Cervical length is normally distributed and remains relatively constant until the third trimester.

Heath found at 23 weeks a mean length of 38 mm.

Iams found a mean length at 24 weeks of 35 mm and at 28 weeks of 34 mm.
DELIVERY BEFORE 35 WEEKS ACCORDING TO CERVICAL LENGTH MEASURED BY TRANSVAGINAL ULTRASONOGRAPHY AT 24 WEEKS’ GESTATION

Although transvaginal ultrasound screening of cervical length can predict increased risk of preterm birth, there is no evidence that this information can be used to improve outcomes. Consultation and the proposed location of birth should be considered.

Other management options, such as cerclage, activity restriction, tocolytics, and prophylactic steroids await appropriate evaluation by randomized trials.
Progesterone and preterm birth prevention: translating clinical trials data into clinical practice

Society for Maternal-Fetal Medicine Publications Committee, with the assistance of Vincenzo Berghella, MD

- American Journal of Obstetrics & Gynecology MAY 2012
OBJECTIVE: We sought to provide evidence-based guidelines for using progestogens for the prevention of preterm birth (PTB).

RESULTS AND RECOMMENDATIONS:

In singleton gestations with prior PTB 20-36 6/7 weeks, 17-alpha-hydroxy-progesterone caproate 250 mg intramuscularly weekly, preferably starting at 16-20 weeks until 36 weeks, is recommended.

In these women with prior PTB, if the transvaginal ultrasound CL shortens to 25mm at 24 weeks, cervical cerclage may be offered.
OBJECTIVE: We sought to provide evidence-based guidelines for using progestogens for the prevention of preterm birth (PTB).

RESULTS AND RECOMMENDATIONS:

Summary of randomized studies indicates that in women with singleton gestations, no prior PTB, and short CL 20mm at 24 weeks, vaginal progesterone, either 90-mg gel or 200-mg suppository, is associated with reduction in PTB and perinatal morbidity and mortality, and can be offered in these cases.
250 women, 90% were singleton pregnancies, 85% had no prior PTB
- TV CL <1.5cm at 20-25 weeks
- Nightly vaginal progesterone 200mg
- 19% vs 34% PTB less than 34 weeks
- Benefit was especially great in women without a prior preterm birth
- The prevalence of TV CL < 1.5mm was 1.7%

Fonseca et al, Progesterone and the risk of Preterm Birth among women with a short cervix, NEJM 2007:357:462-9 Level 1
SCREENING EFFICACY

- The number of women screened to prevent one preterm birth is 387

- If you identify a women with CL 1.5 or less, the number needed to treat to prevent one PTB below 34 weeks if about 7 women.
458 women, singleton pregnancy

- TV CL 1.0 – 2.0mm at 19-236/7 weeks
- Vaginal progesterone gel 90mg daily at 20-23 6/7 weeks until 36 6/7 weeks
- 45% reduction in preterm birth before 33 weeks
  - 9% vs 16% (without prior PTB 8% vs 15%)
- Incidence of preterm birth before 28 weeks and before 35 weeks as well as respiratory distress syndrome was also reduced.

Hassan et al., Vaginal progesterone reduces the rate of preterm birth in women with a sonographic short cervix, Ultrasound Obstet Gyneol 2011:38:18-31 Level 1
Prevalence of cervical length 10-20 mm in this study was 2.3%

The number of women needed to be screened to prevent one preterm birth less than 33 weeks is 604

If a short cervical length is detected, the number needed to treat to prevent one preterm birth is 14
- 554 singleton, no prior PTB
  - TV CL less than 2.5 and mostly less than 25 weeks
  - Vaginal progesterone nightly
  - Significant reduction in preterm birth less than 33 weeks
  - Reduction in neonatal morbidity and mortality

Universal screening strategy with a single TV CL at 18-24 weeks and treatment with vaginal progesterone if the CL is 1.5cm or less is projected to result in over $12 million saved, 22 neonatal deaths or long term sequelae prevented for every 100,000 women screened.

Readjusting for cervical length between 1.6 and 2.5 does not change these conclusions.
COST ESTIMATES FOR SINGLETON INTRAUTERINE PREGNANCY SCREENING AND TREATMENT

<table>
<thead>
<tr>
<th>Variable</th>
<th>Point estimate (range)</th>
<th>Reference</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility of neonatal death</td>
<td>0.01 (0.001–0.02)</td>
<td>34</td>
<td>III</td>
</tr>
<tr>
<td>Utility of neonatal severe morbidity</td>
<td>0.55 (0.50–0.60)</td>
<td>34,35</td>
<td>III</td>
</tr>
<tr>
<td>Cost of transvaginal sonogram</td>
<td>$52 ($43–74)</td>
<td>Local sources based on Medicaid reimbursement</td>
<td>Not available</td>
</tr>
<tr>
<td>Cost of vaginal progesterone (18-34 weeks)</td>
<td>$283 ($220–344)</td>
<td>Local sources based on Medicaid reimbursement</td>
<td>Not available</td>
</tr>
<tr>
<td>Cost of 17α-hydroxyprogesterone caproate (18-34 weeks)</td>
<td>$365 ($300–440)</td>
<td>Local sources based on Medicaid reimbursement</td>
<td>Not available</td>
</tr>
<tr>
<td>Cost of neonatal severe morbidity</td>
<td>$995,940 ($200,000–1,200,000)</td>
<td>36</td>
<td>III</td>
</tr>
</tbody>
</table>

### Table 3

Base-case cost-effectiveness analysis comparison of universal screening with the alternative strategies

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cost, $</th>
<th>Incremental cost, $</th>
<th>Effectiveness (QALY)</th>
<th>Incremental effectiveness (QALY)</th>
<th>Average cost/efficacy ($/QALY)</th>
<th>Incremental cost/efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal screening; treatment vaginal progesterone</td>
<td>8325</td>
<td>—</td>
<td>72.3</td>
<td>—</td>
<td>115</td>
<td>Dominant</td>
</tr>
<tr>
<td>High-risk screening; treatment vaginal progesterone</td>
<td>10,577</td>
<td>2252</td>
<td>72.0</td>
<td>−0.25</td>
<td>147</td>
<td>Dominated</td>
</tr>
<tr>
<td>No screening; 17-hydroxyprogesterone acetate based on medical history</td>
<td>9664</td>
<td>1339</td>
<td>72.1</td>
<td>−0.15</td>
<td>134</td>
<td>Dominated</td>
</tr>
<tr>
<td>No screening or treatment</td>
<td>11,560</td>
<td>3235</td>
<td>71.9</td>
<td>−0.36</td>
<td>161</td>
<td>Dominated</td>
</tr>
</tbody>
</table>

QALY, quality-adjusted life year.

### Table 4

Number of preterm births at <34 weeks' gestation and cases of severe morbidity that were prevented per dollar spent by strategy, with the use of base-case estimates and an estimated annual delivery rate of 4 million in the United States

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Preterm births, n</th>
<th>Cases significant morbidity, n</th>
<th>Total cost ($100 million)</th>
<th>Preterm births prevented, n</th>
<th>Cases significant morbidity prevented, n</th>
<th>Total cost saved ($100 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No screening or treatment</td>
<td>170,920</td>
<td>47,810</td>
<td>462.4</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>Universal screening</td>
<td>75,000</td>
<td>34,220</td>
<td>333.0</td>
<td>95,920</td>
<td>13,590</td>
<td>129.4</td>
</tr>
<tr>
<td>High-risk screening</td>
<td>142,160</td>
<td>43,740</td>
<td>423.1</td>
<td>28,760</td>
<td>4070</td>
<td>39.3</td>
</tr>
<tr>
<td>Standard of care: 17-hydroxyprogesterone acetate</td>
<td>114,880</td>
<td>39,860</td>
<td>386.6</td>
<td>56,040</td>
<td>7950</td>
<td>79.3</td>
</tr>
</tbody>
</table>

TVU CL does fulfill all of the criteria for an effective screening testing:

- Disease is clinically important, clearly defined, natural hx. is recognizable at an early symptomatic phase
- Screening test is safe
- Screening technique is well described
- Screening has reasonable, reproducible cutoffs and data
- Results are accurate
- Intervention is cost effective
- Facilities for screening are readily available
- Facilities for treatment are readily available.
The trials have only addressed women who are already identified as having a short cervix. It is possible that a significant number of women with a short cervix may be identified without a specific universal TV screen.

Universal screening may not produce the same results as a controlled trial.

The available trials used different cutoffs and medications.

Appropriate equipment and trained personnel may not be available in all communities.
SMFM CONCLUSIONS

- CL screening is indicated in women with prior preterm birth

- CL screening in singleton gestations without prior PTB cannot yet be mandated universally. Nonetheless implementation of such a screening strategy should be viewed as reasonable and can be considered by individual practitioners

- Third party payers should not deny reimbursement for this screening

- Practitioners who implement universal screening should follow strict guidelines
  - TV VL needs to be performed with proper technique with quality control and monitoring
  - Clinicians should stay strictly within bounds of screening guidelines
Algorithm for use of progestogens in prevention of PTB in clinical care

Singletons

No prior PTB

Single TVU CL at 18-24 wks

CL ≤20 mm
  - Vaginal progesterone

CL >20 mm
  - Routine obstetric care

Prior PTB

17P

Serial TVU CL at 16-23 6/7 wks

CL <25 mm
  - Cerclage; continue 17P

CL ≥25 mm
  - Continue 17P

---

*a* If TVU CL screening is performed; *b* 17P 250 mg intramuscularly every week from 16-20 weeks to 36 weeks; *c* eg, daily 200-mg suppository or 90-mg gel from time of diagnosis of short CL to 36 weeks.

CL, cervical length; PTB, preterm birth; 17P, 17-alpha-hydroxy-progesterone caproate; TVU, transvaginal ultrasound.

Benefits of progesterone were between 15-25mm.

Below 15mm, no benefit of progesterone as compared to cerclage

If the cervical length is less than 25mm
- No treatment 34% delivered before 32 weeks
- Cerclage 25%
- 17P only 21%
- Cerclage plus 17OHP 17%
5 clinical trials with 504 singleton pregnancies

- TV CL 25mm or less at <24 weeks
- Cerclage reduced risk of PTB less than 25 weeks by 30% and reduced neonatal morbidity by 36%
- Screening with cervical length from 16 weeks, q 2 weeks until 23 weeks is suggested
- Offer cerclage if 25mm or less
- These patients should already be on progesterone however no data to say there is an additive effect for vaginal progesterone
Algorithm for use of progestogens in prevention of PTB in clinical care

Singletons

No prior PTB

Single TVU CL at 18-24 wks

CL ≤20 mm
- Vaginal progesterone

CL >20 mm
- Routine obstetric care

Prior PTB

17P

Serial TVU CL at 16-23 6/7 wks

CL <25 mm
- Cerclage; continue 17P

CL ≥25 mm
- Continue 17P

---

*a* If TVU CL screening is performed; *b* 17P 250 mg intramuscularly every week from 16-20 weeks to 36 weeks; *c* eg, daily 200-mg suppository or 90-mg gel from time of diagnosis of short CL to 36 weeks. CL, cervical length; PTB, preterm birth; 17P, 17-alpha-hydroxy-progesterone caproate; TVU, transvaginal ultrasound.

LOW RISK POPULATION:

- Screening cervical length is performed between 18-24 weeks. No evidence of benefit of progesterone treatment outside of these ranges.

- There is no evidence that treatment with progesterone is beneficial if the cervical length is over 20mm.

- Either form of vaginal progesterone can be used.

- There is no evidence that IM preparations would be effective.
No Prior PTB- If a TV CL of 20mm or less is identified at less than 24 weeks, vaginal progesterone can be offered for prevention of PTB
Algorithm for use of progestogens in prevention of PTB in clinical care

Singletons

No prior PTB

Single TVU CL at 18-24 wks\textsuperscript{a}

- CL \leq 20 mm: Vaginal progesterone\textsuperscript{c}
- CL >20 mm: Routine obstetric care

Prior PTB

17P\textsuperscript{b}

Serial TVU CL at 16-23 6/7 wks

- CL <25 mm: Cerclage; continue 17P
- CL \geq 25 mm: Continue 17P

\textsuperscript{a}If TVU CL screening is performed; \textsuperscript{b}17P 250 mg intramuscularly every week from 16-20 weeks to 36 weeks; \textsuperscript{c}eg, daily 200-mg suppository or 90-mg gel from time of diagnosis of short CL to 36 weeks.

CL, cervical length; PTB, preterm birth; 17P, 17-alpha-hydroxy-progesterone caproate; TVU, transvaginal ultrasound.

Current evidence does not support cerclage for the incidental finding of a shortened cervix in women without a prior spontaneous preterm birth or midtrimester pregnancy loss.

- Twins - cerclage for a short cervix is associated with an increased rate of preterm birth at less than 35 weeks’ gestation, with an RR of 2.15 (95% CI, 1.15–4.01).

- Women who have undergone prior cervical cone biopsy or LEEP procedures-efficacy of cerclage for a shortened cervix has not been evaluated, leaving management speculative.
“IF AN APPROACH OF UNIVERSAL SCREENING IS TO BE ADOPTED, THEN TV CL SCREENING NEEDS TO BE DONE WITH PROPER TECHNIQUE AND WITH QUALITY ASSURANCE TO BE EFFECTIVE”

To ensure quality, the Perinatal Quality Foundation is setting up a program on the proper training for clinical use of TV CL measurement

Society for Maternal-Fetal Medicine Publications Committee, with the assistance of Vincenzo Berghella, MD, Progesterone and preterm birth prevention: translating clinical trials data into clinical practice, American Journal of Obstetrics & Gynecology MAY 2012
The Maternal Fetal Medicine Foundation (MFMF) was formed in 2005 and in turn instituted the Nuchal Translucency Quality Review (NTQR). Effective January 1, 2012 the MFMF became the Perinatal Quality Foundation (perinatalquality.org).

- The NTQR program (ntqr.org) will not change and will be joined by other initiatives. The Examiner will continue to focus on first trimester risk assessment and the NTQR program but will also include items of interest related to new developments in obstetrical care.
https://clear.perinatalquality.org/

The CLEAR program consists of the following:

**Education**
- Lecture 1: Why Measure Cervical Length
- Lecture 2: How to Measure Cervical Length
- Lecture 3: The CLEAR Program

**Examination**
Cervical Image Review and Critique

The Cervical Length Education and Review (CLEAR) program provides three lectures, and optional examination and scored cervical image review. The lectures are available at no charge. Continuing medical education is available to those who complete the examination. Documentation of completion of the CLEAR program as well as CME will be provided to those who complete the lectures, examination, and pass the image review.

To access the lectures and other aspects of the CLEAR program, create a username and password above. For further information contact the Perinatal Quality Foundation at Support@perinatalquality.org.
MEASUREMENT OF THE CERVIX

A is the Funnel Length.

B is the Cervical Length

C<sub>Ant Lip</sub> should = C<sub>Post Lip</sub>

Berghella, Ultrasound Obstet Gynecol 1997;10:161
Burger, Ultrasound Obstet Gynecol 1997;9:188
The endocavitary probe should be covered with a barrier (condom or probe cover).

Users need to be aware of latex sensitivity and have non-latex barriers available.

Users should wear gloves throughout the procedure.

Care should be taken to clean hands and surfaces after the procedure.
The probe should be cleaned with soap and water immediately after the procedure.

High-level disinfection of the probe is required between patients. Allot the time specified on the product label for high-level disinfection.

FDA has published a list of high level disinfectants for use in processing reusable medical devices. That list may be consulted to find agents that may be useful for probe disinfection.
CERVICAL SCREENING
MEASUREMENT IMAGE CRITERIA

- Transvaginal Image
- Cervix ~ 75% of the image
- Anterior = Posterior Width
- Maternal Bladder Empty
- Internal Os Seen
- External Os Seen
- Cervical Canal Visible throughout
- Caliper Placement Correct
- Cervix Mobility Considered
CERVICAL SCREENING
MEASUREMENT IMAGE CRITERIA

- Transvaginal Image
- Cervix ~ 75% of the image
- Anterior = Posterior Width
- Maternal Bladder Empty
- Internal Os Seen
- External Os Seen
- Cervical Canal Visible throughout
- Caliper Placement Correct
- Cervix Mobility Considered
CRITERIA 1 - NORMAL CERVIX
TRANSVAGINAL VIEW

- Fetal Head
- Internal Os
- Ext Os
- Posterior Cervix
- Bladder Empty
- Ext Os
- Internal Os
CRITERIA 2: CERVIX OCCUPIES 75% OF THE IMAGE
CERVIX DOESN’T OCCUPY 75% OF IMAGE
CRITERIA 3: ANTERIOR WIDTH = POSTERIOR WIDTH

- The anterior cervical thickness is equal in width to the posterior cervical thickness.
- The echogenicity is similar both anterior and posterior.
- There is minimal concavity created by the transducer.
CRITERIA 3: ANTERIOR WIDTH = POSTERIOR WIDTH

SHORTENED CX 2.1CM
ANTERIOR WIDTH ≠ POSTERIOR WIDTH

Prominent concavity at transducer face
ANTERIOR WIDTH ≠ POSTERIOR WIDTH

Note increased echogenicity anterior portion of cervix
CRITERIA 4: EMPTY MATERNAL BLADDER
MATERNAL BLADDER NOT EMPTY
CRITERIA 5 & 6: INTERNAL AND EXTERNAL OS SEEN
TOO MUCH PRESSURE: NEITHER OS SEEN WELL
EXTERNAL OS NOT WELL SEEN
CERVICAL CANAL NOT ALL VISIBLE
Contractions may obscure the internal os & mimic funneling
PITFALL: UTERINE CONTRACTION
CRITERIA 7: CERVICAL CANAL COMPLETELY VISIBLE THROUGHOUT
CRITERIA 8: CALIPER PLACEMENT
CORRECT

Fetal Head
Bladder
Posterior Cervical Lip
Ext Os
Int Os
WHERE TO PUT THE CALIPERS?

- Where the anterior & posterior walls of the canal touch
- Not outer-most edge
- Spend enough time to see whether a small echolucent area is stable, or is going to open up

YES

NO
$B = \text{FUNNEL}$  $A = \text{CERVIX LENGTH}$

Cervix Length $\neq A + B$
CALIPER PLACEMENT INCORRECT
HOW TO MEASURE A CURVED CERVIX:
DON’T TRACE TO MEASURE THE CERVICAL LENGTH

Why Not?
HOW TO MEASURE THE CURVED CERVIX:
USE MULTIPLE MEASUREMENTS
The Cervix is Dynamic

Examinations must take cervical changes into account
LOCAL CONTRACTION - SINGLE EXAMINATION

Clue = Debris

Guzman, Obstet Gynecol 1998;92:31
Suggested activities:

- Fiddle with the ultrasound buttons, run through all the spectral colors available for the ultrasound image, turn the color and pulsed Doppler off and on a few times.
- Sing the Star Spangled Banner - long version, all 4 verses.
- Pop a bag of microwave popcorn - size large
- Recite the Gettysburg address - twice
- If kids are in the room - run through 12 verses of Old MacDonald Had a Farm
- Do the Macarena with your left hand and foot while humming the rhythm - do not use the vag probe for percussion
Withdraw probe until blurred / Reapply

Enlarge image (2/3 of screen)

Measure Ext Os → Int Os along endo-cervical canal

Apply fundal or suprapubic pressure

Obtain 3 measurements, use shortest best

Total exam time about 5 minutes

Berghella, Clin Obstet Gynecol 2003;46:947
CONSISTENT EXAMINATION PROTOCOLS
QUALITY OPERATOR CONSIDERATIONS

Experience w/ Transvaginal Exams

Recent Education in Standard Cervical Image Criteria

Practice in obtaining symmetrical cervical imaging (50 or more exams before proficient studies)

Documentation of Inter-observer variability of 7-10% or less

Burger, Ultrasound Obstet Gynecol 1997;9:188
Berghella, Ultrasound Obstet Gynecol 1997;10:161
PRE-EXAM CONSIDERATIONS

• Check the equipment
  • Transducer appropriately cleaned w/ soap & water + soaked for sufficient time for high-level disinfection
  • Use standard 5 to 7 MHz endovaginal probe
  • Use the “EV” EndoVaginal setting (Not OB or ABD)

• Ask patient about latex sensitivity

• Empty maternal bladder
  • Void just before the exam
  • If bladder is seen to be large, stop exam & void again
Empty maternal bladder.
Using TVU find the internal os, external os, cervical canal and endo-cervical glands.
Avoid undue pressure on the cervix.
Anterior width = Posterior width.
The cervix should occupy > 75% of the image.
Measure the closed portion of the cervix.
Perform 3 measurements over > 3 minutes.
Record the **Shortest** length that Meets Criteria.
Not the average length, and Not the prettiest picture
■ Adjustment of the gain
■ Image zoom,
■ Put the focal zone at the cervical canal
■ Use the cinelooop key to adjust the image.
• Relax probe pressure until image begins to blur, then reapply just enough pressure to create best image
• Visualize standard criteria
• Measure CL repeatedly until $\Delta$ is < 10%
• Record the “Shortest Best Measurement”
  • Discard poor measurements – Do Not Average
LOW RISK, 20 WEEKS, CL 26MM
What is “Shortest Best”?

Take repeated measurements until you get 3 that all meet criteria (anterior = posterior thickness, landmarks seen) that vary by < 10%.

Of these 3 excellent images, record the **SHORTEST** one – **not** the one you think is “prettiest” – we want to minimize subjective variation.
TROUBLE FINDING A GOOD IMAGE?

- Start over by relaxing pressure & finding landmarks
- Find lowermost edge of the empty bladder – *internal cervical os should be directly below*
- Cx axis may not lie in mid-plane of torso
- Image should fill 75% of the screen
TVU PITFALLS

Technical
- Full bladder
- Too much pressure
- Failure to visualize entire cervical length
- Incorrect caliper placement
- Exam too short to visualize dynamic cervix changes

Anatomic
- Contraction
- Underdeveloped LUS
COMPRESSION ON ANTERIOR LIP
Algorithm for the use of progestogens in prevention of PTB in clinical care

Singletons

No prior PTB

Single TVU CL at 18-24 wks

CL ≤20 mm

Vaginal progesterone

CL >20 mm

Routine obstetric care

Prior PTB

17P

Serial TVU CL at 16-23 6/7 wks

CL <25 mm

Cerclage; continue 17P

CL ≥25 mm

Continue 17P

---

*If TVU CL screening is performed; 17P 250 mg intramuscularly every week from 16-20 weeks to 36 weeks; eg, daily 200-mg suppository or 90-mg gel from time of diagnosis of short CL to 36 weeks.

CL, cervical length; PTB, preterm birth; 17P, 17-alpha-hydroxy-progesterone caproate; TVU, transvaginal ultrasound.

PPTB, 18 WEEKS
SAME PATIENT AFTER 2 MIN
PRIOR PTB, 20 WEEKS, CL 19MM
POSTERIOR CX, VAGINAL WALL

LONG CERVIX
ECHOCGENICITY IN CERVICAL CANAL
3D IMAGING OF CERVICAL CANAL WITH IUD
LOW RISK, 19 WEEKS, CL 42MM
LOW RISK, 25 WEEKS, CL 42MM
NS 23 WEEKS, 1ST IMAGE
NS 23WK, 2ND IMAGE, 2MIN, CL 21MM
NS 3rd IMAGE, AFTER 3MIN, CL 1.5MM
NS, ON 17P, 27 WEEKS
NS 31 WEEKS, ON 17P, CL 9MM
FUNNELING?

LONG CERVIX
3D IMAGING, NARROW CANAL, DISCRETE AREA OF CERVICAL LUCENCY
LOW RISK, 21 WEEKS, CL 41MM
PPTB, 21WEKS, CL 38MM, FLUID?
LOW RISK, 20 WEEKS, FUNNELING
LOWER UTERINE SEGMENT VIEW
LOW RISK, 23 WEEKS, IMAGE 1

LONG CERVIX
LOW RISK, 23WKS, IMAGE 2, CL 12MM
IMAGE 3, 2 MIN, CL
LOW RISK, 20 WEEKS, CL 29
PRIOR C-SECTION
PPTB X 2, 22 WEEKS, CL 25MM
PPTB, 20 WEEKS, CERCLAGE
G1P0, 19 WEEKS, SLUDGE
G1P0, 28 WEEKS
G1P0, 24 WEEKS IMAGE 1
G1P0, 24 WEEKS, IMAGE 2, CL 10MM
LONG MIDLINE CERVIX
NS, G3P1, 20 WEEKS

Final CL 18 mm
SCREENING 22 WEEKS, SLUDGE