Normal Labour (Detailed)

TIMINGS (PRIMI vs MULTI) • MECHANISM • FETAL SKULL **KMU - FINAL YEAR MBBS**

1. THE PELVIS (PASSAGE)

Pelvic Inlet: Transverse diameter > AP diameter.
Pelvic Outlet: AP diameter > Transverse.
Shape Impact:
- **Gynecoid (50%):** Round. Ideal.
- **Android (20%):** Heart-shaped (Male). **Deep Transverse Arrest.**
- **Anthropoid (25%):** Oval. Favors **Occipito-Posterior (OP)**.
- **Platypelloid (5%):** Flat. Obstructed labour.

2. THE FETUS (PASSENGER)

Fetal Skull Diameters (MCQ Gold):
1. **Sub-Occipito-Bregmatic (SOB):**
   - **9.5 cm**.
   - Found in: **Fully Flexed** Vertex (Normal).
2. **Occipito-Frontal (OF):**
   - **11.5 cm**.
   - Found in: **Deflexed** Vertex (OP position).
3. **Mento-Vertical (MV):**
   - **13.5 cm** (Largest!).
   - Found in: **Brow** presentation (Obstructed).
4. **Sub-Mento-Bregmatic (SMB):**
   - **9.5 cm**.
   - Found in: **Face** presentation.

3. ENGAGEMENT: THE "FIFTHS" RULE

Definition: When the widest diameter (BPD) passes the pelvic inlet.

Abdominal Assessment (Fifths Palpable):
- **5/5 Palpable:** Head is floating (High).
- **2/5 Palpable:** Head is **ENGAGED**.
- **0/5 Palpable:** Head is deep in pelvis.

Vaginal Assessment (Station):
- **Station 0:** Head at Ischial Spines (Engaged).
- **Station -2:** Floating.
- **Station +2:** Deep.

4. TRUE VS FALSE LABOUR

True Labour:
- Regular contractions (Increase in strength/frequency).
- **Cervical Dilation & Effacement** (Key Feature).
- "Show" present (Mucus + Blood).
- Pain radiates to back.

5. STAGES OF LABOUR (TIMING IS KEY)

Stage/Phase	Primigravida (1st Baby)	Multiparous (2nd+ Baby)
1st Stage (Total)	10 - 14 hours	6 - 8 hours
Latent Phase (0-4 cm)	**6 - 8 hours**	**4 - 5 hours**
Active Phase (4-10 cm)	**1 cm / hour**	**1.5 cm / hour**
2nd Stage (Pushing)	1 - 2 hours (Max 3h w/ epidural)	30 mins - 1 hour (Max 2h w/ epidural)
3rd Stage	< 30 mins	< 30 mins

6. MECHANISM OF LABOUR (7 STEPS)

1. Engagement: Head enters inlet (Transverse position).
2. Descent: Continuous movement.
3. Flexion: Resistance from pelvic floor pushes chin to chest (Diameter changes 11.5 -> 9.5 cm).
4. Internal Rotation: Head hits gutter of pelvic floor and rotates 45° to **Occipito-Anterior (OA)**.
5. Extension: Occiput slips under pubic arch -> Crowning -> Head born.
6. Restitution (Ext. Rotation): Head untwists to align with shoulders.
7. Expulsion: Anterior shoulder -> Posterior shoulder -> Body.

7. MANAGEMENT PROTOCOLS

1. The Partogram:
• Alert Line: 1 cm/hour. If crossed -> Re-assess.
• Action Line: 4 hours to the right. If crossed -> Intervene (Augment/CS).

2. Active Management of 3rd Stage (AMTSL):
• Purpose: Reduces PPH risk by 60%.
• Step 1: Oxytocin 10 IU IM (within 1 min).
• Step 2: Delayed Cord Clamping (1-3 mins).
• Step 3: Controlled Cord Traction (CCT) (Brandt-Andrews maneuver).

8. NEONATAL ASSESSMENT

APGAR Score (0-10):
- Measured at **1 min** and **5 mins**.
- A = Appearance (Blue / Pink body / All pink).
- P = Pulse (0 / <100 / >100).
- G = Grimace (None / Grimace / Cry).
- A = Activity (Limp / Flexion / Active).
- R = Respiration (None / Slow / Good Cry).

Abnormal Labour (Dystocia)

THE 3 P's • PARTOGRAM PATTERNS • MANAGEMENT **KMU - FINAL YEAR MBBS**

1. ETIOLOGY: THE 3 P'S

Factor	Problem
Power	**Uterine Inertia:** Hypotonic (Weak) or Hypertonic (Uncoordinated) contractions.
Passage	**CPD:** Cephalopelvic Disproportion. Small pelvis (Android/Platypelloid) or mass (Fibroid).
Passenger (Fetus)	**Malpresentation:** Brow, Face, Shoulder. **Malposition:** Occipito-Posterior (OP). **Macrosomia:** >4kg.

2. ABNORMAL 1ST STAGE PATTERNS

1. Prolonged Latent Phase:
- **Definition:** >20h (Primi) or >14h (Multi).
- **Cause:** Unripe cervix, false labour.
- **Rx: Therapeutic Rest** (Sedation/Hydration). DO NOT Augment.

2. Primary Dysfunctional Labour (Protraction):
- **Definition:** Dilation < 1-2 cm/hr in Active Phase.
- **Rx:** Artificial Rupture of Membranes (ARM) + Oxytocin.

3. Secondary Arrest:
- **Definition:** Dilation STOPS for > 2 hours (after reaching >7cm).
- **Cause:** Usually CPD / Malposition.
- **Rx:** Rule out CPD. If Power weak -> Oxytocin. If CPD -> C-Section.

🚨 **PRECIPITATE LABOUR**
Definition: Total labour < 3 hours.
Risks:
• Maternal: Lacerations, PPH (Uterine exhaustion), Inversion.
• Fetal: Intracranial Hemorrhage (Rapid compression), Hypoxia.

3. ABNORMAL 2ND STAGE (DELAY)

Definition of Delay:
- **Primigravida:** > 2 hours (3h with epidural).
- **Multigravida:** > 1 hour (2h with epidural).

Management:
- **Assessment:** Fetal Head Station & Position.
- **If Head Engaged (+2):** Instrumental Delivery (Vacuum/Forceps).
- **If Head High:** C-Section.

4. OBSTRUCTED LABOUR

Definition: No advance of presenting part despite strong contractions.
Sign: Bandl's Ring (Pathological Retraction Ring).
- Visible depression across abdomen (between upper/lower segments).
- Sign of imminent **Uterine Rupture**.

Rx: Immediate C-Section.

5. AUGMENTATION (OXYTOCIN)

Protocol:
- Start low dose IV infusion.
- Titrate every 30 mins until **3-4 contractions in 10 mins**.
- **Contraindications:** Fetal Distress, Previous Classical CS, Obstructed Labour.
- **Risk:** Uterine Hyperstimulation (>5 contractions/10min) -> Fetal Hypoxia.

Malpresentations

FACE • BROW • SHOULDER • BREECH **KMU - FINAL YEAR MBBS**

1. FACE PRESENTATION

Attitude: Full Extension of head.
Denominator: Mentum (Chin).
Diameter: Sub-Mento-Bregmatic (9.5 cm).
• *Note:* Diameter is same as normal vertex, so vaginal delivery IS possible.

The "Chin" Rule (MCQ Gold):
• **Mento-Anterior (MA):** Chin under pubis. Vaginal Delivery **POSSIBLE**.
• **Mento-Posterior (MP):** Chin hits sacrum. Head cannot extend further. **UNDELIVERABLE** vaginally.
• **Rx for MP:** C-Section (Vacuum is Contraindicated).

2. BROW PRESENTATION

Attitude: Partial Extension.
Diameter: Mento-Vertical (13.5 cm).
Significance: This is the LARGEST diameter of the fetal skull.
Outcome: Cannot pass through normal pelvis.
Rx: C-Section (unless baby is very small/premature).

3. SHOULDER PRESENTATION

Lie: Transverse.
Risk: Cord Prolapse (very high risk).
Management:
• **Antenatal (>36w):** ECV (External Cephalic Version).
• **In Labour: C-Section** immediately.
• **Neglected:** Hand prolapse through vagina.

4. OCCIPITO-POSTERIOR (OP) POSITION

Description: "Sunny side up" (Baby faces Mom's tummy).
Associated Pelvis: Anthropoid.
Consequences:
• **Backache Labour:** Occiput presses on sacral nerves.
• **Prolonged Labour:** Deflexed head (11.5 cm diameter).
• **Deep Transverse Arrest:** Head gets stuck rotating.
Management:
• Wait (Most rotate to OA).
• Instrumental (Kielland's Forceps for rotation).

5. BREECH PRESENTATION

Type	Description
Frank	Hips flexed, Knees extended (Feet by ears). Best for vaginal delivery.
Complete	Hips flexed, Knees flexed (Cross legged).
Footling	One/both feet down. **Cord Prolapse Risk!**

Management Steps:
1. **ECV (36-37w):** Turn baby. Success 50%.
2. **Elective CS:** Safest option (Term Breech Trial).
3. **Vaginal Breech:** Only if Frank breech, experienced doctor, small baby.
• **Love's Maneuver:** Keep back anterior.
• **Mauriceau-Smellie-Veit:** Delivery of head.

6. KMU SCENARIO BANK

Q1: On PV exam, you feel the nose, two eyes, and mouth. Chin is posterior.
Dx: Mento-Posterior Face Presentation.
Rx: C-Section.

Q2: On PV exam, you feel the anterior fontanelle, orbital ridges, but NO chin.
Dx: Brow Presentation.
Rx: C-Section.

Pain Control in Labour

EPIDURAL • OPIOIDS • NON-PHARMACOLOGICAL **KMU - FINAL YEAR MBBS**

1. NON-PHARMACOLOGICAL (SAFE & SIMPLE)

TENS (Transcutaneous Electrical Nerve Stimulation):
- **Mechanism:** Gate Control Theory (blocks pain signals).
- **Timing:** Best for early labour/back pain.

Others:
- Water Birth (Warmth relaxes muscles).
- Psychoprophylaxis (Breathing/Education).

2. INHALATIONAL ANALGESIA

Entonox (Gas & Air):
- **Composition:** 50% Nitrous Oxide + 50% Oxygen.
- **Timing:** Start inhaling at the **start** of contraction (takes 20s to work). Stop at peak.
- **Side Effects:** Nausea, Lightheadedness.
- **Safety:** Rapidly cleared by lungs. Safe for fetus.

3. SYSTEMIC OPIOIDS (IM/IV)

Pethidine / Diamorphine:
- **Efficacy:** Moderate (sedative effect > analgesic).
- **Side Effects:** Maternal vomiting (give anti-emetic).
- **Fetal Risk:** Respiratory Depression (if given 2-4 hours before birth).
- **Antidote: Naloxone** (Give to baby, NOT mom).

4. EPIDURAL ANAESTHESIA (REGIONAL)

Gold Standard for Pain Relief.
Indications: Prolonged labour, Oxytocin augmentation, Twins, Pre-eclampsia (Lowers BP), Maternal request.
Contraindications:
- **Coagulopathy:** Platelets < 80,000 (Risk of Spinal Hematoma).
- Sepsis (local or systemic).
- Hypovolemia (uncorrected).

EPIDURAL COMPLICATIONS
1. Hypotension: Most common. (Sympathetic block causes vasodilation). Rx: Fluids + Ephedrine.
2. Dural Puncture Headache: Severe headache when sitting up. Leakage of CSF. Rx: Blood Patch.
3. Total Spinal: Rare. Respiratory arrest. Emergency.
4. Prolonged 2nd Stage: Loss of urge to push. Increases Instrumental Delivery rate.

5. SPINAL VS EPIDURAL

Feature	Spinal	Epidural
Onset	Rapid (min)	Slow (20 min)
Space	Subarachnoid	Epidural
Use	C-Section	Labour Analgesia
Duration	Single shot (Ltd)	Continuous (Catheter)

Induction of Labour (IOL)

BISHOP SCORE • PROSTAGLANDINS • OXYTOCIN **KMU - FINAL YEAR MBBS**

1. INDICATIONS & CONTRAINDICATIONS

Indications (Benefit > Risk):
- Prolonged pregnancy (>41 weeks).
- Preeclampsia / Diabetes / Cholestasis.
- PPROM (>37 weeks or infection).
- IUGR (Placental failure).

Contraindications (Requires C-Section):
- **Placenta Previa** (Major).
- **Transverse Lie**.
- Previous Classical C-Section (Vertical scar).
- Active Genital Herpes.
- Severe Fetal Distress.

2. BISHOP SCORE (PRE-INDUCTION)

Mnemonic: "**C**all **P**EDS"
1. **C**onsistency (Firm -> Medium -> Soft).
2. **P**osition (Posterior -> Mid -> Anterior).
3. **E**ffacement (Length: 3cm -> 1cm).
4. **D**ilation (0 -> >5cm).
5. **S**tation (-3 -> +1).

Score Interpretation:
- **< 8:** Unfavorable cervix. Needs **Ripening** (Prostaglandins).
- **> 8:** Favorable. Needs **ARM + Oxytocin**.

3. MEMBRANE SWEEPING

Mechanism: Finger separates membranes from lower uterine segment -> Releases local prostaglandins.
Timing: Offered at 40-41 weeks to reduce need for formal induction.
Risks: Discomfort, spotting.

4. PHARMACOLOGICAL METHODS

Prostaglandin E2 (Dinoprostone):
- **Use:** Ripens cervix (Score < 8).
- **Forms:** Vaginal Gel or Pessary (Propess).
- **Risk:** Uterine Hyperstimulation.

Oxytocin (Syntocinon):
- **Use:** Stimulates contractions (Score > 8 or after ARM).
- **Admin:** IV Infusion (Titrated).
- **Risk:** Uterine Rupture (especially in multiparas).

5. MECHANICAL METHODS

Foley Catheter:
- Balloon inflated inside cervix to mechanically stretch it.
- **Indication:** Previous C-Section (Prostaglandins contraindicated due to rupture risk) or Growth Restriction.
- **Benefit:** Lower risk of hyperstimulation.

6. COMPLICATIONS OF IOL

🚨 **UTERINE HYPERSTIMULATION**
Definition: > 5 contractions in 10 minutes OR contractions lasting > 2 mins.
Consequence: Fetal Hypoxia (No time for placenta to refill).
Management:
1. Stop Oxytocin / Remove Prostaglandin.
2. Left Lateral Position.
3. Tocolysis: Terbutaline 250mcg SC (to relax uterus).
4. Emergency CS if fetal distress persists.

7. FAILED INDUCTION

- Failure to establish labour after one cycle of Prostaglandins + ARM + Oxytocin.
- **Management:** C-Section.

Antepartum Hemorrhage

PREVIA vs ABRUPTION • VASA PREVIA • MANAGEMENT **KMU - FINAL YEAR MBBS**

1. APH OVERVIEW

Definition: Bleeding from the genital tract after **24 weeks** gestation.
The Golden Rule: NEVER perform a Digital Vaginal Exam (PV) until placenta location is confirmed by Ultrasound.

2. PLACENTA PREVIA (THE PAINLESS BLEED)

Features:
- **Painless**, Bright Red, Recurrent bleeding.
- Uterus is **Soft & Relaxed**.
- Fetal Head is high (Not engaged).

Classification:
- **Major (Complete):** Covers internal os. (C-Section Mandatory).
- **Minor (Marginal):** Within 2cm of os but not covering.

Management:
- **Asymptomatic:** Admit at 34w. Elective CS at 37-38w.
- **Bleeding:** Resuscitate.
  - If Term/Heavy Bleeding -> **Emergency CS**.
  - If Preterm/Mild -> Conservative (Steroids + Bed Rest).

3. VASA PREVIA (FETAL BLOOD)

Presentation: Rupture of Membranes -> Followed immediately by **Fetal Bradycardia** / Death.
Cause: Velamentous cord insertion (Fetal vessels run over the internal os).
Diagnosis: Color Doppler.
Management: Emergency C-Section.

4. PLACENTAL ABRUPTION (THE PAINFUL BLEED)

🚨 **CLINICAL FEATURES**
1. Painful bleeding (Dark Red).
2. "Woody Hard" Uterus (Tense/Tender).
3. Fetal Distress (Hypoxia).
4. Maternal Shock (often out of proportion to visible blood).

Types:
- **Revealed:** Blood escapes cervix (Visible).
- **Concealed:** Blood trapped behind placenta (Hidden). *More dangerous (DIC risk).*

Complications:
- **DIC (Disseminated Intravascular Coagulation):** Thromboplastin released from damaged placenta.
- **Couvelaire Uterus:** Blood penetrates myometrium (Uterus looks blue/bruised). Can cause atony.
- **Renal Failure:** Hypovolemic shock.

5. MANAGEMENT OF ABRUPTION

Fetus Alive:
- **Fetal Distress:** Emergency C-Section.
- **No Distress + Term:** Vaginal Delivery (ARM + Oxytocin). *Speed is key to prevent DIC.*

Fetus Dead (IUFD):
- **Vaginal Delivery** (Induction).
- Correct Coagulopathy (FFP, Cryoprecipitate) before any surgical intervention.

6. COMPARISON SUMMARY

Feature	Previa	Abruption
Pain	Absent	**Severe**
Uterus	Soft	**Hard/Tender**
Head	High	Engaged
Comp.	Accreta	DIC / Renal

PPH & Uterine Accidents

THE 4 T's • UTERINE RUPTURE • INVERSION **KMU - FINAL YEAR MBBS**

1. POSTPARTUM HEMORRHAGE (PPH)

Primary PPH: >500ml (Vaginal) or >1000ml (CS) within **24 hours**.
Secondary PPH: 24h to 12 weeks (Usually infection/retained tissue).

2. CAUSES: THE 4 T'S

1. **TONE (70%):** Uterine Atony. (Twins, Polyhydramnios, Prolonged labour).
2. **TRAUMA (20%):** Tears (Cervical, Vaginal, Perineal). Rupture.
3. **TISSUE (10%):** Retained Placenta / Membranes.
4. **THROMBIN (1%):** Coagulopathy (DIC, Pre-eclampsia).

3. MANAGEMENT OF PPH (STEPWISE)

🚨 **ACTION PROTOCOL**
Step 1: Mechanical
• Call for Help. Two large bore IV lines.
• Uterine Massage (First action).
• Bimanual Compression.

Step 2: Medical (Drugs)
1. Oxytocin: 5 IU IV bolus + 40 IU Infusion.
2. Ergometrine: 0.5mg IM/IV (CI in Hypertension/Heart disease).
3. Carboprost (PGF2a): 0.25mg IM (CI in Asthma).
4. Misoprostol: 800-1000mcg Rectally.

Step 3: Surgical
• Bakri Balloon (Tamponade).
• B-Lynch Suture (Compression).
• Hysterectomy (Last resort).

4. UTERINE RUPTURE

Major Risk Factor: Previous C-Section (VBAC).
Clinical Signs:
• Severe abdominal pain (tearing sensation) despite epidural.
• **Loss of Station:** Presenting part goes UP (recedes).
• Cessation of contractions.
• Fetal Distress (Bradycardia).
Management: Resuscitate + Immediate Laparotomy.

5. UTERINE INVERSION

Definition: Uterus turns inside out.
Cause: Pulling on cord when uterus is relaxed (Mismanagement of 3rd Stage).
Signs:
• **Neurogenic Shock:** (Vagal) BP drops out of proportion to blood loss.
• **Mass at Introitus:** "Dark blue/grey mass".
• Fundus not palpable abdominally.

6. INVERSION MANAGEMENT

Step 1: STOP Oxytocin immediately.
Step 2: DO NOT Remove Placenta (It will bleed torrentially).
Step 3: Johnson's Maneuver: Push fundus up manually (Hand in vagina).
Step 4: Hydrostatic correction (O'Sullivan's) if manual fails.
Step 5: Restart Oxytocin ONLY after uterus is replaced.

7. PLACENTA ACCRETA SPECTRUM

Accreta: Attaches to Myometrium.
Increta: Invades Myometrium.
Percreta: Penetrates through Uterus (to Bladder).
Risk: Previous CS + Placenta Previa.
Rx: C-Hysterectomy usually required.

Fetal Emergencies

HELPERR PROTOCOL • MANEUVERS • CORD PROLAPSE **KMU - FINAL YEAR MBBS**

1. SHOULDER DYSTOCIA: BASICS

Definition: Delivery of the body requires additional maneuvers after the head has delivered.
- **Anterior Shoulder** gets impacted behind the **Pubic Symphysis**.
- It is an **UNPREDICTABLE** Bony Emergency.

The Classic Sign:
- **Turtle Sign:** The head is delivered but then retracts back against the perineum (like a turtle going back into its shell).

2. COMPLICATIONS

Fetal:
- **Brachial Plexus Injury (Erb's Palsy):** C5-C6 damage (Waiter's tip hand).
- **Fractures:** Clavicle or Humerus.
- **Hypoxia:** Brain damage if not delivered in 5-7 mins.

Maternal:
- PPH (Uterine atony/tears).
- 4th Degree Perineal Tear.
- Uterine Rupture.

THE GOLDEN RULE
DO NOT PULL ON THE HEAD!
Pulling causes stretching of the neck = Brachial Plexus Injury.
DO NOT PUSH ON THE FUNDUS!
Fundal pressure impacts the shoulder harder.

3. MANAGEMENT: "HELPERR"

H - Call for HELP: Senior Obstetrician, Pediatrician, Anesthesia.

E - Episiotomy:
- Does NOT release the shoulder (it's a bony problem).
- But allows **space for your hand** to do internal maneuvers.

L - Legs (McRoberts Maneuver):
- Flex hips sharply (knees to ears).
- **Mechanism:** Flattens the sacrum + Rotates symphysis.
- **Success:** Resolves 90% of cases!

P - Suprapubic Pressure:
- Apply pressure just above pubic bone.
- Direction: **Downwards and Lateral** (towards baby's face).
- **Mechanism:** Dislodges anterior shoulder.

E - Enter (Internal Maneuvers):
- See Next Column.

R - Remove Posterior Arm:
- Follow posterior arm → Grasp hand → Sweep across chest/face.

R - Roll (Gaskin Maneuver):
- Patient on "All Fours" (Hands and Knees). Gravity helps.

4. INTERNAL MANEUVERS (SIMPLIFIED)

Goal: Rotate the baby so the shoulders move to the wider oblique diameter.

Rubin II Maneuver:
- Put fingers **BEHIND** the Anterior shoulder.
- Push it **towards the baby's chest** (Adduction).
- This shrinks the shoulder width.

Woods Screw Maneuver:
- Put fingers on the **FRONT** of the Posterior shoulder.
- Rotate the baby 180 degrees (like a screw).

Last Resorts (Desperate Measures):
- **Cleidotomy:** Intentional fracture of clavicle.
- **Zavanelli:** Push head back in -> C-Section.
- **Symphysiotomy:** Cut the pubic cartilage.

5. CORD PROLAPSE

Definition: Umbilical cord descends below the presenting part after membranes rupture.
Risk: Compression of cord -> Fetal Hypoxia (Death in minutes).
Risk Factors: Breech (Footling), Transverse Lie, Polyhydramnios, Artificial Rupture of Membranes (ARM) when head is high.

6. CORD PROLAPSE MANAGEMENT

CODE RED PROTOCOL
1. DO NOT TOUCH THE CORD: Handling causes vasospasm (shutdown).

2. RELIEVE PRESSURE (Mechanical):
• Manual: Put hand in vagina and PUSH THE HEAD UP off the cord.
• Keep your hand there until baby is delivered by CS.

3. POSITION (Gravity):
• Knee-Chest Position: (Face down, bum in air).
• Or Deep Trendelenburg (Head down tilt).

4. BLADDER FILLING (Vago's Method):
• Fill bladder with 500ml saline. This pushes the presenting part up.

5. DELIVERY:
• Category 1 C-Section immediately.

The Puerperium

INVOLUTION • SEPSIS • SECONDARY PPH **KMU - FINAL YEAR MBBS**

1. PHYSIOLOGICAL CHANGES

Uterine Involution (The Timeline):
- **Immediately:** At Umbilicus (~20 weeks size).
- **1 Week:** Midpoint between Umbilicus & Symphysis.
- **2 Weeks:** Not palpable abdominally (Pelvic organ).
- **6 Weeks:** Normal pre-pregnant size.

Lochia (Vaginal Discharge):
- **Rubra (Red):** Days 1-4 (Blood).
- **Serosa (Pink):** Days 5-9 (Serum/Leukocytes).
- **Alba (White):** Days 10-14 (Mucus).

Persistent Lochia Rubra > 2 weeks = Retained Products.

2. SECONDARY PPH

Definition: Bleeding >24 hours to 12 weeks postpartum.
Causes:
1. **Retained Products of Conception (RPOC):** Most common.
2. **Endometritis:** Infection of lining.

Management:
- **Antibiotics:** Broad spectrum (Co-Amoxiclav + Metronidazole).
- **Ultrasound:** To check for tissue.
- **Evacuation (ERPC):** ONLY if antibiotics fail (High risk of uterine perforation).

3. OBSTETRIC PALSIES

Foot Drop (Peroneal Nerve): Caused by compression at fibular head (Stirrups during lithotomy).
Femoral Nerve Injury: Weak hip flexion/knee extension.
Obturator Nerve: Weak adduction.

4. PUERPERAL SEPSIS

Definition (Puerperal Pyrexia): Temp > 38°C on any occasion in first 14 days.
Most Common Organism: Group A Streptococcus (GAS) - *Killer!*
Sources: Endometritis, UTI, Wound Infection (CS), Mastitis.

🚨 **SEPSIS SIX (WITHIN 1 HOUR)**
TAKE 3:
1. Blood Cultures.
2. Lactate (Serum).
3. Urine Output (Catheterize).

GIVE 3:
4. Oxygen (maintain sats >94%).
5. IV Fluids (Hartmann's).
6. IV Antibiotics (Broad Spectrum).

5. URINARY TRACT

Retention of Urine: Common after Epidural or Instrumental delivery.
- **Risk:** Overdistension -> Permanent detrusor damage.
- **Mgmt:** Catheterize if no voiding > 6 hours.

6. VENOUS THROMBOEMBOLISM (VTE)

Highest Risk Period: First 6 weeks postpartum.
Symptoms: Leg pain/swelling (DVT) or Breathlessness (PE).
Treatment: LMWH (Enoxaparin). Warfarin is safe in breastfeeding but LMWH preferred initially.

Psychiatry & Breastfeeding

BLUES vs PSYCHOSIS • MASTITIS • CONTRACEPTION **KMU - FINAL YEAR MBBS**

1. PSYCHIATRIC DISORDERS

Condition	Timing	Features & Mgmt
Postpartum Blues	Day 3 - 10	Tearfulness, Labile mood. **Rx:** Reassurance (Self-limiting).
Depression	2 weeks - 1 year	Anhedonia, Guilt, Sleep disturbance. **Rx:** CBT, SSRIs (Sertraline).
Psychosis	Rapid onset (5th Day)	**EMERGENCY.** Hallucinations, Delusions, Risk of Infanticide. **Rx:** Mother & Baby Unit Admission.

2. BREASTFEEDING PHYSIOLOGY

Prolactin: Milk *Production* (Anterior Pituitary).
Oxytocin: Milk *Ejection* / Let-down (Posterior Pituitary).
Colostrum: First milk (Day 1-3). Rich in IgA & Protein ("Liquid Gold").

3. MASTITIS & ABSCESS

Mastitis: Wedge-shaped redness + Flu-like symptoms.
- **Organism:** Staph Aureus.
- **Rx:** Flucloxacillin + **CONTINUE FEEDING** (Empty the breast!).

Breast Abscess: Palpable lump + Fluctuance.
- **Rx:** Incision & Drainage (or Aspiration). Stop feeding from *that* breast only if incision is near nipple.

4. BREASTFEEDING CONTRAINDICATIONS

Absolute Contraindications:
- **Galactosemia** (In infant).
- Active TB (Untreated).
- **HIV:**
  - *Developed World:* Formula Feed (Avoid transmission).
  - *Developing World:* Exclusive Breastfeeding is safer than dirty water formula (WHO Guideline).

5. POSTPARTUM CONTRACEPTION

Breastfeeding (LAM Method):
• Effective (98%) ONLY if:
1. Exclusive Breastfeeding (Day & Night).
2. Amenorrheic (No periods).
3. < 6 Months postpartum.

Progestin Only Pill (POP):
• Safe Immediately postpartum.
• Does not affect milk.

COCP (Estrogen):
• AVOID for 6 Weeks.
• Risk: DVT (Hypercoagulable state) + Reduces Milk Supply.

IUCD (Copper/Mirena):
• Insert within 48h OR wait until 4 weeks.

6. RHESUS PROPHYLAXIS

- If Mother Rh -ve and Baby Rh +ve:
- Check **Kleihauer Test** (Fetal cells in maternal blood).
- Administer **Anti-D Ig** within 72 hours of delivery.