THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

THE ESSENTIAL MATERNAL & NEWBORN CLINICAL PROTOCOLS.

AUGUST 2022

FOREWORD

Uganda's maternal mortality ratio (MMR) though on a reducing trend, it remains unacceptably high at 336 per 100,000 live births (UDHS 2016). The under 5 mortality rate has reduced from 90 (2011) to 64 per 1,000 live births (UDHS 2016). However, despite the reduction in child Mortality, the Neonatal mortality rate (NMR) has remained high and stagnant over two the past 2 decades at 27 per 1,000 total births (UDHS, 2016)

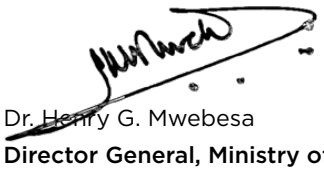
Previous efforts to address the situation, including the National Safe Motherhood and Family Planning Programmes, have not yet yielded the desired effect. Total fertility rate (TFR) remains high at 5.4 per woman while modern contraceptive prevalence (CP) among married women is still low 35 percent (UDHS 2016) below the desired 50%.

In light of this, the Ministry of Health (MOH) in conjunction with partners came up with simplified, but intensive, and evidence based clinical guidelines and protocols on the management of the most common obstetric/neonatal conditions that contribute to maternal and neonatal mortality. In these guidelines, emphasis is placed on a refocused Quality antenatal care; birth and emergency preparedness; identification, prevention and management of life threatening complications of pregnancy and childbirth; as well as the management of the normal and sick new-born.

These guidelines also provide a basis for assisting the health provider in the decision-making process. Providers are also reminded of the need to involve the client, her husband and members of the community in her management.

This book, which has been appropriately titled Essential Maternal & Neonatal Care Clinical Guidelines for Uganda, is expected to be a reinforcement of the Safe Motherhood Life Saving Skills (LSS) program, the Pregnancy, Childbirth and Postnatal Care (PCPNC), Sexually Transmitted Infections (STIs) Training Curriculum, the National Adolescent Health Policy, The Reproductive Health Service Guidelines for Family Planning and Maternal Health Services Delivery, the Midwives Handbook, the Guide to Practice and several others.

The prevention of maternal and neonatal mortality and Morbidity is joint responsibility of all health care providers, Policy makers and the communities they serve. As you read this book, identify gaps between your present level of performance, responsibility and the desired level of performance so that you can take the necessary steps to bridge the gap and improve the quality of maternal and new-born health care in the country.



Dr. Henry G. Mwebesa
Director General, Ministry of Health

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LIST OF PROTOCOLS

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Protocol 1: The MOH Goal Oriented Anc Protocol

Important: Goals are different depending on the timing of the visit. Minimum 8 Contacts are aimed for an uncomplicated pregnancy. If a woman books later than in first trimester, preceding goals should be combined and attended to. At all visits address any identified problems, check the BP and measure the Symphysio-Fundal Height (SFH) women must receive Hb, HIV testing and Syphilis testing (RPR) routinely.

	TRIMESTER	GOAL	TIMING OF CONTACT	HISTORY TAKING	EXAMINATION	LABORATORY Investigations	PROMOTION	ACTION
FIRST CONTACT	First Trimester 0 – 12 weeks	-Confirm pregnancy -General/Risk Assessment -Health Education -Plan for delivery -Appropriate preventive interventions -Involve the male partner spouse	Contact 1: Anytime ≤ 12 weeks	-Presenting complaint -LNMP -Estimate period of gestation -Contraceptive? -Obstetric -Medical -Surgical -STI -Social: smoking alcohol/drugs -TB screening -Intimate Partner Violence (IPV) - Dietary	-General exam -Vital exam (e.g. BP, pulse) -SFH measurement -Abdominal/ specific exam -Vulva exam (Speculum if indicated) -Nutritional assessment (height, weight, MUAC)	-Hb (CBC where available) -HIV test -Syphilis test (RPR) -Blood group/ RhD -Urine albumen, Glucose -Gram staining for ASB, urine culture if indicated - Glucose tolerance test (GTT) (for suspicious cases/hospital) -RDT for Malaria (where indicated) -Hepatitis B test	-H/E on common pregnancy complaints -Address any problem -Involve husband in ANC -Draw up a birth and emergency preparedness plan -Counsel on PPFP methods -Danger Signs (abdominal pain, severe headache, blurred vision etc) -eMTCT -Nutrition education, Hygiene, Rest and exercise -Infant feeding -LLINS, IPTp use -Dangers of smoking, alcohol and substance abuse	-Tetanus/ Diphtheria vaccine (Td) -Ferrous SO_4 -Folic acid -Treat incidental ailments -Condom use for HIV prevention in discordant couples and those at high risk -Debriefing mother on findings and course of action -Give next appointment and explain what will be done emphasising need to come back any time if there is need
2nd and 3rd Contact	Second Trimester **>13 – 28 weeks**	-Respond to abnormal Lab results -Provide preventive measures (Td, IPTp) -Exclude multiple pregnancy and fetal abnormalities -Promote nutrition and wellbeing -Assess for danger signs of Pregnancy Induced Hypertension and any other danger signs -Rule out anaemia	Contact 2: 13 – 20 Weeks Contact 3: 21 – 28 Weeks	-Ask for presenting complaints -Date of 1st foetal movements -vaginal bleeding -Social: smoking alcohol/drugs -TB screening -Intimate partner violence	-General exam -BP -SFH (symphysis Fundal Height) -Abdominal exam -rule out multiple -pregnancy -Nutritional assessment -Early Ultra Sound Scan best at 20 weeks but can be done up to 24 weeks	-Hb at 26 weeks -If BP ≥140/90 -Urine albumen, if there is glycosuria refer to hospital for GTT	-Address presenting complaints -Discuss Laboratory results and need to treat partner where necessary -Symptoms of PIH, vaginal bleeding -eMTCT/HCT -LLINs/IPTp use -Danger Signs -Nutrition & Hygiene, Rest and exercise -Male involvement -Birth and emergency preparedness plan	-Td -Ferrous SO_4 -Folic acid -IPT dose -Mebendazole -Treat incidental ailments -Use of condoms in high risk individuals/ discordant -Debriefing mother -Give next appointment and explain what will be done emphasising need to come back any time if there is need
	TRIMESTER	**GOAL**	**TIMING OF CONTACT**	**HISTORY TAKING**	**EXAMINATION**	**LABORATORY Investigations**	**PROMOTION**	**ACTION**
4th, 5th, 6th, 7th, 8th contact	Third Trimester 29 – 40 weeks	-Check foetal growth -Exclude anaemia -Assess for signs of PIH -Review birth and emergency preparedness plan -Exclude abnormal presentation/ lie -Review delivery plan	Contact 4 30 weeks Contact 5 34 weeks Contact 6 36 weeks Contact 7 38 weeks Contact 8 40 weeks	-Ask for problems/ complications -Vaginal bleeding -Fetal movements -Intimate partner violence	-General exam -Rule out anaemia -Nutritional assessment -BP -Abdominal exam -Obstetric (SFH) -Check lie presentation	-If BP ≥140/90 -Urine albumen -Hb at 36 WOA -Midstream gram staining to rule out Asymptomatic Bacteruria at 34 weeks -Repeat HIV testing and Viral as per current guidelines (36 weeks)	-Address problems -Discuss signs of labour/ PROM -Discuss vaginal bleeding -Review delivery plan -eMTCT/HTS -LLIN/IPTp use -Postpartum FP -Sex and other postpartum Care -Infant Feeding -Danger signs -Nutrition & Hygiene, Rest and exercise -Male involvement -Cervical cancer screening	-Ferrous SO4 -Folic acid -IPT dose -Treat incidental ailments -Treat presenting ailments based on lab findings -Use of condoms in high-risk individuals/ discordant -Debriefing mother -Review and modify birth and emergency preparedness plan
Note: If not delivered by 41 weeks, immediately report to the nearest health facility								

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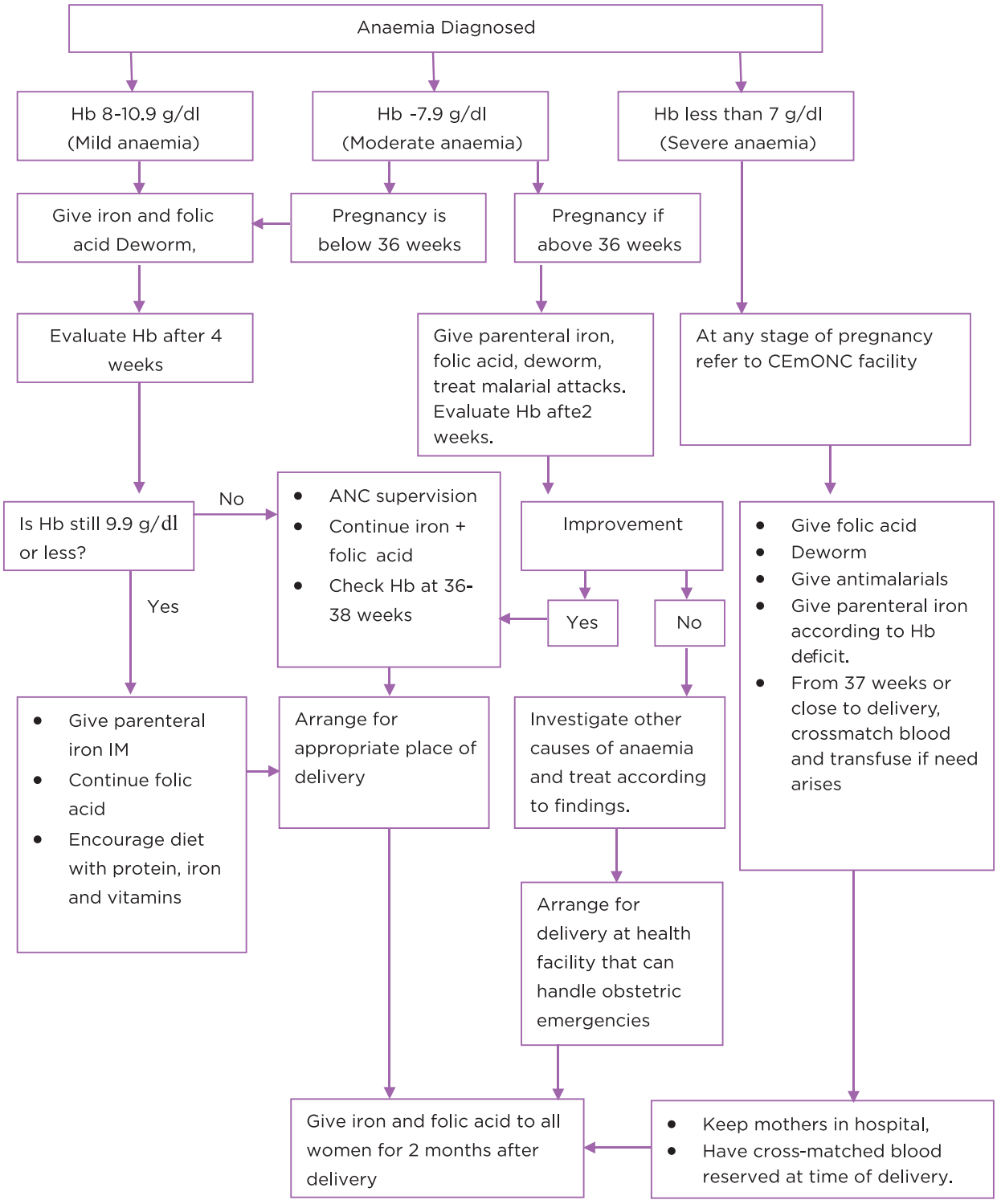
Protocol 2: Management of Iron Deficiency Anaemia in Pregnancy



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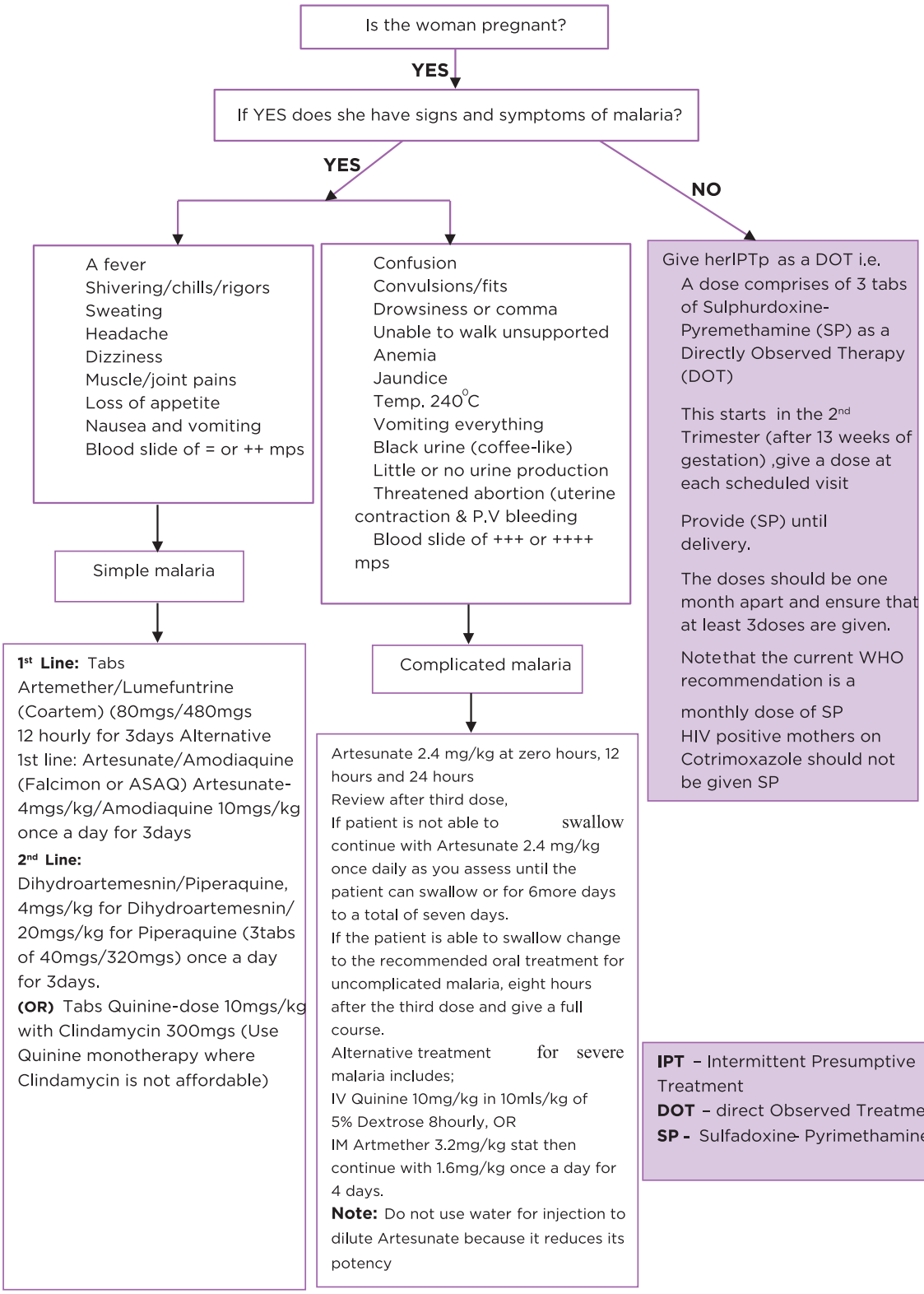
Protocol 3: Management of Malaria in Pregnancy



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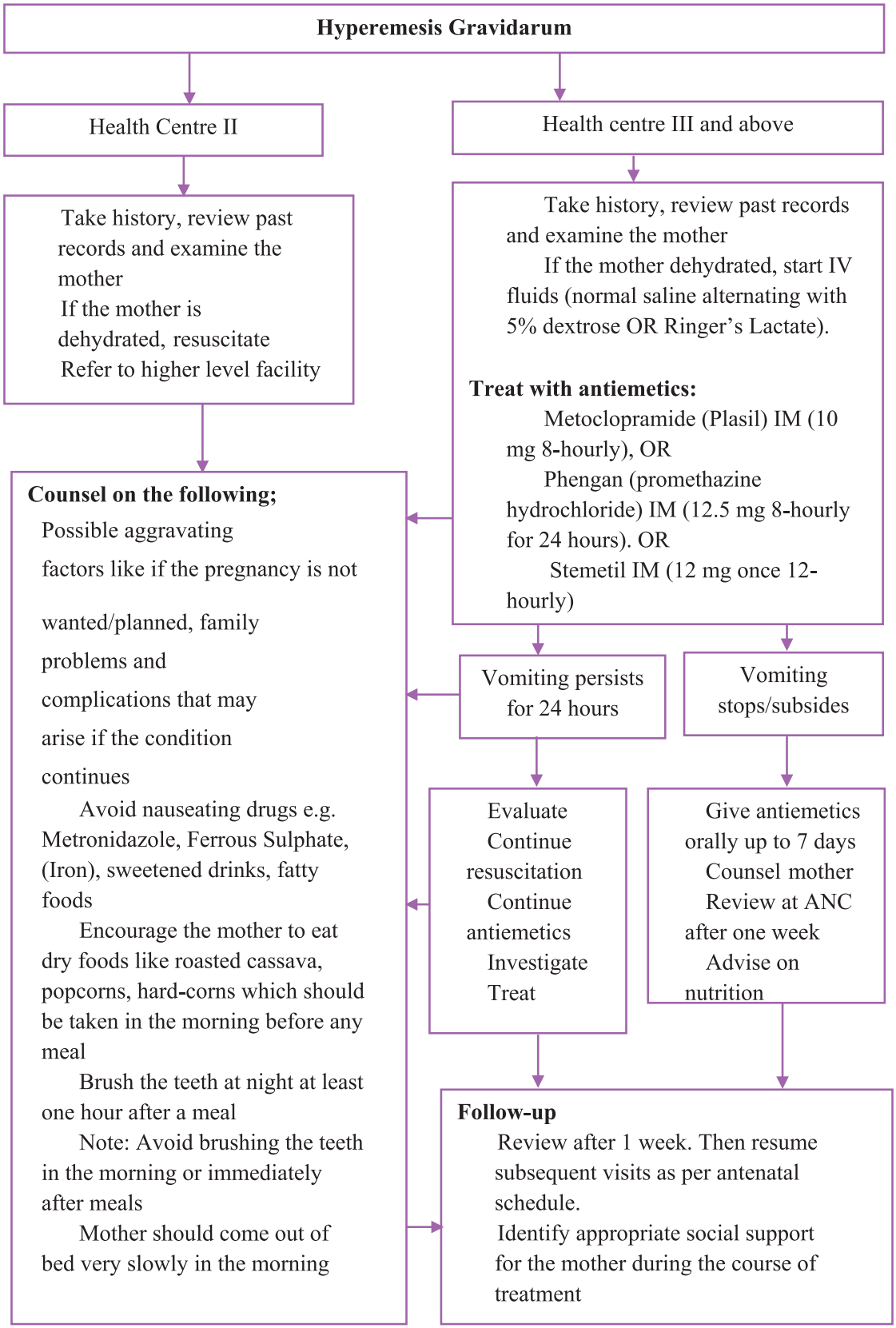
Protocol 4: Management of hyperemesis Gravidarum



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Protocol 5: Management of pre-eclampsia

Suspect or recognise pre-eclampsia
BP ≥ 140/90 mmHg (2 readings, ≥4 hours apart) plus urine protein 2+ OR BP ≥ 160/110 mmHg (confirmed within 15 minutes) **after 20 weeks of gestation in a previously normotensive patient**

Pre-eclampsia with severe features
Any one of the following:
BP ≥ 160/110 mmHg,
- Severe symptoms: persistent headache, altered mentation, unconsciousness, persistent epigastric & / or RUQ pain, visual changes (blurring of vision, sparks, scotomata, photopsia, blindness), **convulsions/fits/seizures (eclampsia),** reduced urine output
- Pulmonary oedema or SPO2 <90%
- Thrombocytopenia (platelet < 100,000 /µL)
- Elevated liver enzymes (AST & ALT twice upper limit of normal)
- Serum creatinine >1.1mg/dL or 90µmol/L or a doubling of serum creatinine
- Intrauterine growth restriction (IUGR)
- Disseminated intravascular coagulation (DIC)
- Abnormal (absent/reversed) umbilical artery doppler studies
- HELLP syndrome (**H**aemolysis **E**levated **L**iver **E**nzymes & **L**ow **P**latelets)

Pre-eclampsia without severe features
BP ≥ 140/90 mmHg but <160/110 mmHg
No severe symptoms
Laboratory findings not in severe category
Ultrasound findings not in severe category

Inform most senior clinician (CO, MO, SHO or Specialist) within 5 minutes
Health centre II &III, give antihypertensive therapy & loading dose of magnesium sulphate **(see goals 1& 2)**, **DOCUMENT** & **Refer to IV or hospital**.
Hospital admits for comprehensive evaluation (Detailed history, examination, laboratory (CBC, LFT, RFT, LDH) & ultrasonographic assessment

≥37 Weeks of gestation
Initiate delivery within 24 hours
Mode of delivery should be based on obstetric assessment

< 37 Weeks of gestation
Manage as outpatient
See care plan below

Components of outpatient care
- Weekly follow up in ANC by doctor
- Assess for development of severe symptoms
- Control BP with oral nifedipine, methyldopa or labetalol or a combination
- Target BP = 135/85 mmHg (130-139/80-89 mmHg)
- Weekly laboratory tests: CBC (platelets), LFT (AST &ALT), RFT (Serum creatinine)
- Weekly obstetric ultrasound scan (Foetal growth, biophysical profile, Nonstress test, umbilical artery Doppler studies)
- If <34 weeks of gestation, give corticosteroids **(Betamethasone 12mg 12 hourly for 1 day or Dexamethasone 6mg 12 hourly for 2 days**
- Teach mother to monitor foetal movement. (Reduced movement & development of symptoms should prompt immediate return to hospital)
- If severe features of preeclampsia develop, admit & deliver immediately
- If severe features of preeclampsia do not develop, deliver at 37 weeks

Goal 1: Prevent & / or control convulsions/fits/seizures
Give magnesium sulphate as follows
Loading dose: (if not yet given from referring unit) **14 g** given as IV 4g of 20% followed by IM 5g of 50% with 1ml of 2% lignocaine in each buttock.
Maintenance dose: IM 5g of 50% with 1ml of 2% lignocaine in alternate buttock every 4 hours for 24 hours after delivery or last fist whichever occurred last
If patient convulses again, give IV 2g of 20% & continue with the maintenance for 24 hours after delivery of last fit which ever occurred last
Check for magnesium sulphate toxicity and signs of kidney failure before administration of subsequent doses
Hyporeflexia – reduced deep tendon reflexes
Respiratory depression (RR < 16 breaths per minute)
Oliguria (urine output less than <100mls in 4 hours) a sign of renal failure that can lead to toxicity, if present give half dose of magnesium sulphate.

IF TOXICITY PRESENT, Stop MgSO4 and give calcium gluconate (1g of 10% over 10mins)

Goal 2. Control blood pressure
If BP ≥160/110mmHg,
IV Hydralazine 5mg, repeat every 30 minutes until BP <160/110 mmHg, Max total dose is 30mg in 24 hours **OR**
IV Labetalol 20mg, repeat as needed every 10 minutes, can double to 40mg, then 80mg, until BP <160/110mmg Max total dose is 300mg in24 hours **OR**
Oral immediate release Nifedipine 10mg
Repeat BP measurement at 20-minute intervals. If BP remains >160/110mmHg, at 20 mins, give 10 or 20 mg orally, depending on the initial response.
Once BP <160/110 initiate oral medication
Target BP is 135/85 mmHg (130-139/ 80-89 mmHg)

Goal 3: Plan for deliver
See next page

Goal 3: Plan for delivery

≥37 weeks of gestation
Initiate delivery within 24 hours

Indication for immediate delivery / Contraindications for expectant management irrespective of gestational age
- Abnormal neurological features (intractable headache refractory to treatment, repeated visual scotomata, eclampsia or stroke)
- Repeated episodes of severe BP (≥160/110mmHg) despite maintenance with three different classes of antihypertensive agents' Pulmonary oedema or SPO2 <90%, Progressive or worsening thrombocytopenia <100,000 or need for transfusion
- Lab findings in (CBC, RFTs, &LFTs) in the severe range
- Non reassuring foetal status /Abnormal foetal testing (e.g., NST or low BPP, IUGR, absent or reversed diastolic flow on umbilical artery Doppler or abnormal ductus venosus waveform)
- Oligohydramnios AFI <5 cm or single deepest vertical pocket <2 cm), No expectation for survival at diagnosis (e.g., lethal anomaly, extreme prematurity i.e., previable gestation <28 weeks)
- Hemodynamic instability (shock), Persistent epigastric/RUQ pain unresponsive to analgesics, Myocardial infarction or cardiomyopathy, Coagulopathy, HELLP, Placental abruption, Preterm labour, Preterm prelabour rupture of membranes, Maternal request for immediate delivery.

28 to <34 weeks of gestation
Offer expectant management in hospital if no evidence of maternal and foetal compromise

34 to <37 weeks of gestation
Offer expectant management in hospital if no evidence of maternal and foetal compromise
For mothers at 36 to < 37 weeks suggest to mother & caretaker initiation of delivery

Components of expectant management
- Inpatient care in hospital until delivery
- Daily maternal and foetal assessment for indications for immediate delivery, 4 hourly monitoring of BP
- Daily laboratory tests: CBC (Platelets), LFT (AST & ALT), RFT (Serum creatinine & electrolytes), Corticosteroid administration (IM Betamethasone 12mg 12 hourly for 24 hours OR Dexamethasone 6mg 12 hourly for 48 hours)
- BP control with oral nifedipine or methyl dopa or labetalol or a combination with target BP of 135/85 mmHg (130-139/80-89 mmHg)
- Completion of maintenances dose of magnesium sulphate
- Daily CTG if available, monitor fluid intake and urine output, twice weekly ultrasound scan for fetal growth, BPP, umbilical artery doppler studies & NST,
- Deliver immediately if indication for immediate delivery develop.

Intrapartum care
Route of delivery is based on standard obstetric assessment, Continuous maternal-foetal (CGT) monitoring if feasible, treat severe hypertension promptly with intravenous antihypertensives, Neuraxial analgesia is generally safe and effective, Limit fluid intake to 60-80mL/hr

Postpartum care and follow up
Immediate and intermediate: Monitor vital signs every two hours, then 4-6 hourly for at least 3 days, Complete magnesium sulphate dose, repeat laboratory tests CBC (Platelets), LFT (AST & ALT), RFT (Serum creatinine daily until two consecutive sets of data are normal or tending to normal , Persistent severe hypertension should be treated, Tapper antihypertensives slowly after days 3 to 6 postpartum unless BP becomes <110/70 mmHg, unless unstable, most mothers can be discharge on day 5 postpartum.

Short and long term follow up: Review at 1, 6 & 12 weeks. Repeat labs at these points), Further work up is dictated by persistent abnormalities including for secondary causes of hypertension or underlying renal disease with persistent proteinuria, assess for depression, anxiety & PTSD, offer information for increased risks for CVD, stroke, DM, VTE, & CKD, and SGA and recurrent pre-eclampsia in subsequent pregnancies, regular preferably yearly follow up to monitor BP, periodic fasting lipids and blood sugar. Link to primary care physician appropriately

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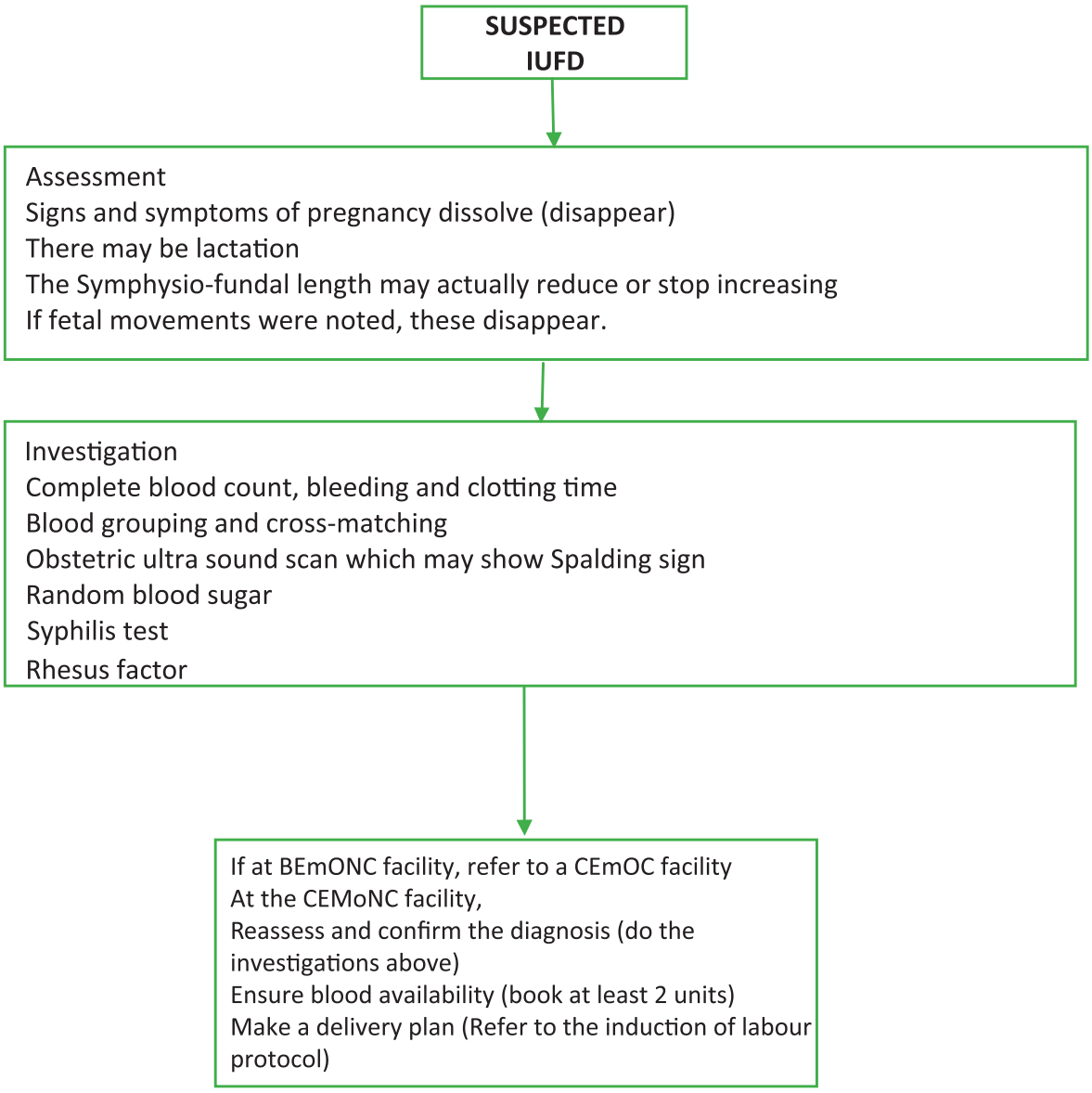
Protocol 6: Management of Intrauterine fetal death



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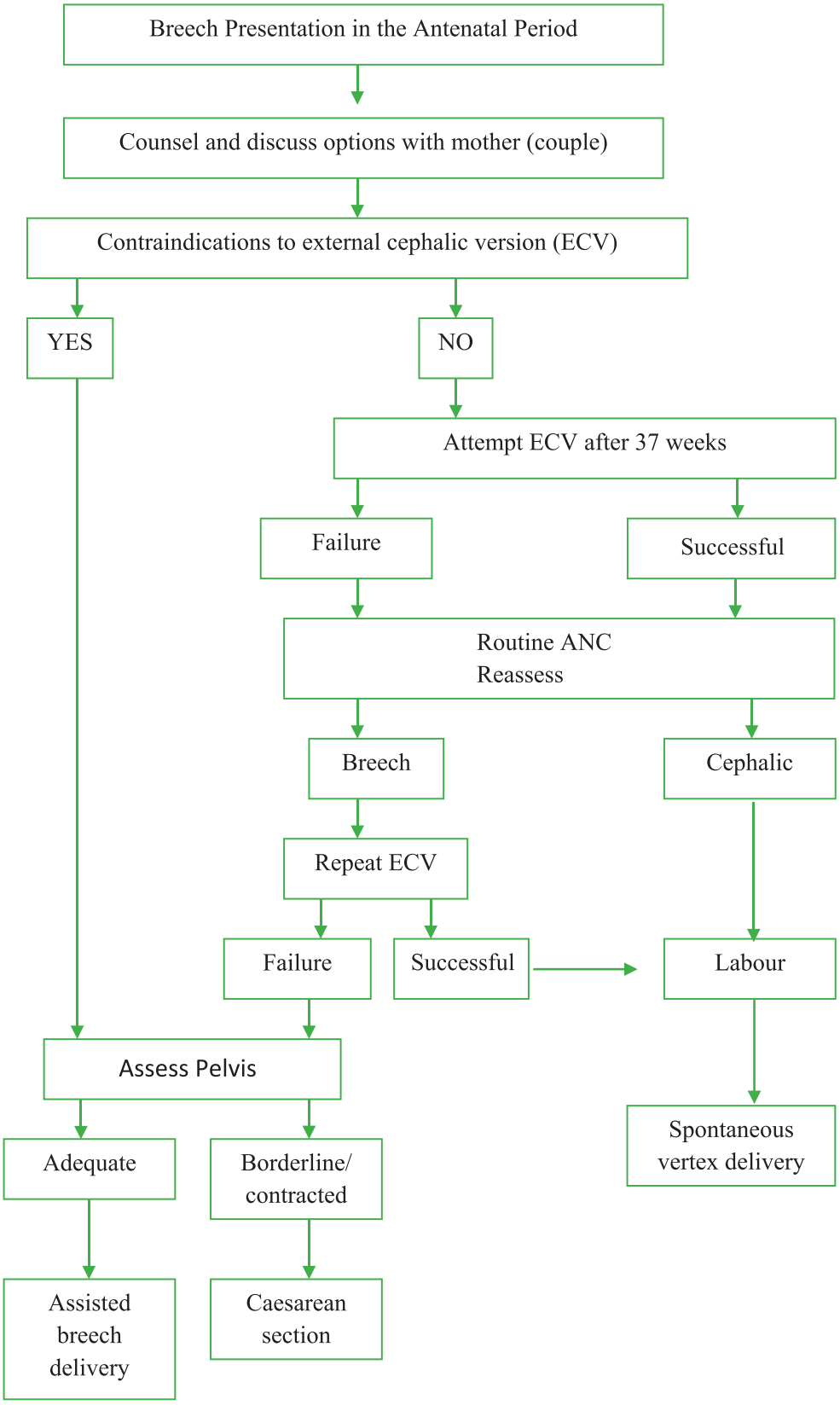
Protocol 7: Antenatal management of breech presentation



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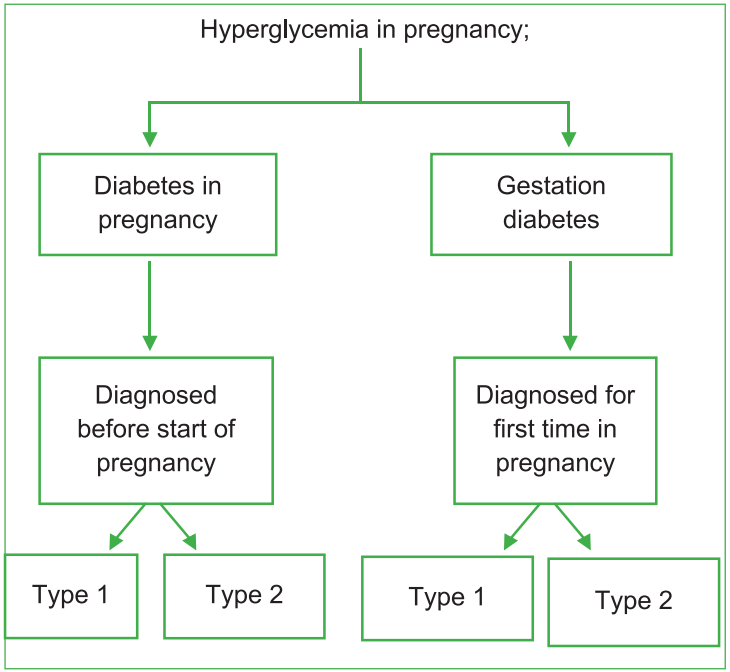
Protocol 8: Hyperglycaemia in pregnancy



Antenatal; (HC4 or higher)

- Counseling and Health education for a positive pregnancy experience
- Counsel on diet and exercise.
- Counsel on self-glucose monitoring
- Update medicines; Stop fetotoxic meds, Switch to insulin/ metformin, Start Folic acid 5mg o.d up to 12 WOA, and then iron supplementation after 12 WOA. Aspirin81mg once daily after 12 WOA.
- Screen for hyperglycemia at first ANC contact.
- Risk factors; history of macrosomia, unexplained fetal demise, obese, etc.
- ANC f/u 8 contacts minimum according to the FANC protocol
- USS (fetal anatomical survey T2, Macrosomia and placentation T3
- Counsel on fetal kick counting

Labour and delivery

- Refer patients in labour to district, regional or national referral hospital for management of labour and delivery in a CEMONC facility with capacity for management of complications of DM in mother and baby.

Post-natal

- Admit and manage baby in NICU, do RBS for baby immediately
- Adjust insulin to half pregnancy requirement
- Encourage breastfeeding asap.
- Metformin safe in breastfeeding
- Blood glucose monitoring in first few days post-partum
- Nutrition and lifestyle changes must continue
- OGTT and TSH at 6 weeks
- Post-partum contraception according to WHO MEC
- Preconception care and counselling
- Monthly HbA1C until ≤6.5%. patients should avoid getting pregnant till they achieve glycemic targets (adverse pregnancy outcomes are higher)

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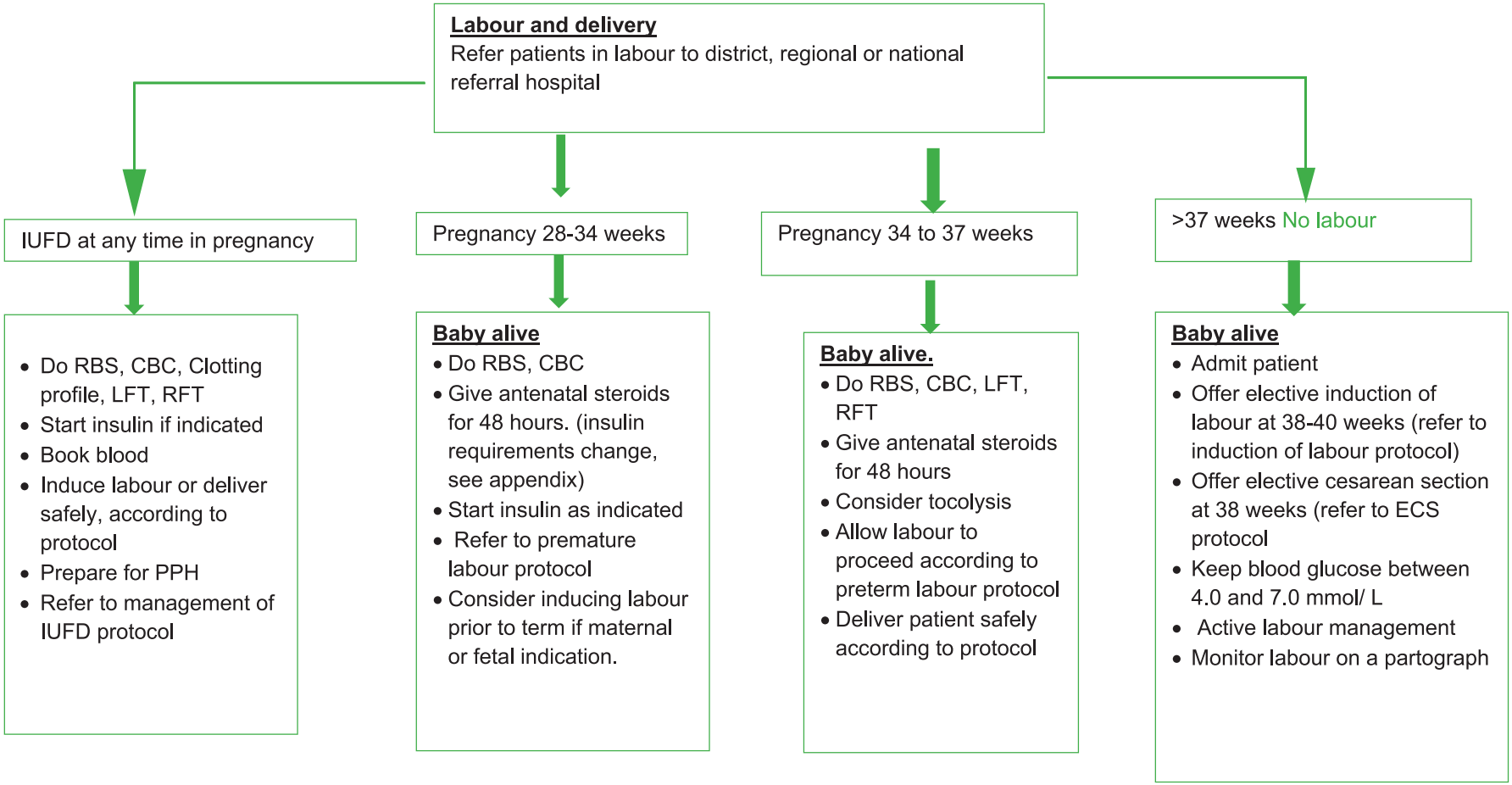
Protocol 9: Hyperglycaemia in labour and delivery



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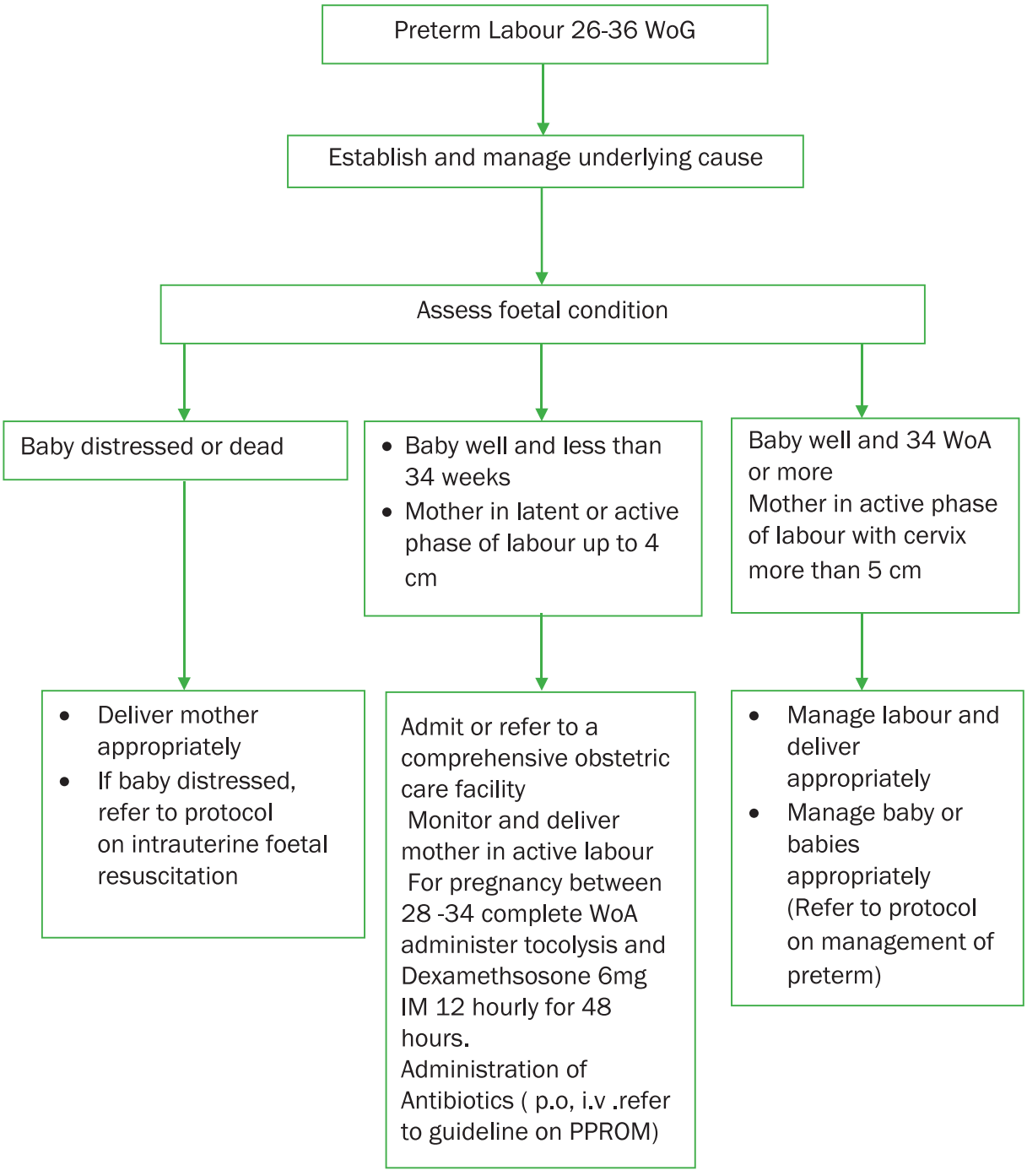
Protocol 10: Management of preterm labour



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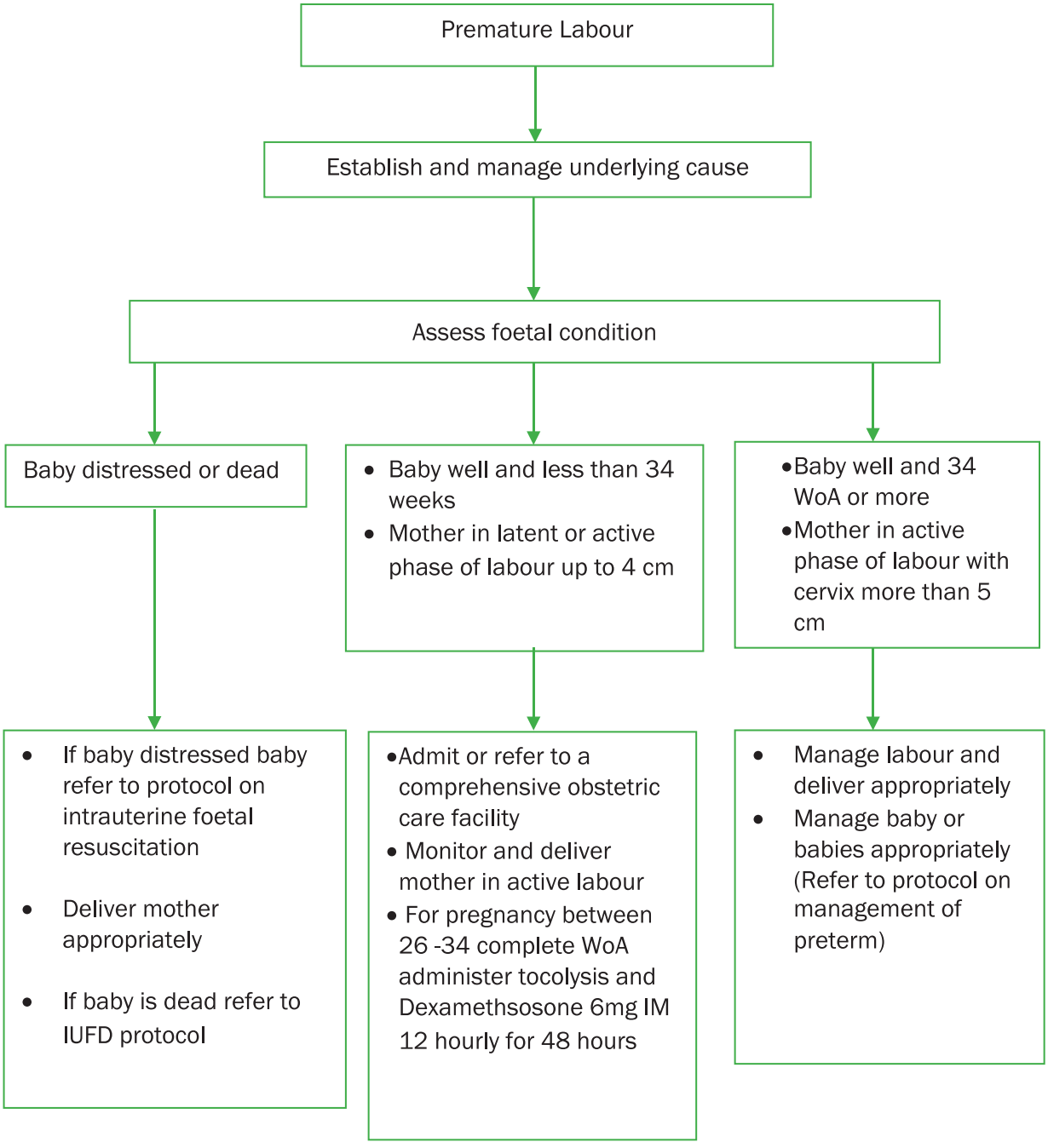
Protocol 11: Management of premature Labour



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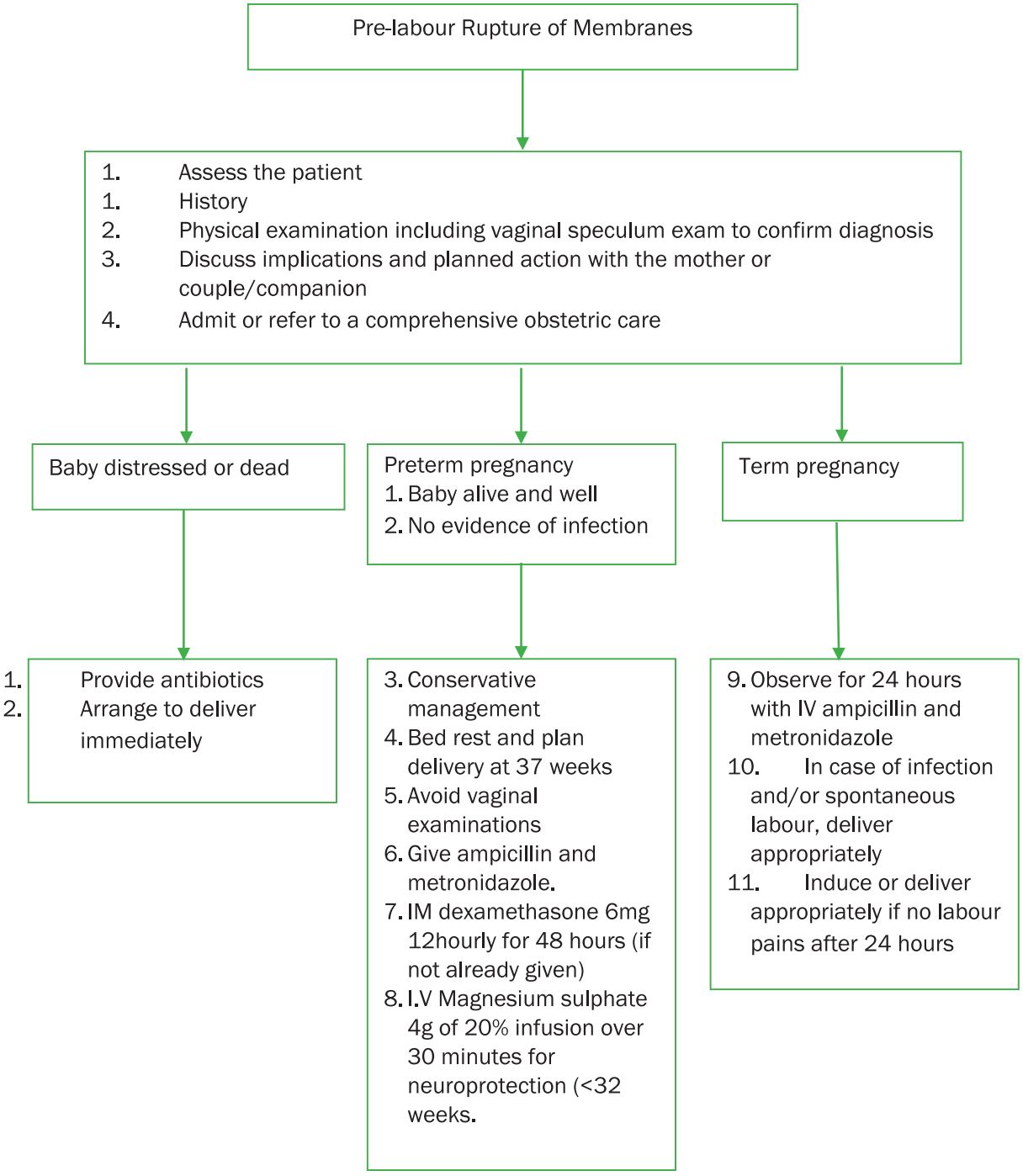
Protocol 12: Pre-labour rupture of membranes



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Protocol 13: Management of first stage of labour on admission

Assess the mother on admission:
1. Take detailed history
2. Perform thorough general examination
3. Perform obstetric examination
4. Assess the condition of the baby
5. Perform digital vaginal examination for cervical dilatation and assess the pelvis
6. Assess for contractions (frequency and duration in 10 minutes)

Latent Phase of labour
1. Regular/frequent contractions
2. Cervical dilatation less than 5cm

Active phase of labour
3. Regular contractions
4. Cervical effacement/ dilatation of at least 5cm
5. Presenting part descending
6. Presence of show

1. Reassess foetal wellbeing hourly and cervical dilatation 4 hourly
2. If not in active labour after 8 hours refer to prolonged latent phase of labour protocol

FILL THE LABOUR CARE FORM
1. Monitor progress of labour
2. Provide companionship during labour.
3. Offer labour analgesia
4. Allow adequate nutrition in labour
5. Maintain proper hygiene

Second stage
(Refer to guidelines for conducting a clean safe delivery)

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Protocol 14: Management of 2nd stage of labour

Second Stage of Labour

(Full cervical dilatation, adequate contractions without any contraindication to vaginal birth)

Preparation for delivery (ensure the delivery instruments are sterile)

1. Keep the delivery room ready at all times. Ensure privacy in case you have more than one mother. Prepare space for the companion
2. Ensure conducive environment (warm room, closed windows)
3. Prepare warm clothes for the baby
4. Prepare equipment and ensure sterile delivery sets are ready
5. Resuscitation bed and equipment ready
6. In expulsive stage, the second skilled birth assistant must draw the Oxytocin
7. When episiotomy is indicated prepare lignocaine and sutures

1. Ensure every woman in labour achieves a positive childbirth experience.
2. Allow the mother to decide on her preferable position of delivery and support her to enjoy respectful maternity care
3. Observe universal infection prevention practices
4. Provide emotional, physical comfort and support including a labour companion of the mother's choice
5. Monitor foetal heart rate every 5 minutes
6. Assess for descent of presenting part
7. Assess and record contractions every 5 minutes
8. Measure and record blood pressure and pulse rate – every 30 minutes
9. Take and record respiratory rate – every 15 minutes
10. Observe mother for bleeding
11. If the mother feels like bearing down encourage her to push if she is in the expulsive phase of second stage
12. Conduct the delivery

13. Encourage the mother to bear down with each contraction
14. Assess need for episiotomy.
15. Deliver the head with contractions
16. Clear the baby's airway as soon as the head is born
17. Feel for the cord around the neck. If loose cord, slip over the head. If tight, double clump, cut and unwind
18. Deliver the baby and place on the clean warm cloth on the mother's abdomen and note the time of delivery
19. Palpate the abdomen to exclude second baby
20. Give IM oxytocin 10IU to the mother's anterior outer aspect of the thigh with a flexed hip within one minute of delivery of the baby. Dry the baby, provide skin to skin contact
21. Assess APGAR score at 1 minute and 5 minutes and resuscitate as required (refer to asphyxia protocol)
22. Delay cord clamping for 1 to 3 minutes if baby is well. If baby unwell, refer to Neonatal resuscitation protocols
23. Firmly clamp the cord at 3-5 finger breadths (6cm-10cm) from the baby's abdomen and cut in between the two clamps (use cord scissors/sterile blade)
24. Deliver the placenta and membranes by controlled cord traction and note the time (Refer to protocol for management of third stage of labour)
25. Congratulate and thank the mother
26. Initiate breast feeding within 30 minutes
27. Write complete delivery notes and schedule immunisation

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Protocol 15: Routine management of third stage

Active Management of third stage of labour

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Give IM oxytocin 10IU to the mother's anterior outer aspect of the thigh with a flexed hip within 1 minute of delivery of the baby
or sublingual misoprostol 600mcg
or IM Carbetocin 100mcg.

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Deliver the placenta and membranes by sustained gentle/controlled cord traction with counter traction just above the symphysis pubis to prevent uterine inversion.
Inspect the placenta and membranes for completeness
Massage the uterus to stimulate uterine contractions and expel clots every 15 minutes for 1 hour
Inspect the genital tract for tears and repair accordingly
Collect the blood on the delivery bed, measure with a calibrated cylinder and record blood volume.

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1. Take post -delivery observations
2. Clean the mother
3 Examine placenta

↓

1. Show the baby to the mother and ask her to identify the sex
2. Repair episiotomy if performed
3. Keep the mother and the baby warm
4. Apply Ambigel on the cord and 1% tetracycline eye ointment and give 1mg of Vit K IM if >2.5kg (0.5mg if <2.5kg)
5. Examine and label the baby (include the name of mother, time & date of delivery. If twins include the birth order.
6. Document the delivery outcomes on the Labour care form

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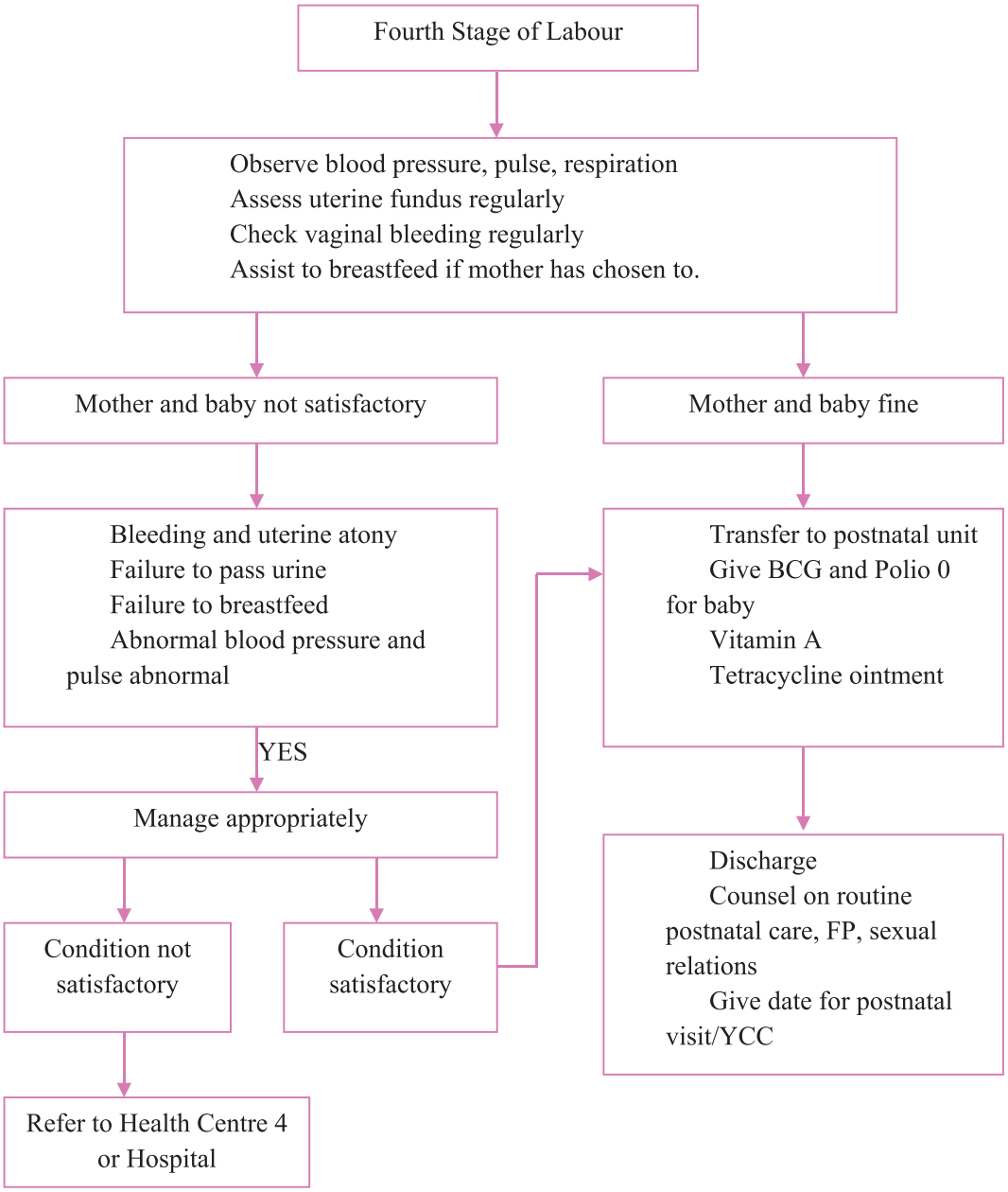
Protocol 16: Management of FOURTH STAGE OF LABOUR



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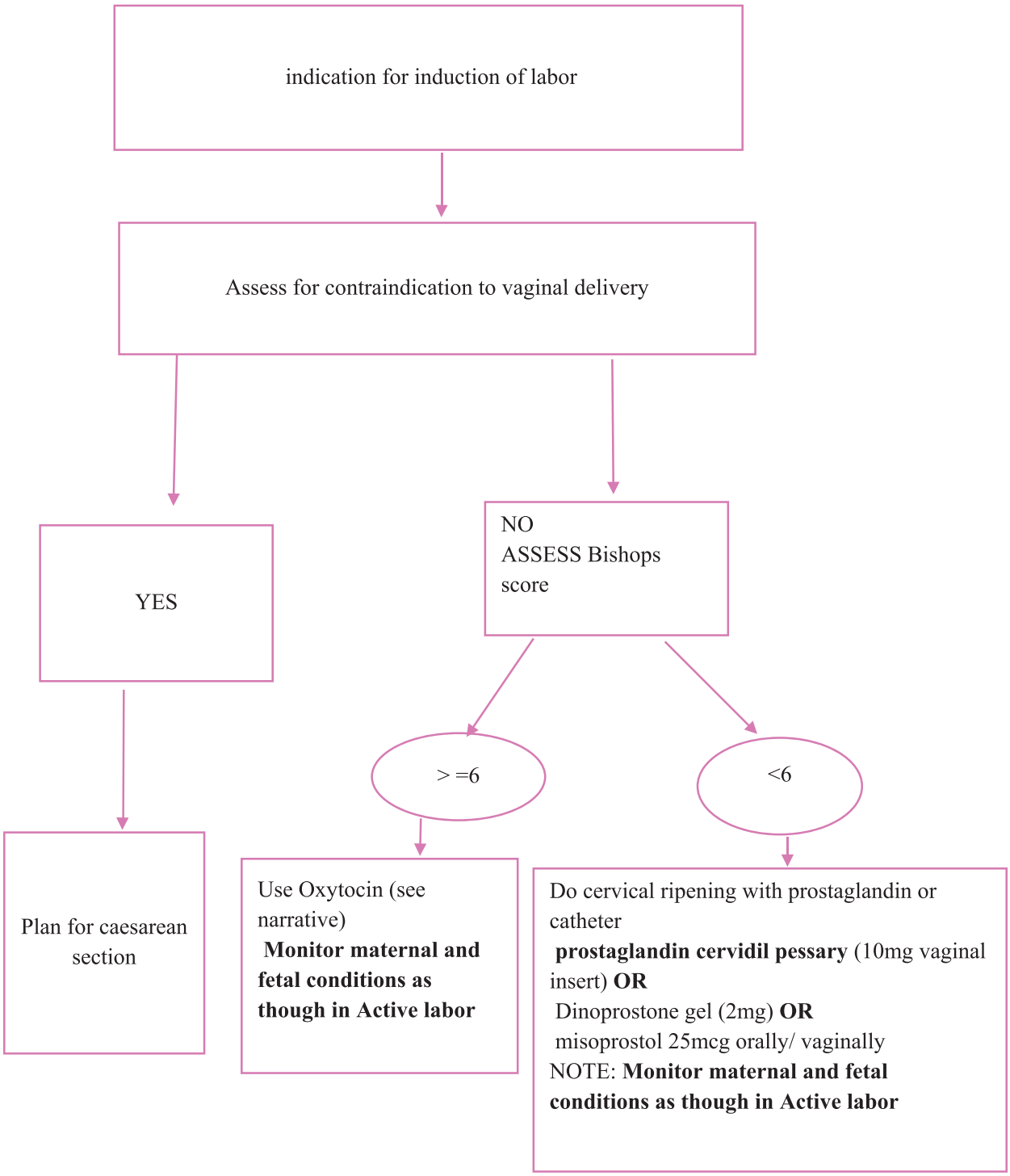
Protocol 17: Induction of labor



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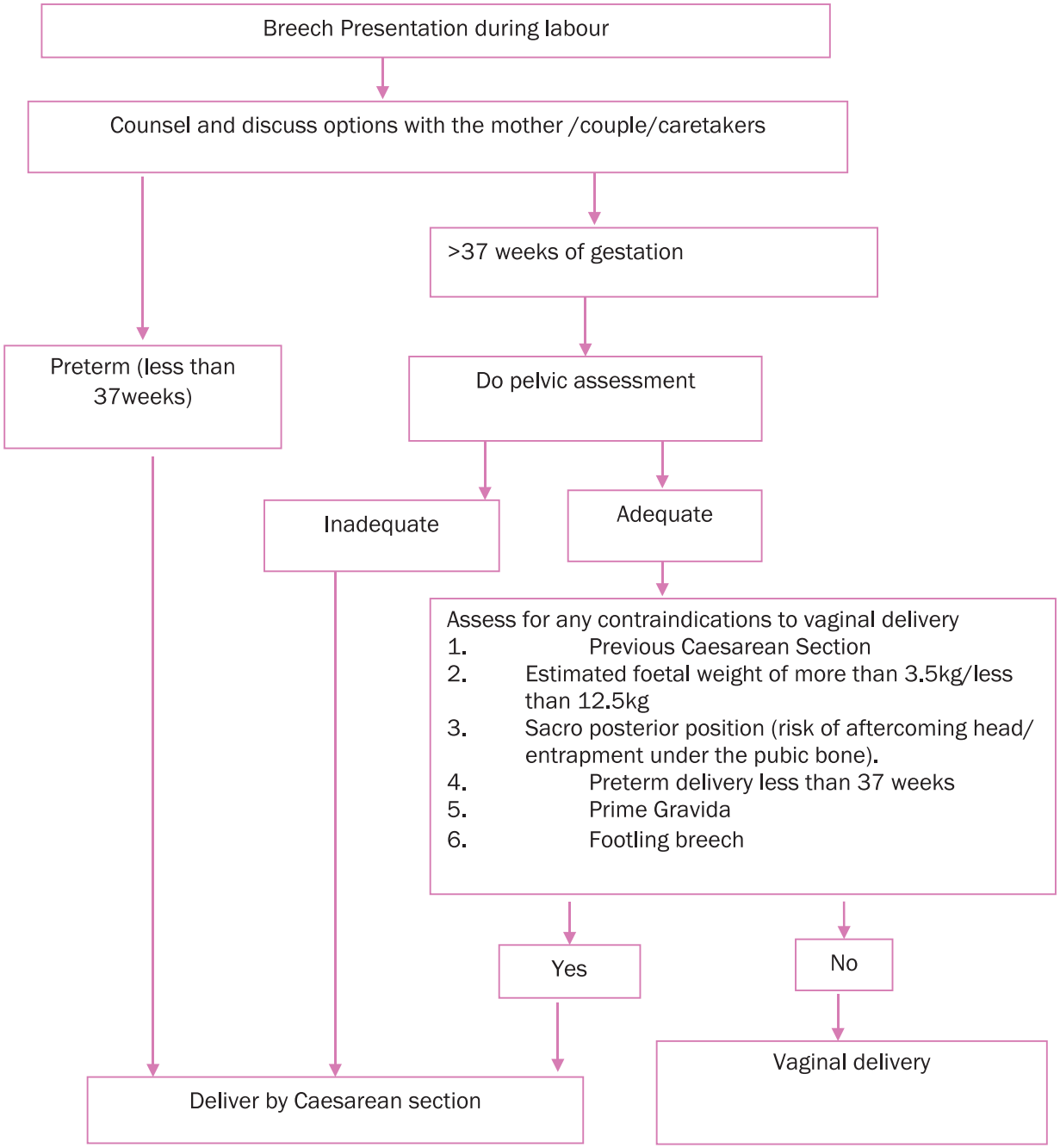
Protocol 18: Breech presentation during labour



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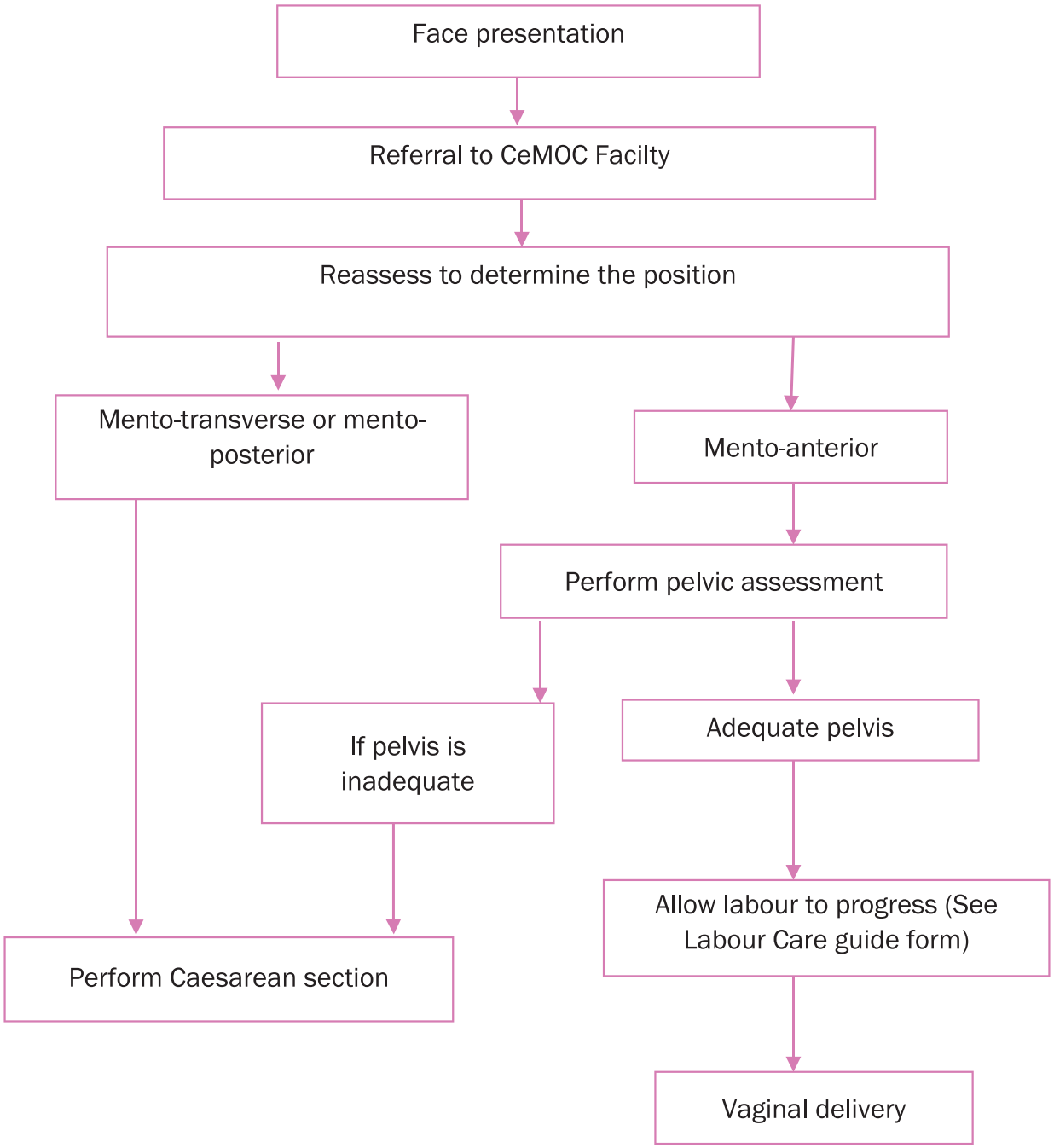
Protocol 19: Management of Face Presentation



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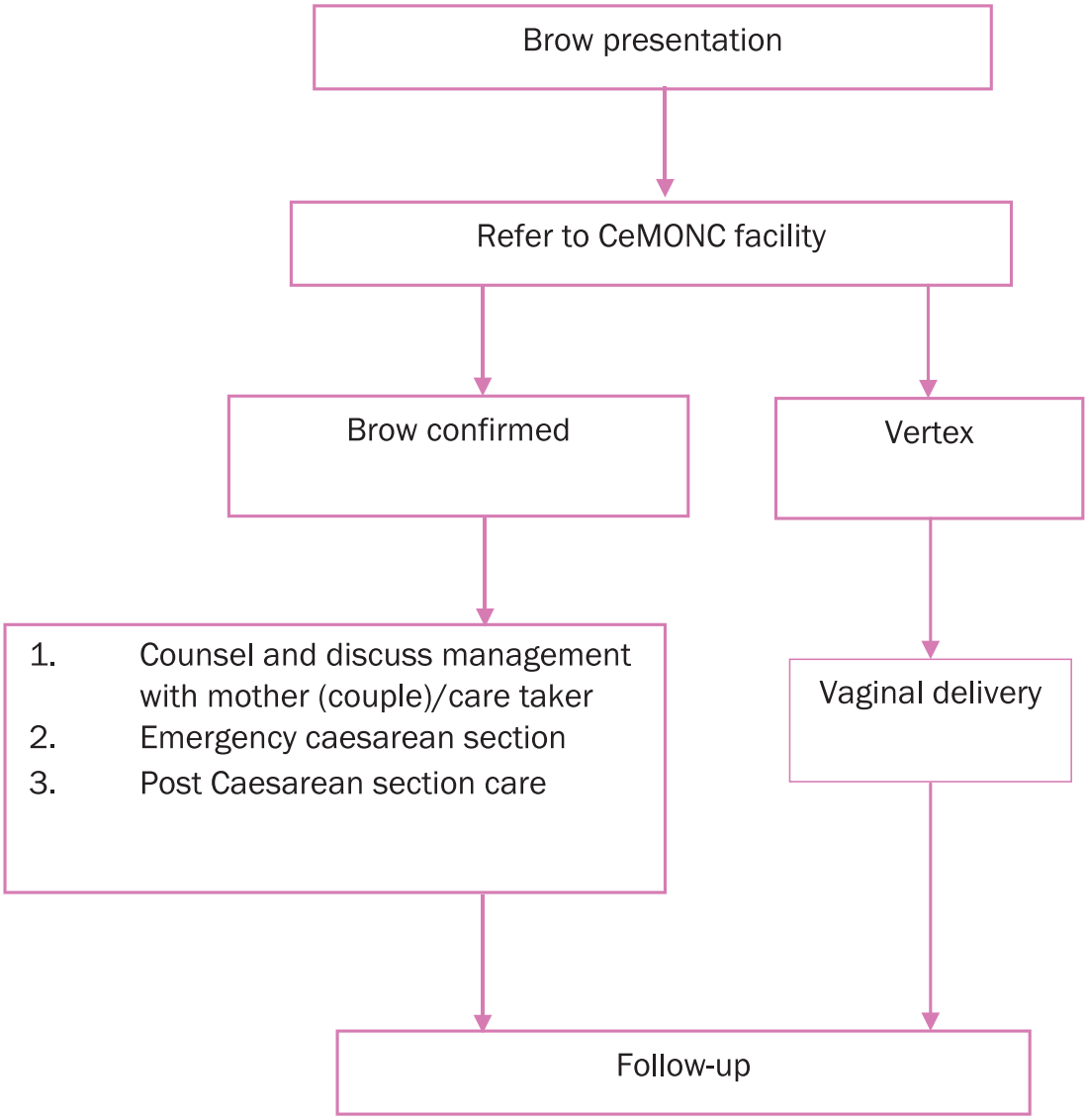
Protocol 20: Brow presentation



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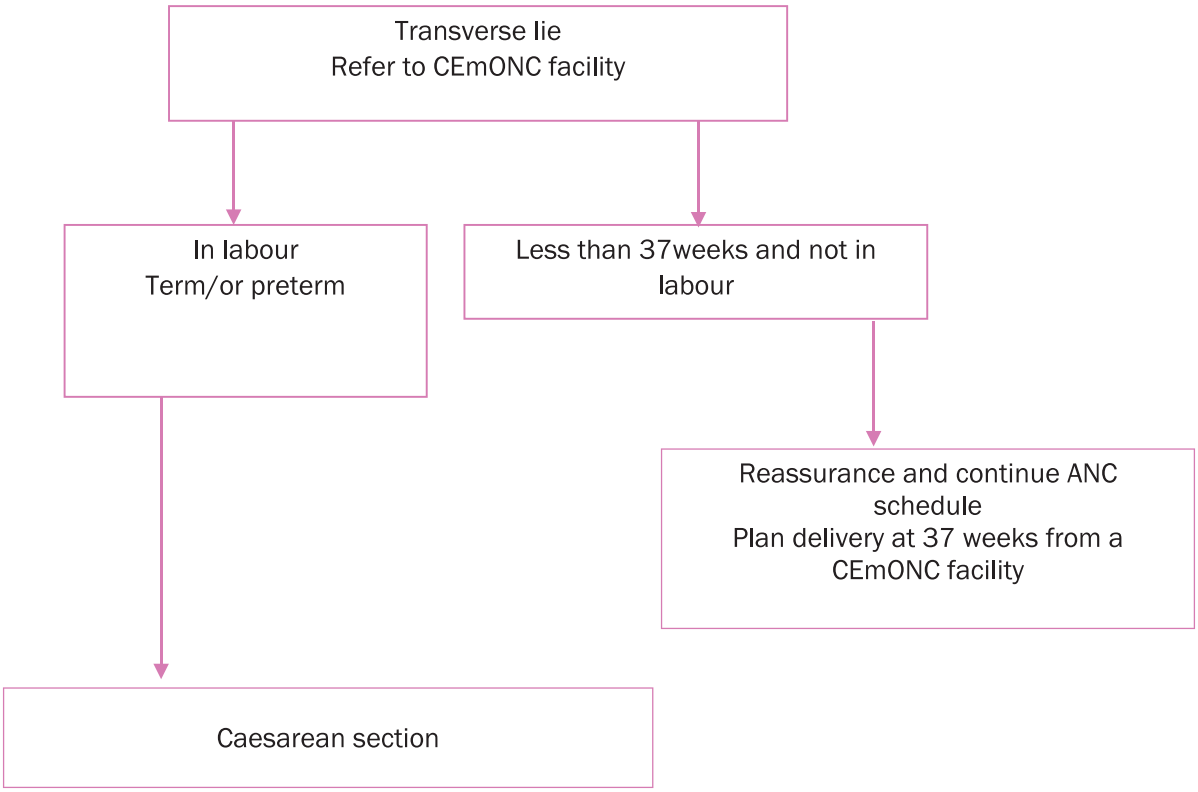
Protocol 21: Management of transverse lie



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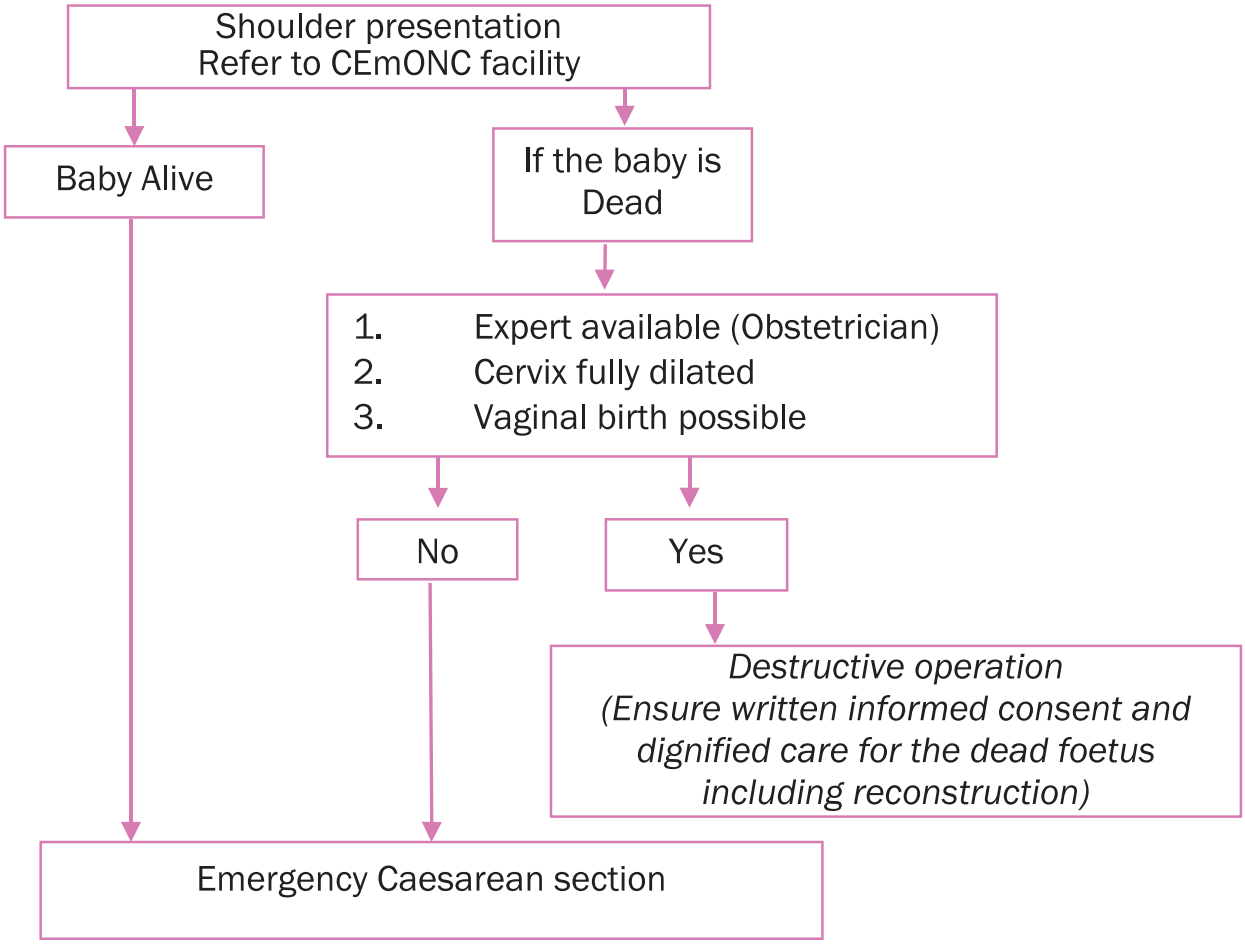
Protocol 22: Management of Shoulder presentation



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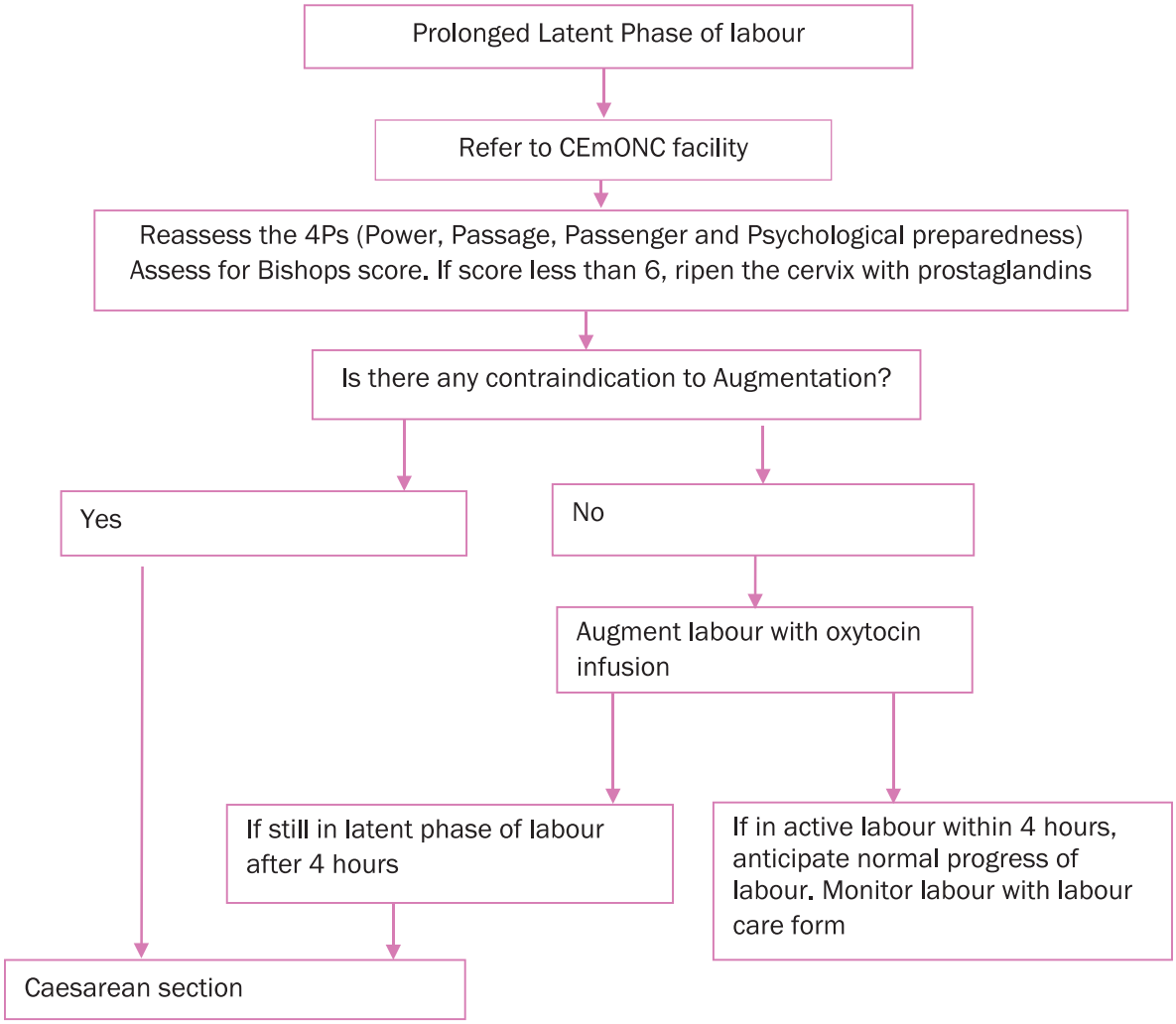
Protocol 23: Management of prolonged latent phase



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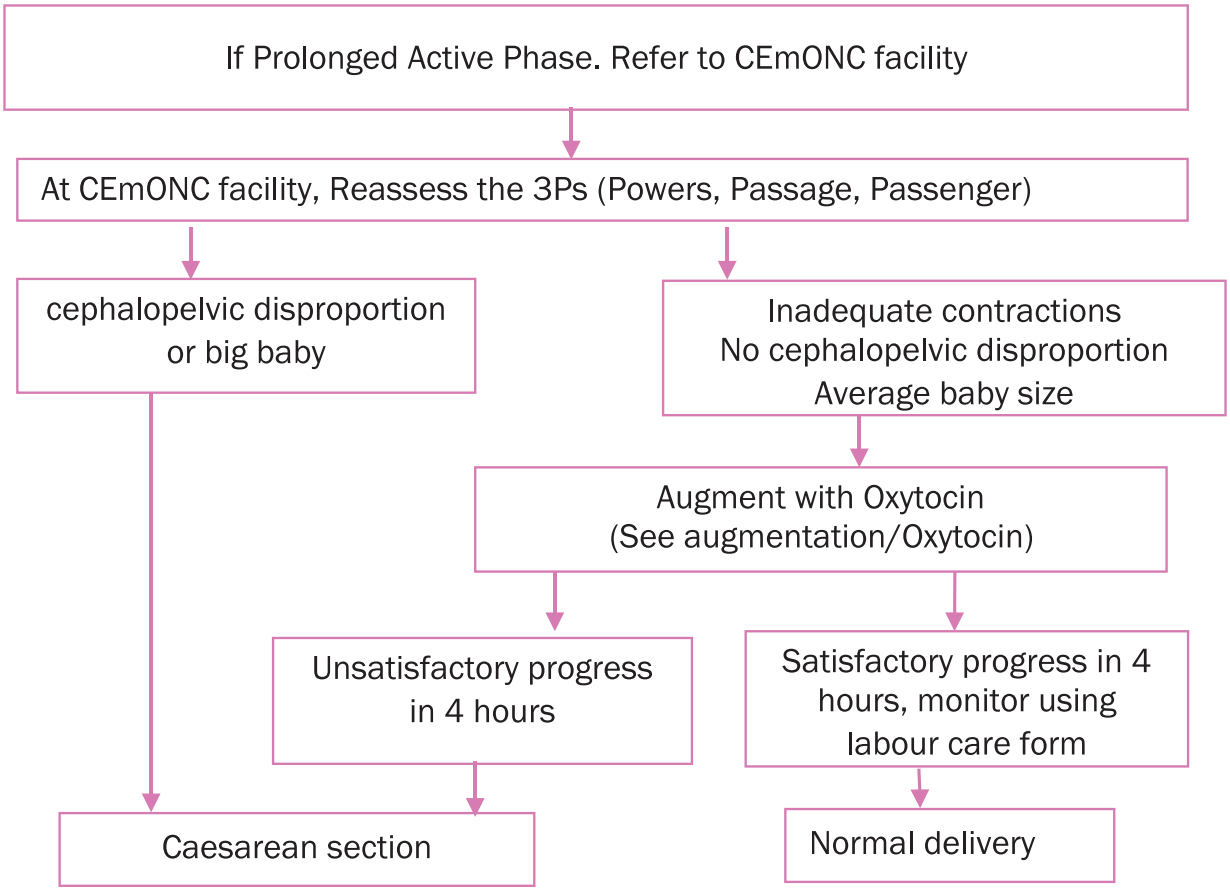
Protocol 24: Prolonged active labour



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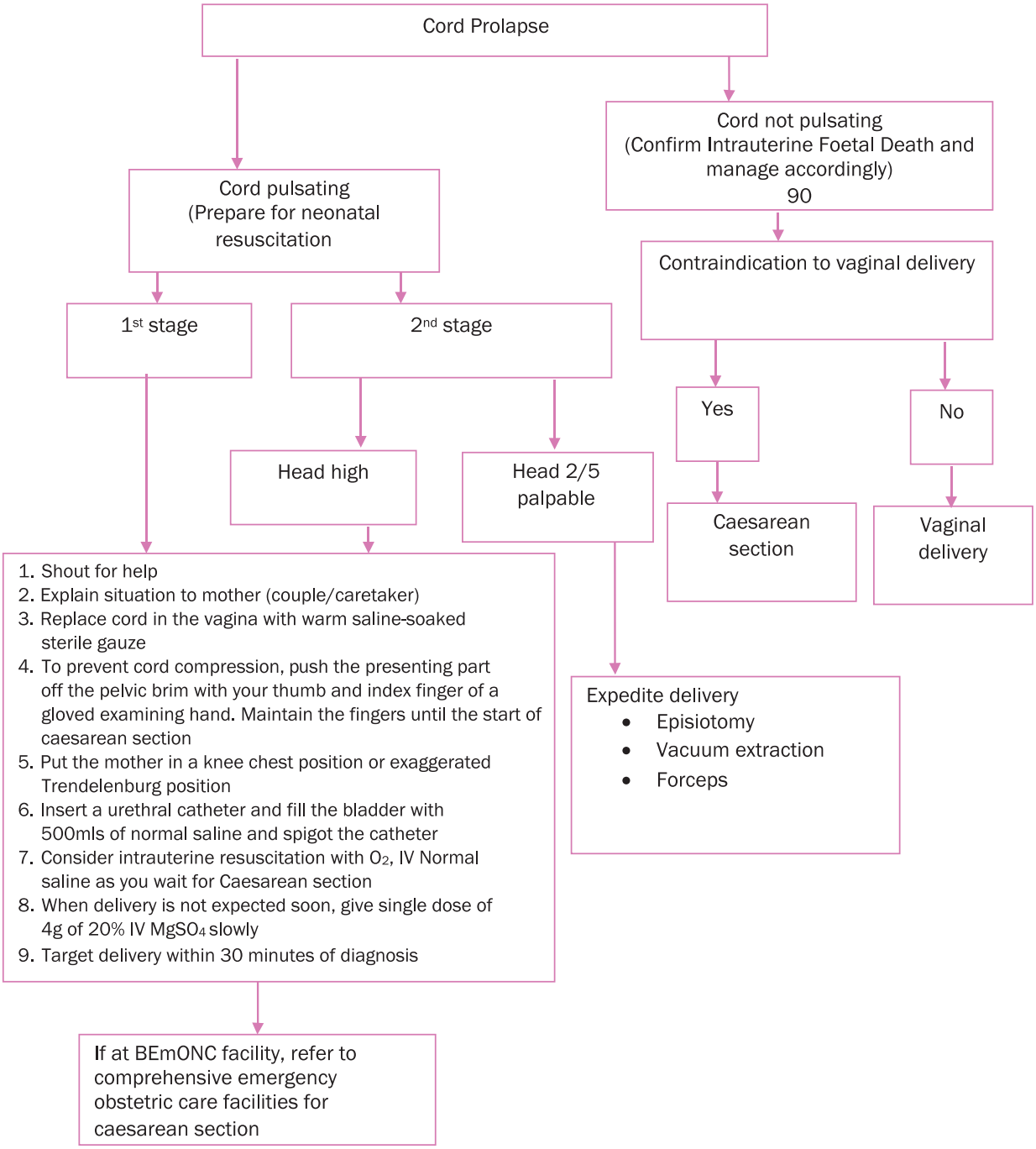
Protocol 25: Management of cord prolapse



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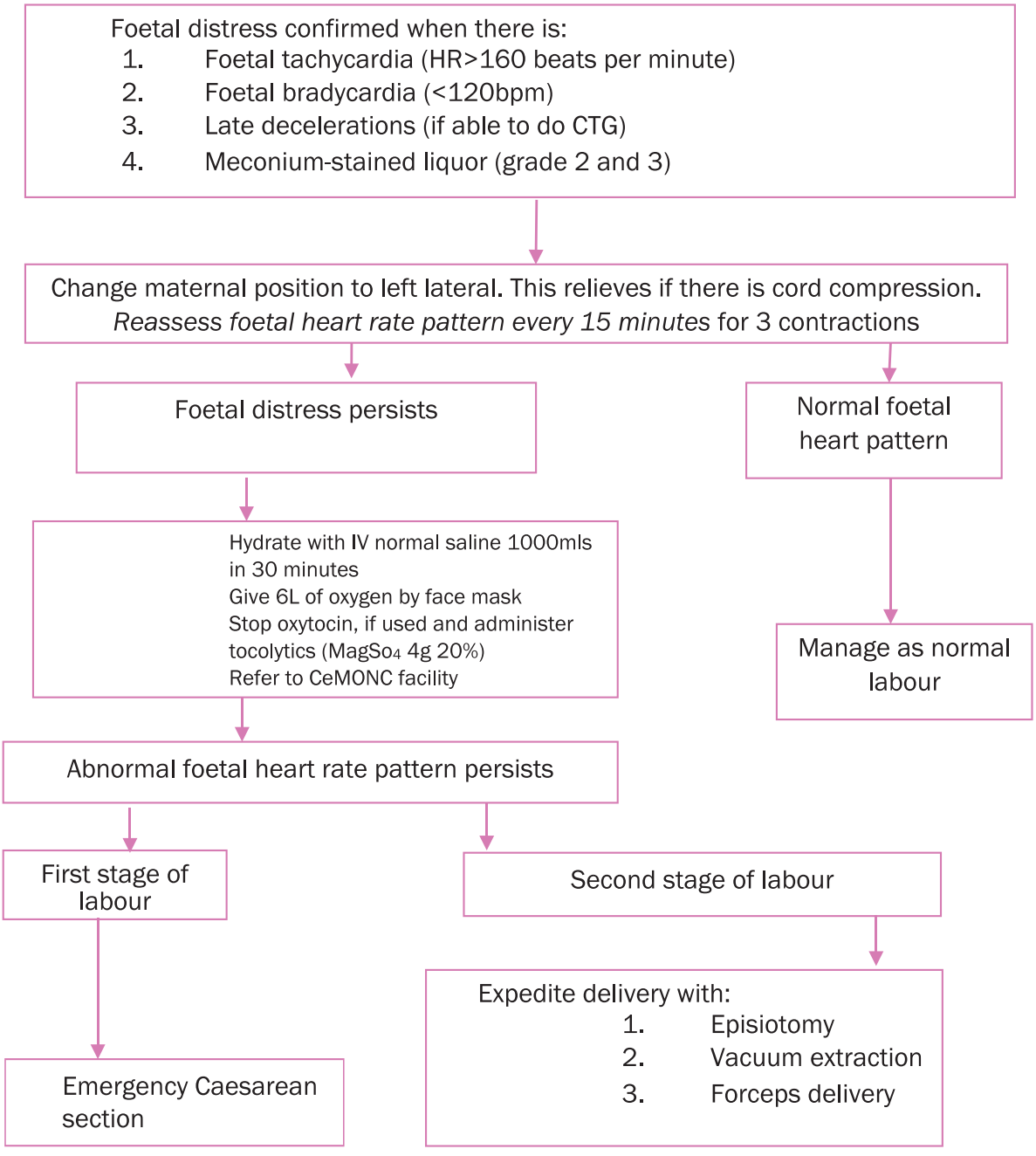
Protocol 26: Management of foetal distress (without cord prolapse)



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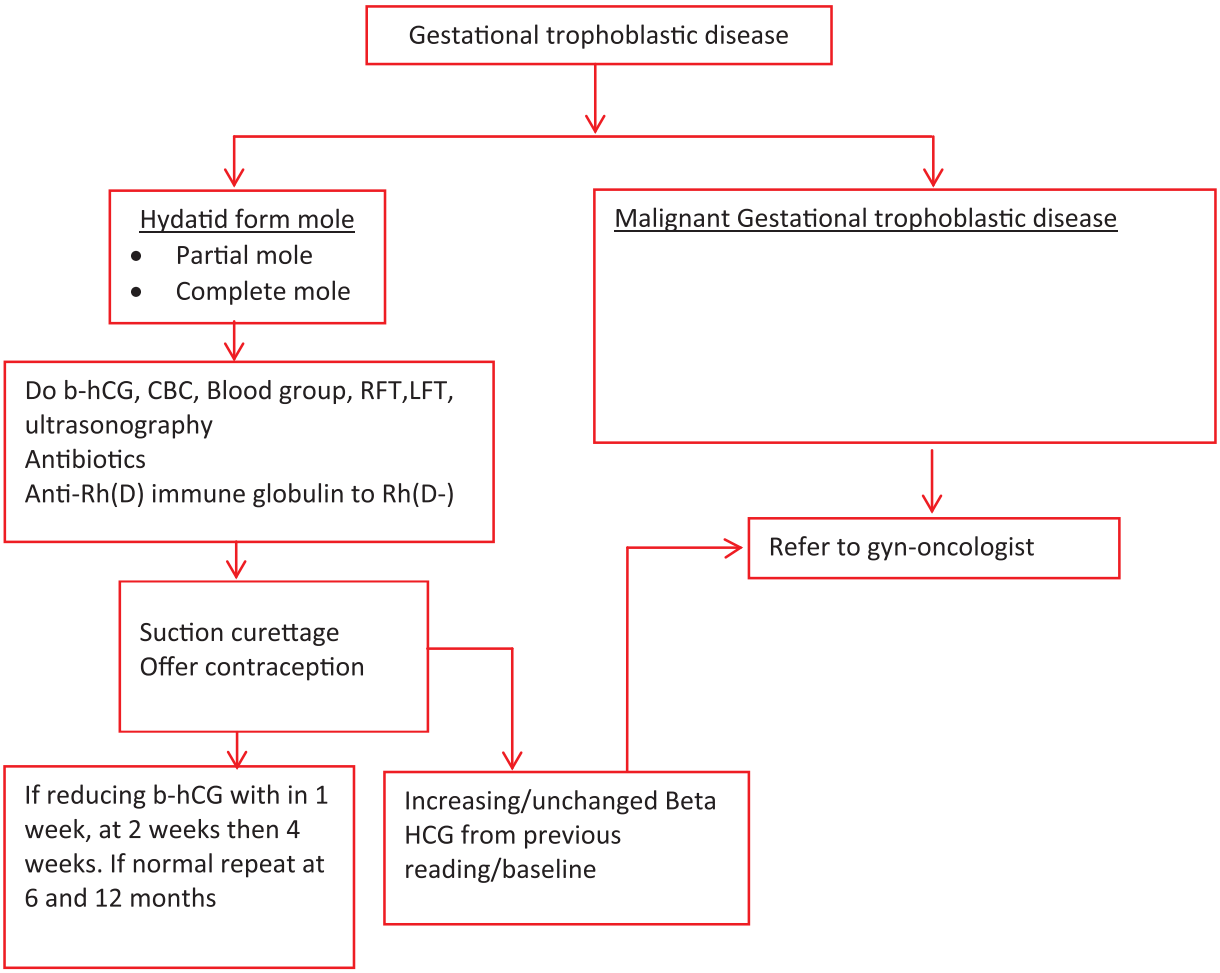
Protocol 27: Management of Gestational Trophoblastic Disease



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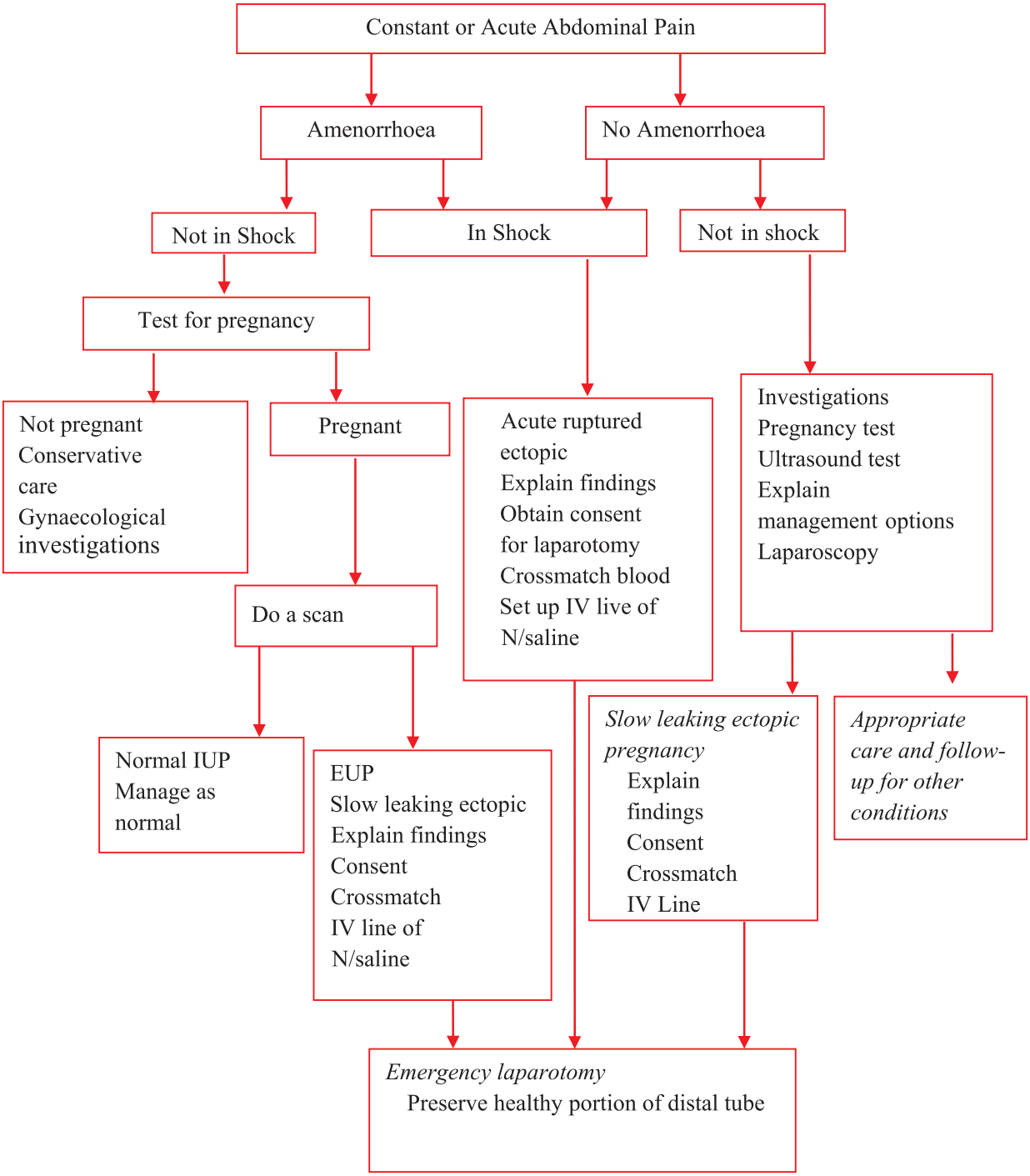
Protocol 28: Management of Ectopic Pregnancy



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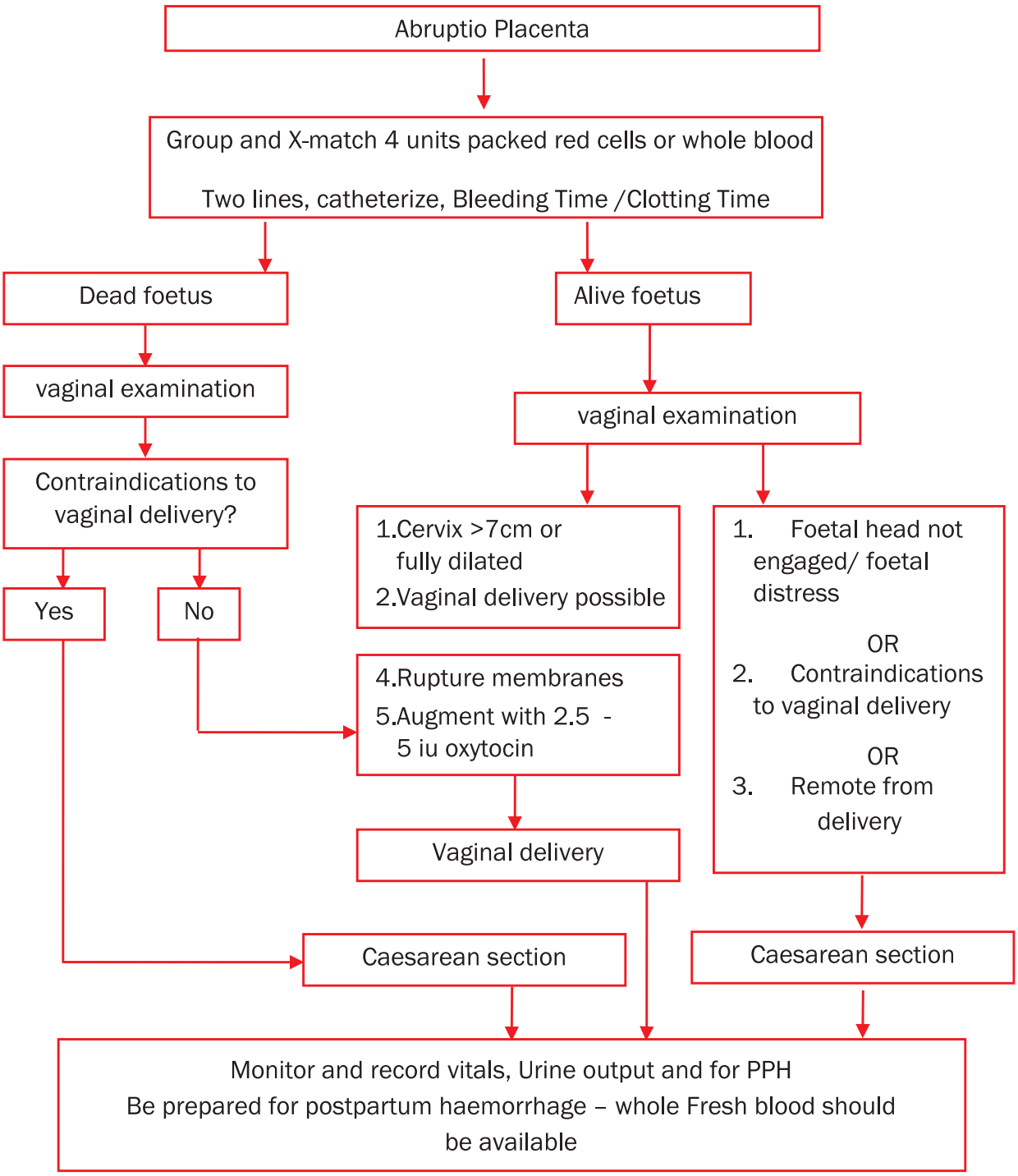
Protocol 29: Protocol on Abruptio Placenta



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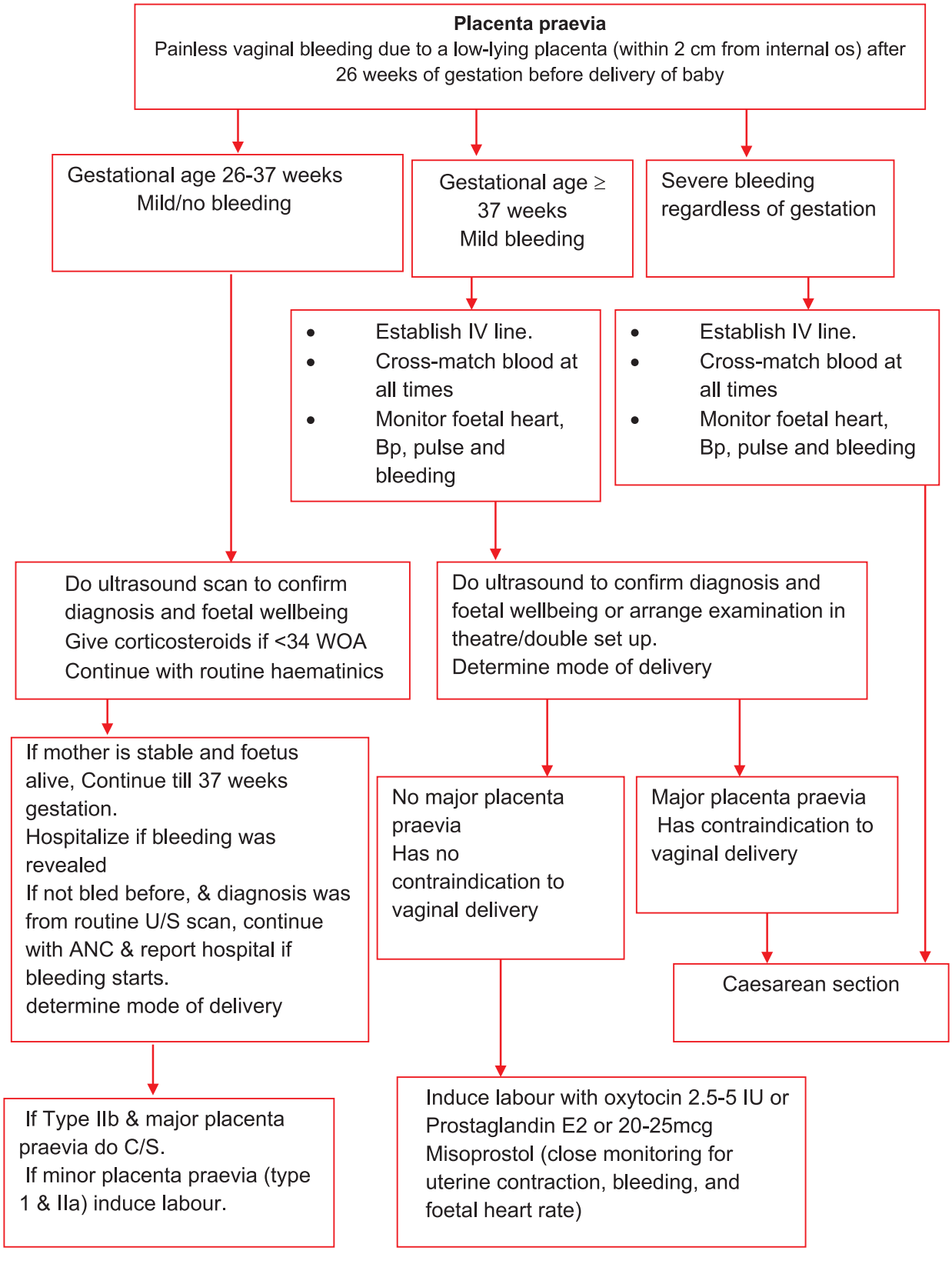
Protocol 30: Placenta Praevia



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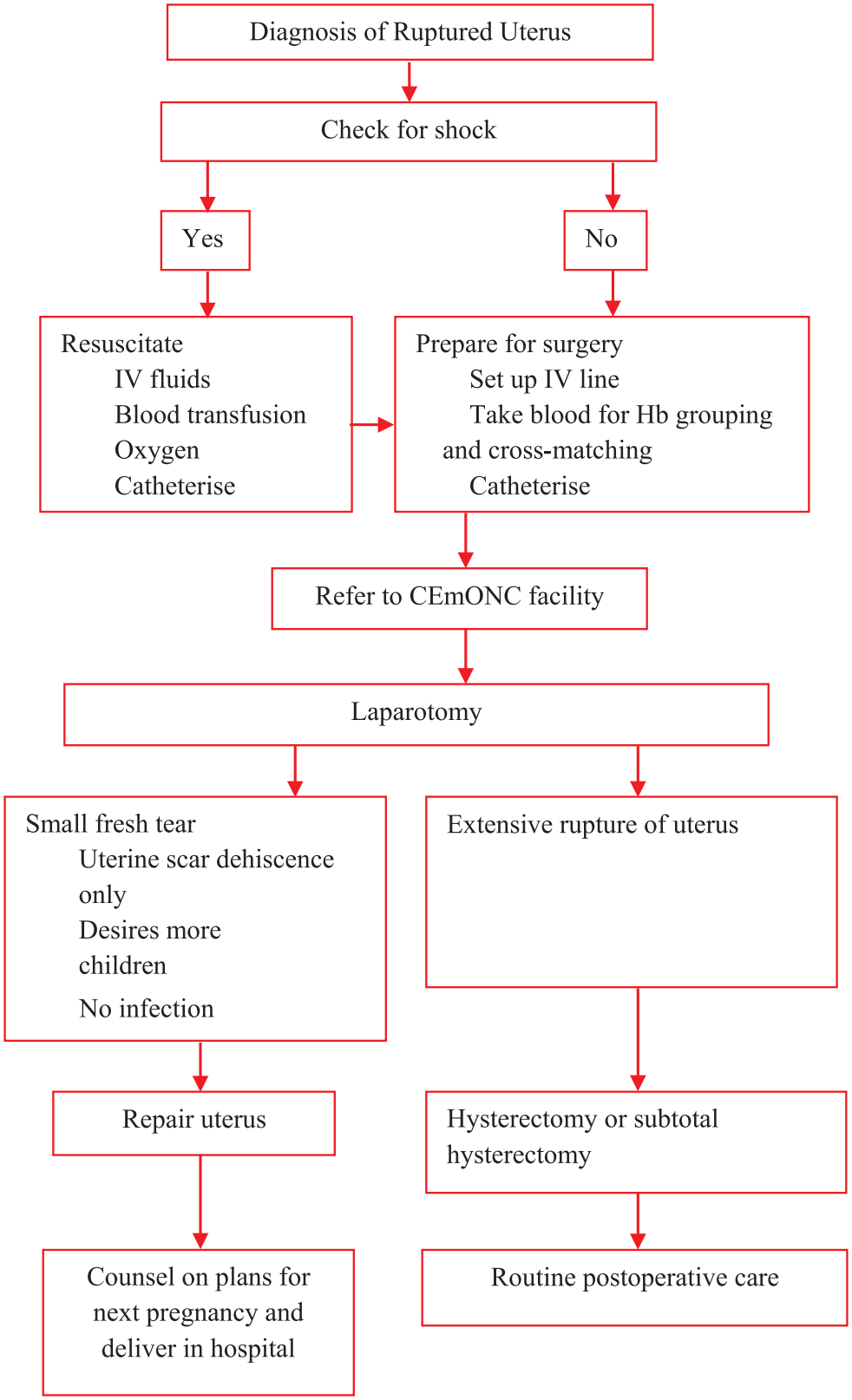
Protocol 31: Management of Ruptured Uterus



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Protocol 32: Management of primary postpartum haemorrhage

Postpartum Haemorrhage
Blood loss of ≥500 mls from the genital track within 24 hours after vaginal birth or 1000 ml after C/S Or any blood loss that causes haemodynamic instability

Call for help (Ring the bell)
Assess ABC

First response bundle
1. Massage uterine fundus
2. Give oxytocin 10 IU IV or Misoprostol 800mcg sublingually or rectally or ergometrine 0.2 mg.
3. Set up 2 large bore IV lines and give RL or Normal saline
4. Take off blood for grouping & cross match, secure at least 2 units, Do CBC
5. Empty bladder
6. Give Tranexamic Acid 1g IV administered over 10 mins

Determine cause (4Ts) & treat

Placenta/Tissue

In

1. Perform CCT/ remove tissues
2. Massage uterine

In

Repeat oxytocin
Manual removal in theatre
Explore for tears

Out

If bleeding persists

Atonic uterus

1. Massage uterine fundus
2. Expel clots

1. Administer 20 IU oxytocin in 1liter of saline
2. Repeat tranexamic acid if 30 mins elapsed
3. Explore uterus
4. Administer Carboprost IM 125 mcg every 15 to 90 mins as needed (max 2mg)
5. Give ergometrine 0.2mg

Lacerations/ Tears

1. Inspect genital tract
2. Repair lacerations/apply clamps and refer

Coagulopathy (blood not clotting)

1. Refer for fresh frozen plasma/ blood
2. Uterine balloon tamponade
3. Repeat tranexamic acid 1gm IV

1. Treat atonic uterus with oxytocin infusion
2. Bi-Manual Compression
3. Uterine Balloon Tamponade
4. Anti-Shock Garment. 5. Blood transfusion 6. Referral

If bleeding continues:
1. Explore in theatre
2. B-lynch/Hysterectomy

Note:
If pulse increases by 30% and systolic BP drops by 30% despite the above treatment, escalate to operative management
Give IV antibiotics:
1. 2g IV ampicillin 6 hourly for 48 hours
2. 500mg metronidazole 8 hourly for 48 hours
TXA should be used in all cases of PPH, regardless

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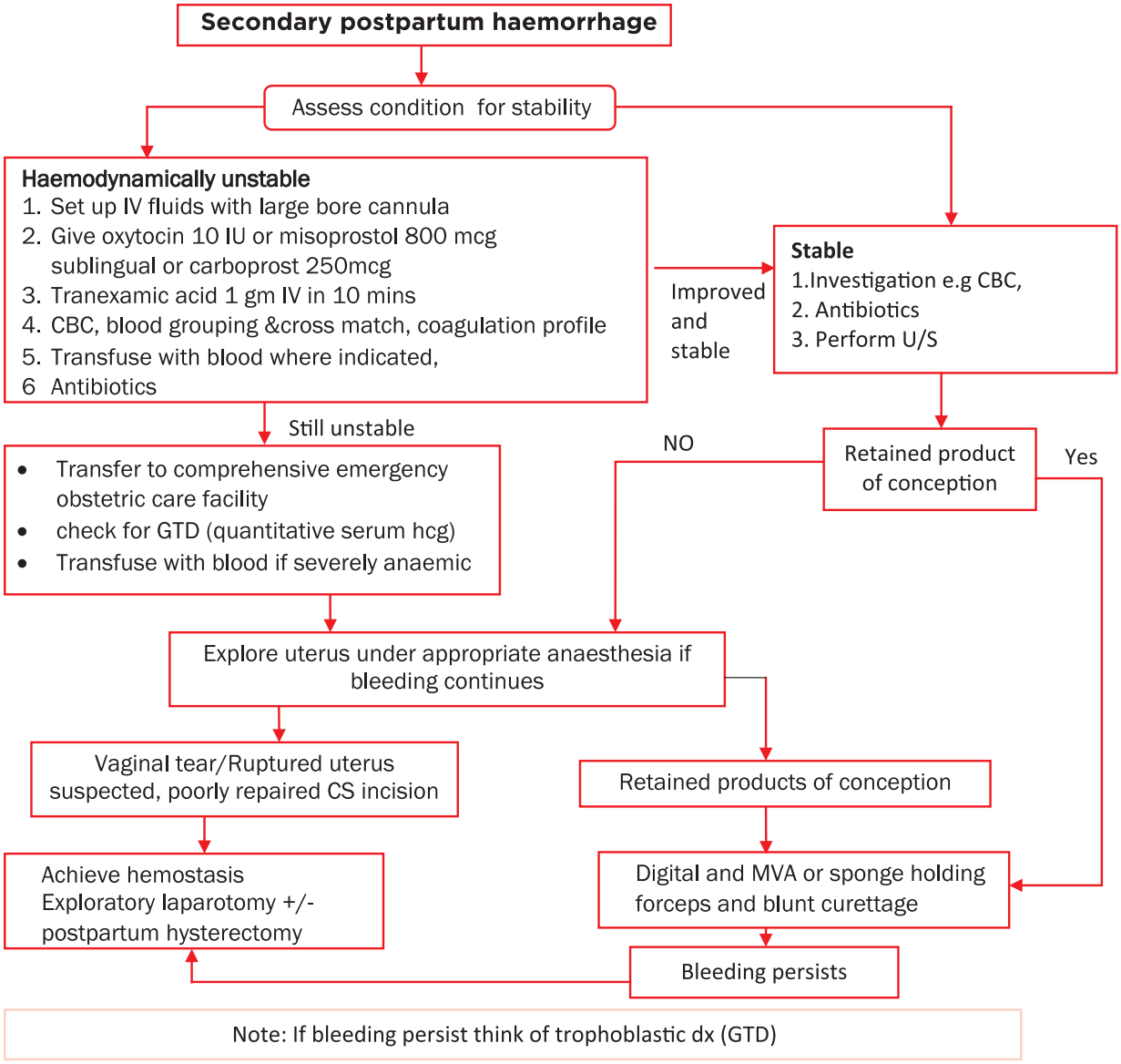
Protocol 33: Management of secondary postpartum haemorrhage



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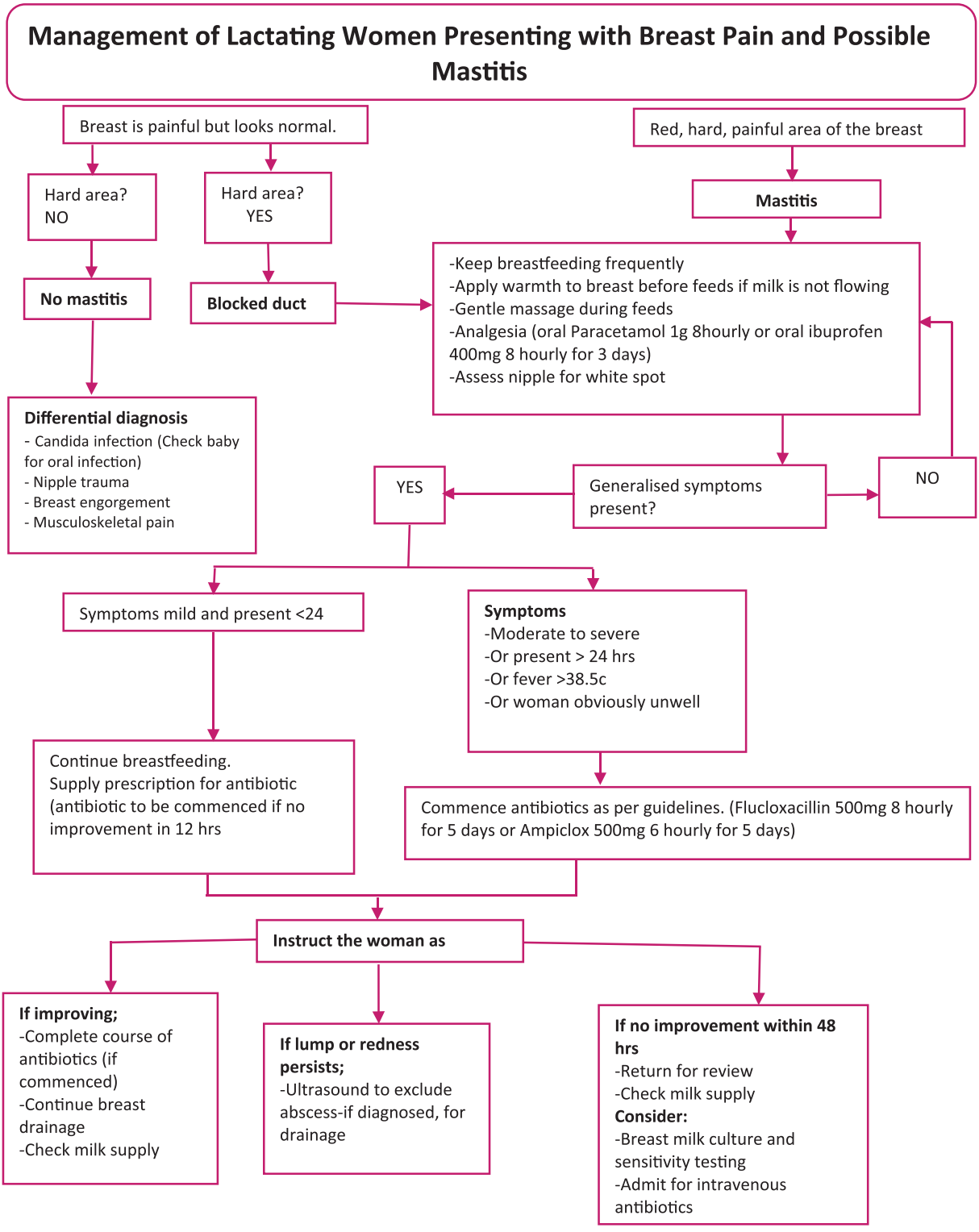
Protocol 34: Breast Engorgement and Mastitis



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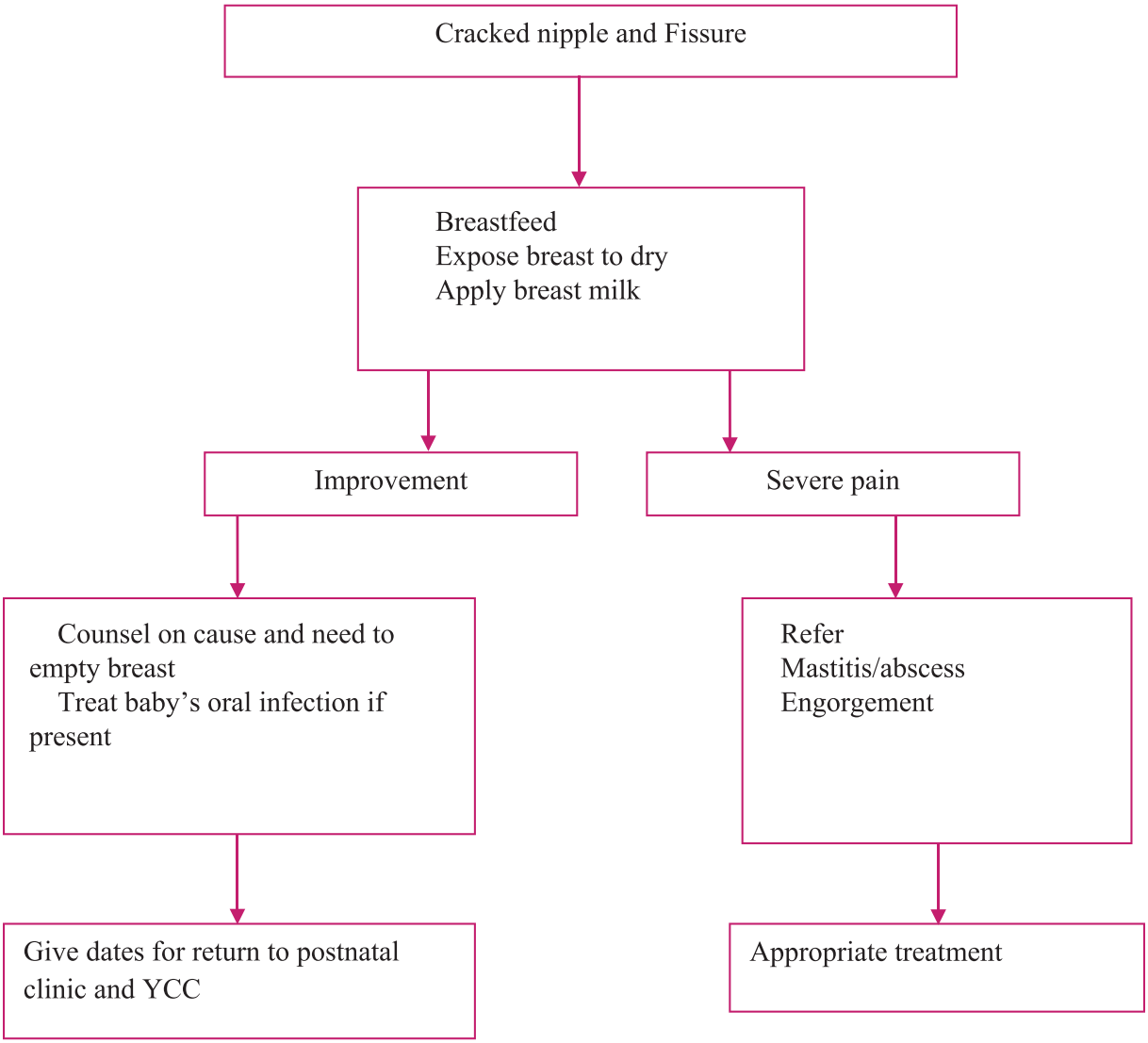
Protocol 35: Management of cracked/sore nipples



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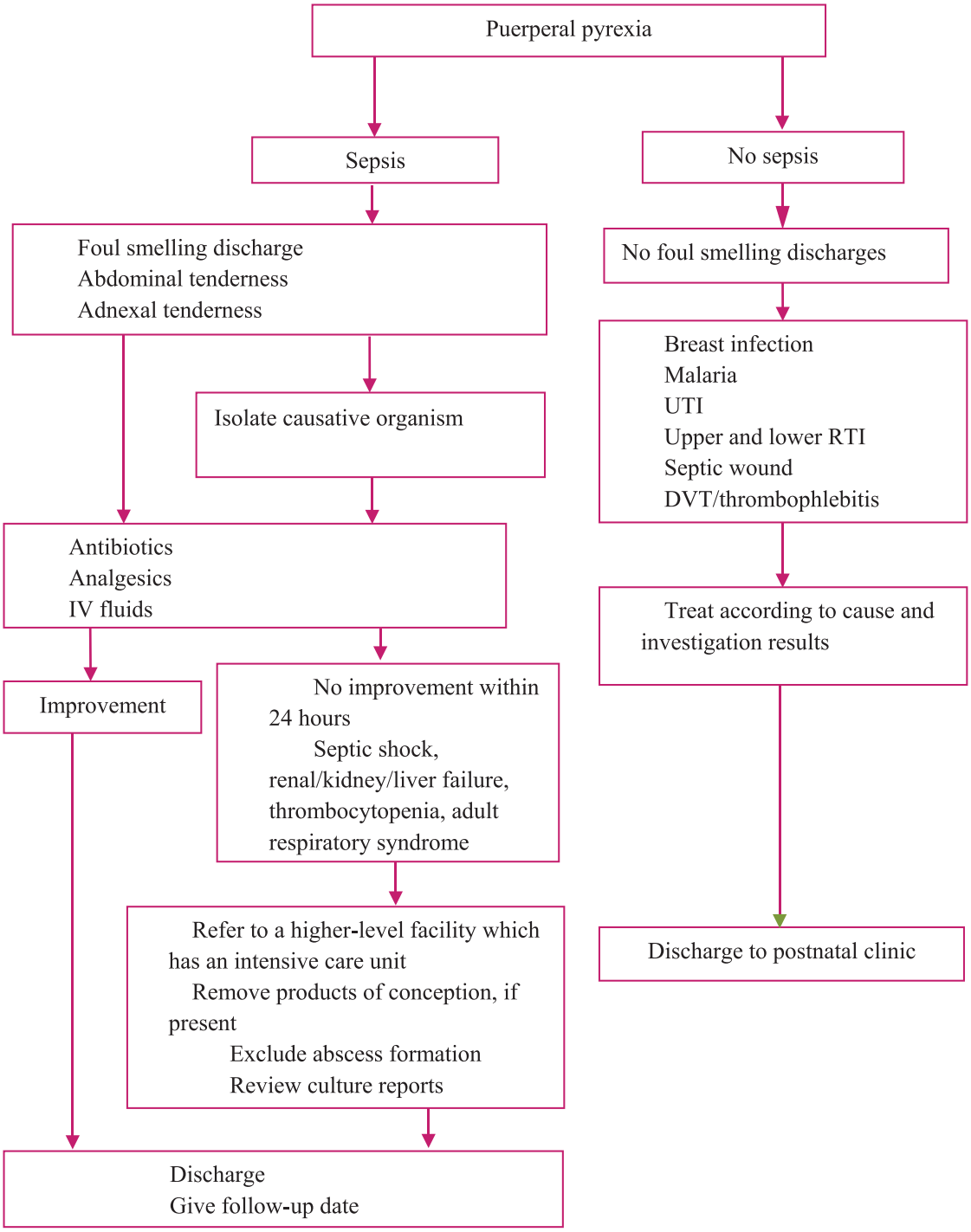
Protocol 36: Management of puerperal sepsis



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Protocol 37: Management of urinary tract infection

Urinary Tract Infection

Symptoms
- Dysuria
- Suprapubic pain/discomfort
- Frequency
- Urgency

Symptoms
- Fever/chills
- Colicky loin pain
- Colicky abdominal pain
- Vomiting

Investigations

Urine:

Sugar, Protein, Nitrites, Leucocytes, Red Blood Cells (RBCs), Blood, Microscopy (pus cells), Culture and sensitivity, where possible

Blood:

Hemoglobin (Hb) and white blood cell count, Blood slide, Malaria Rapid Diagnostic testing kit (mRDT), Complete Blood Count (CBC), where possible, Culture and sensitivity, if indicated

Treat as Cystitis

Treat as outpatient if mild, and admit if severe.

Give amoxicillin, 500 mg 8 hourly daily for 5 days **OR**

Nitrofurantoin 100 mg 8 hourly for 5 days.

Follow-up – ANC

Advise on prevention, early detection and early reporting to health facility

Treat as Pyelonephritis

Treat as inpatient

Observe: temperature, pulse, respiration and blood pressure twice a day.

Tepid sponge and give paracetamol if temperature is very high.

Ensure adequate hydration by oral or IV route.

Give antibiotics;

Amoxicillin 500 mg - 1 g 6-hourly for14 days, and Gentamicin, 5 mg/kg/day in 3 divided doses 1M (maximum of 80 mg 8-hourly) **OR**

Ampicillin 2g IV every 6 hours plus Gentamycin 3mg/kg IM/IV single dose for 14 days. Once the woman is fever free for 48 hours, give amoxicillin 1g by mouth three times per day to complete 14 days of treatment

Tablets Cephixime 200mg 8 hourly fo 14 days

Tablets Cefloxime 250mg 8 hourly for 14 days

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Protocol 38: Abnormal Vaginal Discharge

Non foul smelling thick white or creamy curdled discharge with or without itching

Candidiasis

Purulent, frothy, greenish yellow foul-smelling discharge with itching, dysuria & dyspareunia

Trichomonas vaginalis

Offensive, pus discharge with dysuria or lower abdominal pain

Chlamydia and gonococcal infection.

Fishy smell, esp following sex and increased vaginal discharge.

Bacterial vaginosis or combined with aerobic vaginosis.

Investigations

1. Speculum examination, high vaginal swab for microscopy (wet preparation, gram),
2. Potassium hydroxide for bacterial vaginosis.
3. Culture and sensitivity when necessary.
4. Blood investigations for HIV, syphilis, and hepatitis B virus.
5. PCR testing for chlamydia/gonococcal infection.

Nystatin vaginal pessaries bid 7/7
OR
Clotrimazole pessaries 500mg od for 7 days.
OR
Miconazole pessaries 100 od for 5/7 or 400mg o.d for 3/7
OR
Fluconazole 400mg stat

Metronidazole 400 mg 12hrly 7 days
OR
Secnidazole 2g single dose
OR
Tinidazole 2g single dose with food

Doxycycline 100 mg bd for 7 days after food
OR
Azithromycin 1g single dose
PLUS
Ceftriaxone 1g single dose

Metronidazole 500 mg po bd for 7/7
OR
Tinidazole 2 g orally once daily for 2 days
OR
Tinidazole 1 g orally once daily for 5 days
OR
Clindamycin 300mg bd for 7 days

1. **Partner itching**: Give metronidazole 400mg 8-hourly for 7 days.
2. **Partner no itching:** No treatment.
3. **Partner has dysuria:** Doxycycline 100mg 12 hourly x 7 days and ciprofloxacin 500mg stat.

Treat partner with the above treatment.

Patient education
Treat all sexual partners and use a condom or abstain from sexual intercourse during treatment.
Healthy vaginal hygiene includes avoiding detergents & herbal medicines for washing the vagina, use plain water inside.
Proper toilet practice of cleaning anus from front backwards.
Avoid tight-fitting synthetic clothing, local irritants such as perfumed products and soap gels.
Avoid vaginal douching, and/or vaginal steaming.
NOTE: For women with foul smelling serosanguineous (mixture of blood and puss) discharge, suspect cancer of the cervix and perform vaginal speculum examination.

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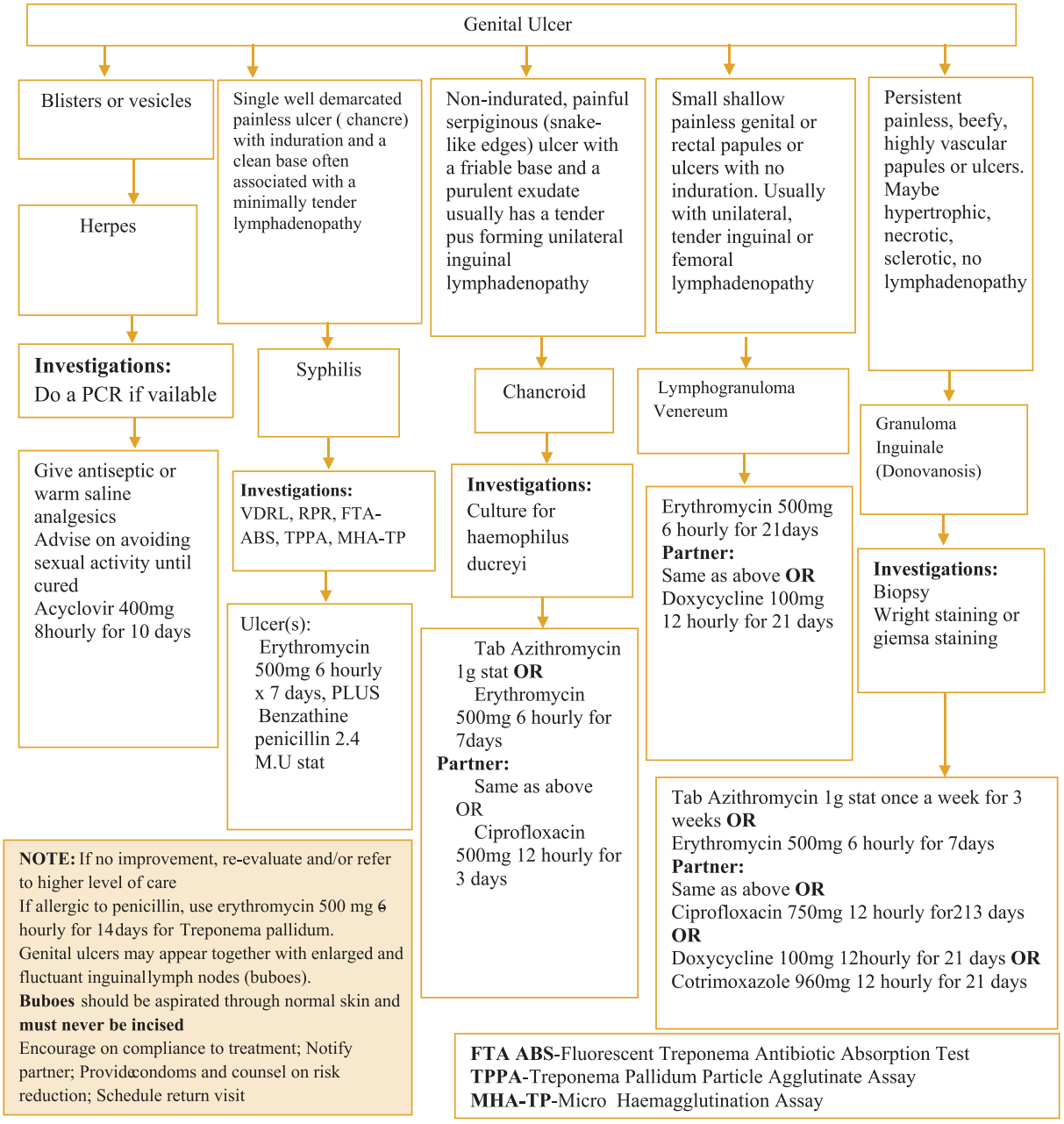
Protocol 39: Genital Ulcer



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Protocol 40: Bartholin's Abscess

Bartholin's Abscess

- Painful swelling on one or both side of the introitus at 4 & 8 O'clock positions.
- Patient may find it hard or impossible to walk, sit, or have sexual intercourse.
- Fever may be present in one-fifth of patients.
- Previous history of vulval mass especially Bartholin's cyst
- Assess for Comorbidities, including diabetes or immunosuppression.
- Genital exam may reveal a tender fluctuant Bartholin's gland – usually

Investigations

1. Exudate from the mass for Culture & Sensitivity to exclude methicillin-resistant S. aureus.
2. No role for imaging studies in the evaluation of a Bartholin mass.
3. No role for blood tests unless systemic infection is suspected.

Management can be by any of the following options

1. Marsupialization using a cruciate or longitudinal incision under 1% lignocaine. Stitch the edges using 3/0 vicryl to leave the incision open.
2. If available, consider
    a. Incision and Drainage and insertion of WORD CATHETER for 4 weeks OR
    b. Silver nitrate laser ablation and placement of a Jacobi ring catheter OR
    c. Fractional CO_2 laser ablation with PRP (Platelet rich plasma).
3. In case of recurrence after marsupialization, consider gland excision

Additional supportive care includes

4. Antibiotics are not usually indicated in the immunocompetent patient after marsupialisation
5. If needed, give Flucamox (Flucloxacillin+Amoxycillin) 500mg 8hrly for five days, OR Ampiclox 500mg 6hrly for five days OR Azithromycin 500mg once a day for three days
6. Give analgesia.
7. Sitz bath using salty warm water (salty warm compress)
8. Abstain from vaginal intercourse until when fully healed.

Note: Do not perform Incision and drainage alone because the abscess will re-occur, unless if there is lack of expertise and there is urgent need to relieve symptoms. In which case, after I&D, pack with gauze and refer for **marsupialization. Gauze packing should be removed within 24-48 hours.**

Patients older than 40 years should have a biopsy to rule out Bartholin gland cancer.

Follow up.

1. Notify and treat partner with similar treatment as above.
2. Counsel couple on HIV/AIDS/STI testing, prevention and encourage use of barrier methods.
3. Schedule return visit. If the abscess resolves no further management is required.
4. If the abscess recurs 2 or more times, gland excision is recommended.

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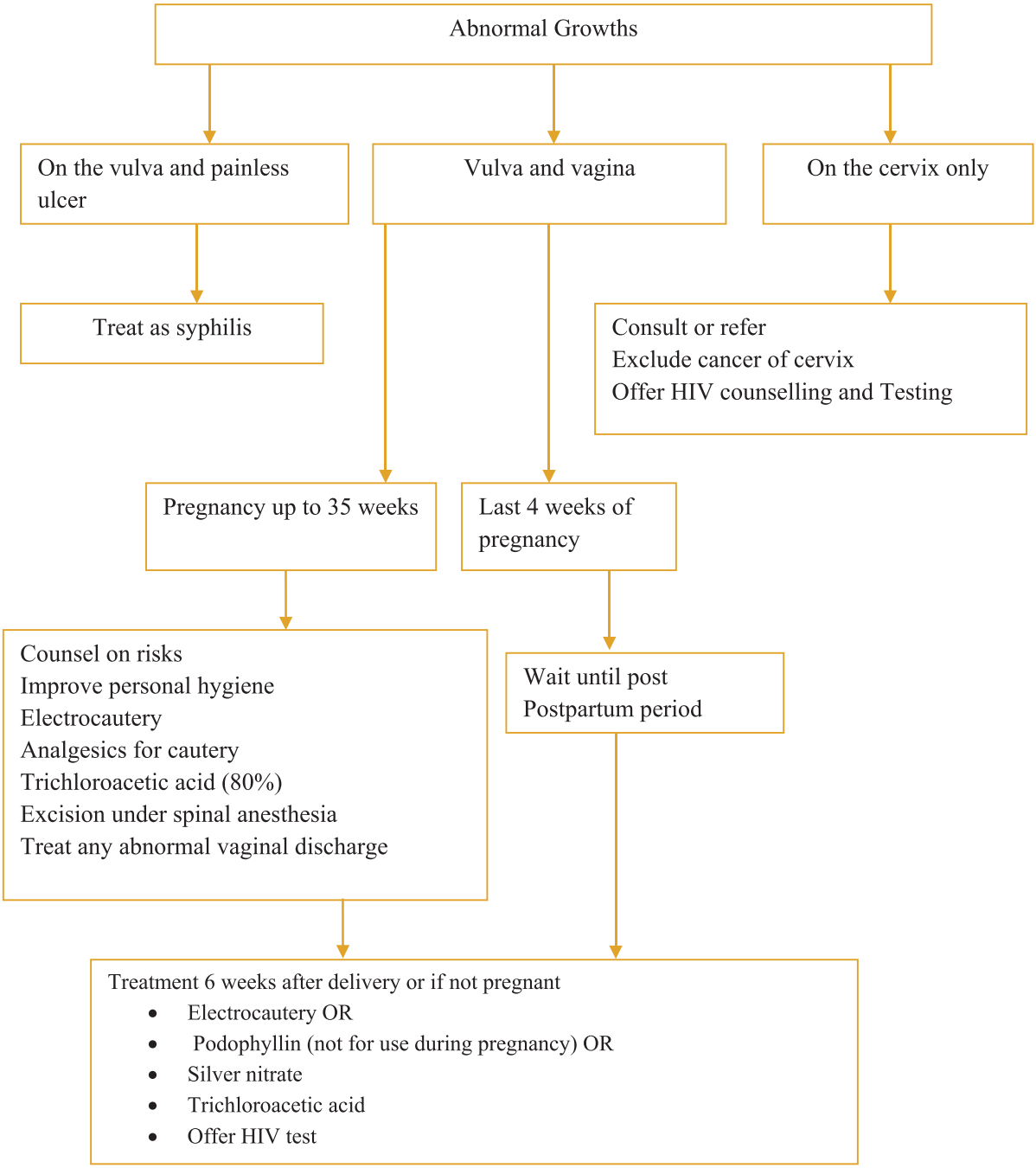
Protocol 41: Genital Warts



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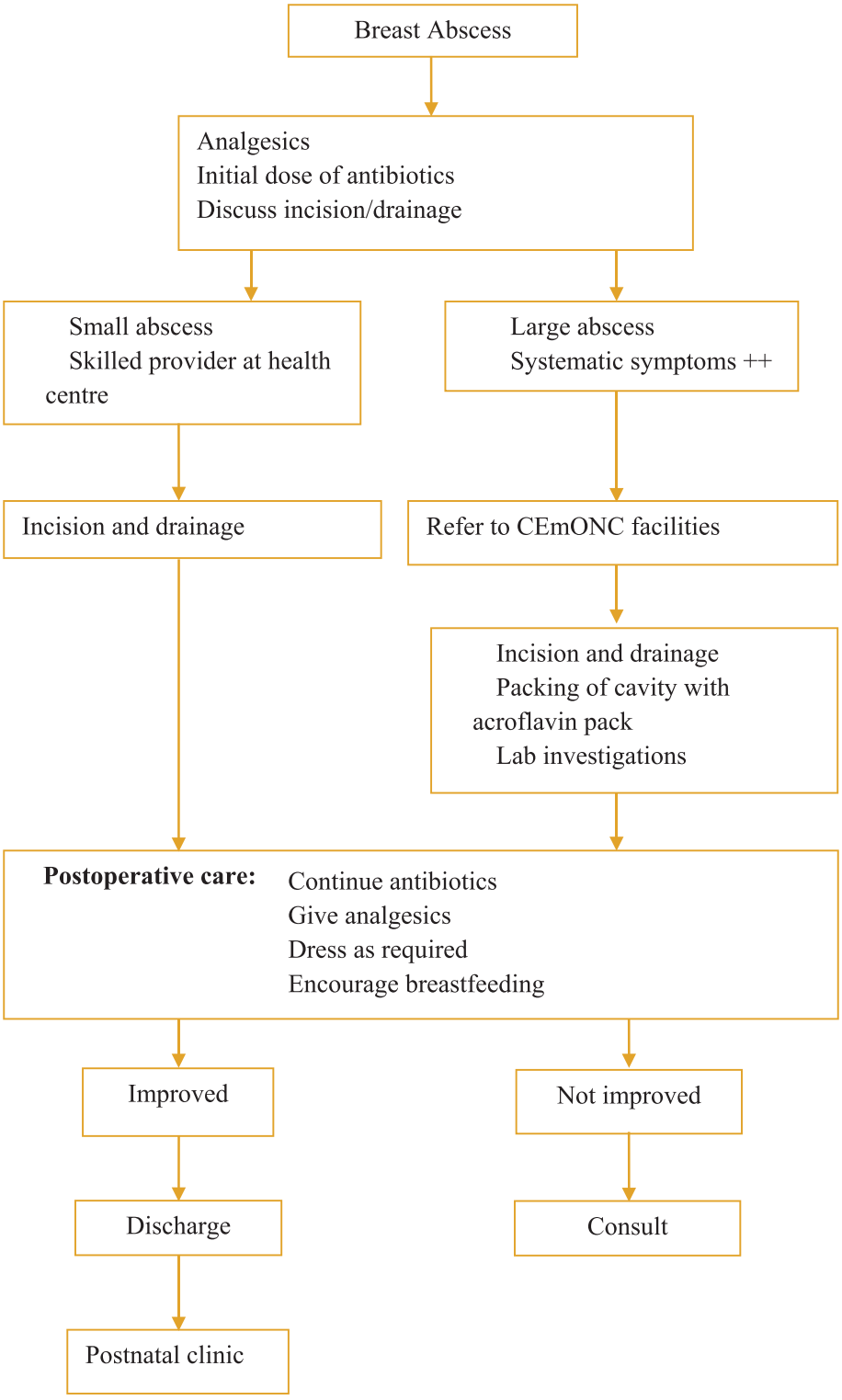
Protocol 42: Management of breast abscess



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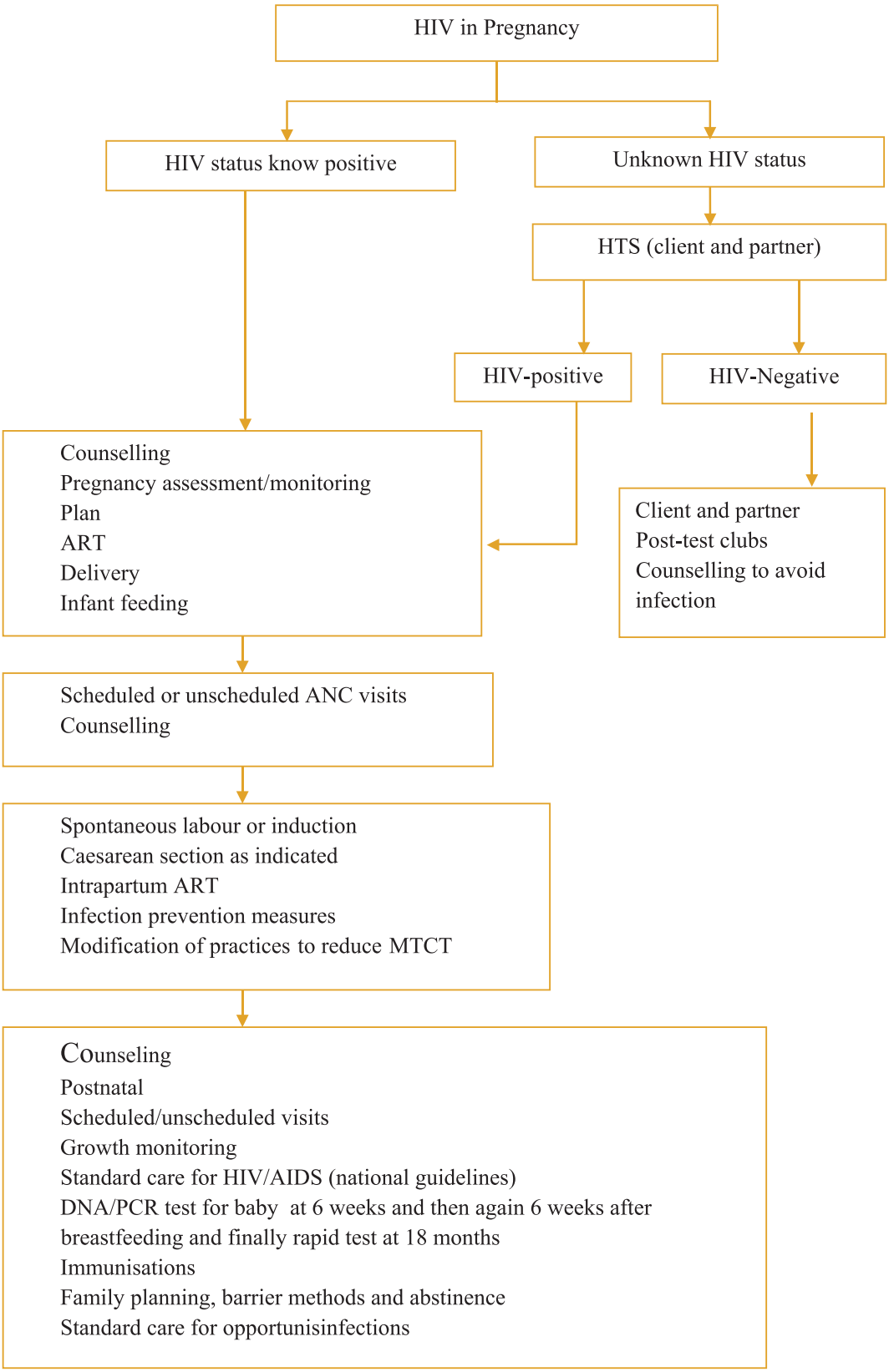
Protocol 43: Management of HIV in pregnancy



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Protocol 44: Intrapartum care for covid 19 in Pregnancy

Pregnant woman admitted with Covid-19

Supportive management (In-patient Vs Out-Patient management individualized)

Suspend delivery till 39 weeks of GA.
Deliver if ≥ 39 weeks of GA

Admission in HDU if severe and ICU if critical
Labs (CBC, Electrolytes, RFTs, LFTs, Urinalysis, FBS, CRP, D-Dimers, ferritin, procalcitonin, serum troponin, creatinine phosphokinase)
Imaging: Obstetric Ultrasound scan (GA, EFW, AFI)
Start on Treatment

- Oxygen therapy (High Flow)
- IV antibiotics if indicated
- IV dexamethasone 6mg 12 hourly for 24 hours, then once a day for 10 days
- Prophylactic LMWH/Unfractionated heparin
- Other supportive drugs (Zinc, Vitamin D)
- Cautious IV fluid therapy (while evaluating for pulmonary oedema)

Less than 28 weeks of Gestation
Intermittent auscultation of the fetal heart sound twice a day
Perimortem / resuscitative hysterotomy (26 to 28 weeks) can be done

28 weeks to 34 weeks of Gestation
Daily Non-Stress Test (NST)
Delivery indicated for;

- Refractory maternal deterioration in status
- Non reassuring fetal heart rate pattern
- Refractory maternal hypoxemia
- Rapid escalation in oxygen requirements
- Requires advanced oxygen delivery method (mechanical ventilation with PEEP ≥10cm H_2O or VV ECMO)

Above 34 weeks of Gestation
Consider delivery if any sustained deterioration in maternal pulmonary status

NOTE: Induction of labour maybe considered if the patient is hemodynamically stable

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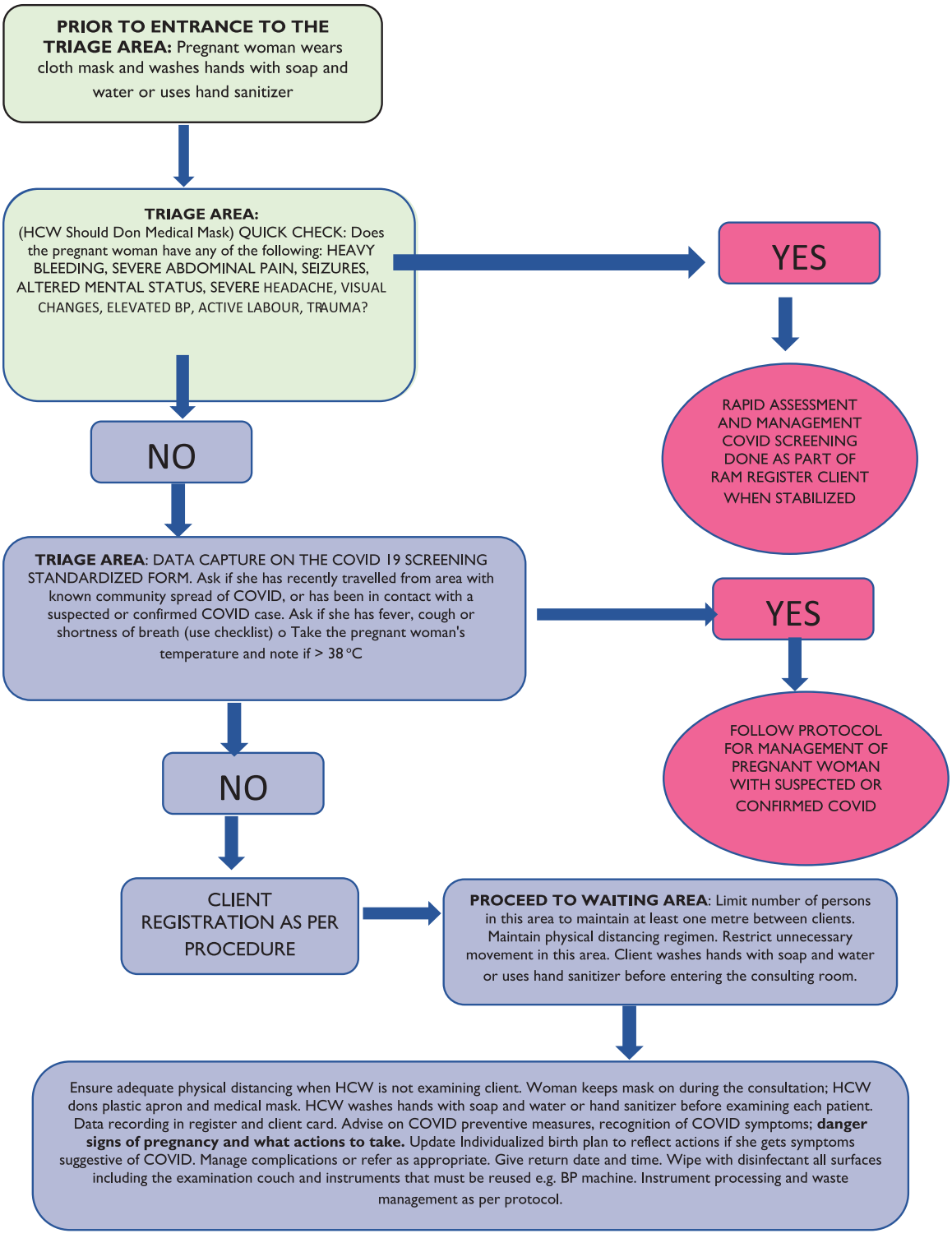
Protocol 45: Antenatal care for covid 19 in Pregnancy

ANNEX II: Antenatal care for asymptomatic pregnant women or those with unknown COVID-19 status



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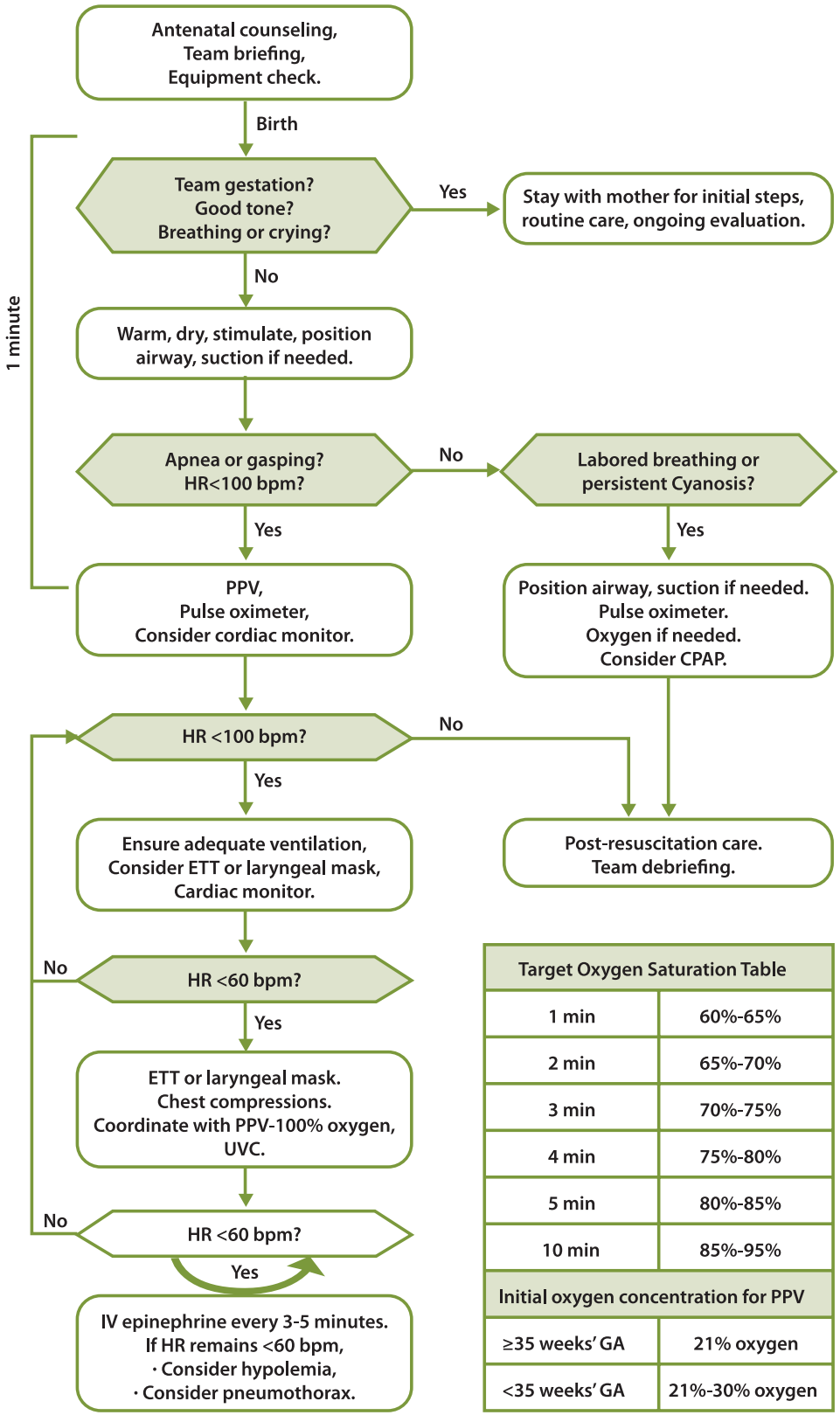
Protocol 46: Neonatal Resuscitation



Target Oxygen Saturation Table	
1 min	60%-65%
2 min	65%-70%
3 min	70%-75%
4 min	75%-80%
5 min	80%-85%
10 min	85%-95%
Initial oxygen concentration for PPV	
≥35 weeks' GA	21% oxygen
<35 weeks' GA	21%-30% oxygen

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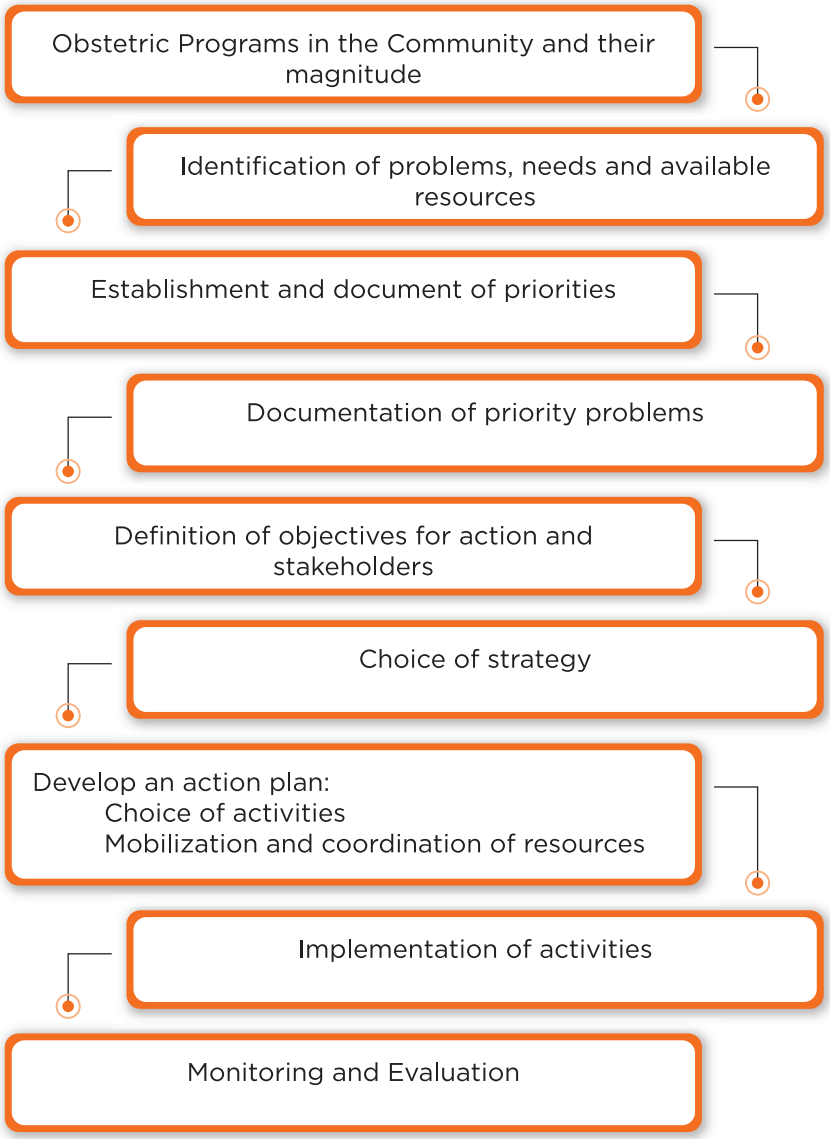
Protocol 47: Process of community diagnosis



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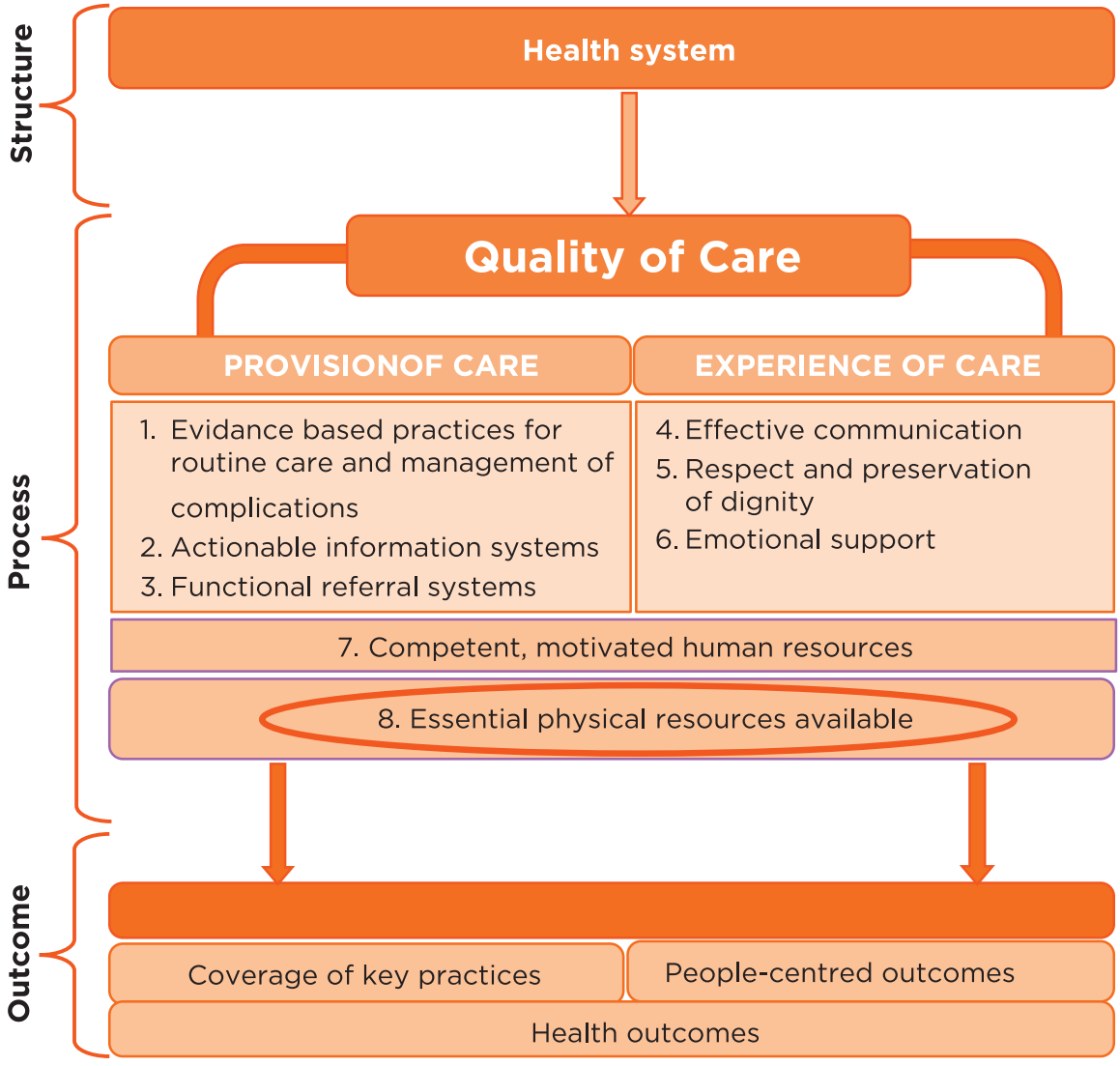
Protocol 48: WHO Framework for the quality of maternal and newborn care



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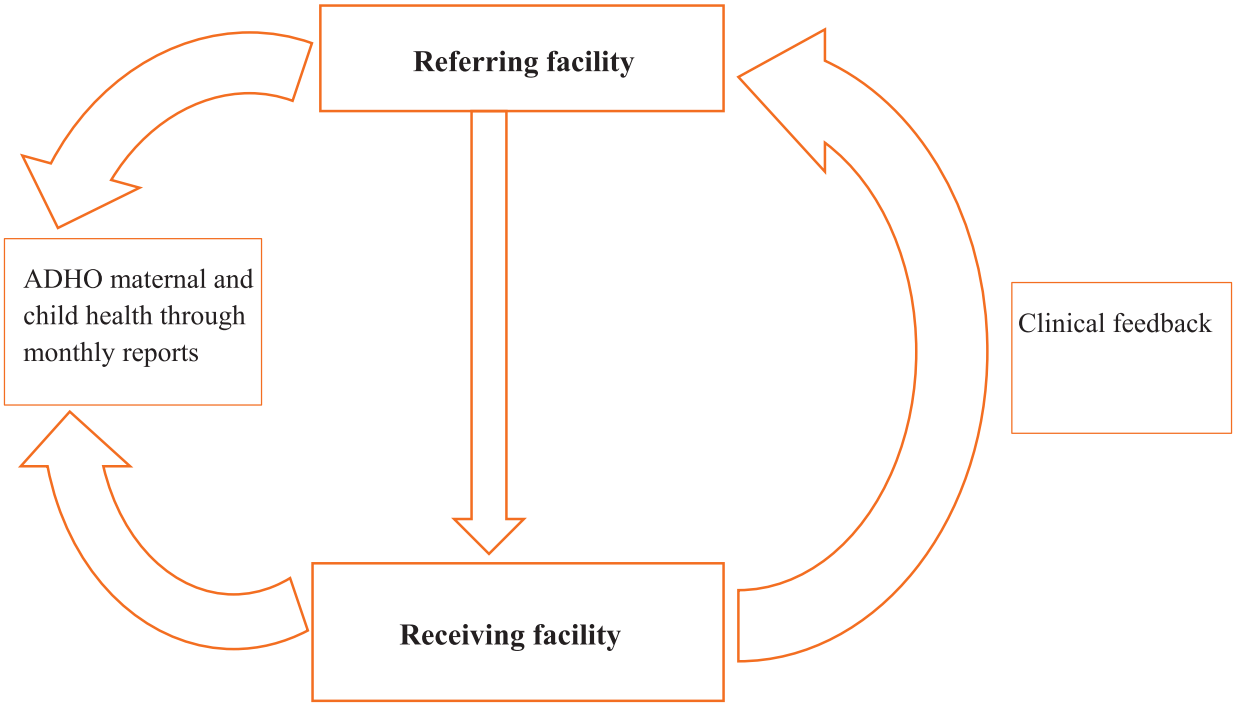
Protocol 49: The referral pathway



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PPH Prevention
3rd stage of labour: After delivery of baby

Birth personnel type

Skilled health personnel?

YES

- Oxytocin 10IU, IV/IM (vaginal and caesarean birth)
  If oxytocin is unavailable, use any of the following, based on availability and clinical eligibility:
- Heat stable carbetocin (100mcg,IM/IV)
- Misoprostol (400mcg or 600mcg, orally) And, where hypertensive disorder has been safely excluded:
- Ergometrine or methylergometrine (200 mcg, IM/IV)
- Oxytocin and ergometrine fixed-dose combination (5IU/500 mcg, IM)

No

Misoprostol (400-600 micrograms, orally)

Uterotonic

Birth asphyxia?

No

Late cord clamping (1-3mins) but initiate essential new born

YES

Early cord clamping (<1min) initiate new born resuscitation

Cord clamping

Skilled health personnel?

YES

Controlled cord traction (CCT) for both vaginal and ceasarean births perform uterine rub/massage after CCT

No

No CCT Referal

Placenta

Heat-stable carbetocin must NOT be used:

- For labour induction
- For labour augmentation
- During pregnancy and labour befor the childbirth
- In women with serious cardlovascular disorders
- In women with hypersensitivity to carbetocin, oxytocin or any of the excipients according to the composition
- In women with hepatic or nenal disorders
- In women with epilepsy

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World Health Organization

International Confederation of Midwives

FIGO

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FLOW CHART FOR MAJOR PPH TREATMENT AT CEmONG FACILITY

- Estimated blood loss>1000ml
- Blood loss with change in RR, PR and BP

Call for help or ring bell Alert a multidisciplinary team Labour ward in-charge/coordinator, first line obstetric (medical intern/medical officer), obstetric consultant and anaosthetic staff

- Most senior to lead care.
- Allocate tasks.

Assess ABC
- Airway confirm airway open and patent.
- Breathing (RR) is within normal limits (16-30)
- If RR >30bpm: oxygen 15l/min via facemask
- Establish venose access: 2-wide bore cannule (16g)
- Fluid replacement: warmed crystral and infusion - 2l [or 2 litres fast and transfuse as soon as possible
- Massage the uterine
- Insert urothral catheter, empty the bladder, open fluid balance chart
- Monitor vital signs (pulse rate, respiratory rate and blood pressure) every 15min (MOEWS chart)

- Full blood count, congulation screen, ronal and her functional tests
- Group and cross match 4 units of packed red cells/fresh whole blood.
- Transfuse of bleeding is more than 1.5 and bleeding is continuing.

- Give exylocin 10 IU and 800 mcg misoprostal if unnosponsive within 10 mins . (uterus still atonic).
- Administer TXA within 3 hours of birth : 1g in 10ml (100 mg/ml) IV at 1 ml per minute 2.
- Oxytocin 40 units in 500ml sodium chloride 0.9% Ringer's lactate at 125ml/hc.
- Continuously access blood loss

Bleeding stopped after 30 mins?

YES

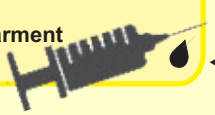
Initiate immediate newborn care and monitor for secondary PPH

NO

Administer a second dose of TXA 1g IV if bleeding continues after 30 minutes or if bleeding restarts within 24 hours of completing the first dose

Secondary response:
- Tone: boggy soft during bimanualexamination: otonic uterus. Rub up contractions, Perform bimanual compression.
- Tissue: Check if placenta dell vered and complete CCT. mannual removal of placenta
- Tears: Check for perineal and cervical tears and repairs
- Thrombin: If blood not clotting, fresh blood, plancelet FFP

Non-surgical methods
- External aortic compression.
- Apply non-pneumatic antishock garment
- Uterine ballon tamponade (UBT)



Bleeding stopped?

NO

YES

Surgical methods
- Examination under anaesthesia
- Repair tears
- Apply brace sutures
- Stepwise devascubrisation and internal liacartery lgation
- Hysleractomy

Initiate immediate newborn care and monitor for secondary PPH

[1] IV oxytocin peak onset of action is immediate and peak concentration after 30minutes while 1M oxytocin onset of action is 3-7 minutes and duration of action os upt to 1 hour
[2] TXA should be administered IV ONLY. Avoid TXA in women with clear contraindication to antifibrinolytic therapy as a know thrombitic event during pregnancy
[3] Involve experienced surgeons with vascular expertise.
[4] Resort to sub-total hysterectomy sooner rather than later.
[5] Have a copy of BLYNCH suture on display in the operation theatre.
[6] The woman should remain in the delivery suite for 24 hours after major PPH has been resolved, or after transfer from ICU or ITU.

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THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

MANAGEMENT OF SECONDARY POSTPARTUM HEAMORRHAGE

Secondary postpaartum haemorrhage is defined as excessive vaginal bleeding in the period from 24 hours after delivery to six weeks postpartum.

Assess condition for stability

Haemodynamically unstable
1. Set up IV fluids with large bore cannula
2. Give oxytocin 10 IU or misoprostol 800 mcg sublingual
3. Tranexamic acid 1gm IV in 10 mins
4. CBC, blood grouping & cross match, coagulation profile
5. Transfuse with blood where indicated,
6. Antibiotics

Improved and stable

Stab;e
1. Investigation e.g CBC,
2. Antibiotics
3. Perform U/S

Still unstable

- Transfer to comprehensive emergency obstetric care facility
- Check for GTD (quantitative serum hcg)
- Transfuse with blood if several enaemic

Retained product of conception

YES

NO

Explore uterus under appropriate anaesthesia if bleeding continues

Vaginal tear/Reptured uterus suspected, poorly repaired CS incision

Retained products of conception

Achieve hemostasis
Exploratory laparotomy +/- postpartum hysterectomy

Digital and MVA or sponge holding forceps and blunt curettage

Bleeding persists

Note: If bleeding persist think of trophoblastic dx (GTD)

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Ministry of Health
Plot 6 Lourdel Road, Wandegeya
P. O. Box 7272, Kampala, Uganda