

Wednesday, 9 May 2018

12:42 PM

Aim:

The aim of this assignment is to critically evaluate current clinical research that leads to quality nursing care and interventions to maintain patient safety. You will have an opportunity to accurately interpret information from a neonatal assessment case study, and relate it to underlying pathophysiology. Further, you will examine the role of the nurse in fostering a family centred approach to neonatal care.

This written assignment addresses all the course learning outcomes.

Instructions:

1. Review the three case studies provided and choose ONE to be the stimulus for your essay.
2. Write an essay that contains the following components:
 - a. Critically evaluate current clinical research to discuss the **pathophysiology** of the presenting clinical problem for the newborn in your selected case study (note that you are NOT required to discuss treatment and management);
 - b. then accurately interpret the **assessment data** in your selected case study;
 - c. then discuss the role of the nurse in fostering a **family centred care** approach to neonatal care, and apply this to the family in your selected case study.

Case study one: Presenting clinical problem: respiratory distress

History: A 31³/₄₀ male infant – Jack – is admitted to the Special Care Nursery of a tertiary hospital in Australia. His mother Michelle is 24, and this is her first pregnancy (gravida 1; parity 1 [G1P1]).

Michelle's pregnancy had been unremarkable up until the last few days when she developed flu like symptoms. Michelle's membranes spontaneously ruptured at 31 weeks gestation; maternal steroids were administered, and Jack was delivered vaginally.

Jack's Apgar score was 5 at one minute, and 8 at five minutes.

Currently: Jack is assessed by nursing staff on admission to the nursery. He is receiving cot oxygen, with the oxygen analyser reading 30%.

Assessment data: His vital signs are:

- Heart rate (apical): 146 (intermittent periods of bradycardia noted)
- Respiratory rate: 70 (periodic breathing noted)
- SaO₂: 91%
- Temperature (per axilla): 36.1^c

Jack has 'grunting respirations' and sub-sternal recession. His mucous membranes are pink, but his hands and feet are dusky. Jack has a heel prick blood gas (capillary blood gas): he has respiratory acidosis with an elevated CO₂. His SaO₂ continues to decrease in cot oxygen of 30%, intermittently decreasing to a SaO₂ of 86%. Jack has blood cultures taken.

Psychosocial: Michelle visits Jack with her mother in the afternoon. Jack's biological father was aware of Michelle's pregnancy, and does not wish to be involved with Jack. Michelle asks the nurse about the care of her son, and wishes to be involved in all aspects of his care while he is in the nursery.

Case study two: Presenting clinical problem: neonatal hypoglycaemia

History: Baby Casey is a 37²/40 gestation male who has been admitted to the Special Care Nursery with hypoglycaemia. His mother, Karen, is 39: this is her 3rd pregnancy and she has a 3 year old daughter and a history of a previous miscarriage (gravida 3; parity 2 [G3P2]). Karen developed gestational diabetes during her pregnancy, and required management with insulin.

Karen had spontaneous rupture of membranes, but due to failure to progress, Casey was delivered via caesarean section. His Apgar score was 9 at one minute, and 10 at five minutes.

Currently: Given Karen's history of gestational diabetes, Casey has his blood sugar (BSL) checked within an hour of birth. His first BGL was 2.5 mmol/L. He has been offered his mother's breast, but he is lethargic and disinterested in feeding; he is transferred to the SCN for observation and management. Casey is assessed by nursing staff on admission.

Assessment data: Casey's birthweight is 4120 gm.

His vital signs and biochemistry results are:

- Heart rate (apical): 188
- Respiratory rate: 64 (periodic breathing noted)
- SaO₂: 98% in room air
- Temperature (per axilla): 35.7^c
- BSL: 1.8 mmol/L; Total SCa (serum calcium) 1.23 mmol/L.

Casey is lethargic and 'jittery' with an exaggerated startle reflex. He is uniformly pink, and does not *appear* to be in respiratory distress.

Psychosocial: Karen and Casey's father Jim visit the nursery later in the evening. Karen requires a wheelchair following her surgery, and she feels quite uncomfortable.

The family's 3 year old, Jenna, is being cared for by a neighbour and Karen and Jim are worried as they have not been apart from her before.

Karen would like to breastfeed Casey, and both parents are keen to participate in Casey's care while he is hospitalised.

Case study three: Presenting clinical problem: neonatal jaundice

History: Baby girl Jennifer is receiving care in the Special Care Nursery due to mild respiratory distress at birth. Jennifer was delivered vaginally at 33³/40 following premature rupture of membranes and spontaneous labour and delivery. It was noted at delivery that Jennifer had facial bruising due to her presentation during birth.

Jennifer's mother is Sian, a 41 year old multiparous woman (Gravida 5; Parity 5 [G5;P5]). Jennifer has responded well to nasal continuous positive airways pressure (nasal CPAP) which has been removed, and she is now breathing spontaneously in room air.

Currently: Jennifer is now 2 days of age, and has become clinically jaundiced. She is re-assessed by nursing staff in the nursery.

Assessment data: Jennifer's facial bruising is improving, but it is difficult to assess because her face is quite jaundiced. Her vital signs and total serum bilirubin (TSB) are:

- Heart rate (apical): 130

- Respiratory rate: 40
- SaO₂: 95% in room air
- Temperature (per axilla): 36.6°
- TSB: 220 micromols/L.

Psychosocial: Jennifer will require phototherapy and further monitoring, so her transfer to a level 2 nursery closer to the family home, as her family lives in rural Queensland, will now be delayed. Jennifer's parents are anxious because none of their other children have had this condition.

They are feeling isolated, and are keen to return to their other children.

CRITERIA	POSSIBLE MARK
<i>Component One:</i>	
<ul style="list-style-type: none"> • Critically evaluates clinical research to discuss the pathophysiology of the presenting clinical problem in the selected case study. • Uses appropriate sources to support discussion. 	13
<i>Component Two:</i>	
<ul style="list-style-type: none"> • Accurately interprets assessment data from the selected case study. • Uses appropriate sources to support discussion. 	10
<i>Component Three:</i>	
<ul style="list-style-type: none"> • Discusses the role of the nurse in fostering a family centred care approach to neonatal care. • Applies this to the family in the selected case study. • Uses appropriate sources to support discussion. 	13
<i>All Parts - PRESENTATION and STRUCTURE</i>	
<ul style="list-style-type: none"> ▪ Conforms to the Assignment Presentation Formatting Guidelines <ul style="list-style-type: none"> ○ Word count of 1500 words is not exceeded ○ Has a clear introduction and conclusion to the essay ○ Uses academic language throughout – does not write in the ‘first person’ ○ Essay is well presented, with correct spelling, grammar, and well-constructed sentence and paragraph structure 	9
<i>All Parts - REFERENCING and USE OF EVIDENCE</i>	
<ul style="list-style-type: none"> ▪ Referencing (in-text citations and reference list entries) as per APA Style 6th Edition ▪ Reference list starts on a separate page 	5
Total marks <i>[weighted at 30%]</i>	50