Community Care
OF NORTH CAROLINA

Pregnancy Medical Home Program Care Pathway

Progesterone & Cervical Length Screening

Preterm Birth Prevention: Management of Patients with History of Spontaneous Preterm Birth and/or Short Cervix

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Introduction

Prematurity remains the leading cause of neonatal morbidity and mortality. Two major risk factors for preterm birth are a history of previous spontaneous preterm birth and a short cervix on ultrasound screening.

In low-risk patients with an incidental finding of a short cervix noted at the time of anatomy ultrasound (16 to 20 weeks gestation), daily treatment with vaginal progesterone has been shown to reduce the risk of spontaneous preterm birth.

In patients with a previous history of spontaneous preterm birth, treatment with weekly intramuscular 17alpha hydroxyprogesterone (17P) has been shown to significantly reduce the risk of recurrence. In those with a singleton gestation who have a history of a spontaneous preterm birth and a current shortened cervix on ultrasound, placement of a cerclage reduces the risk of preterm birth.

The following outlines a management plan for the utilization of second trimester ultrasound to screen for a short cervix and progesterone therapy to reduce the incidence of preterm birth.

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Note

Pregnancy Medical Home Care Pathways are intended to assist providers of obstetrical care in the clinical management of problems that can occur during pregnancy. They are intended to support the safest maternal and fetal outcomes for patients receiving care at North Carolina Pregnancy Medical Home practices. This pathway was developed after reviewing the Society for Maternal-Fetal Medicine and the American College of Obstetricians and Gynecologists resources such as practice bulletins, committee opinions, and Guidelines for Perinatal Care as well as current obstetrical literature. PMH Care Pathways offer a framework for the provision of obstetrical care, rather than an inflexible set of mandates. Clinicians should use their professional knowledge and judgment when applying pathway recommendations to their management of individual patients.

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Ugonna Anyanwu, MD
John Byron, MD
Jeffrey Denney, MD
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Frank Harrison, MD
Stephen Lies, MD
Kate Menard, MD, MPH
Arthur Ollendorff, MD
Mark Picton, MD
Russell Suda, MD
Velma Taormina, MD
Lydia Wright, MD
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John Allbert, MD
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1 | Management of Previous Spontaneous Preterm Birth

Consider consultation with Maternal Fetal Medicine or other High Risk Obstetrics specialist

- All patients with a history of spontaneous preterm birth prior to 32 weeks or those who experienced a second trimester pregnancy loss should have MFM/high-risk OB consultation.

Women with a history of a spontaneous preterm singleton birth and/or preterm rupture of membranes (>20 weeks of gestation) with a current singleton pregnancy should receive weekly intramuscular or subcutaneous progesterone (17P)

- Progesterone in any form has not been associated with prevention of preterm birth in women with multiple gestation.
- Intramuscular or subcutaneous progesterone should be initiated at 16-20 weeks of gestation and may be initiated up to 24 weeks for patients who present late to prenatal care. Treatment should continue through the 36th week of gestation.
- Patients who miss weekly doses should continue with intramuscular or subcutaneous progesterone treatment.

Obtain cervical length measurement by transvaginal ultrasound

- Cervical length measurements should be done in an ultrasound unit with technical proficiency in transvaginal evaluation of the cervix
- Obtain an initial transvaginal cervical length measurement at 15-16 weeks of gestation and repeat measurement every two weeks through 23-24 weeks
    - In patients with a more advanced gestational age at their index preterm birth, consider an initial assessment at 16-18 weeks with one confirmatory measurement at 20-24 weeks, if the initial assessment is > 35 mm.
    - For those with a singleton gestation up to 23-24 weeks and a cervical length <25mm, consider:
        - Referral to MFM/HROB specialist
        - Cerclage placement
    - For those with a cervical length 25-29mm or with internal os abnormalities, perform weekly cervical length measurement until 23-24 weeks of gestation
- For women with a history of spontaneous preterm birth before 34 weeks only in a multiple gestation and with a current singleton gestation, seek MFM/high-risk OB consultation to determine if progesterone treatment is warranted.

2 | For Women with No History of Spontaneous Preterm Birth or Pregnancy Loss

Obtain cervical length measurement by abdominal ultrasound at the time of the anatomy scan (16-20 weeks gestation)

For those with a transabdominal cervical length <30mm, perform confirmatory measurement by transvaginal ultrasound

- Cervical length measurements should be done in an ultrasound unit with technical proficiency in transvaginal evaluation of the cervix
- If cervix is <30mm by TVUS, consider referral to MFM/HROB specialist
- Repeat cervical length measurement every 1-2 weeks until 23-24 weeks of gestation for those with a transvaginal cervical length <30 mm
- Recommend vaginal progesterone to those with a transvaginal cervical length <25mm
    - Vaginal progesterone dosing is either 200 mg micronized capsules or 90 mg gel per vagina once nightly until 36 weeks of gestation

3 | Patient Education Materials

UNC Center for Maternal and Infant Health — www.mombaby.org

There are free patient education materials on 17P and preterm birth available at www.mombaby.org. Available materials and videos for patients on the website include:

- 17p and Preterm Birth – A booklet for Mom (English and Spanish); available free to Pregnancy Medical Home practices from your local CCNC OB Nurse Coordinator
- Footprints of Hope – A Mom to Mom Video about 17P; 15-minute video produced by the Forsyth County Infant Mortality Reduction Coalition and available in English and Spanish
- Is 17P Right for Me? – A one-page, downloadable hand out available in English and Spanish answering common questions about 17P

March of Dimes — www.marchofdimes.org

This webpage available from the March of Dimes provides information on:

- Vaginal progesterone
- 17P injections
- Short cervix
- What is progesterone
- Why different forms of progesterone are used
- How each form of progesterone is administered

There are also resources available on the March of Dimes website about ultrasound during pregnancy. Additionally, information about reducing the risk of preterm labor and the signs of preterm labor are available here, and information about premature babies is available here.

4 | Provider Resources

17alpha hydroxyprogesterone (17P)

UNC Center for Maternal and Infant Health **www.mombaby.org**

The UNC Center for Maternal and Infant Health website has information for providers regarding 17P in North Carolina including references to studies, videos, and a sample 17P letter of agreement. Additionally, the section includes information on woman-centered 17P care, quality improvement and facilitative treatment, billing and ordering 17P and Makena.

Cervical Length Measurement

Perinatal Quality Foundation **www.clear.perinatalquality.org**

The Perinatal Quality Foundation provides the Cervical Length Education and Review (CLEAR) program through its website. Individuals may participate in online lectures, as well as an optional examination and scored cervical image review. For those that complete and pass the lectures, exam, and scored image review, documentation of completion of the program and CME credit hours are available. Additionally, this website provides cervical measurement image criteria.

The Fetal Medicine Foundation **www.fetalmedicine.org**

The Fetal Medicine Foundation offers certification in cervical assessment on its website. The website includes information on:

- Uses of sonographic measurement of cervical length
- Requirements for certification are through their program (attending online course and submission of cervical scans)
- Guidance on performing cervical length measurement

5 | References

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