Protocol for Management of Patients at Risk of Preterm Birth

SOON: Past, Present and Future

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I have no conflicts of interest to declare

Except...

- I work in a Prevention of Preterm Birth Clinic
The Problem of Preterm Birth

2010: 15 million babies were born preterm
1 million babies died due to direct causes

Canada: 8% of all births: ~24,000 babies
increased ~25% over past decade

Morbidities: Childhood CP, vision problems, CLD, MR
High rates of PPD
Significant cost to society

Recurrence Risk
1 PTB 16-20%
2 PTB 20-30%
>2 PTB 40+%
Pathway to Preterm Birth

Romero et al. 2014 Seminars in Fetal and Neonatal Medicine
How did we get here??

• CREMS Summer Project 2015

• GTA-OBS Consensus Meeting Spring 2016

• Protocol for PTB Management
History of a singleton delivery between 14-34 weeks
History of a singleton delivery between 14-34 weeks

2 or more previous PTB

Consider MFM non-pregnant consult or early referral in pregnancy
History of a singleton delivery between 14-34 weeks

One previous PTB
History of a singleton delivery between 14-34 weeks

One previous PTB

Infection Screening
- BV  - Urine C+S
- GC/CT - Ureaplasma
History of a singleton delivery between 14-34 weeks

One previous PTB

Infection Screening
- BV
- GC/CT
- Urine C+S
- Ureaplasma

Progesterone from 16 weeks gestation until 34-36 weeks

change
History of a singleton delivery between 14-34 weeks

One previous PTB

Infection Screening
- BV
- GC/CT
- Urine C+S
- Ureaplasma

Progesterone from 16 weeks gestation until 34-36 weeks

Cervical length monitoring
- q2 weeks initially
- Increase to q1 week 2 weeks prior to previous event or with acute cervical change
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- q2 weeks initially
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If CL >25mm continue biweekly surveillance with TVUS until 28 weeks
Cervical length monitoring
- q2 weeks initially
- Increase to q1 week 2 weeks prior to previous event or with acute cervical change

If CL >25mm continue biweekly surveillance with TVUS until 28 weeks

If <25mm consider referral to MFM Specialist
Cervical length monitoring
- q2 weeks initially
- Increase to q1 week 2 weeks prior to previous event or with acute cervical change

If CL >25mm continue biweekly surveillance with TVUS until 28 weeks
If <25mm consider referral to MFM Specialist

What about elective cerclage in pts with previous PTB??

Consider if CL <25(<15mm), history strongly suggestive of mechanical insufficiency, history of cervical trauma
No history of previous preterm birth
No history of previous preterm birth

Universal cervical length screening at 18-20 weeks

Transabdominal scan => if <3cm then perform transvaginal scan
## Is the cost worth the effort??

<table>
<thead>
<tr>
<th>Variable</th>
<th>Base Cost (CAN$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL scan (19-24w)</td>
<td>104.79</td>
</tr>
<tr>
<td>Progesterone (if CL &lt; 20mm)</td>
<td>1 612.00</td>
</tr>
<tr>
<td>Cost of maternal care</td>
<td></td>
</tr>
<tr>
<td>&lt;28w</td>
<td>9680.70</td>
</tr>
<tr>
<td>28-34w</td>
<td>9689.70</td>
</tr>
<tr>
<td>34-37w</td>
<td>4031.25</td>
</tr>
<tr>
<td>Cost of neonatal care</td>
<td></td>
</tr>
<tr>
<td>&lt;28w</td>
<td>105 459.00</td>
</tr>
<tr>
<td>28-34w</td>
<td>24 773.00</td>
</tr>
<tr>
<td>34-37w</td>
<td>5 397.00</td>
</tr>
<tr>
<td>Lifetime cost of disabled child</td>
<td>932 412.18</td>
</tr>
</tbody>
</table>

For every 100 000 women screened:

$4 023 552 would be saved

Hutcheon et al J Obstet Gynecol Can 2012
No history of previous preterm birth

Universal cervical length screening at 18-20 weeks
Transabdominal scan => if <3cm then perform transvaginal scan

If CL <20mm start vaginal progesterone, weekly CL surveillance and refer to MFM Specialist
No history of previous preterm birth

Universal cervical length screening at 18-20 weeks
Transabdominal scan => if <3cm then perform transvaginal scan

If CL 20-25mm continue weekly surveillance with TVUS until 28 weeks

Cerclage could be considered following discussion between pt and physician
Thank you

- Dr. Noor Ladhani
- Noelle Ma