Prelabour Rupture Of Membranes (PROM) and Preterm PROM

- **Definition**
- Rupture of membranes prior to the onset of labour. This can either be at term (≥ 37 weeks) or preterm (<37 weeks of gestation).

- **Epidemiology**
- Complicates 3% of pregnancies
- 40% of preterm deliveries
- Spontaneous onset of labour after term PROM usually follows within 24 hours
- The median latency after PPROM is 7 days and tends to shorten as the gestational age at PPROM advances
- Latency period is longer with decreasing GA

    at 26 wks 50% will labour within 1wk

    at 32 wks 50% will labour within 24-48hrs

Clinical assessment

- **History**

- Gush of fluid per vagina followed by continuous dribbling.
- Timing of leakage & associated symptoms, amount of fluid lost, colour (clear/yellow, blood-stained, thick/dark green etc.)
- Persistent loss after initial leak
- Any associated urinary symptoms.

- **Examination**

- VS
- Abdominal exam: SFH, lie, presentation, uterine tenderness if chorioamnionitis
- Speculum exam (definitive DX):pool of amniotic fluid in posterior vaginal fornix is diagnostic, positive cough sign
- Visualize the cervix for dilatation
- Cord??
- **NO Digital exam**

Differential diagnoses

- Urine loss: Incontinence & UTI are common in pregnancy
- Vaginal infection
- Leukorrhoea
- Cervical glands often become hyperactive during pregnancy

Investigations

- Nitrazine test Alkaline PH - black stick
  - False positive: blood ,semen &urine
- Ferning pattern when the amniotic fluid is air-dried (due to high sodium content)
- Genital tract swabs: HVS & for GBS(NOT for Dx)

Ultrasound

- Role in diagnosis of PROM is controversial, as a loss of significant volume of fluid is required to be detectable on ultrasound.
- U/S useful in some cases to help confirm Diagnosis

AmniSure®

The AmniSure ROM Test:

- 98.9% sensitivity & 100%specificity
- Detects the PAMG-1 protein marker
- Provides results within minutes
- Does not require a speculum examination
- Has no gestational age limitation

- In the absence of demonstrable loss of fluid , a ‘wait and see’ approach with repeated dry pads and a normal liquor volume on scan may provide supportive evidence that PPROM has not occurred.
- AmniSure

Preterm PROM

- **Major risks:**

- Chorioamnionitis
- Hyaline membrane disease (HMD)
- Pulmonary hypoplasia- frequent when PROM <26 wk, period > 5 wk
- Abruption
- Fetal distress- variable deceleration reflecting umbilical cord compression caused by oligohydramnios
- Fetal deformities; facial & skeletal deformities in prolonged PROM
- Preterm delivery
- Cord prolapse
- Operative delivery

Diagnosis of chorioamnionitis

- Combination of:

- **Clinical**: lower abdominal pain, abnormal vaginal discharge, fever, malaise and reduced fetal movement
- **Maternal blood tests**: C-reactive protein and white cell count
- **Fetal heart rate**

Management

- **Antibiotics** prolong latency period to onset of labour
  - Erythromycin 250mg QID for 10 days
- Tocolysis is not recommended as treatment does not significantly improve perinatal outcome.
- Amnioinfusion is not recommended & insufficient evidence to recommend in very preterm PPROM to prevent pulmonary hypoplasia.
- Corticosteroids

Delivery

- PPROM after 24 +0 weeks' gestation and who have no contraindications to continuing the pregnancy should be offered expectant management until 37 +0 weeks

- PROM after 37 weeks:
- Controversial;
- Immediate IOL
  - Less hospitalisation
  - Less perinatal infection
  - Less NN morbidity