



## Cervical Length Screening

November 2024

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## Cervical Length Screening

November 2024

### Introduction

- Preterm Birth (PTB) is a leading cause of perinatal morbidity and mortality in the US
- Short Cervix is associated with preterm birth
- Most women with asymptomatic shortening of the cervix will deliver at greater than 35 weeks despite the association between short cervix and PTB
- Universal screening, while not mandated, is reasonable based on evidence and can reduce frequency of PTB

### Goals

- Identify pregnant persons at risk of PTB
- Identify pregnant persons who may benefit from vaginal progesterone and cerclage
- Avoid unnecessary screening and intervention in pregnant persons at LOW risk for preterm birth

### General Guidelines

- Assessment of the cervix should be performed using the standard method prescribed by ultrasound protocols
- Route of measurement
  - Measurement by endovaginal ultrasound is preferred as it is not affected by obesity, cervical position, or shadowing
  - If the patient declines endovaginal ultrasound, transabdominal imaging is recommended
- A transabdominal cervical length of 35 mm or greater will reliably identify a cervical length greater than 20 mm on subsequent endovaginal ultrasound

### Treatments for Cervical Shortening

- **Vaginal Progesterone**
  - Meta-analysis demonstrated efficacy regarding PTB for women with cervical length  $\leq 25$  mm
  - Most common preparation is progesterone (Prometrium) 200 mg PV qHS
  - Treatment is discontinued at 36-37 weeks
- **Cerclage**
  - Cerclage placement in women with a history of PTB and short cervix  $\leq 25$  mm at  $< 23$  weeks reduces rates of preterm birth

## Cervical Length Screening

November 2024

- There is no evidence to support one placement technique over another. Our practice has preference for MacDonald cerclage.
- Abdominal cerclage is reserved for cases where vaginal cerclage cannot be placed or when prior cerclage has failed (PTB < 28 weeks)

### Treatments without Proven Benefit

- Bedrest
- Tocolytic agents without evidence of preterm contractions
- Antibiotics without evidence of infection
- Pessary
- 17-OHP (17-hydroxyprogesterone)

### Nulliparous and Multiparous persons (without history of PTB)- LOW risk individuals

- Assessment of the cervical length should be performed in all pregnant persons without a history of preterm birth between 18-22 weeks
- Single cervical length measurement at anatomic survey
- Cervical length measurement
  - **> 30 mm:** routine prenatal care
  - **≤ 25 mm:** offer vaginal progesterone
  - **> 25mm and < 30 mm:** individualized follow-up per GA
- Continued assessment of the cervix is reasonable after initiation of vaginal progesterone based on available evidence.
  - **10-15 mm:** speculum examination is indicated to evaluate for visualization of membranes
    - Dilation with visualized membranes: offer cerclage
    - Not present: continue screening
  - **< 10 mm:** offer cerclage

### History of PTB in Prior Pregnancy (< 34 weeks)

- History of PTB in a prior pregnancy is a strong risk factor for PTB in current pregnancy
- Cerclage is effective in women with history of PTB with shortened cervical length
- Initiate cervical length measurement at 16 weeks, continue until 22 6/7 weeks

## Cervical Length Screening

November 2024

- Cervical lengths:
  - **≥ 30 mm**: repeat every 2 weeks
  - **25-29 mm**: repeat every 1 week
  - **< 25 mm**: offer cerclage placement
- Women with history of preterm labor who subsequently delivered at term should not be treated according to these guidelines (treat as low risk)
- Serial cervical length screening after cerclage placement is without proven benefit
- It is reasonable to perform an ultrasound for assessment of cerclage location after placement at discretion of provider
- If the patient declines cerclage, plan of care should be individualized per provider counseling

### History of Cervical Insufficiency

- Typical features supporting the diagnosis:
  - History of cervical dilation after the first trimester with expulsion of pregnancy in second trimester
  - < 24 weeks gestational age
  - Absence of contractions or overt labor
  - Absence of other clear pathology (e.g., bleeding, infection, premature rupture of membranes)
- In pregnant persons with history suggestive of cervical insufficiency, options available for intervention are:
  - history indicated cerclage or cervical length screening
  - shared decision making per provider counseling
- In pregnant persons opting for cervical length screening
  - Allows avoidance of placement of cerclage in 58% of individuals
  - From cost-effectiveness perspective, preferred choice 84-89%
  - Initiate cervical length measurement at 16 weeks, continue until 22 6/7 weeks
  - Cervical lengths:
    - **≥ 30 mm**: repeat every 2 weeks
    - **25-29 mm**: repeat every 1 week
    - **< 25 mm**: offer cerclage placement
- In pregnant persons opting for history indicated cerclage
  - Place cerclage at 12-14 weeks
  - Does not exclude twins in current pregnancy

## Cervical Length Screening

November 2024

### Special Populations

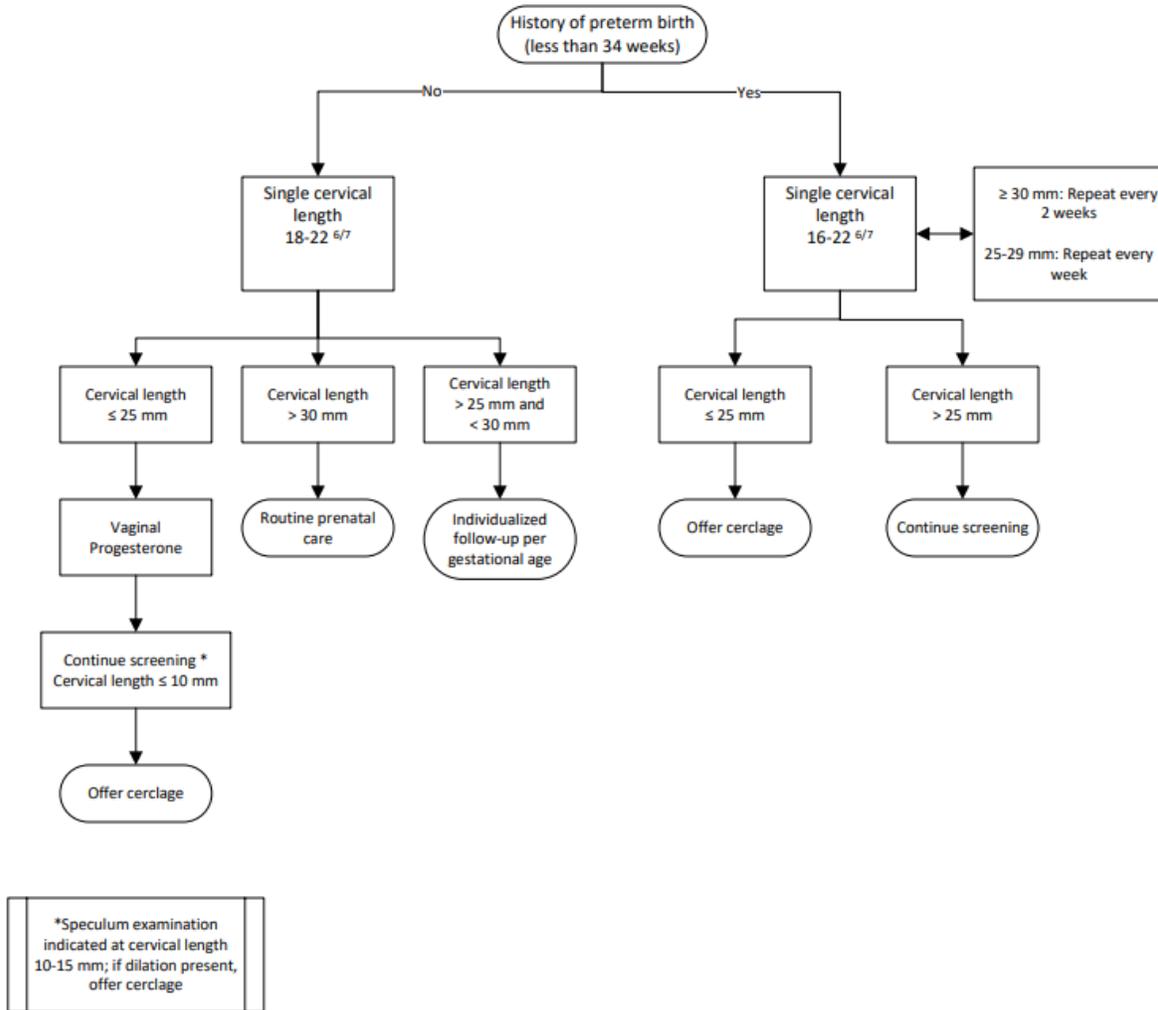
- Cerclage is typically placed < 23 weeks. If cerclage is considered > 23 weeks, counseling must be individualized and performed by MFM and include risks and expected benefits
- Treat low-risk twins similarly to low-risk singleton pregnancies
  - Cerclage is not indicated in undilated short cervix
- Women receiving exam indicated cerclage during periviable period may be candidate for antenatal steroids based on individualized counseling
- Even in patients with undetectable cervix, the typical expected latency is ~ 3 weeks. This should be considered when discussing admission and/or antenatal steroids.

# Cervical Length Screening

November 2024

## Universal Cervical Length Screening Protocol

### Universal Cervical Length Screening Protocol



## Cervical Length Screening

November 2024

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## Cervical Length Screening

November 2024

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