Definitions

**PROM** - Premature Rupture of the Membranes (before active phase of labour)

**pPROM** - Preterm Premature Rupture of the Membranes (before active phase of labour in preterm pregnancy)
Epidemiology

- 2-3% of all pregnancies
- 30% of preterm pregnancies
### Frequency of pPROM (*)

<table>
<thead>
<tr>
<th>Author</th>
<th>Age-grp/weight</th>
<th>pPROM</th>
<th>Year/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veber</td>
<td>&gt; 32 weeks</td>
<td>2</td>
<td>1989 - London</td>
</tr>
<tr>
<td>Veber</td>
<td>&lt; 28 weeks</td>
<td>33</td>
<td>1989 - London</td>
</tr>
<tr>
<td>Tejani</td>
<td>&lt; 2.500 gr</td>
<td>17</td>
<td>1988 - California</td>
</tr>
<tr>
<td>Tejani</td>
<td>&lt; 2.500 gr</td>
<td>29</td>
<td>1988 - California</td>
</tr>
</tbody>
</table>

* In both studies, more than 6,000 cases were surveyed.*
Etiology

- **Risk factors:**
  - Infection
  - Cervical Incompetence
  - Cervical Invasive Procedures
  - Low Placenta
  - Smoking

- **Protection**
  - pH of the vagina
  - Cervical mucus
  - Cervical Competence
Diagnosis

- Amniorrhoea
- Lanugo (1929)
- Vaginal pH (1933)
- Fetal fact cells (1942)
- Arborisation (1944)
- Ultrasound
Management (1)

- GA
  - Expectant
  - Active - Aggressive

- Self - healing (10%)
Management (2)

- **20-24 weeks**
  - - Interruption

- **24-26 weeks**
  - - Active, checking infection

- **26-30 weeks**
  - - Expectancy
  - - Antibiotics
  - - Steroids

- **30-36 weeks**
  - - Aggressive
  - - Steroids and Interruption
Treatment

- Antibiotics
- Steroids
- Tocolysis
Antibiotics

- Prophylactic - Lab results - Bacteriostatic
- Therapeutic - Immediately - Bactericidal
Steroids

- RDS (1972)
- Long-term neonatal complications
- Risk of infection
- Best results: first dose (1-7 days)
**Tocolysis**

- **Pro- and contradictory**
  - 24 hour steroid treatment
  - In utero transfer
Fetal wellbeing

- Amniocentesis
- BPP (8 - 10) - 24 hours
- Quantity of AL
Clinical Chorioamnionitis

- The frequency of symptoms associated with IAI

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature &gt; 37.8 C</td>
<td>100</td>
</tr>
<tr>
<td>Maternal Heart Rate &gt; 100 / min</td>
<td>20 - 80</td>
</tr>
<tr>
<td>Foetal Heart Rate &gt; 169 / min</td>
<td>40 - 70</td>
</tr>
<tr>
<td>White Blood Cells / cc &gt; 15.000</td>
<td>70 - 90</td>
</tr>
<tr>
<td>White Blood Cells /cc &gt; 20.000</td>
<td>3 - 10</td>
</tr>
<tr>
<td>Odorous AL</td>
<td>5 - 22</td>
</tr>
<tr>
<td>Uterine Tenderness</td>
<td>4 - 25</td>
</tr>
</tbody>
</table>
**Neonatal survival**

- **Neonatal survival rate of pregnancies complicated by pPROM**

<table>
<thead>
<tr>
<th>Gestational age (weeks)</th>
<th>Survival rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>25</td>
<td>55</td>
</tr>
<tr>
<td>26</td>
<td>65</td>
</tr>
<tr>
<td>27</td>
<td>76</td>
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<tr>
<td>28</td>
<td>85</td>
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<tr>
<td>29</td>
<td>90</td>
</tr>
</tbody>
</table>

p.s. Surfactant has been used postnatally (Jonathan M, 14)
Interruption of Pregnancy

- Risk for infection overcomes prematurity
  - Fetal lung maturation
  - Fetal distress
  - Maternal and/or fetal infection
Recurrent pPROM

- 20% Risk
- History
- Hydramnion
- Multifetal Pregnancy
- Recurrent infection
- Smoking