulse is rapid but not weak The capillary refill time is 2 seconds The eyes are not sunken and skin pinch takes 1–2 seconds Baby sucks poorly but is not dehydrated	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
7	Assess Disability - establish level of consciousness (AVPU)	The baby is lethargic but responds to stimulation: AVPU = weak V response but cannot drink	
8	Check blood glucose Note: normal = 2.5-6 mmol/L	Blood sugar 2.7 mmol/L	
9	How to feed, quantity and frequency Site an NGT, ensure position and patency	2 hourly NGT feeds of breast milk	
10	Reassess blood glucose after 2 hours	Glucose 3 mmol/L	
11	Take full history and complete examination Monitor input and vital signs, keep warm		

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

10. Clearing the airway in an infant who is convulsing

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

This scenario is about clearing the airway of an infant who is convulsing. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful for skills teaching.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety of the staff and patient
Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

You are called urgently to a 4-day-old baby boy in the nursery who is convulsing. His breathing sounds noisy and he is drooling from his mouth. He looks a little blue. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe for signs of collapse / altered consciousness	The child is making generalised jerky movements but breathing	
2	Assess Airway Open the airway (neutral position) Check for noisy breathing	There is noisy breathing and the child is drooling	
3	Clear the airway with suction Prevent aspiration by placing baby on his side	The airway is cleared using a Penguin sucker Baby placed on his side	
4	Check if the baby is breathing Is the chest rising and falling with each breath?	The baby is breathing irregularly	
5	Quickly assess the adequacy of the breathing This is difficult to do in detail because of the convulsive movements Give O ₂ as the child is very sick as long as this does not delay further actions	Not able to assess properly	
6	Assess central circulation at brachial or femoral pulse	A bounding femoral pulse is felt	
7	Quickly assess peripheral circulation: <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse (weak?) 	There is a strong, rapid pulse, the baby is greyish in colour and the hands and feet feel cold	
8	Assess Disability: the baby is having a generalised convulsion	AVPU = P with a convulsion	
9	Check blood glucose [Normal is 2.5-6 mmol/L]	Glucose unrecordable	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
10	The baby weighs 3 kg and needs a bolus of 10% glucose There is an IV line already sited	Give 2 ml/kg 10% glucose bolus (= 6 mL)	
11	Reassess Airway, Breathing, Circulation and Disability (ABCD)	Airway, Breathing and Circulation are unchanged, the baby continues to convulse	
12	Identify need for anti-convulsant therapy Phenobarbitone 20 mg/kg IM loading dose	Phenobarbitone 20 mg/kg (60 mg) drawn up, checked with colleague and then given IM	
13	Reassess ABCD after 10 minutes	The convulsions have stopped, respirations are regular and the baby is pink	
14	Reassess blood glucose and provide maintenance glucose	Blood glucose is now 6 mmol/L; an IV 10% glucose solution is set up and run at maintenance rate	
15	Take full history and complete examination. Monitor input and vital signs		
16	Reassess: baby is stable, no further seizures but still drowsy. Site an NGT, ensure position and patency	As no more seizures occur an NGT is placed and mother encouraged to give expressed breast milk 2 hourly	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

11. Assisted ventilation in a newborn requiring CPR

Scenario Overview

This scenario is of an infant requiring cardio-pulmonary resuscitation. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful for skills teaching.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

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Safety of the staff and patient
Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

A 2-week-old baby is triaged as an emergency because she has stopped breathing. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on bed / resuscitation couch and stimulate, ensure warmth	There is no response	
2	Call for help	There is no one to respond	
3	Look in the mouth to check for obstruction	There is nothing in the mouth	
4	Asses Airway Open the airway (neutral position)	Airway is patent	
5	Assess breathing Look, Listen, and Feel for breathing	There is no sound of breathing and no chest movement	
6	Establish effective bag, mask ventilation (with oxygen) for 5 rescue breaths	Bag Valve Mask ventilation with oxygen is commenced	
7	Check ventilation by seeing the chest move	The chest is moving	
8	Assess for hearbeat by auscultating the heart or feeling for a pulse at the base of the cord	There is no pulse	
9	Landmark for external cardiac compressions 1 person giving cardiac compressions	At the junction of the upper 2/3rds and lower 1/3rd of the sternum Use 2 adjacent fingers – usually index and middle fingers – and push down vertically on the sternum	
10	Depth of compressions	Compress to about 1/3rd of the chest depth	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
11	Provide CPR at a ratio of 3:1 (3 compressions to 1 breath) Rate is 30-40 cycles per minute	Check chest moves Confirm correct depth / rate of compressions	
12	When and what to reassess Maintain warmth at all times	Reassess pulse and respiration after 60 seconds of CPR	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

12. Neonatal resuscitation of a preterm baby who does not breathe immediately at birth

Scenario Overview

This scenario is of a preterm neonate immediately after birth. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety of the staff and patient
Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

A preterm baby with a low foetal heart rate is delivered to a pre-eclamptic mother. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on prewarmed resuscitation table Start the clock		
2	Dry the baby, remove wet cloth, wrap in a dry cloth and observe: <ul style="list-style-type: none"> • Cry / respiratory effort • Tone • Colour 	There is no cry to this stimulation The baby is floppy and pale	
3	Assess Airway Open in neutral position Look in the mouth	There are no secretions in the mouth	
4	Assess breathing Look, Listen and Feel for breathing	There is no breathing	
5	Call for help	Help is available	
6	Give assisted ventilation with bag and mask 30 breaths in 1 minute	The chest moves on ventilation	
7	Assess large pulse at the base of the cord or auscultate the heart	There is a pulse of about 90 bpm	
8	Re-assess Airway, Breathing and Circulation	The airway is clear There is no spontaneous breathing The pulse is 100 bpm	
9	Continue with assisted ventilation at 30bpm for another 1 minute		
10	Re-assess Airway, Breathing and Circulation (3-4 minutes of resuscitation so far)	The airway is clear There is intermittent gasping (<10/min) The pulse is 140 bpm	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
11	Continue with assisted ventilation for 1–2 minutes		
12	Re-assess Airway, Breathing and Circulation (5–6 minutes of resuscitation so far)	The airway is clear There is regular breathing of about 30 b/min The pulse is 140 bpm	
13	Stop assisting with ventilation Observe for 1 minute and reassess Airway, Breathing and Circulation Oxygen saturation levels should be equal to or more than 90% now (7–8 minutes)	The airway remains clear Breathing is 30 b/min and regular Pulse is 120 bpm SpO ₂ = 90%	
14	Monitor for a few minutes. Since mother has just had a caesarean section and the baby is premature, make arrangements for the transfer to nursery for medical assessment and observation that will determine whether CPAP is needed.	The baby is transferred in a prewarmed transport incubator or wrapped and in the nurse's arms if no transporter available	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

13. Assessing breathing in an infant

Scenario Overview

This scenario is of a small for dates infant with pneumonia. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful as an assessment.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

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Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

A newborn baby, who appears very small, is sent straight to the nursery where you are working because the nurse on the postnatal ward saw that she was sick. The baby is six hours old. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Observe baby	Baby looks very small and distressed	
2	Place baby on a bed / resuscitation couch where she can be kept warm and observe responsiveness	The baby looks pre-term and makes only weak movements	
3	Call for help	Help is on the way	
4	Open the airway with the head in a neutral position and Look, Listen and Feel	The airway is clear, you can hear grunting	
5	Assess breathing	The chest is moving Breathing is laboured and fast	
6	Check for other signs of respiratory distress: <ul style="list-style-type: none"> • Head nodding • Grunting • Cyanosis • Indrawing • Acidotic breathing • Crackles • Respiratory rate • Pulse oximetry 	The baby is cyanosed and grunting, has severe chest indrawing and crackles on auscultation of both lungs RR is 72 b/min SpO ₂ = 89%	
7	Oxygen is required	Nasal prongs are applied and 0.5-1 L/min of oxygen given	
8	Assess central circulation; brachial or femoral pulse	Pulse = 110 bpm, of good volume	
9	Assess the peripheral circulation <ul style="list-style-type: none"> • Pallor • Cold hands • Temperature gradient • Peripheral pulse • Capillary refill time 	The baby has warm hands and feet and a strong pulse which is easy to feel. CRT = 3 seconds	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
10	Assess for Disability: assess tone and movement and if any convulsions	The baby is not very active and unable to suck and is not fitting	
11	Check blood glucose Normal is 2.5–6 mmol/L	Glucose 2.6 mmol/L	
12	Assess for dehydration – sunken eyes, skin turgor, ability to feed	No sunken eyes, no prolonged skin turgor, not able to feed No evidence of dehydration	
13	Reassess Airway, Breathing and Circulation	Respiration is less laboured, now SpO ₂ = 92%	
14	The baby needs to stay on oxygen but requires no other emergency care until you complete a full history and examination after which antibiotics and a feeding programme will be needed Consider CPAP if does not settle quickly	Proceed to diagnosis, investigations and management	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

CLINICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

14. Drying and assessing a neonate

Scenario Overview

This scenario is of the care of a newborn at birth. Scenarios are versatile tools that assist in teaching, learning, assessment and mentoring. This scenario is particularly useful for skills teaching.

Reminder to Facilitator

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ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety of the staff and patient
Setting for the environment and patient
Stimulate the patient for response
Shout for help

Begin Scenario

SETTING THE SCENE

A preterm baby is born after a rapid delivery and makes no immediate cry. There is no meconium. **What do you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Place baby on prewarmed resuscitation table where it can be warmed. Note the time	The clock is started	
2	Dry the baby, remove wet cloth, wrap in a dry cloth and observe: <ul style="list-style-type: none"> • Cry / respiratory effort • Tone • Colour 	There is no cry to this stimulation The baby is floppy and pale not crying	
3	Call for help	Help is on the way	
4	Look in the mouth	There is nothing in the mouth	
5	Open the airway with the head in a neutral position and Look, Listen and Feel for breathing	There is no breathing	
6	Give assisted ventilation with a bag and mask at 30 b/min for 60 seconds	The chest moves with each assisted breath	
7	Assess large pulse: feel at base of cord or auscultate over the heart	There is a pulse of about 100 bpm	
8	Continue with assisted ventilation for 1 minute <ul style="list-style-type: none"> • Rate of 30–50 b/min • Checking for chest movement • Make sure the baby is being kept warm 	Assisted ventilation is continued at 30–50 b/min Baby is kept warm	
9	Re-assess Airway, Breathing and Circulation	The airway is clear The baby is making regular breathing efforts at about 30 b/min The pulse is 160 bpm	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
10	<p>Continue to observe the baby:</p> <ul style="list-style-type: none"> • Respiratory rate and effort • Colour • Tone / Cry • Heart rate 	<p>Over the next few minutes the baby's respiratory rate increases</p> <p>The baby becomes pink and active and begins to cry</p>	

THANK YOU



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling the baby or any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

Technical Scenarios

TECHNICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

1. Radiant Warmer

Scenario Overview

The scenario is set in the newborn care ward where a radiant warmer has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

There has been a phone call from the nursery, asking for help. Sister is really worried. She has a premature baby in isolation under a radiant heater and the heater is not working. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Maria is glad to see you.	
2	Ask what the problem is.	The radiant warmer is turning on and reading the patient's body temperature, but isn't heating.	
3	Ask to see the device and check the current device settings.	The radiant warmer is in the isolation ward, plugged into an extension board with an oxygen concentrator. One patient is currently under the warmer. The radiant warmer is in servo/automatic mode and is registering a patient temperature of 33.5°C. The displayed heater output is at 100%.	
4	Ask if it is okay for you to do some minor checks on the device where it is. As the patient's temperature is critically low, advise that the patient be moved to another, working radiant warmer whilst your checks are made. Advise the in-charge that radiant warmers should not be plugged into extension boards, especially when other devices are connected.	Sister Maria is happy for you to do so in the ward and moves the patient to another warmer immediately.	
5	Perform minor checks on the device. Turn off the radiant warmer and remove its plug from the extension board. Plug directly into the wall and turn on. Feel for heat output along the heating element. Change the setting from servo/automatic to manual. Set the heating output to 100% and again feel for heat output along the heating element.	The radiant heater is switched off, unplugged and replugged directly into a wall socket. The heating element is not producing any heat. The heating element is still not producing any heat.	
6	Explain your findings to Sister Maria. The heating element for the radiant warmer appears to have a fault.	Sister Maria is unhappy as this is the second radiant heater that has stopped working.	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
7	<p>Explain next steps needed to prevent this from happening again.</p> <p>This issue happens with extended use over time but can also be aggravated with poor power quality. The radiant warmer should always be plugged into its own socket with an independent surge protector, if available.</p>	<p>Sister had not realised that an extension lead should not be used with a radiant heater.</p> <p>Sister Maria will orient her team on the appropriate power requirements for radiant warmers.</p>	
8	<p>Decide where to work on the radiant warmer (e.g., at the ward or in the workshop).</p> <p>The heating element for the radiant warmer will need replacement. Best practice is to remove from the ward to a larger space for further examination. Is the nurses' station sufficiently large to troubleshoot the device without removing to the workshop?</p>	<p>The nurses' station is sufficiently large, and Sister Maria is happy to have you work there as it means that the device will not be removed far from the ward.</p>	
9	<p>You move the radiant warmer to the nurses' station. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Plug in and turn on the device. Check the device control panel for any alarms.</p> <p>Make sure the device is removed from power and turned off. Put on gloves. Disinfect the device housing using 70% alcohol.</p>	<p>The radiant warmer has come to the nurses' station with power cable and a temperature probe.</p> <p>As you turn on the device at the nurses' station, the "System Failure" alarm comes on.</p> <p>The device housing is disinfected.</p>	
10	<p>Begin further troubleshooting of the device. Check the condition of the internal components.</p> <p>Remove device housing screws for the radiant warmer head and remove housing. Set aside screws in separate container.</p> <p>Visually check the condition of the heating element control circuit board.</p> <p>Use a multimeter to assess the resistance across the heating element.</p>	<p>Device housing is removed.</p> <p>The heating element control circuit board shows no visible damage.</p> <p>The resistance across the heating element approaches infinity.</p>	
11	<p>Interpret these results for the in-charge.</p> <p>The resistance across the heating element is very high, which confirms that the heating element has failed. It needs to be replaced. Confirm that you will check for a replacement part at the workshop and return to repair.</p>	<p>'Sister, I have done a check and the heating element isn't working. It needs to be replaced. I will need to find out if we have a replacement in the workshop.'</p>	
12	<p>Return to the Maintenance Unit and check for a spare heating element.</p>	<p>Three spare heating elements are available for this device model.</p>	
13	<p>Return to the Newborn Care Unit and replace the heating element.</p> <p>Disconnect the heating element leads from the heating element control board. Mark which leads go to which points on the control board. Remove any bracketing clips keeping the heating element in place, and then remove the element.</p> <p>Replace with spare heating element and reassemble.</p>	<p>The old heating element is disconnected and removed and replaced with the new element.</p>	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
14	<p>Test the device to see if the repair has been successful.</p> <p>Turn on the radiant warmer and set it to Manual mode at 100% heater output. Check for the "System Failure" alarm indicator.</p> <p>Feel for heat output along the heating element.</p>	<p>The "System Failure" alarm indicator does not come on.</p> <p>Heat can be felt emanating from the heating element.</p>	
15	<p>Return the radiant warmer to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p>	<p>Sister is told that the old heating element has been replaced with a new one.</p> <p>Sister Maria is happy to receive back the device. She plugs in and turns on the device. It appears to function well.</p>	
16	<p>Return to the Maintenance Unit with the broken heating element.</p> <p>Decommission heating element by disposing of ceramic parts appropriately. Remove reusable wires and wire clips and test for continuity before placing in Spare Parts storage and labelling with device model, ward location and repair details.</p> <p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>The maintenance and repair records are filled and the decommissioned element stripped of any useful wiring and then disposed of. The wiring and clips are labelled and stored correctly.</p>	

THANK YOU

REMIND PARTICIPANTS

Radiant warmers are usually used for short periods of time before a baby is placed in a warmer cot or an incubator or when a baby is having a procedure done that is difficult to do in an incubator or cot. In Obstetrics/Labour Ward, a radiant warmer provides an area post-delivery to prevent hypothermia. The radiant warmer should be clean, working and already warm when the baby arrives. All emergency treatment equipment that could be needed should be at hand.

INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

continue to the following page 

TECHNICAL SCENARIO

2. Phototherapy Light

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where a phototherapy light is not working well. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device

Setting for possible checks and repairs to the devices

Stimulate adequate tools and spare parts for this device

Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

The nurse calls you to say that the babies are not improving as quickly as they used when receiving phototherapy, and she wonders if it is working properly. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Maria is glad to see you.	
2	Ask what the problem is.	The nurse is concerned the neonates are not improving as quickly after having been put on phototherapy as usual. She suspects the phototherapy light has deteriorated.	
3	Ask to see the device.	The phototherapy device is in use on a patient that is being managed on a radiant warmer.	
4	Ask the in-charge if it is possible to test the delivered irradiance at the patient's bed site using your lightmeter.	Sister Maria is happy to help. Using your lightmeter, she ascertains that the delivered irradiance at the bedside is 15 $\mu\text{W}/\text{cm}^2$.	
5	Interpret the results for the in-charge. 15 $\mu\text{W}/\text{cm}^2$ is low for phototherapy treatment, which should typically be 25 to 30 $\mu\text{W}/\text{cm}^2$ for standard treatment.	Sister Maria is told normal therapeutic range of irradiance required and the results of this reading. Sister Maria arranges with a fellow nurse to try to find another phototherapy unit to use instead.	
6	Using the lightmeter, show the in-charge how lowering the head of the phototherapy light increases the treatment irradiance.	While waiting for the replacement and after your demonstration, Sister Maria angles the phototherapy light farther towards the patient, and retakes the reading. The phototherapy light is now delivering 20 $\mu\text{W}/\text{cm}^2$. The reading is still too low.	
7	What will you do next? Ask the in-charge if you can remove the phototherapy light from the patient's radiant warmer cot to another, empty bassinet to test the device when it is directly overhead the patient.	Sister Maria is happy for you to do so. The additional phototherapy light is available and not in use; she switches this phototherapy light for the other and rolls it to an empty bedside for you to complete your tests.	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>Perform minor checks on the device.</p> <p>With the phototherapy light set at normal brightness at a height of 30 cm directly above the mattress, test the delivered irradiance with a lightmeter.</p> <p>With the phototherapy light set at high brightness at a height of 30 cm directly above the mattress, test the delivered irradiance with a lightmeter.</p>	<p>The phototherapy light is now delivering 23 $\mu\text{W}/\text{cm}^2$.</p> <p>The phototherapy light is now delivering 28 $\mu\text{W}/\text{cm}^2$.</p>	
9	<p>Explain your findings to Sister Maria.</p> <p>The phototherapy light is beginning to deteriorate and the bulbs will need replacement. You will check at the workshop for replacement bulb assemblies, but in the meantime, the medical staff should check the delivered irradiance for each patient and lower the head of the phototherapy light or increase the settings if needed.</p>	<p>Explain your findings and what you intend to do.</p> <p>Sister Maria will wait for your feedback, and will confirm your instructions with the rest of the ward staff.</p>	
10	<p>Return to the maintenance unit.</p> <p>Check for a spare bulb assembly for this device model.</p> <p>Request additional spare bulb assembly be procured.</p> <p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>No spare bulb assemblies are available.</p> <p>Activities and bulb procurement follow-up steps are documented.</p>	

THANK YOU



REMIND PARTICIPANTS

Any jaundice on day one needs urgent investigation and treatment.



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

TECHNICAL SCENARIO

3. Pulse Oximeter

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where a pulse oximeter has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

The nurse in the nursery cannot make the pulse oximeter give a good trace reading. She has been trying for quite some time. She has called you for help. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Amissah is glad to see you.	
2	Ask what the problem is.	The nurse has been trying to use the pulse oximeter all morning but has been unable to get a stable trace.	
3	Ask to see the device.	The pulse oximeter is in a patient cot next to a newborn patient.	
4	Advise the in-charge of the link between device location and infection prevention on the ward. Pulse oximeters should never be kept in the cot with the patient to ensure appropriate infection prevention control. As pulse oximeters are used on many patients, you may find that infections are passed from bed to bed with the pulse oximeter.	Sister Amissah is advised about the link between infection and devices. Alarmed, she immediately removes the pulse oximeter and probe from the patient cot and disinfects it.	
5	Ask if it is okay for you to do some minor checks on the machine where it is.	Sister Amissah is happy for you to do so.	
6	Perform minor checks on the device. Put on a pair of gloves. Turn on the pulse oximeter. Attach the pulse oximeter probe and check the screen for any alarms.	The pulse oximeter shows the alarm "No Probe Connected".	
7	Interpret these results for Sister Amissah. The pulse oximeter does not seem to be recognising the provided probe. Is there another probe available that we can try? Advise Sister Amissah to clean the probe. Plug in the replacement probe. Check the screen for any alarms.	Explain the results to Sister Amissah in layman's terms. There is another pulse oximeter probe, but it is currently connected to another device. Sister Amissah removes it and brings it to this pulse oximeter to try. Sister Amissah cleans the probe. No alarms are visible.	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>What do you do next?</p> <p>Advise Sister Amissah to try using the probe with the pulse oximeter on a patient.</p>	Sister Amissah places the probe on the foot of a newborn patient. A trace appears and begins to stabilise.	
9	<p>Advise the in-charge that an additional replacement probe should be procured.</p> <p>You tell the in-charge that you will return to the maintenance unit and check in your stocks for an appropriate probe.</p>	Three additional paediatric clip probes with generic ports are available.	
10	<p>Return to the Newborn Care Unit.</p> <p>Return to the Newborn Care Unit. Plug in and test one of the generic probes with the same pulse oximeter. Check the screen for any alarms.</p>	No alarms are visible.	
11	<p>Remove the inappropriate probe to the Maintenance Unit.</p> <p>Place in Spare Parts storage and label ward location and repair details, including that the probe appears to be malfunctioning or for a non-generic pulse oximeter. Document probe delivery in Equipment Maintenance & Repair Records.</p>	Documentation is completed.	

THANK YOU

 REMIND PARTICIPANTS

Poorly fitting probes and patient movement can lead to inaccurate readings. Pulse oximeters should also never be placed in the cot of a patient to ensure appropriate infection prevention on the ward.

 INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

TECHNICAL SCENARIO

4. bCPAP

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where a bCPAP device has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

A nurse from the nursery has called you to say they are having a problem with the bCPAP device as no oxygen seems to be reaching it. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Thoko is glad to see you.	
2	Ask what the problem is.	The nurse has been trying to use the bCPAP all morning with various oxygen sources. The oxygen flow meter will not move.	
3	Ask to see the device.	The bCPAP is on a shelf on the wall. It is in use and plugged into a walled oxygen flowmeter that is set at 3 L/min.	
4	Ask if it is okay for you to do some minor checks on the machine where it is.	Sister Thoko is happy for you to do so.	
5	Perform minor checks on the device. Put on a pair of gloves. Remove the oxygen tubing from the walled oxygen flowmeter. Make sure the device is plugged into the wall and switched on at the wall. Make sure the power cable is pushed well into the socket on the back of the bCPAP. Open the Oxygen Flowmeter. Press power switch 'on.'	Gloves are donned and oxygen tubing is removed. The device is plugged into the wall and the wall socket is switched on. The power cable is slightly loose. The device pump audibly powers on.	
6	What will you do next? Press a finger against the oxygen source port on the bCPAP. Check for an audible and visible rattle of the Oxygen Flowmeter bead. Visually inspect the Oxygen Flowmeter base for debris. Connect the oxygen tubing from the walled oxygen flowmeter to the oxygen source port on the bCPAP. Lightly tap the Oxygen Flowmeter and check if the flowmeter bead rises.	The bead does not rattle. There is some minimal debris at the base of the flowmeter. The bead does not rise.	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
7	<p>Explain your findings to Sister Thoko.</p> <p>The bCPAP seems to have a problem with either the Oxygen Flowmeter or internal tubing connections. More investigation is needed to determine which failure is occurring.</p>	<p>The problem is explained to Sister Thoko.</p> <p>Sister Thoko will wait for your feedback, and will confirm your instructions with the rest of the ward staff.</p>	
8	<p>Decide where to work on the oxygen concentrator (e.g., at the ward or in the workshop).</p> <p>The internal tubing connections should be assessed before taking apart the flowmeter. Ask if you can perform this at the nurse's station to prevent the device being removed from the ward.</p>	<p>Sister Thoko agrees that you may use the nurse's station to provide basic maintenance.</p>	
9	<p>You remove the bCPAP to the nurse's station. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Put on gloves. Disinfect the device housing using 70% alcohol.</p>	<p>The bCPAP has been brought to the nurse's station with power cable, patient circuit and bottle.</p>	
10	<p>Begin further troubleshooting of the device. Check the condition of the internal components.</p> <p>Remove device housing screws and remove housing. Set aside screws in separate container.</p> <p>Check the internal tubing connections.</p> <p>Replace the tubing. Secure in place with a zip tie or metal crimp.</p>	<p>Device housing is removed.</p> <p>The tube connecting the oxygen source to the oxygen flowmeter has become dislodged.</p> <p>The tubing is repositioned and secured in place.</p>	
11	<p>Test the bCPAP.</p> <p>Plug in the bCPAP. Press a finger against the oxygen source port on the bCPAP. Check for an audible and visible rattle of the Oxygen Flowmeter bead.</p> <p>Connect oxygen tubing from an oxygen source to the oxygen source port on the bCPAP. Lightly tap the Oxygen Flowmeter and check if the flowmeter bead rises.</p>	<p>The bead rattles.</p> <p>The flowmeter bead rises to 3 L/min.</p>	
12	<p>Explain your findings to Sister Thoko.</p> <p>The internal tubing connections for the Oxygen Flowmeter popped off. They have been secured in place.</p>	<p>Sister is shown what happened and how it was fixed.</p>	
13	<p>Return the bCPAP to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p>	<p>Sister Thoko is happy to receive back the device and places a patient with severe respiratory distress on it immediately.</p> <p>She arranges for a training session for the ward staff next week and asks you to come.</p>	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
14	<p>Explain next steps needed to prevent this from happening again.</p> <p>If the Oxygen Flowmeter is not opened before attaching the oxygen source, pressure can build up and pop off the internal tubing. Users should ensure that they open the Oxygen Flowmeter prior to connecting an oxygen source.</p> <p>There was also some additional build-up on the Oxygen Flowmeter that could present a problem at a later stage. Users should provide preventive maintenance by turning on the device and letting it run for 15 minutes every week.</p>	<p>Sister Thoko is told that this happens if the oxygen flowmeter is off when the oxygen source is turned on. The nurses must be careful to always turn the flowmeter on before the oxygen source.</p> <p>Sister Thoko is also asked to turn the device on for 15 minutes every week to stop debris building up in the flowmeter.</p> <p>Sister Thoko believes that additional orientation is needed for the staff on the ward and sets a date for you to come and help provide background on why this type of preventive maintenance is necessary.</p>	
15	<p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>Activities and CPD session orientation information are documented.</p>	

THANK YOU

REMIND PARTICIPANTS

How CPAP works: CPAP devices use a pump to provide air or a mixture of air and oxygen at a continuous positive pressure. This pressure keeps airway spaces open and increases alveolar recruitment throughout respiration in a spontaneously breathing infant. This improves oxygenation and reduces work of breathing.

INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

continue to the following page 

TECHNICAL SCENARIO

5. Suction Pump 1

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where a suction pump has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

You are called to the newborn care ward where the nurse in-charge has alerted you that the suction pump is not sucking properly. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Maria is glad to see you.	
2	Ask what the problem is.	The suction pump comes on but does not seem to have any 'power.'	
3	Ask to see the device.	The suction pump is on the floor beside the cot of a baby.	
4	Ask if it is okay for you to do some minor checks on the device where it is.	Sister Maria is happy for you to do so in the ward.	
5	Perform minor checks on the device. Put on a pair of gloves. Make sure the device is plugged into the wall and switched on at the wall. Make sure the power cable is pushed well into the socket on the back of the suction pump. Press the power switch to 'on.'	The device is plugged into the wall and the wall socket is switched on. The power cable is slightly loose. The device motor audibly powers on.	
6	The device has powered on. What will you do next? Check the collection reservoir is attached and not full. Check that all tubing connections are tight. Ensure there is a filter in the pump circuit and that the long patient suction tube is attached to the outlet. Check that the float valve on the collection reservoir is moving up and down.	The collection reservoir is a quarter full. All tubing connections are tight. There is a filter in the pump circuit and the patient suction tube is attached. The filter appears discoloured. The float valve appears to be sticking or jammed.	
7	Explain your findings to Sister Maria. The float valve is sticking and the filter appears discoloured. The pump assembly should be examined.	'Sister Maria, I've found the problem. The float is sticking and the filter is discoloured. I will have to look inside the device to check the pump properly.'	

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#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>Explain to Sister Maria what next steps are needed to prevent this from happening again.</p> <p>The internal pump assembly can be damaged if the suction pump collection reservoir is allowed to get too full and liquid enters past the bacterial filter into the suction pump. Users should regularly empty and clean the reservoir to prevent this from happening.</p>	<p>The problem is explained to Sister Maria.</p> <p>Sister Maria agrees that additional orientation is needed for the staff on the ward and sets a date for you to come and help provide this orientation.</p>	
9	<p>Decide where to work on the suction pump (e.g., at the ward or in the workshop).</p> <p>The pump assembly must be assessed, which requires opening the device. Best practice is to remove to workshop for further examination.</p>	<p>The device should be removed to the workshop.</p>	
10	<p>Check with the in-charge if it is okay to remove the suction pump and if she has a working one to use while this pump is being repaired.</p> <p>Put on gloves. Disinfect the device housing using 70% alcohol and empty the collection reservoir.</p>	<p>She is anxious not to be without it for long as it means taking a suction pump from one cot-side to another and re-plugging it in every time a baby needs it.</p> <p>The housing is disinfected and the collection reservoir is emptied.</p>	
11	<p>You remove the suction pump to the workshop. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Inspect the tubing, reservoir and float valve.</p> <p>Follow facility protocols to clean and disinfect tubing, reservoir and float valve in a tub of 0.5% chlorinated water.</p>	<p>The suction pump has come to the unit with power cable, collection reservoir, float valve and tubing.</p> <p>The float valve is clogged with dried blood and debris. The pump tubing shows signs of having been contaminated with fluid.</p> <p>The tubing is disinfected.</p>	
12	<p>Begin further troubleshooting of the device.</p> <p>Check the condition of the internal pump. Remove device housing screws and detach chassis ground and housing. Set aside screws in separate container.</p>	<p>The internal pump shows signs of having had fluid in it and the internal housing shows dried fluid-debris build-up.</p>	
13	<p>What will you do next?</p> <p>Clean build-up on internal housing using 70% alcohol.</p> <p>Check for a spare pump assembly for this device model.</p> <p>Remove pump assembly screws and detach assembly. Replace assembly with spare. Set pump assembly aside in a cleanable tray for later maintenance.</p> <p>Request additional spare pump assembly be procured.</p>	<p>The internal housing is cleaned.</p> <p>Only one spare pump assembly is available.</p>	
14	<p>Reassemble the suction pump.</p> <p>Check that all internal connections are stable.</p> <p>Reattach chassis ground and housing. Reassemble device tubing, collection reservoir and float valve.</p>	<p>All internal connections are secure.</p> <p>Device chassis and ground are reattached and tubing, collection reservoir and float valve reassembled.</p>	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
15	<p>Return the suction pump to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p> <p>Check with Sister Maria for a convenient time to can come and teach her staff about suction pump ward maintenance.</p>	<p>Sister Maria is happy to receive back the device. She plugs in and turns on the device; it suctions well.</p> <p>Sister arranges a time for you to come during the nurses' weekly CPD session.</p>	
16	<p>Return to the maintenance unit. Put on gloves. Disassemble and assess the pump assembly removed from the device.</p> <p>Take apart the pump assembly. Check the assembly piston, bearing and motor rotor for fluid-debris build-up.</p> <p>Clean pump assembly using a cloth with soapy water, being careful not to drip water into the components. Allow to dry.</p> <p>Place in Spare Parts storage and label with device model, ward location and repair details.</p> <p>Document corrective activities taken in maintenance & repair records.</p>	<p>There is fluid-debris build-up within the bearing and motor rotor.</p> <p>The device is properly labelled and stored.</p> <p>Activities are documented.</p>	

THANK YOU



REMIND PARTICIPANTS

All suctioning must be done gently, not too vigorously and not for too long.



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

continue to the following page 

TECHNICAL SCENARIO

6. Oxygen Concentrator 1

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where an oxygen concentrator has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

The nursery ward has sent a note to your department with the ward messenger. He says that Sister says to tell you that it is the third requisition note they have sent! **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Lucia is glad to see you.	
2	Ask what the problem is.	The oxygen concentrator is turning on but is making a very loud sound when it is used.	
3	Ask to see the device.	The oxygen concentrator is in a corner of the newborn care unit. It is not currently in use.	
4	Ask if it is okay for you to do some minor checks on the device where it is.	Sister Lucia is happy for you to do so in the ward.	
5	Perform minor checks on the device. Put on a pair of gloves. Make sure the device is plugged into the wall and switched on at the wall. Make sure the power cable is pushed well into the socket on the back of the oxygen concentrator. Press the power switch to 'on.'	The device is plugged into the wall and the wall socket is switched on. The power cable is slightly loose. The device audibly powers on, making a loud sound.	
6	What will you do next? Check the display of the concentrator for any alarms. Check the gross-particle intake filter for dust build-up. Test the oxygen output using an oxygen analyser.	A "Low Oxygen" indicator light is displayed. The gross-particle intake filter is well-cleaned. The oxygen output is at 67%.	
7	Explain your findings to Sister Lucia. The loud sound the oxygen concentrator is making is usually due to the compressor wearing out over time. Internal components need to be replaced. The "Low Oxygen" indicator light indicates that the concentrator has also been producing low oxygen, in this case 67%.	Explain to Sister Lucia the low oxygen output. Sister Lucia is shocked to discover that the oxygen output has been so low.	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>Explain next steps needed to prevent this from happening again.</p> <p>This issue happens with extended use but can be aggravated with poor cleaning of the oxygen concentrator intake filters. The clean external intake filter indicates this is not the issue, so the team should continue cleaning the filters as they have done in the past. However, the team should note the “Low Oxygen” indicator light and its implications.</p>	<p>The problem is explained to Sister Lucia.</p> <p>Sister Lucia is happy to hear that her ward has been performing user maintenance well, and will pass on the message to her team. She will also orient them on the use of the “Low Oxygen” indicator light in clinical care.</p>	
9	<p>Decide where to work on the oxygen concentrator (e.g., at the ward or in the workshop).</p> <p>The compressor assembly must be assessed which requires opening the device and removing components. Best practice is to remove to workshop for further examination.</p>	<p>The device should be removed to the workshop.</p>	
10	<p>Check with the in-charge if it is okay to remove the oxygen concentrator and if she has a working one to use while this concentrator is being repaired.</p>	<p>The ward has two other oxygen concentrators that they can use whilst waiting for the return of this device. However, this is the only concentrator with 10 L/min capacity, so its fast return would be appreciated.</p>	
11	<p>You remove the oxygen concentrator to the workshop. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Put on gloves. Disinfect the device housing using 70% alcohol.</p>	<p>The oxygen concentrator has come to the unit with power cable, humidifier and gross particle intake filter.</p> <p>The housing is disinfected.</p>	
12	<p>Begin further troubleshooting of the device. Check the condition of the internal components.</p> <p>Remove device housing screws and remove housing. Set aside screws in separate container.</p> <p>Check the condition of the fine particle intake filter.</p> <p>Access the compressor by opening the compressor cabinet. Remove connections to the starting capacitor, heat exchanger and other components as necessary to remove the compressor.</p>	<p>The housing is removed.</p> <p>The fine particle intake filter is in good condition.</p> <p>The compressor connections are safely and easily removed.</p>	
13	<p>Open the compressor assembly.</p> <p>Mark the sides of the compressor to ensure that the correct orientation is maintained. Use a ratchet to remove the bolts securing compressor head. Lift off the compressor head and assess head gaskets for damage.</p> <p>Turn over valve plate and assess O-rings and reeds for damage.</p> <p>Remove compressor sleeves and assess for visible damage. Clean interior with alcohol and a cotton swab.</p> <p>Remove the screw holding the compressor piston plate and cup in place. Check plates and cups for damage.</p>	<p>The head gaskets show some sign of wear and tear.</p> <p>The O-rings show some sign of wear and tear, although the reeds appear intact.</p> <p>The compressor sleeves are slightly worn and dirty. They are cleaned with alcohol.</p> <p>The compressor piston plate is cracked and damaged.</p>	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
14	<p>Repair the compressor assembly.</p> <p>Check for a spare compressor rebuild kit for this device model.</p> <p>Remove piston plates, cups, gaskets and O-rings. Replace with new kit and reassemble compressor assembly, maintaining original orientation. Replace the compressor in the device.</p>	<p>There are 5 compressor rebuild kits for this model in stock at the workshop.</p> <p>The compressor is reassembled correctly.</p>	
15	<p>Test the device to see if the repair has been successful.</p> <p>Turn on the oxygen concentrator and allow to run for 10 minutes. Check for the "Low Oxygen" alarm indicator.</p> <p>Test the oxygen output using an oxygen analyser.</p>	<p>The "Low Oxygen" alarm indicator does not come on.</p> <p>The oxygen output is now at 95%.</p>	
16	<p>Return the oxygen concentrator to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p> <p>Use the oxygen analyser to demonstrate the change in oxygen output.</p> <p>Arrange a time when you can train the nursery staff on maintaining the oxygen concentrator.</p> <p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>Sister Lucia is happy to receive back the device. She plugs in and turns on the device. It appears to function well, with a quieter operating noise.</p> <p>Sister Lucia is also happy to see the oxygen output is at 97%, and the "Low Oxygen" alarm indicator is not on.</p> <p>Sister arranges a time for you to come during the nurses' weekly CPD session.</p> <p>Activities and next steps are documented.</p>	

THANK YOU



REMIND PARTICIPANTS

Nearly all sick infants benefit from oxygen, especially those with respiratory distress. Hypoxia contributes to both morbidity and mortality.



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

continue to the following page 

TECHNICAL SCENARIO

7. Glucometer

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where a glucometer has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

The nurse has a 7-week-old boy in the ward who is said to be very drowsy. She cannot get the glucometer to work and is worried that the baby may have a low blood glucose. She has rung you and asked for your help. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Edith is glad to see you.	
2	Ask what the problem is.	The nurse has a 7-week-old boy in the ward who is said to be very drowsy. She cannot get the glucometer to work and is worried that the baby may have a low blood glucose.	
3	Ask to see the device.	The glucometer is on a cabinet in the newborn care unit. Associated glucometer strips are stored next to it.	
4	Ask if it is okay for you to do some minor checks on the machine where it is.	Sister Edith is happy for you to do so.	
5	Perform minor checks on the device. Check the expiry date on the glucometer strips. Does the nurse have access to new glucometer strips?	The glucometer strips are expired. Sister Edith says that the pharmacy should have additional strips, and sends a messenger to request them.	
6	What will you do next? Assess whether or not the expired glucometer strips were leading to inaccurate results by performing a quality control test with the device. Is a Quality Control solution available?	There is a Quality Control solution available in the stores behind the nurses' station.	
7	Quickly perform a Quality Control test with the nurse. Turn on the glucometer. Select Quality Control setting if available. Insert one of the new strips into the glucometer. Wipe the first droplet away from the tip of the Quality Control solution bottle, and allow the second drop to fall on the strip. Check that the device passes the Quality Control test.	The device passes the Quality Control test.	

continue to the following page 

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>Explain your findings to Sister Edith.</p> <p>The device has passed the Quality Control test with the new strips, so the expired strips must have been the problem. It can be used immediately.</p>	<p>Sister Edith is told what the problem was. She quickly takes the blood sugar of the patient. His blood sugar is very low, and she takes steps to increase his blood sugar.</p>	
9	<p>Wait for Sister Edith to assess and treat the patient. Then, explain next steps needed to prevent this from happening again.</p> <p>Expired strips should never be used with the glucometer. However, even strips that are not expired may give poor or inconsistent results, if they have been stored without the lid being completely closed. Staff should perform Quality Control tests regularly to ensure the device is functioning well in an emergency.</p>	<p>Sister Edith believes that additional orientation is needed for the staff on the ward and sets a date for you to come and help explain why this type of preventive maintenance is necessary for situations like the one just experienced.</p>	
10	<p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>Activities and CPD session orientation information are documented.</p>	

THANK YOU



REMIND PARTICIPANTS

Never use the back or the inner part of the heel for blood collection. This may cause artery, nerve, or bone damage. Readings should correspond with the clinical condition of the patient; if strips are expired or the patient's measurement site is not clean, measurements can be inaccurately high or low.



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

TECHNICAL SCENARIO

8. Oxygen Concentrator 2

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where an oxygen concentrator has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device

Setting for possible checks and repairs to the devices

Stimulate adequate tools and spare parts for this device

Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

Sister in-charge of the nursery has rung you to say she is worried as the babies who are put on oxygen remain a poor colour and do not seem to be doing well. She wonders if the oxygen concentrator is working properly. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Maria is glad to see you.	
2	Ask what the problem is.	The nurse is concerned that the neonates are not achieving oxygen saturations as expected. She suspects the concentrator is providing low levels of oxygen.	
3	Ask to see the device.	The oxygen concentrator is pushed against a wall in the corner of the nursery. One patient is attached to the device.	
4	Assess the device's alarms. Check the interface for a "Low Oxygen", "System Failure" or other alarm.	The "Low Oxygen" indicator is displayed.	
5	Ask the in-charge if she can coordinate moving the patient attached to the device to another, working concentrator.	Sister Maria arranges with a fellow nurse to place the patient on another oxygen concentrator.	
6	Ask if it is okay for you to do some minor checks on the machine where it is.	Sister Maria is happy for you to do so.	
7	Perform minor checks on the device. Put on a pair of gloves. Make sure the device is plugged into the wall and switched on at the wall. Make sure the power cable is pushed well into the socket on the back of the oxygen concentrator. Press the power switch to 'on.'	The device is plugged into the wall and the wall socket is switched on. The power cable is slightly loose. The device compressor audibly powers on.	

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#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
8	<p>What will you do next?</p> <p>Move the oxygen concentrator away from the wall, allowing for 30 to 35 cm of space between the wall and the housing. Allow the device to run for five minutes.</p> <p>Check the gross-particle intake filter for dust build-up.</p> <p>Test the oxygen output using an oxygen analyser.</p> <p>Check the combined flow rates of the concentrator.</p>	<p>The oxygen concentrator is moved away from the wall. The "Low Oxygen" indicator light remains on.</p> <p>The gross-particle intake filter is well-cleaned.</p> <p>The oxygen output is at 59%.</p> <p>The concentrator has a capacity of 8 L/min. The flowmeters are set at 2 and 4 L/min, which sum to 6 L/min (which is within the capacity of the concentrator).</p>	
9	<p>Explain your findings to Sister Maria.</p> <p>The "Low Oxygen" indicator light indicates that the concentrator has also been producing low oxygen, in this case 59%. The absence of dust on the gross-particle intake filter and the lack of loud sounds from the compressor imply that the issue is with the sieve beds.</p>	<p>The problem is explained to Sister Maria. Sister Maria is shocked to discover that the oxygen output has been so low.</p>	
10	<p>Explain next steps needed to prevent this from happening again.</p> <p>Sieve beds can become contaminated through constant use over time, highly humid environments or long periods of disuse. Users should provide preventive maintenance by turning on the device and letting it run for 15 minutes every week.</p>	<p>Next steps are explained to Sister Maria.</p> <p>Sister Maria believes that additional orientation is needed for the staff on the ward and sets a date for you to come and help explain the background on why this type of preventive maintenance is necessary.</p>	
11	<p>Decide where to work on the oxygen concentrator (e.g., at the ward or in the workshop).</p> <p>The operating pressure must be assessed, which requires opening the device. Though this can be conducted on the ward, the sieve bed replacement will require more extensive disassembly. Best practice is to remove to workshop for further examination.</p>	<p>The device should be removed to the workshop and reasoning explained to the in-charge.</p>	
12	<p>Check with the in-charge if it is okay to remove the oxygen concentrator and if she has a working one to use while this concentrator is being repaired.</p>	<p>The ward has only one other oxygen concentrator that they can use whilst waiting for the return of this device. Urgent repair is needed so the patients on the ward can get the oxygen support they need.</p>	
13	<p>You remove the oxygen concentrator to the workshop. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Put on gloves. Disinfect the device housing using 70% alcohol.</p>	<p>The oxygen concentrator has come to the unit with power cable, humidifier and gross particle intake filter.</p> <p>The housing is disinfected.</p>	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
14	<p>Begin further troubleshooting of the device. Check the condition of the internal components.</p> <p>Remove device housing screws and remove housing. Set aside screws in separate container.</p> <p>Check the condition of the fine particle intake filter.</p> <p>Check internally for leaks. Complete a first quick test audibly and then use soapy water or leak testing fluid to check connections for leaks.</p> <p>Check the operating pressure using a pressure gauge at the operating pressure testing port.</p>	<p>The housing is removed. de screws in separate container.</p> <p>The fine particle intake filter is in good condition.</p> <p>There are no audible hissing sounds, and no bubbles are formed with soapy water or leak testing fluid is used on the tubing connections.</p> <p>The operating pressure is at 45 psi.</p>	
15	<p>What will you do next?</p> <p>The operating pressure is high and the oxygen concentration is low, indicating that the sieve beds should be replaced. What is a normal operating pressure?</p> <p>Check for a spare sieve bed pair for this device model.</p> <p>Remove sieve bed screws or nuts and detach assembly. Remove all tubing attached to sieve beds and set aside. Replace sieve bed pair with spare pair. Set aside used sieve bed pair.</p> <p>Request additional spare sieve bed pair be procured.</p>	<p>Operating pressure above 40 psi indicates that there is an issue.</p> <p>Only one spare sieve bed pair is available.</p> <p>The sieve beds are detached from the assembly and the tubing and put aside.</p>	
16	<p>Reassemble the oxygen concentrator.</p> <p>Check that all internal connections are stable.</p> <p>Reattach housing.</p>	<p>All internal connections are secure.</p> <p>The housing is reattached.</p>	
17	<p>Test the device to see if the repair has been successful.</p> <p>Turn on the oxygen concentrator and allow to run for 10 minutes. Check for the "Low Oxygen" alarm indicator.</p> <p>Test the oxygen output using an oxygen analyser.</p>	<p>The "Low Oxygen" alarm indicator does not come on.</p> <p>The oxygen output is now at 95%.</p>	
18	<p>Return the oxygen concentrator to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p> <p>Use the oxygen analyser to demonstrate the change in oxygen output.</p>	<p>Sister Maria is happy to receive back the device. She plugs it in and turns on the device. It appears to function well, with a quieter operating noise.</p> <p>Sister Maria is very pleased to see that the oxygen output is at 95% and the "Low Oxygen" alarm indicator has not stayed on.</p>	
19	<p>Return to the maintenance unit. Put on gloves. Disassemble and assess the sieve bed assembly removed from the device.</p> <p>Take apart the sieve bed assembly. Remove and assess for reuse sieve bed rod, nuts, barrier paper, stationary and moving piston and baffle.</p> <p>Place in Spare Parts storage and label with device model, ward location and repair details.</p> <p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>All internal components are in good condition and may be reused.</p> <p>Documentation is completed and spare parts are labelled and stored.</p> <p>Activities and next steps are documented.</p>	

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THANK YOU

**REMIND PARTICIPANTS**

Nearly all sick infants benefit from oxygen, especially those with respiratory distress. Hypoxia contributes to both morbidity and mortality.

**INFECTION PREVENTION AND CONTROL**

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

TECHNICAL SCENARIO

9. Suction Pump 2

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

Scenario Overview

The scenario is set in the newborn care ward where a suction pump has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

You are called to the newborn care ward where the nurse in-charge has alerted you that the suction pump is not suctioning well and is making a very loud noise during use. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Theresa is glad to see you.	
2	Ask what the problem is.	The suction pump comes on but is making a very loud sound when it is used.	
3	Ask to see the device.	The suction pump is on a radiant warmer shelf, where it is in use.	
4	Ask if you should wait until the device is not in use to do some minor checks.	The procedure will be done in 2 minutes, after which the nurse using the pump will empty the collection reservoir and give it for you to test. You have observed that the suction pump was making a sound outside normal operation.	
5	<p>The procedure is complete and the nurse has cleaned the collection reservoir. Perform minor checks on the device.</p> <p>Put on a pair of gloves. Make sure the device is plugged into the wall and switched on at the wall.</p> <p>Make sure the power cable is pushed well into the socket on the back of the suction pump.</p> <p>Press the power switch to 'on.'</p>	<p>The device is plugged into the wall and the wall socket is switched on.</p> <p>The power cable is slightly loose.</p> <p>The device motor audibly powers on, with the same loud sound.</p>	
6	<p>The device has powered on. What will you do next?</p> <p>Check that all the tubing connections are tight.</p> <p>Ensure there is a filter in the pump circuit and that the long patient suction tube is attached to the outlet.</p> <p>Check that the float valve on the collection reservoir is moving up and down.</p>	<p>All tubing connections are tight.</p> <p>There is a filter in the pump circuit and the patient suction tube is attached. The filter is inserted in the wrong orientation.</p> <p>The float valve appears to be functioning well.</p>	

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#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
7	<p>Explain your findings to Sister Theresa.</p> <p>The filter was inserted in the wrong orientation, but the problem appears to be with the pump assembly which should be examined.</p>	<p>'Sister, the problem appears to be with the pump itself, but I also see that the filter in in the wrong way around.'</p>	
8	<p>Explain next steps needed to prevent this from happening again.</p> <p>This part of the internal pump assembly can be damaged with normal wear and tear over time. If this issue is happening repeatedly, it could be due to users leaving the suction pump on when not in use. Users should be sure to turn off the suction pump after using.</p>	<p>The problem is explained to Sister Theresa.</p> <p>Sister Theresa agrees that additional orientation is needed for the staff on the ward and sets a date for you to come and help provide this orientation.</p>	
9	<p>Decide where to work on the suction pump (e.g., at the ward or in the workshop).</p> <p>The pump assembly must be assessed, which requires opening the device. Best practice is to remove to workshop for further examination.</p>	<p>The device should be removed to the workshop.</p>	
10	<p>Check with the in-charge if it is okay to remove the suction pump and if she has a working one to use while this pump is being repaired.</p>	<p>The ward has one other suction pump that they can use, but as this is an emergency device, she is anxious not to be without it for long.</p>	
11	<p>You remove the suction pump to the workshop. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Put on gloves. Disinfect the device housing using 70% alcohol. Disassemble tubing and collection reservoir.</p> <p>Inspect the tubing, reservoir and float valve.</p> <p>Follow facility protocols to clean and disinfect tubing, reservoir and float valve in a tub of 0.5% chlorinated water.</p>	<p>The suction pump has come to the unit with power cable, collection reservoir, float valve and tubing.</p> <p>The housing is disinfected and tubing disassembled.</p> <p>The float valve, tubing and reservoir are undamaged.</p>	
12	<p>Begin further troubleshooting of the device.</p> <p>Check the condition of the internal pump. Remove device housing screws and detach chassis ground and housing. Set aside screws in separate container.</p> <p>Check the condition of the pump's components, including the motor stator, pistons and piston diaphragms.</p>	<p>The internal pump shows no signs of fluid.</p> <p>The piston diaphragms appear worn and cracked.</p>	
13	<p>What will you do next?</p> <p>Check for a spare pump assembly for this device model.</p> <p>Check for a replacement diaphragm of an appropriate size.</p> <p>Remove diaphragm and replace with spare. Clean internal housing of dust and debris.</p>	<p>No spare pump assemblies are available.</p> <p>A spare diaphragm is available from a decommissioned suction pump.</p> <p>The old diaphragm is removed and replaced with the spare.</p>	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
14	<p>Reassemble the suction pump assembly.</p> <p>Check that all internal connections are stable.</p> <p>Reattach chassis ground and housing. Reassemble device tubing, collection reservoir and float valve. Make sure the filter is correctly aligned. Test the suction pump by suctioning water.</p>	<p>All internal connections are secure.</p> <p>The suction pump suctions well.</p>	
15	<p>Return the suction pump to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p> <p>Arrange a time when you can train the nursery staff on assembling and maintaining the suction pump.</p> <p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>Sister Theresa is happy to receive back the device. She plugs in and turns on the device; it suctions well, with normal operating noise.</p> <p>Sister Theresa arranges a time for you to come during the nurses' weekly CPD session.</p> <p>Activities and CPD session orientation information are documented.</p>	

THANK YOU



REMIND PARTICIPANTS

All suctioning must be done gently, not too vigorously and not for too long.



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.

TECHNICAL SCENARIO

NAME: _____ DATE: _____

PURPOSE: Teaching / Practice

Test Result: Pass / Fail / Retest

10. Flow Splitter

Scenario Overview

The scenario is set in the newborn care ward where a flow splitter has malfunctioned. Participants should assess and troubleshoot the device, implement needed repairs and return the device for use.

Reminder to Facilitator

Remember that **you are teaching** this scenario or skill to a faculty member or one of your fellow participants. **You are not the student.**

ALWAYS REMEMBER THE CANDIDATE SHOULD START WITH THE 4 Ss

Safety for you, the staff around you and the patient on the device
Setting for possible checks and repairs to the devices
Stimulate adequate tools and spare parts for this device
Shout for additional technical support if necessary

Begin Scenario

SETTING THE SCENE

A nurse sends a patient attendant to your department with a note that says the flow splitter in the nursery doesn't seem to be working properly and please could someone come and help as soon as possible. **What will you do?**

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
1	Go to the ward and introduce yourself to the in-charge.	Sister Ngazi is glad to see you.	
2	Ask what the problem is.	The nurse has been trying to use the flow splitter all morning with various oxygen sources. She says that the flow splitter flowmeters are going up, but no flow is coming out of the ports.	
3	Ask to see the device.	The flow splitter is on a shelf on the wall. It is plugged into a walled oxygen flowmeter that is set at 10 L/min. No patients are currently hooked up to the flow splitter.	
4	Ask if it is okay for you to do some minor checks on the machine where it is.	Sister Ngazi is happy for you to do so.	
5	Perform minor checks on the device. Put on a pair of gloves. Open each flow splitter regulator and check for flow by placing a finger near each of the flow splitter outlet port. The oxygen source seems to be functioning well. The third port should be inspected further.	Flow is coming out of all ports except the third of five ports.	
6	What will you do next? Visually inspect the third port for debris or blockages.	There is what appears to be dirt and debris in the flow splitter port.	
7	Explain your findings to Sister Ngazi. One of the flow splitter ports has build-up in the oxygen port that connects to the patient. It must be further assessed and cleaned.	Sister Ngazi is told and shown what the problem is.	
8	Explain next steps needed to prevent this from happening again. Debris can build up over time in flow splitter ports, although usually not to this extent. Users should provide preventive maintenance by turning on the device and letting it run for 15 minutes every week.	Sister Ngazi is told how to prevent such a problem from occurring. She believes that additional orientation is needed for the staff on the ward and sets a date for you to come and help explain why this type of preventive maintenance is necessary.	

#	ACTION REQUIRED	INFORMATION / RESULT	COMMENTS:
9	<p>Decide where to work on the flow splitter (e.g., at the ward or in the workshop).</p> <p>The flow splitter housing should be removed to look at the condition of the internal tubing. This can be performed at the nurse's station to prevent the device being removed from the ward.</p>	<p>Sister Ngazi is asked if it is okay to do some minor repairs at the nurse's station.</p> <p>She agrees that you may use the nurse's station to provide basic maintenance.</p>	
10	<p>You remove the flow splitter to the nurse's station. What will you do next?</p> <p>Document device information and note all components received with the device.</p> <p>Put on gloves. Disinfect the device housing using 70% alcohol.</p>	<p>The flow splitter has been brought to the nurse's station with oxygen source tubing.</p>	
11	<p>Begin further troubleshooting of the device. Check the condition of the internal components.</p> <p>Remove device housing screws and remove housing. Set aside screws in separate container.</p> <p>Visually assess the internal tubing connections for additional debris.</p>	<p>The device housing is removed.</p> <p>Dirt and debris are present inside the tube connected to the third port that is currently blocked.</p>	
12	<p>Repair the port and tubing.</p> <p>Gently remove the soiled internal tubing from the device. Using a cotton swab and soapy water, wash the tubing until all debris are removed. Rinse with 70% alcohol.</p> <p>Using forceps wrapped in cotton gauze or a test tube brush and soapy water, clean the flow splitter port.</p> <p>Reconnect the internal tubing to the flow splitter. Connect oxygen source tubing and oxygen source and let run for 5 minutes until any beads of liquid are dried.</p>	<p>The soiled tubing is removed and cleaned with soapy water.</p> <p>The port is cleaned.</p> <p>The tubing is rinsed through with 70% alcohol and replaced. Oxygen is connected and run through for 5 minutes.</p>	
13	<p>Test the flow splitter.</p> <p>Open the third flow splitter regulator and check for flow by placing a finger near the flow splitter outlet port.</p>	<p>The flow splitter outlet port is relaying oxygen.</p>	
14	<p>Return the flow splitter to the ward.</p> <p>Go through repair and maintenance steps taken with the in-charge. Ask her to turn on and verify that the device is working well.</p> <p>Document corrective activities taken and next steps in maintenance & repair records.</p>	<p>Sister Ngazi is happy to receive back the device. She turns it on and is pleased with the results. She asks you not to forget to come and train the staff on the appointed day.</p> <p>Activities and CPD session orientation information are documented.</p>	

THANK YOU



REMIND PARTICIPANTS

Nearly all sick infants benefit from oxygen, especially those with respiratory distress. Hypoxia contributes to both morbidity and mortality.



INFECTION PREVENTION AND CONTROL

Be sure to wash your hands thoroughly and to put on gloves before handling any equipment. After every use, remember to disinfect all consumables and equipment before using them again.



END OF GIC SCENARIOS BOOKLET

Refer to the GIC director at the end of the course.