

Cervical Length Screening and Management of Short Cervix

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Maternal Fetal Medicine

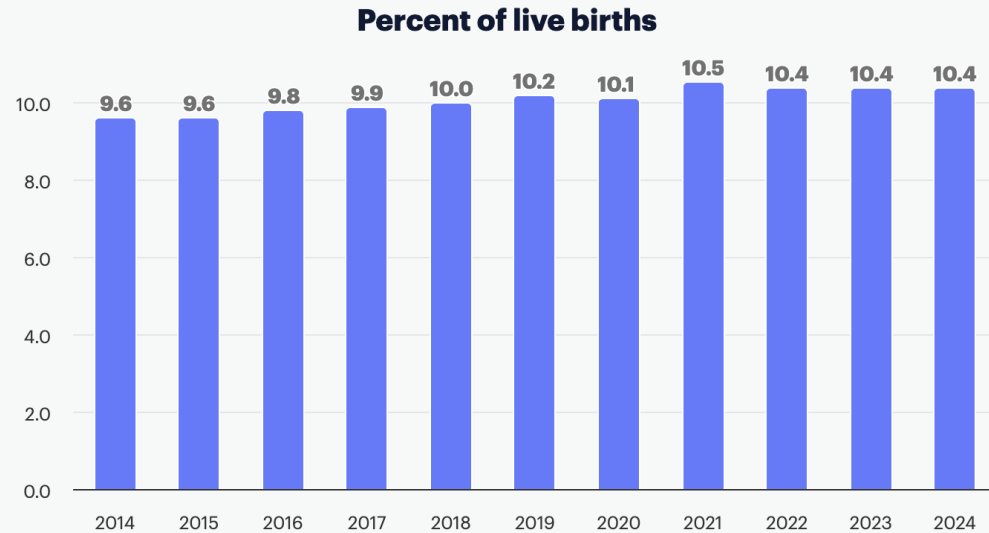
Complex Family Planning

Learning Objectives

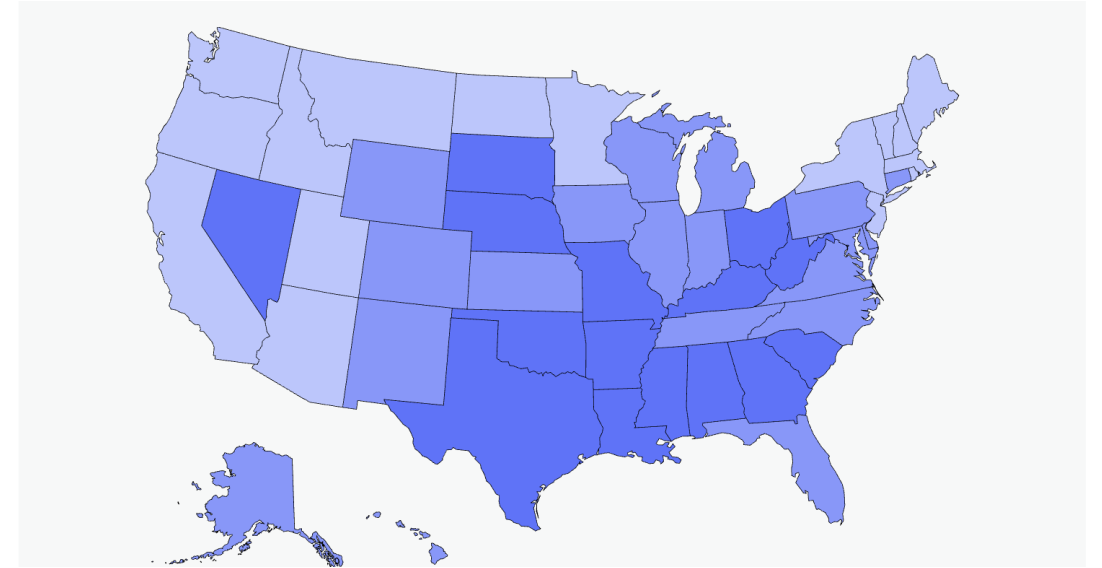
At the conclusion of this lecture, the participant should be able to:

- Understand which patients should have their cervical length assessed
- Describe an appropriate cervical length measurement and how to obtain this image
- Understand the role of cerclage and vaginal progesterone in management of short cervix

United States, 2014-2024



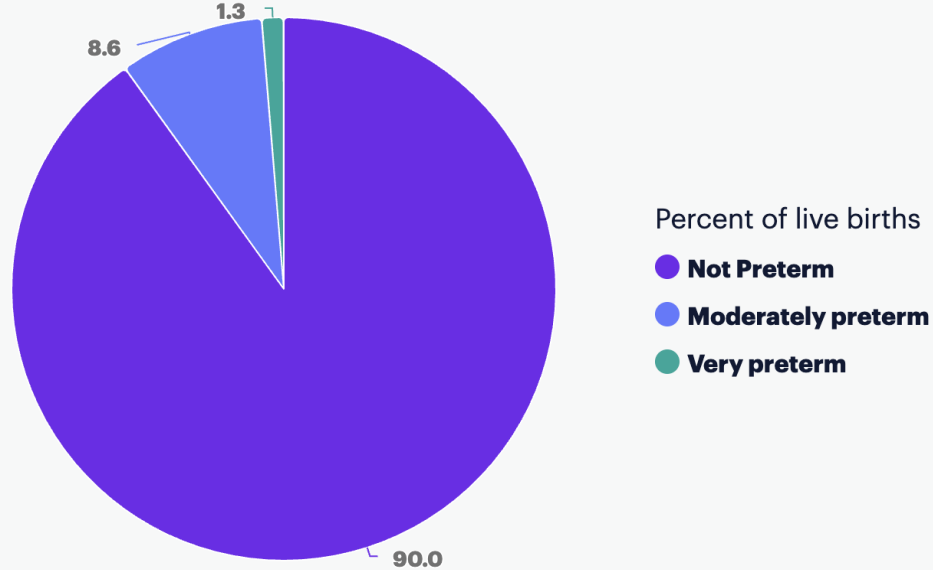
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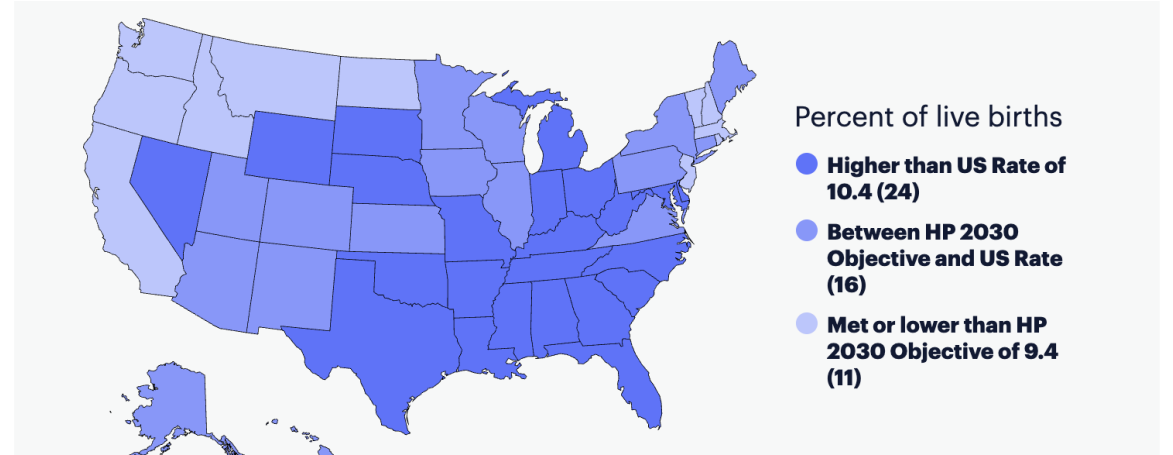
Preterm Birth Rate in the United States

- March of Dimes PTB Rate Map
- Darker purple is higher rate
- Colorado is attempting to improve and on par to meet that goal

Colorado, 2024



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Preterm Birth Rate in Colorado

History prior sPTB: 15-30% recurrence

If earlier, higher risk:

	PTB next preg	PTB<28 w next preg
No prior sPTB	9%	0.23%
Prior sPTB	22%	
Prior PTB 23- 27w		5%
Prior PTB 28- 34w		3%
Prior PTB 35- 36w		1%

Mercer et al, AJOG 1999; 181:1216.

If no prior term birth, higher risk:

	3 rd preg PTB
2 prior PTB	42%
- Both 32-36w	33%
- Both <32w	57%
Term → PTB	21%
PTB → Term	13%
2 prior term	5%

McManemy et al, AJOG 2007; 196:576.

Combating Preterm Birth

Treatment

- Steroids
- Magnesium
- Tocolytics
- Postnatal Surfactant, ventilator support, and NICU care

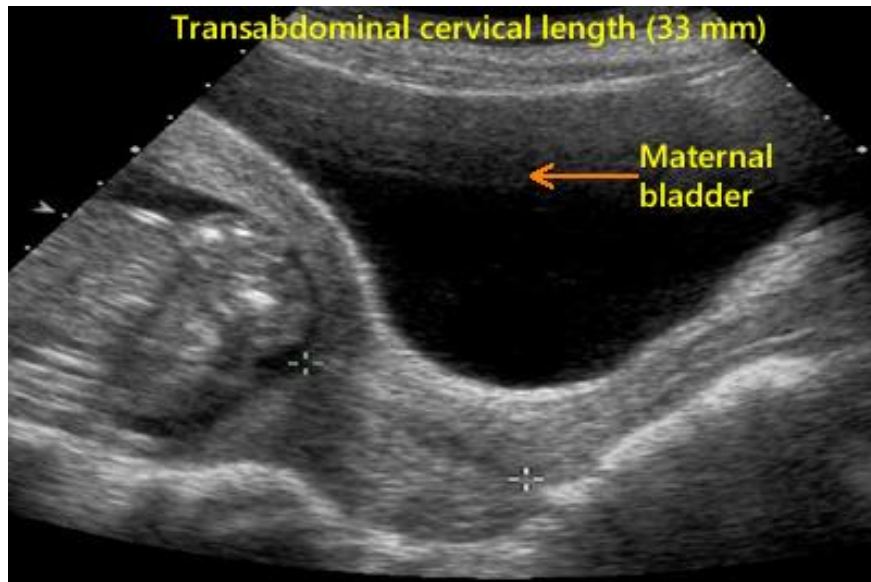
Prevention

- Progesterone
- **Cervical length Screening**
- Cerclage
- Pessary

Cervical Length Screening

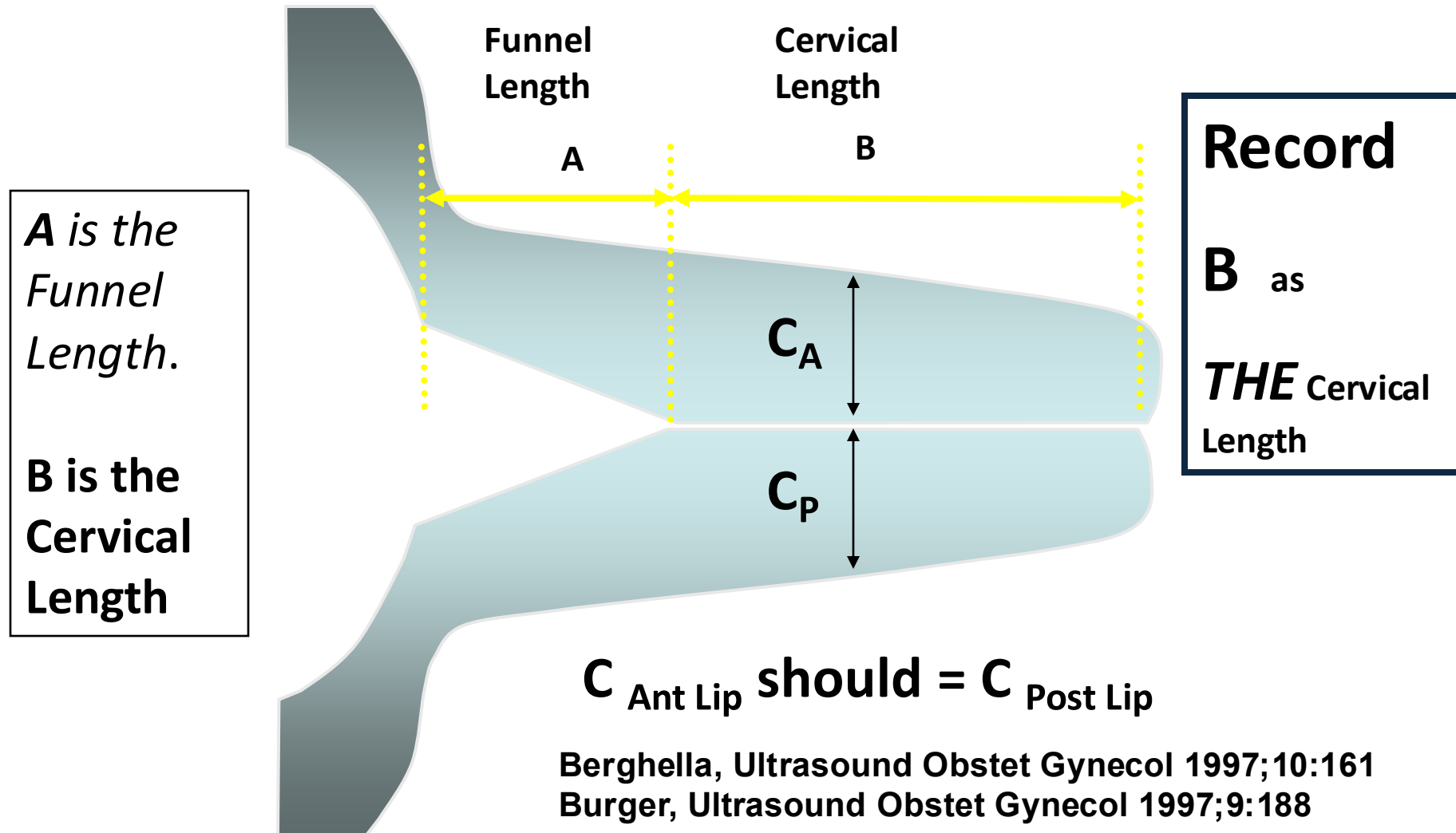
How to measure the cervix

- When to measure the cervix:
 - Prior preterm birth
 - Transabdominal cervical length < 3.5 cm

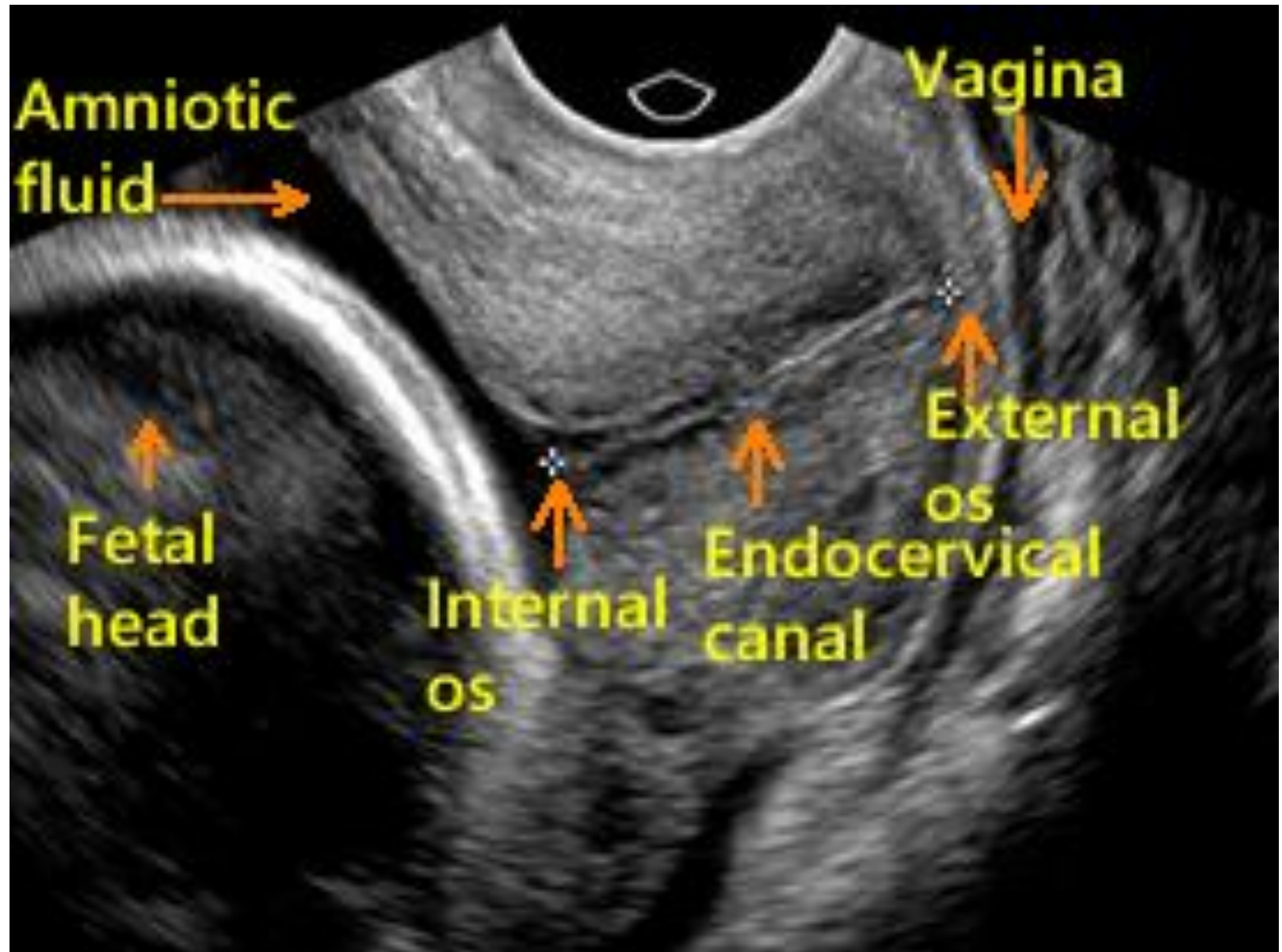


- Transvaginal image
 - Cervix ~ 75% of the image
 - Anterior = Posterior Width
 - Maternal Bladder Empty but visible
 - Internal Os Seen
 - External Os Seen
 - Cervical Canal Visible throughout
 - Caliper Placement Correct
 - Cervix Mobility Considered
 - Watch for ~3 minutes

Measurement of the Cervix



Normal Transvaginal Cervical Length



Case 1:

- Comes in at 18 weeks
- History of preterm birth at 28 weeks

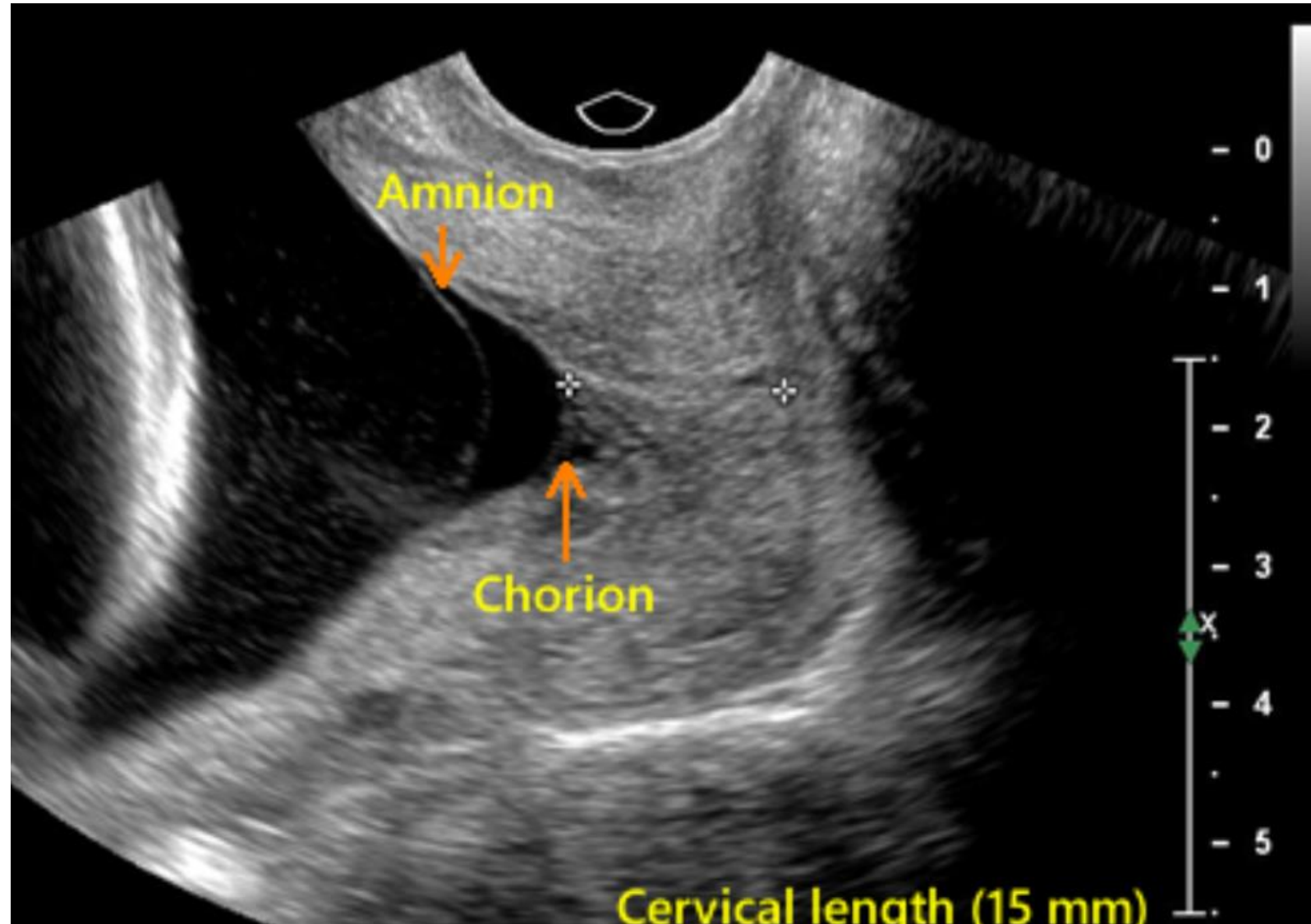


History of preterm birth and a short cervix

- Could be on progesterone prophylaxis
 - Vaginal progesterone superior to placebo
- Short cervix <25 mm
 - **Cerclage will reduce preterm birth rate**
 - Vaginal progesterone will reduce preterm birth rate

Case 2:

- 18 y.o. G1P0 presents for her first ultrasound at 18 weeks
- Normal Anatomy
- No history of cervical surgery



Incidental Short Cervix

Vaginal Progesterone - Meta-analysis of individualized patient data

- Searched for progesterone, randomized study, and placebo
- Approached PI's for individual data
- Primary outcome was preterm birth prior to 33 weeks
- Compared data sets and only included complete sets
- Resulted in 5 studies with 974 patients

(Romero, Conde-Agudelo et al. 2018)

Cerclage – Berghella 2017

- Meta-analysis of 5 RCTs (419 women)
- Singleton with no history of prior preterm birth
- CL <25 mm
- Randomized to cerclage vs. no cerclage

The patient is on Vaginal
progesterone, now
what?

It continues to
shorten!!!! –
Enakpene 2018

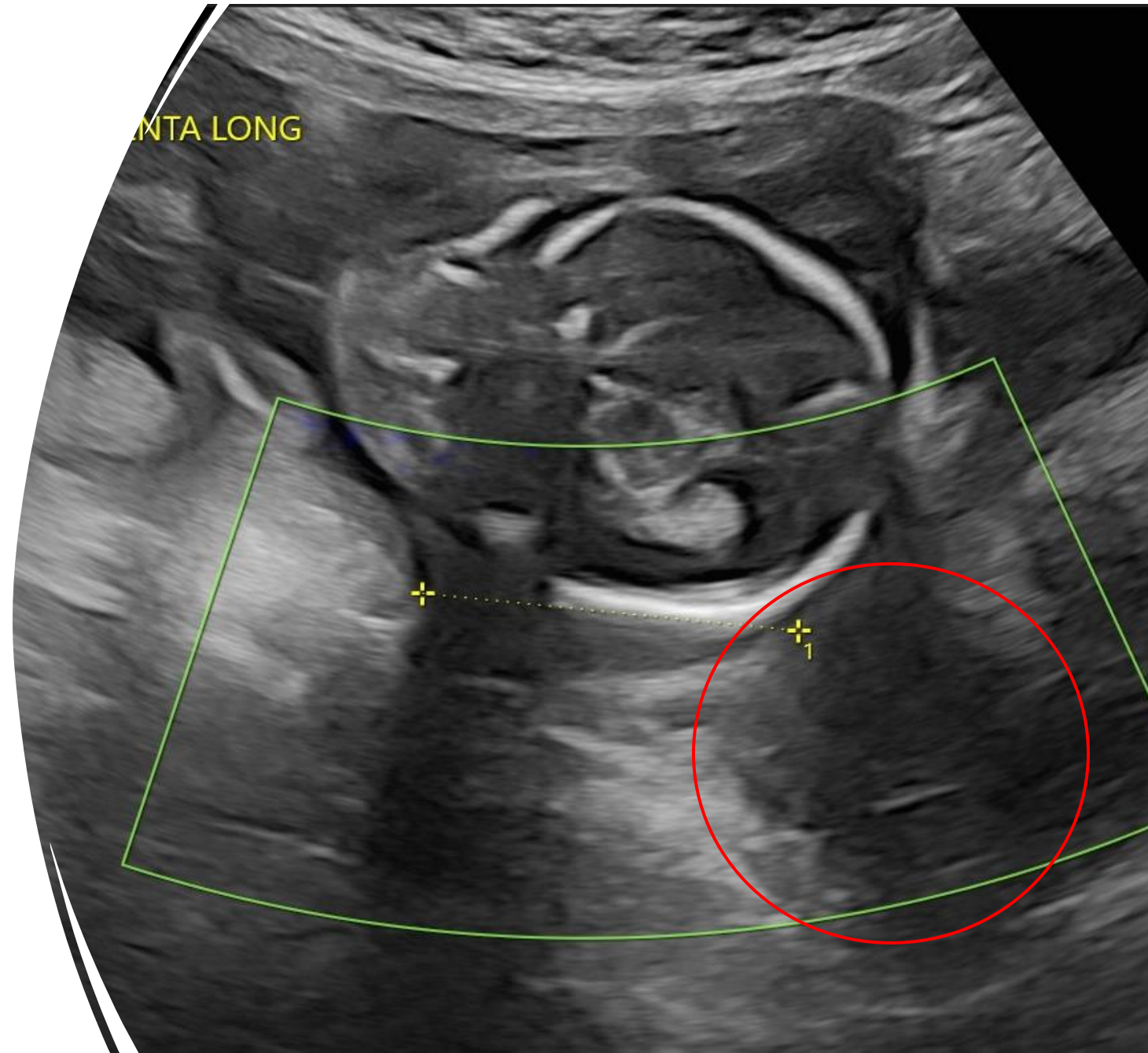
- Retrospective Cohort study
- Singleton pregnancy
- CL <20 mm
- Vag progesterone (200 mg)
- Continues to shorten to <10 mm
- 75 women
 - 48% (36) received cerclage
 - 52% (39) No cerclage

Summary – Incidental Short Cervix <25 mm without history of preterm birth in a singleton

- Vaginal progesterone is supported
 - 200 mg daily
- Cerclage
 - If Dilated (ACOG)
 - Maybe if continued shortening (more data needed)

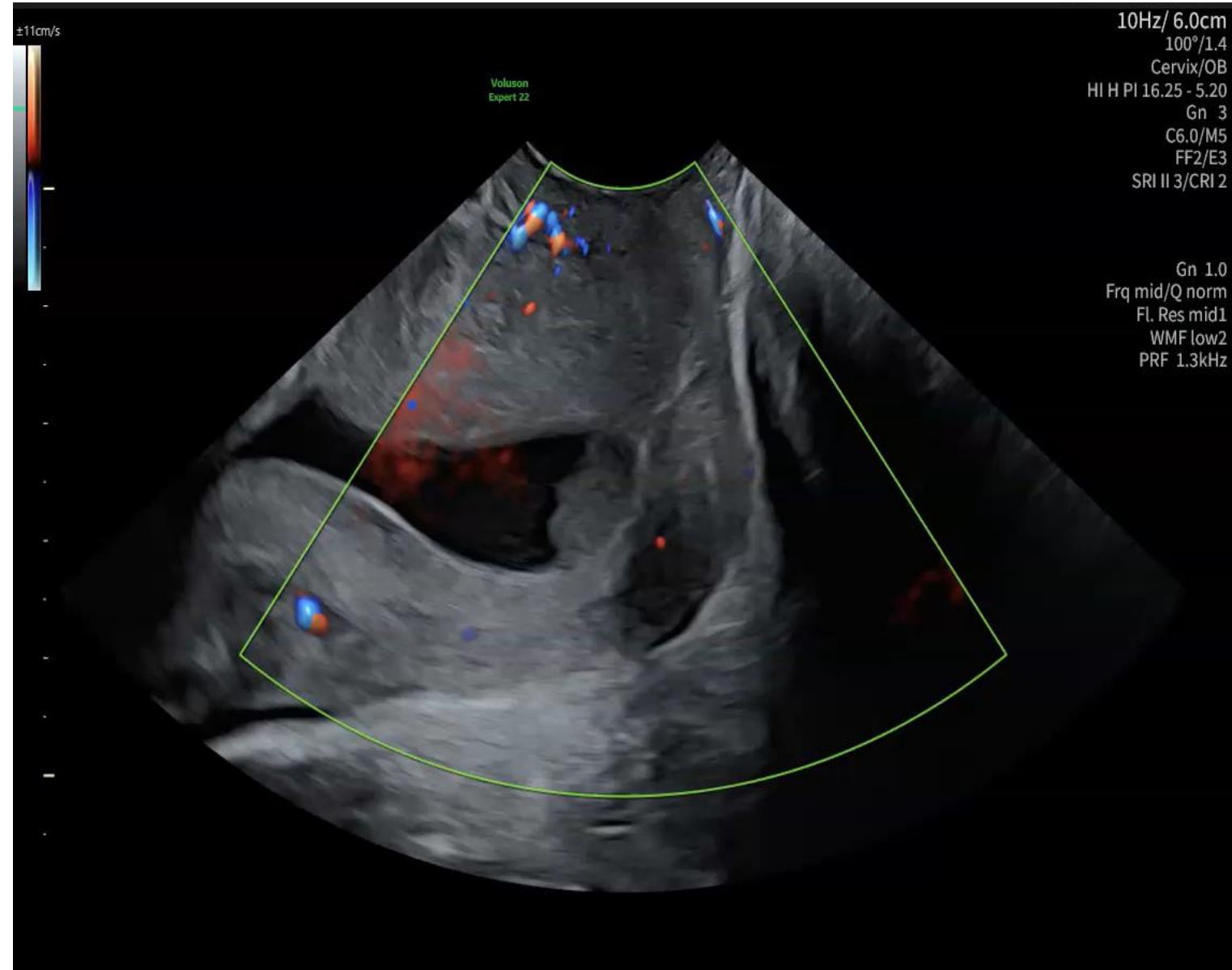
Transvaginal CL is important!

- Case 3: NGR 19w5d, prior 28 week PTD without warning
- TAUS – normal appearing CL



TVUS

- 10 mm of cervix, large funnel, and sludge
- SCE: 1/90/0
- Sent for exam-indicated cerclage
- TVUS is SO important, especially in those with a history of PTD



Summary

- Cervical lengths are a good screening tool for preterm delivery
- Perform TVUS CL between 16-24 weeks in patients with prior PTD
- Screening CL, abdominal OK, if no history of PTD
- TVUS if abdominal CL < 3.5 cm