

Chapter 3A

Specialty Nursing Competencies Butterfly Ward



Nursing Competency Workbook, 10th Edition

The Royal Children's Hospital (RCH) Nursing Competency Workbook is a dynamic document that will provide you with direction and assist you in your professional development as a nurse working at the RCH. The workbook also provides a record of your orientation and competency obtainment.

Chapter 1

Includes resources for nurses and is complemented by the Royal Children's Hospital (RCH) New Starter Pack, Hospital Orientation and Nursing Orientation day, to provide an introduction to nursing at the RCH.

Chapter 2

Generic Nursing Competency Assessment Forms

Chapter 3

Specialty Nursing Competency Assessment Forms

Appendix 1

Unit / Department Nursing Orientation

All chapters and appendices are downloadable as pdfs from the Nursing Education Website.

The RCH Nursing Competency Workbook was developed by Nursing Education with input from specialist nurses at the RCH.

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The following is the list of competencies that you are expected to achieve whilst you are working on the Butterfly Ward. Competencies are divided into two sections – High Dependency Unit and Neonatal Intensive Care – and a timeframe for achieving each competency is listed below. Members of the education team will regularly check individual progress on achievement of these competencies.

Those employed to work in the High Dependency Nursery will need to complete the competencies in the High Dependency Unit section only. Those with ventilator experience must complete all competencies in both sections.

Competency Achievement Timelines

High Dependency Unit Competencies

To be achieved by end of supernumerary period

- Neopuff™ and Anaesthetic Bagging Circuit in Neonates
- Neonatal Thermoregulation
- Neonatal Assessment
- Neonatal Fluid Management
- Peripherally Inserted Central Catheters (PICCs) in Neonates
- Humidified High Flow Nasal Prongs

To be achieved by end of six months

- Admission of a Neonate to High Dependency Unit
- Neonatal Sepsis

To be achieved by end of twelve months

- Phototherapy
- Pierre Robin Sequence (PRS)
- aEEG monitoring

Neonatal Intensive Care Competencies

To be achieved by the end of supernumerary period

- Continuous Positive Airway Pressure (CPAP) in Neonates
- Conventional Ventilation (Basic Principles in Neonates)

To be achieved by end of three months

- Admission to Neonatal Intensive Care
- Arterial Lines (Neonates)
- Neonatal Endotracheal Intubation
- Elective Extubation in Neonates
- Care of the Neonate < 30 weeks Gestation requiring Environmental Humidity
- Surgery in Neonatal Intensive Care

To be achieved by the end of six months

- Intercostal catheters (Neonates)
- Intravenous Medication Infusions
- Peritoneal Dialysis - Manual

To be achieved by the end of twelve months

- Therapeutic Hypothermia in Neonates
- Cardiovascular Medication Infusions
- Nitric Oxide Therapy

To be achieved within one month of learning these forms of ventilation

- High Frequency Oscillatory Ventilation (HFOV)
- High Frequency Jet Ventilation (HFJV)

Neopuff™ and Anaesthetic Bagging Circuit in Neonates

Competency Statement:

The nurse safely and effectively uses a Neopuff™ and anaesthetic bagging circuit

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read Neopuff™ Set Up and Use guideline2. Discuss settings of Neopuff™ for non-ventilated and ventilated neonates3. Discuss the use of a blender, and the differences in FiO₂ when using a Neopuff™ in an ICU room versus a HDU room4. Discuss when an anaesthetic bagging circuit may be used
S	<ol style="list-style-type: none">1. Demonstrate correct set up of Neopuff™ circuit2. Demonstrate how to set and adjust PIP, PEEP, and High PIP limit3. Demonstrate how to increase FiO₂ using a blender4. Demonstrate correct set up of anaesthetic bagging circuit5. Demonstrate correct use of anaesthetic bagging circuit

I have demonstrated the necessary knowledge, skills, abilities, and attributes to be deemed competent in the competency above. I acknowledge that ongoing development and maintenance of competency is my responsibility and will be evidenced in my Professional Practice Portfolio.

Please indicate if there is written feedback or reflections related to this competency in the designated section of the workbook

Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Neonatal Thermoregulation

Competency Statement:

The nurse provides safe and effective thermoregulation nursing care for neonates

COMPETENCY ELEMENTS	
K	<p>Thermoregulation Overview</p> <ol style="list-style-type: none"> 1. Locate and read Neutral Thermal Environment (NTE) chart, Neonatal Environmental Humidity for Premature Neonates guideline, Thermoregulation for Premature Neonates guideline and Temperature Management guideline, and Isolette use in Paediatric Wards policy. 2. State the normal range for axilla and rectal temperatures in a neonate 3. State the correct technique for obtaining a rectal temperature in infants under 3 months of age 4. Define neutral thermal environment (NTE) 5. Explain the 4 mechanisms of heat loss and state two strategies to prevent heat loss for each of the 4 mechanisms 6. State risk factors for temperature imbalance in neonates 7. Discuss cold stress and impact this has on the critically ill neonate 8. Outline the nursing management for hypothermia 9. Define hyperthermia and describe the assessment findings in the neonate <ol style="list-style-type: none"> a. Explain high temperature related to environmental factors b. Explain high temperature related to infection 10. Outline the nursing management for hyperthermia 11. Describe the advantages/disadvantages of <ol style="list-style-type: none"> a. Radiant warmer b. Incubator 12. Discuss the use of a radiant warmer for procedures in HDU 13. Explain the mechanism of servo control <p>Incubators</p> <ol style="list-style-type: none"> 14. State how often a neonate's temperature should be monitored when in an incubator and the procedure for increasing incubator temperature if needed 15. State why an incubator should not be turned off while a neonate is still being nursed in it 16. State the factors to be considered in weaning a neonate from an incubator to an open cot 17. Describe procedure for weaning a neonate from an incubator to an open cot 18. Explain the mechanism of servo control in the incubator stating two reasons why this mode would be used
S	<p>Incubators</p> <ol style="list-style-type: none"> 1. Demonstrate how to set the NTE for 2 neonates of different gestations and weights in incubators 2. Demonstrate how to set up servo control and what needs to be documented if the neonate is on servo control in the incubator, explaining the rationale for this documentation 3. Accurately document information related to thermoregulation of the neonate

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Neonatal Assessment

Competency Statement:

The nurse safely and effectively performs a comprehensive assessment on a neonate

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Explain when a neonatal assessment should be performed2. Describe the maternal history of the neonate being assessed3. Describe the labour and delivery of the neonate being assessed
S	<ol style="list-style-type: none">1. Performs a head to toe physical assessment of the neonate explaining the procedure using the following systems:<ol style="list-style-type: none">a. Respiratoryb. Cardiovascularc. Neurologicald. Gastrointestinale. Eliminationf. Musculoskeletal2. Accurately document findings from the neonatal assessment

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Neonatal Fluid Management

Competency Statement:

The nurse safely and effectively manages fluid requirements of a neonate

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read the Neonatal Fluids guideline, Neonatal Hypoglycaemia guideline, Extravasation guideline, Replacement of Neonatal Gastrointestinal Losses guideline2. Identify expected fluid requirements for neonates<ol style="list-style-type: none">a. Day 1b. Day 2c. Day 3d. Beyond Day 33. Identify 4 clinical indications for commencing intravenous therapy4. State rationale for choice of fluid selected for intravenous therapy in neonates5. Describe the potential effects intravenous therapy may have on a neonate's blood sugar level (BSL) and interventions that may need to be taken<ol style="list-style-type: none">a. Identify normal ranges for BSL and true blood glucose (TBG)6. Identify interventions to minimise the risk of extravasation7. Discuss why infusing TPN/lipid peripherally increases the risk of extravasation, and strategies used to prevent this8. Describe the physical signs that indicate the cannula is extravasated9. Discuss interventions to be taken if cannula is suspected of having extravasated10. With regards to replacement fluids<ol style="list-style-type: none">a. Identify which fluid losses can be replacedb. Identify when to commence fluid replacement for gastrointestinal lossesc. Identify which fluids are used for fluid replacementd. Identify when to cease fluid replacement
S	<ol style="list-style-type: none">1. Demonstrate basic assessment of a neonate's hydration status including<ol style="list-style-type: none">a. Fluid balanceb. Electrolytesc. Fontanellesd. Urine outpute. Vital signs2. With regards to replacement fluids<ol style="list-style-type: none">a. Demonstrate accurate calculation of losses in ml/kg/dayb. Demonstrate accurate calculation of required replacementc. Demonstrate setting of intravenous pump to required rated. Correctly document fluid losses and replacement3. Demonstrate explanations and confirmation of understanding with the parents

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Peripherally Inserted Central Catheters (PICCs) in Neonates

Competency Statement:

The nurse safely and effectively cares for PICC lines in neonates on Butterfly Ward

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none"> 1. Locate and read the RCH CVAD Procedure, RCH Aseptic Technique Procedure, PICC and CVAD Lines (Neonatal Medicine Intranet) resources 2. Explain aseptic and surgical aseptic technique, and explain when each technique is used in relation to PICC lines: <ol style="list-style-type: none"> a. Setting up for procedure b. Priming the line c. Preparing and administering medication d. During dressing changes 3. State 3 indications for insertion 4. State 2 contraindications for insertion 5. State 3 suitable sites for insertion 6. State 4 indications for removal 7. Describe ongoing nursing assessment and care 8. Describe 5 potential complications and outline appropriate management 9. Explain why x-ray is required for confirmation of PICC position
S	<ol style="list-style-type: none"> 1. Prepare appropriate equipment for insertion 2. Maintain correct technique when: <ol style="list-style-type: none"> a. Setting up for procedure b. Priming the line c. Preparing and administering medication 3. Demonstrate specific nursing assessment and care of the neonate during insertion 4. Demonstrate specific nursing assessment and care of the neonate when line in-situ 5. Describe correct position of catheter tip, and point position out on x-ray 6. Describe procedure for removal 7. Demonstrate explanations and confirmation of understanding with parents 8. Demonstrate ability to teach parents how to care for their baby with a PICC line 9. Clearly document required information in EMR

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Admission of a Neonate to High Dependency Unit

Competency Statement:

The nurse safely and effectively cares for a neonate requiring admission into the high dependency unit

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read the Admission into the High Dependency Unit guideline2. Discuss 4 potential problems that the neonate may experience during admission3. Describe rationale for specific nursing assessment and care during admission4. State normal observation parameters for the neonate5. Describe 4 procedures/tests that may be performed on the neonate during this admission and prepare equipment to undertake the procedures/tests6. Discuss and demonstrate ways in which parents can be involved in the care of their child in the HDU, using the COCOON principles7. Discuss involvement of members of the multidisciplinary team
S	<ol style="list-style-type: none">1. Collect and prepare equipment and paperwork for an admission2. Document all labour and delivery history, birth weight and relevant birth history, including immunisations, in correct sections within EMR3. Correctly set up bed space in preparation for an admission4. Demonstrate linking of devices to EMR as soon as patient is in bed space5. Perform a comprehensive and systematic nursing assessment during admission6. Demonstrate prioritisation of care and adapt to changes in clinical condition stating rationale for the change in care7. Demonstrate prioritisation of admission procedures to prevent further complications8. Accurately document information related to admission to the HDU9. Demonstrate explanations and confirmation of understanding with parents (including ward orientation and introduction to the COCOON in the My RCH App)

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Neonatal Sepsis

Competency Statement:

The nurse safely and effectively cares for a neonate with suspected sepsis

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Describe 4 specific and non-specific signs that may indicate the presence of sepsis in the neonate2. Identify 4 risk factors for sepsis in neonates3. State the tests commonly used to diagnose/exclude sepsis4. Explain how each test assists in making a diagnosis of sepsis5. Discuss and demonstrate the maintenance of patient safety during a septic work-up6. Discuss and demonstrate the implementation of effective patient comfort measures during a septic work-up7. Discuss and demonstrate nursing care priorities after a septic work-up
S	<ol style="list-style-type: none">1. Correctly assemble the equipment required to perform each of the tests2. Demonstrate collection of specimens according to guidelines3. Accurately label samples and print order form from EMR4. Demonstrate explanations and confirmation of understanding with the parents

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Phototherapy

Competency Statement:

The nurse safely and effectively cares for a neonate requiring phototherapy

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read the Phototherapy for Neonatal Jaundice guideline and Exchange Transfusion (Neonatal) guideline2. Identify 4 risk factors for, or causes of neonatal jaundice3. State the difference in serum bilirubin (SBR) levels<ol style="list-style-type: none">a. Conjugatedb. Unconjugated4. Discuss the action of phototherapy light in reducing SBR5. Identify the major complication of hyperbilirubinaemia and state the signs and symptoms6. State 2 methods available to deliver phototherapy7. Discuss nursing care required including:<ol style="list-style-type: none">a. Assessment of jaundice and effect of blue light therapyb. Response to therapy and specifics of blood specimen collection to monitor SBRc. Temperature assessment and control under radiant warmer or in incubatord. Hydration status assessment and altered fluid requirementse. Stooling pattern alteration and associated hygiene needsf. Comfort and developmental needs of the neonate receiving phototherapy8. Discuss and demonstrate ways in which parents can be involved in the care of their child receiving phototherapy
S	<ol style="list-style-type: none">1. Correctly assess the indication for phototherapy based on acceptable SBR range for neonate's gestation and postnatal age, and correctly plot SBR on chart2. Assemble and operate phototherapy lights safely and effectively<ol style="list-style-type: none">a. Position the lights at correct height and provide rationaleb. Position the neonate to maximise light exposure3. Accurately document assessment and care associated with phototherapy4. Demonstrate explanations and confirmation of understanding with parents

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Pierre Robin Sequence (PRS)

Competency Statement:

The nurse safely and effectively cares for neonate with Pierre Robin Sequence

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read the Nasopharyngeal Tube (NPT) Modified for Pierre Robin Sequence guideline2. Explain the pathophysiology of PRS<ol style="list-style-type: none">a. Include pathophysiology of non-transmission of breaths when neonate does not appear apnoeic3. Explain specific nursing assessment and management required for PRS<ol style="list-style-type: none">a. Include rationale for auscultating neonate's chest during assessment4. Discuss the nursing interventions that may be required if the neonate with PRS desaturates5. Explain the indications to change a modified NPT6. Explain the difference between a modified NPT for PRS and a single nasal prong (SNP) for the delivery of CPAP7. Discuss the use of downloadable overnight oximetry
S	<ol style="list-style-type: none">1. Demonstrate positioning of a neonate with PRS stating rationale for choice of positioning2. Demonstrate modification of a NPT for a neonate with PRS, including determining correct NPT length3. Demonstrate preparation for insertion of the modified NPT in a neonate with PRS4. Demonstrate insertion of a modified NPT, including securing the NPT5. Demonstrate suction of a modified NPT6. Demonstrate explanations and confirmation of understanding with parents7. Demonstrate ability to teach parents how to care for their baby with a modified NPT in-situ

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

aEEG Monitoring

Competency Statement:

The nurse safely and effectively cares for a neonate requiring aEEG monitoring

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read on-line resources: Brainz Monitor Learning Package, Brainz Monitor Interpretation Quick Reference Guide, Brainz Monitor Insertion of Needle Electrodes, and OBM Quick Reference Guide2. Complete OBM (Olympic Brainz Monitor) and Needle Electrodes eLearning activities3. Explain what aEEG is4. State 2 reasons why aEEG is used5. State when needle electrodes should not be used6. State the main differences between the Brainz machine and the OBM machine
S	<ol style="list-style-type: none">1. Demonstrate set up of an aEEG monitor2. Demonstrate the correct placement and attachment of needle electrodes3. Demonstrate commencement of recording4. Demonstrate checking of signal from electrodes5. Demonstrate the marking events and explain what events should be marked6. Demonstrate recognition of sleep/wake cycles on aEEG7. Demonstrate recognition of:<ol style="list-style-type: none">a. Continuous normal voltageb. Discontinuous normal voltagec. Burst suppression – high burst densityd. Burst suppression – low burst densitye. Continuous low voltagef. Isoelectric or flat traceg. Seizuresh. Artefact8. Demonstrate explanations and confirmation of understanding with parents9. Discuss and demonstrate ways in which parents can be involved in the care of their child with aEEG monitoring in-situ

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Humidified High Flow Nasal Prongs (HFNP)

Competency Statement:

The nurse safely and effectively cares for a neonate requiring HFNP

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read the RCH Oxygen Delivery guideline and Humidified High Flow Nasal Prongs in NICU guideline2. State 4 reasons for humidification of high flow3. State at what rate of oxygen delivery should humidification commence4. State which setting the humidifier should be set at for delivery of HFNP5. Discuss the function of the pressure relief valve on the Fisher & Paykel RT330 Optiflow™ tubing6. State what the pressure limit is set at on the Fisher & Paykel RT330 Optiflow™ tubing for neonatal and infant cannulae
S	<ol style="list-style-type: none">1. Demonstrate setting up of the HFNP using the F&P RT330 Optiflow™ tubing2. Demonstrate correct sizing and application of nasal prongs for HFNP

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Continuous Positive Airway Pressure (CPAP) in Neonates

Competency Statement:

The nurse safely and effectively cares for a neonate requiring CPAP

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none"> 1. Locate and read the Continuous Positive Airway Pressure – Care in the Newborn Intensive Care Unit guideline 2. Identify 4 factors which will determine whether there is adequate gas exchange 3. Describe CPAP and PEEP 4. Describe FRC 5. Identify 3 clinical indications for commencing CPAP in the neonate 6. Discuss 3 methods of delivering CPAP, including the rationale for using each method and the relevant equipment required 7. Explain the difference between a single nasal prong (SNP) for the delivery of CPAP, and a modified nasopharyngeal tube (NPT) for patients with Pierre Robin Sequence 8. State the size of SNP and the length a SNP should be inserted for neonates below 750 grams, 750-2000 grams, 2000-3000 grams, greater than 3000 grams 9. Discuss signs of a partially or fully blocked SNP and the actions to take if this occurs 10. Outline the equipment needed to change a SNP and bi-nasal prong 11. Explain the reasons that a saline lavage is contraindicated when suctioning a SNP 12. Discuss 4 complications associated with each method of administering CPAP 13. Discuss signs and management of deteriorating respiratory function
S	<ol style="list-style-type: none"> 1. Demonstrate correct preparation and set up of equipment, materials, and environment for SNP insertion and midline CPAP 2. Demonstrate correct insertion of a SNP 3. Demonstrate correct suction of a SNP 4. Perform an assessment of the neonate's respiratory status <ol style="list-style-type: none"> a. Breath sounds b. Respiratory effort c. Pattern and rate of respirations d. Perfusion e. Colour f. Level of consciousness g. Oxygen saturations 5. Accurately document assessment and care associated with CPAP 6. Demonstrate explanations and confirmation of understanding with parents 7. Demonstrate ability to teach parents how to care for their baby on CPAP

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Arterial Lines (Neonates)

Competency Statement:

The nurse safely and effectively cares for a neonate with a peripheral intra-arterial or umbilical arterial catheter (PIA/UAC)

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none"> 1. Locate and read Peripheral Arterial Access of the Neonate and Umbilical Arterial Catheterisation of the Newborn guidelines 2. State 2 indications for insertion of an arterial line 3. State normal mean arterial pressure (MAP) values for neonates 4. Explain rationale for MAP measurement (as opposed to systolic/diastolic) 5. Describe 4 potential complications of arterial lines and outline management 6. State when a peripheral arterial line (PIA) and umbilical arterial line (UAC) would be used 7. State 2 contraindications for insertion of a PIA 8. State possible sites for a PIA 9. State why the brachial artery is not used for a PIA 10. State 2 indications for removal of a PIA 11. Explain specific nursing assessment and care of the neonate (including rationales) during insertion of a PIA 12. Describe procedure for removal of a PIA 13. State 4 indications for insertion of an UAC 14. State 4 contraindications for insertion of a UAC 15. State 4 indications for removal of a UAC 16. Describe 4 potential complications of a UAC and outline management 17. Explain specific nursing assessment and care of the neonate (including rationales) during insertion of a UAC 18. Describe the correct position of the UAC tip and point position out an abdominal x-ray 19. Distinguish between umbilical arterial catheter and umbilical venous catheter on x-ray 20. Describe procedure for removal of a UAC
S	<ol style="list-style-type: none"> 1. Demonstrate ability to level and zero transducer providing rationale 2. Demonstrate ability to read blood pressure accurately 3. Correctly prepare equipment for insertion of a PIA 4. Explain and demonstrate specific nursing assessment and care of the neonate (including rationales) when a PIA is in-situ 5. Demonstrate correct technique for blood sampling from a PIA and UAC 6. Correctly prepare equipment for insertion of a UAC 7. Demonstrate specific nursing assessment and care of the neonate (including rationales) when a UAC is in-situ 8. Demonstrate explanations and confirmation of understanding with parents

I have demonstrated the necessary knowledge, skills, abilities, and attributes to be deemed competent in the competency above. I acknowledge that ongoing development and maintenance of competency is my responsibility and will be evidenced in my Professional Practice Portfolio.

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Intravenous Medication Infusions

Competency Statement:

The nurse safely and effectively cares for the neonate receiving infusions

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and discuss Medication Resources available for neonatal medications2. State the action, usual dose, side effects and nursing responsibilities during administration of an infusion of the following medications<ol style="list-style-type: none">a. Alprostadilb. Morphinec. Fentanyld. Midazolam3. Discuss 3 potential complications of each of the above medication infusions
S	<ol style="list-style-type: none">1. Demonstrate calculation of an infusion in<ol style="list-style-type: none">a. nanograms/kg/minb. mcg/kg/hrc. mcg/kg/min2. Demonstrate safe changing of infusions using the double pumping method

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Neonatal Endotracheal Intubation

Competency Statement:

The nurse safely and effectively cares for a neonate requiring endotracheal intubation

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read Assisting with Elective Intubation of the Neonate on Butterfly Ward guideline2. State 3 indications for intubation in neonates3. Describe 4 potential complications of intubation and outline management4. State the action, usual dose, side effects, rationale in the order of giving intubation drugs and nursing responsibilities during the administration of<ol style="list-style-type: none">a. Atropineb. Suxamethoniumc. Pancuroniumd. Fentanyl5. Explain required oxygenation and cardiac output during intubation6. Explain the use of cricoid pressure7. Describe the correct position of an ETT and identification on chest x-ray
S	<ol style="list-style-type: none">1. Demonstrate the collection and preparation of equipment2. Demonstrate the preparation and administration of medication if ordered3. Demonstrate activation of the QRS tone on monitor and provide rationale4. Demonstrate nursing assessment and care of neonate during intubation and provide rationale5. Explain and demonstrate nursing assessment and care of neonate immediately after intubation and provide rationale6. Demonstrate correct taping of an oral endotracheal tube7. Demonstrate correct taping of a nasal endotracheal tube8. Demonstrate auscultation of the neonate's chest and describe potential changes on auscultation9. Demonstrate explanation and confirmation of understanding with parents

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Conventional Ventilation (Basic Principles in Neonates)

Competency Statement:

The nurse safely and effectively cares for a neonate requiring basic ventilation

COMPETENCY ELEMENTS	
K	<p>General</p> <ol style="list-style-type: none"> 1. Locate and read the Basic Ventilation Learning Package 2. Identify the types of ventilators used on Butterfly Ward 3. Discuss the common modes of ventilation used in NICU <ol style="list-style-type: none"> a. IMV b. SIMV c. PSV d. PTV e. TTV 4. Explain the different ventilator settings used to provide the above modes of ventilation 5. Outline trouble shooting for ventilator and humidifier function 6. State how often ventilator circuits are changed (with water added and without water added) 7. State 2 reasons for humidification of inspired gases during ventilation 8. State the humidifier setting utilised for conventional ventilation <p>Endotracheal Tube (ETT) suction</p> <ol style="list-style-type: none"> 9. State 4 indications for ETT suction 10. Discuss 4 potential complications of ETT suction and outline management 11. State when it is appropriate for ETT suction to be a 1-person procedure 12. State when it is appropriate to use 0.9% saline lavage with suctioning 13. Identify rationale for oral and nasopharyngeal suctioning post ETT suctioning 14. State 2 occasions when medical staff should be informed of the outcome of ETT suctioning 15. Provide rationale for assessment to be undertaken of the neonate before, during and after suctioning 16. Discuss 2 ventilation strategies that can be used with suctioning
S	<p>Ventilator Set Up</p> <ol style="list-style-type: none"> 1. Correctly prepare and assemble all ventilator components 2. Correctly perform ventilator and circuit check prior to connection to neonate and provide rationale for this check 3. Demonstrate nursing care of the neonate during circuit change <p>ETT suction</p> <ol style="list-style-type: none"> 4. Correctly prepare equipment needed prior to suctioning 5. Perform suction procedure using correct suction pressure and in an accepted period, stating rationale for these 6. Maintain infection control precautions throughout the procedure 7. Accurately document information related to ventilation and suctioning 8. Demonstrate explanations and confirmation of understanding with parents 9. Demonstrate communication with members of the multidisciplinary team

I have demonstrated the necessary knowledge, skills, abilities, and attributes to be deemed competent in the competency above. I acknowledge that ongoing development and maintenance of competency is my responsibility and will be evidenced in my Professional Practice Portfolio.

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Admission Neonatal Intensive Care

Competency Statement:

The nurse safely and effectively cares for a neonate during admission into the NICU

COMPETENCY ELEMENTS	
K	<p>General</p> <ol style="list-style-type: none"> 1. Locate and read Admission into the Neonatal Intensive Care Unit guideline 2. Describe 4 potential problems a neonate may experience on admission and outline management 3. Describe 4 procedures/tests that may be performed on a neonate newly admitted including rationales 4. Describe anticipated needs of the neonate based on admission diagnosis 5. Describe rationale for specific nursing assessment and care during admission 6. Discuss involvement of members of the multidisciplinary team <p>Radiant Warmers</p> <ol style="list-style-type: none"> 6. Explain the mechanism of servo control 7. State how often the temperature should be monitored when neonates are nursed on a radiant warmer <ol style="list-style-type: none"> a. Identify how to manage the radiant warmer when the neonate is hypothermic b. Identify how to manage the radiant warmer when the neonate is hyperthermic 8. Describe and demonstrate specific nursing assessment and care required of the neonate on a radiant warmer 9. State when it is appropriate to transfer a neonate to <ol style="list-style-type: none"> a. An incubator b. Open cot 10. Describe the specific nursing care to maintain thermoregulation stability when transferring a neonate to an open cot
S	<p>General</p> <ol style="list-style-type: none"> 1. Demonstrate the collection of relevant information about the admission 2. Demonstrate assembly and preparation of equipment and the bed space for admission 3. Demonstrate linking of devices through EMR as soon as patient is in bed space 4. Perform a comprehensive and systematic nursing assessment during admission 5. Demonstrate prioritisation of care and adaptation to changes in the neonate's clinical condition 6. Demonstrate prioritisation of admission procedures to prevent further complications 7. Accurately document assessment and care associated with admission to NICU 8. Demonstrate explanation and confirmation of understanding with parents 9. Discuss and demonstrate ways in which parents can be involved in the care of their child in NICU <p>Radiant Warmers</p> <ol style="list-style-type: none"> 10. Demonstrate the functions of a radiant warmer 11. Collect and prepare equipment to pre-warm the radiant warmer 12. Position the neonate correctly on the radiant warmer 13. Demonstrate correct application of the skin probe and <ol style="list-style-type: none"> a. Discuss factors that can interfere with probe function b. Discuss nursing interventions to rectify probe problems

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Elective Extubation in Neonates

Competency Statement:

The nurse safely and effectively cares for a neonate during elective extubation

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read Extubation (Elective) of the Neonate on Butterfly Ward guideline2. State 2 indications for extubation3. Describe 4 potential complications and outline management4. Discuss extubation of the neonate to:<ol style="list-style-type: none">a. CPAPb. HFNPc. Low flow nasal prong oxygend. Air
S	<ol style="list-style-type: none">1. Collect and prepare equipment for extubation2. Demonstrate correct positioning of the neonate3. Explain and demonstrate nursing care relevant to feeding including the rationales4. Explain and demonstrate specific nursing assessment and care of neonate (including rationales) during extubation5. Demonstrate extubation of the neonate6. Demonstrate the maintenance of adequate oxygenation and cardiac output during and post extubation7. Explain and demonstrate specific nursing observations and care of neonate (including rationales) after extubation8. Accurately document assessment and care associated with extubation9. Demonstrate explanations and confirmation of understanding with parents

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Care of the Neonate < 30 Weeks Gestation requiring Environmental Humidity

Competency Statement:

The nurse safely and effectively cares for neonates who require environmental humidity in Butterfly Ward

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none"> 1. Locate and read the Environmental Humidity for Premature Neonates guideline and Humidity Compatible Incubator (Neonatal Medicine Intranet) resource 2. Explain relevant anatomy and physiology, including the definition of "trans-epidermal water loss" 3. State desired humidity level, and the process to wean humidity 4. Discusses fluid and electrolyte balance of a selected neonate: explain how many ml/kg/day required (including rationale), state the normal daily requirement of sodium and potassium, discuss whether 0.9 or 0.45 % saline is being used for the arterial line (including rationale), discuss the clinical significance of the latest sodium level and whether this is within normal limits 5. Explain specific nursing assessment and care of the neonate during environmental humidity, and after humidity is ceased (including rationale) 6. Explain when environmental humidity is ceased, and the describe the process 7. State potential complications of nursing neonates in environmental humidity, and explain appropriate management of these
S	<ol style="list-style-type: none"> 1. Correctly prepare and assemble necessary components and commence environmental humidity 2. Demonstrate specific nursing assessment and care of the neonate during environmental humidity 3. Demonstrate explanations and confirmation of understanding with parents 4. Clearly document required information in EMR

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Nurse Name: _____ Signature: _____ Date: _____

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Surgery in Neonatal Intensive Care

Competency Statement:

The nurse safely and effectively cares for a neonate requiring surgery in NICU

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read Surgical Procedures within the NICU guideline2. Outline the pathophysiology of 4 neonatal conditions that require surgery3. Discuss the circumstances in which a neonate might undergo surgery within the NICU as opposed to being transported to theatre4. Describe procedures that may be required to stabilise neonates prior to surgery5. Describe 4 potential complications of surgery and outline management6. Discuss involvement of members of the multidisciplinary team
S	<ol style="list-style-type: none">1. Demonstrate nursing assessment and care of the neonate (including rationales) pre-operatively2. Demonstrate nursing assessment and care of the neonate (including rationales) post-operatively3. Demonstrate explanations and confirmation of understanding with parents

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Nurse Name: _____ Signature: _____ Date: _____

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Intercostal Catheters (Neonates)

Competency Statement:

The nurse safely and effectively cares for a neonate with an ICC (including Trocar catheter and pigtail catheter)

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none"> 1. Locate and read Chest Drain Insertion – NICU guideline and Chest Drain Management guideline 2. Discuss 4 risk factors for pneumothorax in neonates 3. Describe <ol style="list-style-type: none"> a. Spontaneous pneumothorax b. Tension pneumothorax 4. Describe signs of <ol style="list-style-type: none"> a. Spontaneous pneumothorax b. Tension pneumothorax 5. Describe the use of transilluminator and appearance of pneumothorax when trans illuminated 6. Describe and identify the appearance of pneumothorax on chest x-ray 7. Describe nursing responsibilities during needle aspiration of pneumothorax 8. State 4 potential complications during ICC insertion 9. Describe nursing responsibilities and care (including rationale) of the neonate during and immediately post ICC insertion 10. Discuss nursing assessment and care (including rationales) of the neonate with an ICC in-situ 11. State 4 potential complications and special precautions that may be required of nursing a neonate with an ICC in-situ 12. Discuss the procedure for transporting a neonate with an ICC off the ward or in an evacuation 13. Discuss procedure for removal of ICC 14. Discuss specific nursing assessment and care (including rationales) post removal of ICC 15. Discuss procedure for managing accidental disconnection of drainage tubes
S	<ol style="list-style-type: none"> 1. Collect and prepare equipment required for needle aspiration of pneumothorax 2. Demonstrate preparation and assembly of under-water seal drainage (UWSD) units, both wet (Atrium Ocean) and dry (Atrium Oasis) sets, explaining rationale for use of each 3. Demonstrate preparation and assembly of equipment to apply suction to UWSD unit if required 4. Accurately document assessment and care associated with ICC 5. Demonstrate explanations and confirmation of understanding with parents

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Nurse Name: _____ Signature: _____ Date: _____

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Cardiovascular Medication Infusions

Competency Statement:

The nurse safely and effectively cares for the neonate receiving inotrope infusions

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and discuss Medication Resources available for neonatal medications, and locate and read Cardiovascular Therapy – NICU guideline2. State the action, usual dose, side effects and nursing responsibilities during administration of<ol style="list-style-type: none">a. Dobutamineb. Dopaminec. Adrenalined. Noradrenalinee. Milrinone inotrope3. Discuss potential complications of inotrope infusions
S	<ol style="list-style-type: none">1. Demonstrate calculation of an infusion in<ol style="list-style-type: none">a. mcg/kg/min2. Demonstrate safe changing of inotrope infusions using the double pumping method

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Therapeutic Hypothermia in Neonates

Competency Statement:

The nurse safely and effectively cares for a neonate requiring therapeutic hypothermia

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read Therapeutic Hypothermia in the Neonate guideline2. Discuss the rationale and indications for inducing hypothermia in the neonate3. Identify correct timeframe for inducing hypothermia4. Identify the temperature range the neonate is cooled to and the duration of cooling5. Outline the required nursing care for a cooled neonate in regard to the following<ol style="list-style-type: none">a. Temperature monitoringb. Fluid and electrolyte balancec. Nutrition managementd. Sedation and/or paralysise. Recognition of arrhythmiaf. Pressure area care requirements6. Discuss the procedure for re-warming7. Discuss 4 potential complications of induced hypothermia
S	<ol style="list-style-type: none">1. Assemble and demonstrate the correct use of the cooling system2. Demonstrate the correct procedure for inducing cooling if the cooling system is not available

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Nurse Name: _____ Signature: _____ Date: _____

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Peritoneal Dialysis (PD) - Manual

Competency Statement:

The nurse safely and effectively cares for patients who require manual peritoneal dialysis

RCH references related to this competency: RCH Intranet: Nephrology – Protocols – Index Peritoneal Dialysis Protocol Manual; PICU – Guidelines: Peritoneal dialysis in PICU post cardiac surgery; RCH Policies & Procedures – Aseptic Technique; Documentation: Electronic Medical Records (EMR)

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate & read RCH online references related to this competency2. Complete the PD learning package3. Identify the rationale for manual PD4. Discuss importance of maintaining accurate fluid balance5. Discuss the correct technique for PD<ol style="list-style-type: none">a. Warming bagsb. Assembling equipment and priming the setc. Connecting and disconnecting patient to and from the setd. Performing a dialysis cyclee. Changing the bagf. Performing exit site careg. Administering medications to dialysate bagsh. Collecting specimens6. Discuss the rationale for monitoring patient electrolytes
S	<ol style="list-style-type: none">1. Locate and assemble all necessary equipment2. Demonstrate correct documentation within the fluid balance flow sheet of the EMR3. Demonstrate documentation of PD catheter and insertion site assessment in LDA flowsheet of EMR.4. Complete PD learning package

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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

Nitric Oxide Therapy

Competency Statement:

The nurse safely and effectively cares for a neonate receiving Nitric Oxide (NO) therapy

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none">1. Locate and read the Inhaled Nitric Oxide (iNO) Therapy for the Term/Near Term Neonate guideline and the Pulmonary Hypertension Management in NICU guideline2. Complete the Mallinckrodt on-line learning: INOmax DS_{IR} Plus Virtual Training Simulator3. Identify the indication for iNO therapy4. Outline the pathophysiology of pulmonary hypertension<ol style="list-style-type: none">a. Primaryb. Secondary5. Explain NO under the following headings<ol style="list-style-type: none">a. Actionb. Dosec. Routed. Side effects6. Explain the process for setting up the DS_{IR} Plus NO delivery system, including injector module (NO/NO₂ injector tube and injector module electrical cable), patient gas sample line, iNOblender, and scavenging7. Describe the inline monitoring required and discuss<ol style="list-style-type: none">a. Calibration (O₂ low cal)b. Setting alarm limitsc. Values measured (NO, NO₂, O₂)8. Describe specific nursing assessment and care requirements for the neonate receiving iNO9. Identify the haematological complication of iNO therapy and discuss<ol style="list-style-type: none">a. Preventionb. Monitoring blood levels<ol style="list-style-type: none">i. Acceptable rangesii. Frequency of samplingc. Medication to counteract10. Describe 3 potential complications of NO therapy and identify management11. Outline management for weaning and discontinuing iNO therapy and prevention of further complications
S	<ol style="list-style-type: none">1. Demonstrate the technical set up for Nitric Oxide when used with<ol style="list-style-type: none">a. SLE 5000 ventilatorb. Sensormedics 3100A ventilatorc. Bunnell Jet ventilatord. Neopuff™2. Accurately document assessment and care associated with iNO therapy3. Demonstrate explanations of iNO therapy to parents and confirmation of their understanding

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Nurse Name: _____ Signature: _____ Date: _____

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High Frequency Oscillatory Ventilation (HFOV)

Competency Statement:

The nurse safely and effectively cares for a neonate requiring high frequency oscillatory ventilation (HFOV), using the SLE 5000 and Sensormedics 3100A ventilators

COMPETENCY ELEMENTS

K

General

1. Locate and read HFOV learning package 2016 and on-line resources (Neonatal Medicine intranet resources)
2. Describe the differences between the function of HFOV and conventional ventilation
3. Identify 4 respiratory conditions which may require HFOV
4. Differentiate between the SLE 5000 and Sensormedics 3100A

SLE 5000

5. Identify and explain the
 - a. Safety precautions on initiation of oscillation
 - b. Measurement of DCO₂

Sensormedics

6. Identify and explain the function of each of the following oscillator components
 - a. Bellows
 - b. Pressure limit (identify correct colour diaphragm)
 - c. Dump (identify correct colour diaphragm)
 - d. Pressure adjust (identify correct colour diaphragm)
 - e. Water Trap
7. Identify and explain the function of each of the following oscillator controls
 - a. Power on/off
 - b. Bias flow
 - c. Mean pressure adjust
 - d. Mean pressure limit
 - e. Amplitude (Power)
 - f. Frequency
 - g. Percentage inspiratory time
 - h. FiO₂
 - i. Start/stop
 - j. Reset
 - k. Alarm silence
 - l. Piston centering
 - m. Mean pressure alarms (hand wheel: upper and lower)
8. Explain how the following initial settings may be determined
 - a. Mean airway pressure (MAP)
 - b. Amplitude
 - c. Frequency
 - d. Inspiratory time
 - e. FiO₂
9. Identify the nursing care required for the neonate receiving HFOV discussing:
 - a. Respiratory and adequacy of ventilation assessment
 - b. Assessment for complications on initiating therapy
 - c. Imaging and laboratory tests required
 - d. Maintaining the patency and position of the ETT
 - i. Head and tubing position
 - ii. Ventilator security
 - iii. Suction procedure, additional connections, precautions
 - iv. Emergency ventilation
 - v. Humidification
 - e. Monitoring and maintaining haemodynamic stability
 - f. Assessment of skin, providing pressure area care and patient positioning
 - g. Appropriate alarm settings on HFOV and causes of activation
 - i. Pressure limit
 - ii. Dump valve
10. Outline 4 possible complications of HFOV, including prevention and appropriate management
11. Discuss preparation for discontinuing HFOV
 - a. Assess patient readiness to discontinue
 - b. Use of the conventional ventilator at bedside and rationale

Skill competency elements and nurse declaration on next page

S	<ol style="list-style-type: none"> 1. Demonstrate the pre-use circuit check (Sensormedics 3100A) <ol style="list-style-type: none"> a. State rationale for circuit check b. Demonstrate the circuit check c. State 2 reasons why the circuit may not pressurise d. State 2 possible actions if the circuit does not pressurise e. State the procedure to be followed if circuit check fails 2. Demonstrate appropriate nursing care of the neonate requiring HFOV 3. Accurately document assessment and care associated with HFOV 4. Demonstrate explanations and confirmation of understanding with parents 5. Discuss and demonstrate ways in which parents can be involved in the care of their neonate on HFOV
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Nurse Name: _____ Signature: _____ Date: _____

Assessor Name: _____ Signature: _____ Date: _____

High Frequency Jet Ventilation (HFJV)

Competency Statement:

The nurse safely and effectively cares for an infant requiring high frequency jet ventilation using the *Life Pulse High Frequency Ventilator*

COMPETENCY ELEMENTS	
K	<ol style="list-style-type: none"> 1. Locate and read the Jet Ventilator Learning Package 2. Discuss the differences between the function of HFJV and HFOV 3. State 4 neonatal conditions which may require HFJV 4. Explain the function of each of the following Jet controls <ol style="list-style-type: none"> a. Power on/off b. PIP c. Rate d. On-time e. Enter f. Standby g. Test h. Silence i. Reset 5. Explain how the following initial settings may usually be determined <ol style="list-style-type: none"> a. HFJV Pip b. HFJV Rate c. CMV Peep d. CMV Pip e. CMV Rate f. FiO₂ 6. Explain the concept of Servo pressure 7. Discuss the monitoring requirements for a neonate on HFJV 8. Discuss evaluation of the clinical condition of the neonate after HFJV commenced
S	<ol style="list-style-type: none"> 1. Discuss and demonstrate Internal Diagnostics Check <ol style="list-style-type: none"> a. Perform check b. State rationale c. State 2 faults which may occur during this check d. State 2 possible actions if the Jet does not pass this check 2. Evaluate the need for HFJV in a neonate 3. Demonstrate change of an ETT adapter to appropriately sized Life Pulse adapter 4. Demonstrate correct attachment of the jet tubing to the neonate's ETT 5. Demonstrate secure positioning of the Whisperjet box in the cot 6. Demonstrate appropriate ETT suction technique and discuss alternative methods of ETT suctioning 7. Demonstrate appropriate nursing care of a neonate requiring HFJV 8. Accurately document assessment and care associated with HFJV 9. Demonstrate explanations and confirmation of understanding with parents 10. Discuss and demonstrate ways in which parents can be involved in the care of their child on HFJV 11. Demonstrate effective liaison with members of the multidisciplinary team

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Assessor Name: _____ Signature: _____ Date: _____

Competency Feedback & Reflection

This section is used to document constructive feedback relating to specific elements of any competency from assessors, and provides space to document reflection on your own practice (either in direct relation to the feedback, or separately).

Competency Name:			
Element(s):			
Assessor Feedback:			
Self-Reflection:			
Assessor [sign and date]		Nurse [sign and date]	

Competency Name:			
Element(s):			
Assessor Feedback:			
Self-Reflection:			
Assessor [sign and date]		Nurse [sign and date]	

Competency Name:			
Element(s):			
Assessor Feedback:			
Self-Reflection:			
Assessor [sign and date]		Nurse [sign and date]	

Competency Feedback & Reflection

This section is used to document constructive feedback relating to specific elements of any competency from assessors, and provides space to document reflection on your own practice (either in direct relation to the feedback, or separately).

Competency Name:			
Element(s):			
Assessor Feedback:			
Self-Reflection:			
Assessor [sign and date]		Nurse [sign and date]	

Competency Name:			
Element(s):			
Assessor Feedback:			
Self-Reflection:			
Assessor [sign and date]		Nurse [sign and date]	

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Element(s):			
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Assessor [sign and date]		Nurse [sign and date]	

Competency Feedback & Reflection

This section is used to document constructive feedback relating to specific elements of any competency from assessors, and provides space to document reflection on your own practice (either in direct relation to the feedback, or separately).

Competency Name:			
Element(s):			
Assessor Feedback:			
Self-Reflection:			
Assessor [sign and date]		Nurse [sign and date]	

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