Women's & Newborn Health Program
Care Directive

TITLE:	Care Directive – Application of Fetal Spiral Electrode (FSE) by Registered Nurses in the Birth Unit	**NUMBER:**	7050.1
Sponsor**:**	Manager Birth Unit	Page:	1 of 7
Approved by:	IWK Policy & Practice Committee	Approval Date: Effective Date:	April 16, 2021 June 28, 2021
Applies To:	Birth Unit Registered Nurses		

NOTE: This care directive must be used in conjunction with IWK Health Policy #7050 – *Fetal Spiral Electrode – Application and Management*.

POLICY STATEMENTS

1. Registered Nurses (RN's) practicing in the Birth Unit have the authority to apply a fetal spiral electrode (FSE) for intrapartum internal fetal monitoring, to determine fetal health status in an emergency situation (See Appendix A- Definitions), without a patient-specific order from an authorized prescriber without a patient specific order from an authorized prescriber based on the RN's assessment, clinical judgement and the protocol outlined in this care directive.

2. RNs who implement this care directive must have satisfied the beyond entry level competency (BELC) requirements outlined in IWK Policy #7050 - *Fetal Spiral Electrode – Application and Management*

3. The RN is responsible for determining if the patient conditions meet the inclusion criteria before the care directive can be implemented. **The RN must perform a clinical assessment of both the laboring patient and fetal graph to determine if the following indications apply indicating the need for a FSE.**

If the patient does not meet the inclusion criteria, the RN **will not** implement the care directive, and must contact a physician/midwife for consultation.

***Inclusion criteria include*:**

- Absence of a fetal heart rate
- Acute fetal bradycardia
- Questionable maternal fetal heart rate vs. fetal heart rate
- Does not include any exclusion criteria

Exclusion criteria include:

- Face presentation, fontanels or genitalia presenting of the fetus
- Unknown presentation or presenting part
- Placenta previa or vasa previa, active vaginal bleeding of unknown cause
- Insufficient cervical dilation (less than 2 cm)
- Possible fetal coagulopathy (i.e. maternal carrier of hemophilia, maternal ITP, von Willebrand disease, fetal neonatal alloimmune thrombocytopenia)
- Active maternal infections (i.e. maternal HIV seropositivity, active genital herpes, hepatitis B or C)

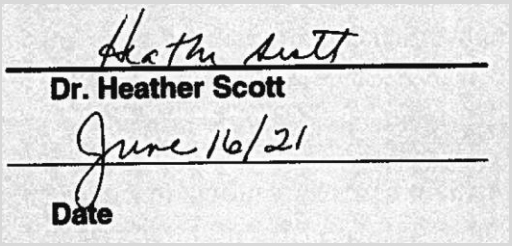
4. If the care directive is enacted the RN must promptly communicate the need for the application of the FSE to the attending physician or midwife.

5. A physician or midwife must be available in the Health Centre or by telephone for consultation and collaboration.

GUIDING PRINCIPLES

This care directive will provide care to patients in a timely, efficient manner.

Care Directive Approval for use:
This care directive is approved for use by the following authorized prescriber(s):



PROTOCOL

1. If any contraindications are present, the RN will not proceed with implementing this care directive and will contact a physician for consultation and collaboration.

2. If no contraindications are present, the RN will obtain verbal informed consent from the patient to proceed with the application of the fetal spiral electrode (See IWK Policy #124.1 – *Consent to Treatment*). Consider language and cultural barriers when discussing procedure with the patient.

3. Procedure for the application and management of the fetal spiral electrode must be performed as outlined in IWK Policy #7050 - *Fetal Spiral Electrode- Application and Management.*

4. The RN will contact the patient's physician or midwife to discuss the patient and fetal status when the situation stabilizes and clinical status permits or upon arrival of health care provider.

REFERENCES

Nova Scotia College of Nursing. (2019). Care Directive Guidelines for Registered Nurses retrieved from https://www.nscn.ca/professional-practice/practice-support/practice-support-tools/care-directives/care-directive-guidelines

Dore, S. & Ehman, W. (2020). SOGC Clinical Practice Guideline No.396. Fetal Health Surveillance: Intrapartum Consensus Guide. *JOGC, 42* (3), 316-348**.**

Kendall Life Trace Product Description – Safelinc FSE 2100 Single Helix

Miller, D.A. 92020). Intrapartum fetal heart rate monitoring: Overview. Retrieved on November 17th, 2020 from https://www.uptodate.com/contents/intrapartum-fetal-heart-rate-monitoring-overview/print?search=fetal%20spiral%20electrode&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

Nova Scotia College of Nursing. (2018). Care directives: Guidelines for nurses. Retrieved from https://cdn1.nscn.ca/sites/default/files/documents/resources/CareDirectives.pdf

Phillips (2020) Fetal Spiral Electrode Packaging Instructions for Use: November 2020

Ross, M.G. & Beall, M.H. (2018). Scalp Lead placement. Retrieved on October 22nd, 2020 from https://emedicine.medscape.com/article/1998111-print

Simpson, K.R. & Creehan, P.A. (2021). **Perinatal Nursing.** 5th Edition. AWHONN: Lippincott Williams &Wilkins.

ADDITIONAL DOCUMENTS

BC Women's Hospital (2016). Fetal Spiral Electrode (FECG) Policy WW 05.07. Fetal Maternal Newborn and Family Health Policy & Procedure Manual.

Champlain Maternal Newborn Regional Program (2016). Intrapartum Electronic Fetal Monitoring (EFM). Policy & Procedure.

RELATED DOCUMENTS

Policies

IWK Health Policy #7050 - Fetal Spiral Electrode Application and Management

IWK Health Policy #7070 - Intrapartum Fetal Health Surveillance

IWK Health Policy #336 – Optimizing and Expanding the Nursing Scope of Practice

IWK Health Policy #124.1 – Consent to Treatment

Appendix A: DEFINITIONS

Emergency situation is when there is an inability to determine what the fetal heart rate is or assess what is happening to the heart rate in response to a clinical situation (i.e. rapid fetal descent, acute suspected bradycardia, cord prolapse, uterine rupture).

Artificial Rupture of Membranes- also called amniotomy is when the amniotic sac is punctured to release the amniotic fluid. This is done mainly by using an amnihook.

Authorized Prescriber – a health care professional permitted by legislation, their regulatory college, NSHA, IWK, and practice setting (where applicable) to prescribe medications and treatments. The authority to order medication is not linked to any particular health profession, and may also differ within that health care profession depending upon specific competencies and skills. Examples of an Authorized Prescriber may include, but are not limited to, a physician, medical resident, nurse practitioner, or pharmacist with Additional Prescribing Authorization or midwives.

Care Directive: A care directive is an organizational policy developed in consultation with prescriber(s) for an intervention or series of interventions to be implemented by another care provider for a range of clients with identified health conditions or needs when specific circumstances exist. The purpose of a care directive is to provide safe, timely, effective and efficient client care and to optimize the practice of all care providers. An example of a care directive is a policy that would enable a nurse to administer influenza vaccines to all first-year nursing students in a nursing program within a specific time period (Nova Scotia College of Nurses, 2018).

Fetal Health Surveillance- includes the assessment of fetal and maternal risk factors, stage of labour and labour progress, uterine activity characteristics, maternal heart rate, fetal heart rate characteristics, changes/trends over time, classification of the fetal health surveillance assessment findings and interpretation of findings in the light of the overall clinical picture.

Fetal spiral electrode (FSE) – An electrode passed through the maternal vagina and cervix after rupture of membranes and applied to the fetal presenting part with a spiral wire to produce a display of the fetal heart pattern using fetal ECG. (SOGC, 2020)

Internal monitoring uses a fetal scalp electrode attached to the fetal scalp to record FHR; uterine activity is assessed using an intrauterine pressure catheter (IUPC). It is acceptable to use only one component of internal monitoring while externally monitoring the other component as long as a continuous tracing is obtained (e.g. FSE and external toco). Internal electronic fetal monitoring of the FHR or uterine activity may be considered with maternal obesity, dystocia, oxytocin doses greater than 30 milliunit/minute, labour augmentation in trial of labour after Cesarean delivery (TOLAC) and/or need for amnioinfusion. Relative risks and the benefits and wishes of the person should be carefully considered.

Placenta Previa – a clinical scenario where the placenta is located low in the uterus and might partially or completely cover the cervix.

Vasa Previa –when membranes that contain blood vessels connecting the umbilical cord and placenta lie across or near the opening of the cervix – the entrance to the birth canal. Vasa previa may cause massive bleeding in the fetus and mother when the membranes rupture.

District Health Authority/IWK Policies Being Replaced

Version History

(To Be Completed by the Policy Office)

Major Revisions (e.g. Standard 4 year review)	Minor Revisions (e.g. spelling correction, wording changes, etc.)