



## Electronic Fetal Monitoring Exam Review

### Presented by

**Kim Murphy, APRN-CNP, MS, WHNP-BC, RNC-OB, RNC-MNN, C-EFM**

Kim has 35 years of nursing experience, with over 30 years in the women's health and perinatal arenas. She is certified in women's health, inpatient obstetrics, fetal monitoring and maternal newborn nursing. Additionally, Kim is a national, AWHONN-designated fetal monitoring instructor for both intermediate and advanced programs. She is a nurse planner and has created programs for neonatal, obstetrical and women's health topics, presenting throughout the country.

Kim has worked in Level I and Level III institutions, along with providing women's health services in both the private office and public health settings. Kim is on staff at Poling Law in Columbus, OH, as their obstetrical and woman's health legal nurse consultant, working with attorneys across the country on legal issues.

### 6.25 Contact Hours | Course Length: 369 minutes

### Program Description

This course will review test content outline and the associated competencies to prepare for the 2020 NCC subspecialty examination in Electronic Fetal Monitoring. Content will include fetal heart monitoring (FHM) pattern recognition and interpretation using NICHD definitions; review of the physiology of maternal fetal oxygenation and other factors impacting on the neuromodulation of fetal heart rate, complications of labor and the potential effects on FHM data; review interventions and management targeted to the physiology of fetal heart rate (FHR) patterns. Content will be applied in the context of case studies. Adjunct fetal assessment, legal aspects of FHM and equipment troubleshooting will be reviewed.

### Program Learning Outcomes

*This program prepares the learner to:*

1. Apply NICHD terminology to FHR pattern recognition, interpretation and assessment.
2. Discuss factors affecting fetal oxygenation, including FHR regulation; maternal and fetal physiology; complications of pregnancy and labor, drug effects and dysrhythmias.
3. Use knowledge of the advantages and disadvantages of electronic fetal monitoring to provide information to the pregnant woman and her support person(s).
4. Review appropriate nursing interventions and actions targeted to the physiology of the FHM patterns.
5. Discuss adjunct fetal assessment, including fetal acid base interpretation and the biophysical profile.
6. Incorporate knowledge of legal responsibilities and liabilities related to FHM data into a plan of care.

## Topics Covered

### 1 About the Test, Test-Taking Skills and Equipment Overview

33 minutes

#### Module Description

This module will introduce participants to the National Certification Corporation (NCC) subspecialty exam in electronic fetal monitoring (EFM). General test-taking skills will also be reviewed. In addition, this module will provide participants with an overview of equipment used in fetal heart rate monitoring, including troubleshooting

#### Module Learning Outcomes

*This module prepares the learner to:*

1. Describe the format and qualifications for the NCC subspecialty exam in EFM.
2. List general test-taking strategies.
3. Describe the various equipment used in FHR monitoring.
4. Describe troubleshooting techniques for EFM equipment.
5. List maternal disease processes that will affect both mother and baby during the pregnancy and labor process.

### 2 Physiology of Fetal Oxygenation: Intrinsic and Extrinsic Factors

62 minutes

#### Module Description

This module discusses the physiology of fetal oxygenation. It focuses on intrinsic and extrinsic factors that determine the physiology of fetal heart rate (FHR) monitoring.

#### Module Learning Outcomes

*This module prepares the learner to:*

1. List extrinsic and intrinsic influences on FHR patterns.
2. Describe the physiology behind oxygen transport.
3. Identify components of FHR regulation, including sympathetic and parasympathetic components.
4. List the implications of chemoreceptors and baroreceptors on FHR monitoring.

### 3 Pattern Recognition, Interpretation and Intervention

108 minutes

#### Module Description

This module discusses fetal heart rate (FHR) patterns and the interventions for those patterns.

#### Module Learning Outcomes

*This module prepares the learner to:*

1. Recognize FHR patterns on the fetal monitoring strip.
2. Differentiate fetal monitoring strips into Categories I, II and III.
3. Apply intervention strategies to a variety of FHR monitoring strips.
4. Discuss the pharmacology surrounding oxytocin (Pitocin).
5. Describe tachysystole, listing interventions when observing this pattern.

### 4 Complications of Pregnancy and Birth

53 minutes

#### Module Description

This module discusses common complications of pregnancy and birth, along with interventions for nursing care. Topics include preterm birth and potential implications, along with postpartum hemorrhage and lifesaving interventions.

#### Module Learning Outcomes

*This module prepares the learner to:*

1. List complications of labor and delivery
2. Describe interventions to improve patient care for the pregnant woman developing complications of pregnancy and birth.
3. Define preterm birth, and list potential implications.
4. Identify causes of postpartum hemorrhage, then list interventions to decrease morbidity and mortality of the new mother.

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## 5 Adjunct Fetal Assessment

33 minutes

### Module Description

This module discusses antepartum fetal testing along with cord gas assessment and interpretation, including differentiating respiratory and metabolic acidemia.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Explain the difference between the antenatal testing methods, including nonstress tests (NSTs) and biophysical profiles (BPPs).
2. Analyze cord gases for assessment of the neonate.
3. Understand the difference between respiratory and metabolic acidemia.
4. Practice cord gas interpretation.

## 6 Dysrhythmias and Variant Patterns Along with Key Points for the Exam

38 minutes

### Module Description

This module will explore dysrhythmias, along with strategies when seeing these patterns. It also summarizes the key points that will be needed to pass the exam.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Describe dysrhythmia patterns.
2. Acknowledge the most common dysrhythmia along with the most serious one.
3. List key points to successfully navigate the Electronic Fetal Monitoring Exam.

## 7 Legal Aspects of Fetal Monitoring and Chain of Command

42 minutes

### Module Description

This module discusses professional issues surrounding fetal monitoring, along with obstetrical research and top sentinel events and legal issues in the field.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Define principles of professional issues surrounding fetal monitoring.
2. Explain levels of evidence surrounding obstetrical research.
3. Name the top sentinel events in perinatal services.
4. List top legal issues in the obstetrical arena.

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# Accreditation

## RN/LPN/LVN/Other: 6.25 Contact Hours

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