

Feasibility of Implementation of Pulse Oximetry as a Screening Tool for  
Critical Congenital Heart Disease (CCHD) in the Newborn Nursery  
*Minnesota Newborn Pulse Oximetry Pilot Program*

**In-Service Knowledge Assessment**

1. **True/False:** An infant should be screened only if he or she is eligible for screening.
  - a. True
  - b. False
2. The following can **affect the accuracy** of the pulse oximetry (pulse ox) reading:
  - a. Movement
  - b. Cold extremities or shivering
  - c. Crying
  - d. Bilirubin lamps and surgical lights
  - e. All of the above
3. To ensure that your pulse ox reading is **accurate** you should:
  - a. Look at the waveform displayed on the monitor; if the waveform is asymmetrical and choppy or is a flat line you will know that your pulse ox reading is accurate
  - b. Look at the waveform displayed on the monitor; if the waveform is symmetrical and does not have motion artifact or is jumping up and down, you will know that your pulse ox reading is accurate
  - c. Both a and b are correct
  - d. Neither a or b are correct
4. All of the following can affect the accuracy of the pulse ox reading except:
  - a. Placing the pulse ox probe on the same extremity that you are taking the blood pressure
  - b. Performing the pulse ox test while the infant is crying
  - c. Using a clip on the finger of an infant
  - d. Infant skin color or jaundice
5. The following criteria would **exclude** an infant from being screened:
  - a. Newborn admitted to the NICU
  - b. Age less than 24 hours
  - c. Normal vital signs while in the newborn nursery
  - d. Age greater than 24 hours

6. The screening guidelines outlined in the protocol state that pulse ox in the 1<sup>st</sup> reading should be performed on:
  - a. The right arm (RA)
  - b. The left arm (LA)
  - c. Either right or left foot (F)
  - d. Both a and c
  - e. Both b and c
7. Pulse ox screening should be performed when the infant is what age?
  - a. Less than 8 hours
  - b. Between 8 hours and 18 hours
  - c. Only if greater than 24 hours
  - d. Strictly before 24 hours
  - e. Around 24h but if earlier then repeat is required
8. An infant's pulse ox readings should be reported to the physician or nurse practitioner caring for the infant if:
  - a. The pulse ox reading is equal to or greater than 95% for both the right arm and either foot
  - b. The pulse ox reading is less than 95% for the right arm or either foot
  - c. The pulse ox reading is less than 95% for the right arm and/or either foot or there is greater than a 3 points difference between the reading of the right arm and either foot
  - d. The pulse ox reading is greater than 95% for both the right arm and either foot but there is greater than 3 points difference between the reading of these two sites.
  - e. b, c and d are correct
9. **True/False:** Pulse ox screening results can be shared with individuals that are not directly involved in the patient's care:
  - a. True
  - b. False

## Pulse Oximetry as a Screening Tool for Critical Congenital Heart Disease (CCHD) in the Newborn Nursery

### In-Service Knowledge Assessment Answer Key

1. **True/False:** An infant should be screened only if he or she is eligible for screening.

a. True

b. False

**Correct Answer: a**

2. The following can **affect the accuracy** of the pulse oximetry (pulse ox) reading:

a. Movement

b. Cold extremities or shivering

c. Crying

d. Bilirubin lamps and surgical lights

e. All of the above

**Correct Answer: e**

3. To ensure that your pulse ox reading is **accurate** you should:

a. Look at the waveform displayed on the monitor; if the waveform is asymmetrical and choppy or is a flat line you will know that your pulse ox reading is accurate

b. Look at the waveform displayed on the monitor; if the waveform is symmetrical and does not have motion artifact or is jumping up and down, you will know that your pulse ox reading is accurate

c. Both a and b are correct

d. Neither a or b are correct

**Correct Answer: b**

4. All of the following can affect the accuracy of the pulse ox reading except:

a. Placing the pulse ox probe on the same extremity that you are taking the blood pressure

b. Performing the pulse ox test while the infant is crying

c. Using a clip on the finger of an infant

d. Infant skin color or jaundice

**Correct Answer: d**

5. The following criteria would **exclude** an infant from being screened:

- a. Newborn admitted to the NICU
- b. Age less than 24 hours
- c. Normal vital signs while in the newborn nursery
- d. Age greater than 24 hours

**Correct Answer: a**

6. The screening guidelines outlined in the protocol state that original pulse ox should be performed on:

- a. The right arm (RA)
- b. The left arm (LA)
- c. Either foot (F)
- d. Both a and c
- e. Both b and c

**Correct Answer: a**

7. Pulse ox screening should be performed when the infant is what age?:

- a. Less than 8 hours
- b. Between 8 hours and 18 hours
- c. Only if greater than 24 hours
- d. Less than 24 hours
- e. Around 24h but if earlier then repeat may be required

**Correct Answer: e**

8. An infant's pulse ox initial readings should be reported to the physician or nurse practitioner caring for the infant if:
- a. The pulse ox reading is equal to or greater than 95% for both the right arm and either foot
  - b. The pulse ox reading is less than 95% in either foot or right arm
  - c. The pulse ox reading is less than 95% for the right arm and/or either foot or there is greater than 3 points difference between the reading of the right arm and either foot
  - d. The pulse ox reading is greater than 95% for both the right arm and either foot but there is greater than 3 points difference between the reading of these two sites.
  - e. b, c and e are correct

**Correct Answer: e**

9. **True/False:** Pulse ox screening results can be shared with individuals that are not directly involved in the patient's care:
- a. True
  - b. False

**Correct Answer: b**

**Pulse Oximetry Screening for Critical Congenital Heart Disease (CCHD)  
in the Newborn Nursery  
Competency Checklist**

**Competency Title:** Pulse Oximetry Screening for Critical Congenital Heart Disease Process

**Competency Criteria includes the following:**

- (1) Completion of the in-service education
- (2) Accomplishment of 90% or more on the knowledge assessment quiz with remediation as necessary
- (3) Appropriate application of pulse oximetry
- (4) Accurate reading and documentation of the pulse oximetry readings.

**Competency Statement:** Proficiently perform the required activities defined in research protocol

Validation Criteria:

- A. Discussion (D)
- B. Verbal Feedback (VF)
- C. Written Test (T)
- D. Return Demonstration (RD)

*Directions for completing evaluation form: Evaluator, please circle the appropriate method of validation, initial each line and place signature in the appropriate place at the end of the document.*

Name:

Job Title

Competency	Date	Method of Validation	Supervisor Initials	Comments
Explains screening eligibility guidelines for pulse oximetry screening defined in research protocol		D VF T		
Identifies safe and correct methods for applying pulse oximetry on an infant		D VF T RD		
Describes methods to ensure that pulse oximetry reading is accurate		D VF T RD		
Explains screening methods and guidelines for pulse oximetry screening defined in research protocol		D VF T		
Discuss HIPAA confidentiality standards		D VF T		

Employee Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor Name (Printed): \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_