

Appendix 45. Care of pregnant FVD positive women

Differential diagnosis of FVD with other common complications of pregnancy is extremely difficult. Pregnancy testing for all women of reproductive age is required at admission.

Principles of management for pregnant women with FVD

- Any FVD suspected pregnant woman is isolated and treated as any other suspect/confirmed patient. Begin systematic and symptomatic treatment.
- Any woman with FVD (or recent convalescent) with an intact pregnancy must deliver within the high risk zone of a FTU. The baby, amniotic fluid and placenta are highly infected.
- Avoid invasive procedures^a.
- The mortality of the new born is extremely close to 100%. Most FVD-infected pregnant women present with an intra-uterine foetal death. In the rare event of a live birth, the baby will be FVD positive thus all IPC procedures in the FTU must be followed (PPE, etc.).
- All surviving women are counselled, given adequate family planning and nutritional support.

Patient counselling:

It is important that women understand the risks and reality of being pregnant with FVD and that consent is obtained for any procedure.

- Inform any pregnant woman that the risk of miscarriage or early labour as part of FVD illness is probable and that loss of foetal life is highly likely.
- Inform at appropriate time in recovery (when mentally aware, potential for cure is real, etc.) that when cured, termination of pregnancy or induction of labour will be offered.
- Explain the reason for the induction of labour: very likely the foetus will be dead and the viral load in the foetus, placenta and amniotic fluid will be high even after she is cured, creating an infection risk for birth assistants when delivering at home or a health facility.
- Recommend the woman stay near the FTU when she is not ready for labour induction until she agrees or until intra-uterine foetal death is confirmed.
- If very sick women go into labour/miscarriage and birth, chances of survival are minimal and interventions to save maternal life should be few and non-invasive (oral misoprostol with bleeding, antibiotics, etc.).

Labour induction and delivery

1. Give routine antibiotic prophylaxis and antimalarial treatment:

- Provide antibiotics from admission until five days post discharge, antimalarial treatment^b and ferrous sulphate/folic acid (and/or multivitamins) from admission to 1 month post discharge to every pregnant woman.

2. Labour induction criteria:

^a Prefer PO treatment (misoprostol) over IM/IV (oxytocin), do not perform episiotomy, avoid manual removal of retained placenta, and surgical interventions (MVA included) are contra indicated in a FVD context.

^b For FVD patients, anti-malarials are recommended in the first trimester of pregnancy.

- **Do not induce labour while the patient is having fevers**, await spontaneous labour even if it takes several days.
 - **Opt only for induction if the FVD viremia is negative**: the risk of coagulation disorders may be less for the patient, potentially increasing the mother's chance of survival.
3. **Term pregnancy labour induction** (triggering labour artificially before it begins naturally)
- Ensure the patient is not yet in spontaneous labour with regular/painful contractions (3 contractions every 10 minutes).
 - **Misoprostol 200 µg tablet**: 25 µg PO (dissolve one tablet in 200 mL of water and give 25 mL of this solution) every 2 hours until good contractions are obtained. If every 2 hours is unrealistic, the dosage can be increased to 50 µg PO every 4 hours. Do not exceed 150 µg total dose. Do not give misoprostol when there is history of a previous caesarean section.
4. **Labour induction of preterm pregnancies** (2nd and 3rd trimester):
- **Mifepristone** PO: 600 mg once daily for 2 days followed on the third day by **misoprostol** (dosage below)^c
- OR**
- **Misoprostol** PO: every 6 hours, until labour begins (max. 3 doses within 24 hours, to be repeated after 24 hours if no good contractions yet)
 - 200 micrograms in the second trimester
 - 100 micrograms in the third trimester
 - 50 micrograms in the ninth month
 Ask expert advice if patient is a grand multiparous/has a previous caesarean section scar.
5. **Delivery**
- Active management of 3rd stage of labour (abdominal uterine massage and prevention measures for post partem haemorrhage, see below).
 - When the baby is born alive or in case of retained placenta, the cord is clamped with two plastic cord clamps and cut with disposable scissors.
 - If the baby or foetus is born dead, after the delivery of the placenta, both the corpse and placenta can be placed on an absorbent pad, disinfected with 0.5% chlorine, wrapped in a cloth, and placed in a child body bag.

If the baby is alive in utero after the mother has been discharged (convalescent FVD), offer the mother planned termination of pregnancy in the high risk zone of the FTU. If the mother wants to keep the pregnancy, she should remain close to the FTU and stay in daily/weekly contact with the healthcare workers until after delivery.

Common obstetric complications:

^c In case of prior caesarean section or grand multiparity, given the increased risk of uterine rupture, the combination mifepristone + misoprostol is recommended to reduce the number of required misoprostol doses. Reduce misoprostol doses by half and do not give more than 3 doses.

1. Postpartum Haemorrhage (PPH)

Prevention:

- Misoprostol 600 µg oral or oxytocin 10 IU IM/IV after delivery of the baby
OR
- Second choice: Oxytocin IM or slow IV 5 IU after delivery of baby

Treatment:

- 2 IV lines of Ringer's lactate, one with oxytocin 40 IU in 1 L of Ringers over 4 hours
- Empty the bladder before delivery^d
- Add Misoprostol PO 600 µg (preferably oral if the patient can swallow otherwise per rectum)
- Abdominal uterine massage
- Add methylergometrin IM 0.2 mg if bleeding is uncontrollable, repeat every 15 minutes if the uterus stays soft, with a max of 5 dosages.

NOT RECOMMENDED: Blood transfusions, suturing of cervical or vaginal tears, and intrauterine manoeuvres (bimanual compression, etc.).

2. Retained placenta (pieces)

- Continue prophylactic antibiotics until the placenta is delivered
- Oxytocin 20 IU in 1 L of Ringers lactate over 12 hours (alternatively, Misoprostol PO 800 µg^e)

NOT RECOMMENDED: manual removal of placenta or uterine revision.

3. Retained products of conception (after miscarriage)

- Misoprostol PO 800 µg. Can be repeated after 48 hours if no expulsion.

NOT RECOMMENDED: Manual vacuum aspiration (MVA), dilatation and curettage (D&C) or digital curettage.

4. Prolonged labour:

- Start an infusion of Oxytocin 5 IU in 500 ml^f Ringer's lactate or 0.9% sodium chloride. Initially 5 to 8 drops/minute, then increase by 5 to 8 drops/minute every 30 minutes (max. 60 drops/minute) until efficient contractions are obtained (3 contractions lasting 40 seconds over 10 minutes), if surveillance is feasible.

5. Obstructed labour:

- **Manage expectantly:** wait until the baby comes. Attention: depending on the affected country, women may have undergone Female Genital Mutilation which may be an obstacle at delivery. Deinfibulation is not recommended.

^d A Nelaton or Foley catheter can be put to empty the bladder, when removing the catheter, cover the genital area with a cloth to avoid splashing.

^e Can be administered rectally if patient can not swallow.

^f Or Oxytocin 10 IU in 1 liter Ringer's lactate or 0.9% sodium chloride

6. **Complications requiring surgery cannot be treated** such as true cephalo-pelvic disproportion, mal-presentation, ruptured uterus, ectopic pregnancy, molar pregnancy, abruptio of the placenta with no imminent delivery, etc.
- Compassionate care including morphine can be used.

Practices/procedures NOT recommended in FVD context:

- **Foetal monitoring** (no Pinard stethoscope, no Doppler): no actions will be taken if abnormal/absent. Ask the mother if she feels foetal movements/leakage of amniotic fluid. If no foetal movements for several days, discuss with the mother the high likelihood that the baby died.
- **Artificial rupture of membranes.**
- **Invasive procedures** such as episiotomy, vacuum, destructive delivery (craniotomy in case of obstructed labour, etc.).
- **Caesarean section or any other laparotomy.**
- **Clamping and cutting of the umbilical cord when the baby is stillborn.** Keep the foetus on the bed (on an absorbent pad) while waiting the delivery of the placenta.
- **No controlled umbilical cord contraction,** wait until the placenta delivers spontaneously. To rub up a contraction of the uterus, put an absorbent pad on the abdomen of the mother first. When delivering the placenta, stay at the side of the mother to prevent splashes.
- **Suturing of ANY tears** (no episiotomy).
- **Vaginal exams post-delivery.**

Discharge post-delivery or post-abortion

Discharge criteria apply as for other admitted patients (negative viremia and good clinical status).

If a woman survives FVD with her pregnancy intact: once the viremia is negative, induction can be done. Delivery takes place in the designated high risk zone of the FTU. After delivery and an observation period of 24h, the woman can be discharged.

- If the baby is stillborn, after delivery and an observation period of 24h, the woman can be discharged and the foetus buried.
- If the baby is alive, s/he is admitted to the FTU, accompanied by the convalescent mother as caregiver, and should be breastfed.
- If the foetus is alive and not viable, ask expert advice. Good counselling is paramount.

Upon discharge, in addition to the standard FVD discharge kit give:

- Ferrous sulphate/folic acid (minimum 1 month post-delivery or post-abortion)
- Hygienic pads (explain to discard the pad into a plastic bag and burn after use)
- Advise condom use/give condom
- Family planning for a minimum of 3-6 months (implants, pills, injections, etc.): consider for all women of reproductive age

Materials:

Pregnancy - delivery – breastfeeding additional items for the FTU

DORACABG5T	CABERGOLINE, 0,5 mg, tab.
------------	---------------------------

DORAETHL3T1	ETHINYLESTR. 0.03 mg / LEVONORGESTREL 0.15 mg, plaq. 28 tab.
DORAFERF1T4	FERROUS fumarate 185 mg (60mg ir.) / FOLIC acid 0.4 mg, tab
DORAMIFP2T-	MIFEPRISTONE, 200 mg, tab.
DORAMISP2T-	MISOPROSTOL, 200 µg, breakable tab.
DINJOXYT1A-	OXYTOCIN, 10 IU/ml, 1 mL, amp.
DINJLEVN15I	LEVONORGESTREL implant 2 x 75 mg (Jadelle) + trocar, 10 sets
DINJMEDR1V-	MEDROXYPROGESTERONE acetate, 150 mg, 1 mL, vial
DINJMERG2A-	METHYLERGOMETRINE, 0.2 mg/mL, 1 mL, amp.
ESURSCOP4SB	SCISSORS, blunt, straight
SDREUMBC1--	UMBILICAL CORD THREAD, cotton, roll, 100 m
SDREUMBC2--	UMBILICAL CORD CLAMP, sterile, s.u.
NFOSMILI1P5	MILK, INFANT, powder, 0-12 months, 500g sac
SDREPADM1-	PAD, MENSTRUAL, maternity use, non sterile
SMSUCOND1--	CONDOM, lubricated + RESERVOIR, s.u.

Maternity box FTU

Code	Description	Amount
Bag 1	For IV line - before delivery	
DINFRINL1P1	RINGER lactate, 1 l, plastic pouch, + SET RINGER lactate, 1 l, poche plastique + PERFUSEUR	2
DEXTIODP1S2	POLIVIDONE IODENE, 10% solution, 200ml, dropper bot. POLYVIDONE IODÉE, 10% solution, 200ml, fl. Verseur	1
EMEQTOUR1--	TOURNIQUET, elastic, 100 x 1.8 cm GARROT élastique, 100 x 1,8 cm	1
SDRECOTW5R-	COTTON WOOL, hydrophilic, roll, 500 g COTON hydrophile, rouleau, 500 g	10 pieces
SDRETAPA025	TAPE, ADHESIVE, ROLL, 2 cm x 5 m SPARADRAP, ROULEAU, 2 cm x 5 m	1
SINSIVPP18-	IV CATHETER, injection port, s.u. 18 G (1.2 x 45 mm), green CATHETER IV, site d'injection, u.u. 18 G (1,2 x 45 mm), vert	2
SINSIVPP20-	IV CATHETER, INJECTION PORT, s.u. 20 G (1,0 x 32 mm), pink CATHETER IV, site d'injection, u.u. 20 G, (1,0 x32 mm), rose	2
SINSNEED21-	NEEDLE, s.u., Luer, 21 G (0.8 x 40 mm) green, IM AIGUILLE, u.u., Luer, 21 G (0,8 x 40 mm) vert, IM	2
SINSSETI2--	SET, INFUSION 'Y', Luer lock, air inlet, sterile, s.u. PERFUSEUR 'Y', Luer lock, prise d'air, stérile, u.u.	2
SINSSYDL02-	SYRINGE, s.u., Luer, 2 mL SERINGUE, u.u., Luer, 2 mL	2
Bag 2	For labour induction - 1 IV line is in place	
DORAMIFP2T-	MIFEPRISTONE, 200 mg, tab. MIFEPRISTONE, 200 mg, comp.	1
DORAMISP2T-	MISOPROSTOL, 200 µg, breakable tab. MISOPROSTOL, 200 µg, comp. sécable	1
Bag 3	For delivery - 1 or 2 IV lines are in place	
DORACABG5T	CABERGOLINE, 0,5mg, tab.	2

DORAPARA5T-	PARACETAMOL (acetaminophen), 500 mg, tab. PARACETAMOL (acétaminophène), 500 mg, comp.	10
DINJMERG2A-	METHYLERGOMETRINE, 0.2 mg/mL, 1 mL, amp. METHYLERGOMETRINE, 0,2 mg/mL, 1 mL, amp.	2
DINJOXYT1A-	OXYTOCIN, 10 IU/mL, 1 mL, amp. OXYTOCINE, 10 UI/mL, 1 mL, amp.	5
SDREUMBC2--	UMBILICAL CORD CLAMP, sterile, s.u. PINCE POUR CORDON OMBILICAL, stérile, u.u.	3
SMSUGLOG8--	GLOVES, GYNAECO, latex, s.u., n.p., sterile, pair, 8.5 GANTS GYNECO., latex, u.u., n.p., stérile, paire, 8.5	4
SMSUGLOP08-	GLOVES, PROTECTIVE, nitrile, reusable, n.p., pair, 8 GANTS DE PROTECTION, nitrile, réutilisables, n.p., paire, 8	4
SDRECOMP1S-	COMPRESS, GAUZE, 10 cm, 12 plies, 17 threads, sterile COMPRESSE DE GAZE, 10 cm, 12 plis, 17 fils, stérile	2
	Disposable scissors - for cutting cord in alive newborn only	1
ESURSCOP4SB	SCISSORS, blunt, straight - for cutting cord of alive newborn when disposable scissors are not available	1
	Tubes for sample collection	
	Swabs for sample collection	
SDREPADM1-	PAD, MENSTRUAL, maternity use, non sterile	10
	Absorbent pads / materials	10
DORAFERF1T4	FERROUS fumarate 185 mg (60mg ir.) / FOLIC acid 0.4 mg, tab FER fumarate 185 mg (60mg fer) / acide FOLIQUE 0,4 mg, comp.	60
Bag x	For urinary catheter - only when indicated (PPH)	
SCTDCAUR12F	CATHETER, URINARY, FOLEY, balloon, sterile, s.u., CH12 SONDE VESICALE, FOLEY, ballonnet, stérile, u.u., CH12	1
SCTDBAGU2VS	BAG, URINE, 2 L, draining + non-return valves, sterile POCHE A URINE, 2 L, valves de vidange + anti-retour, stérile	1
SINSSYDL10-	SYRINGE, s.u., Luer, 10 mL SERINGUE, u.u., Luer, 10 mL	1
DINJWATE1A-	WATER for injection, 10 mL, plastic amp. EAU pour injection, 10 mL, amp. Plastique	1
SDRECOMP1S-	COMPRESS, GAUZE, 10 cm, 12 plies, 17 threads, sterile COMPRESSE DE GAZE, 10 cm, 12 plis, 17 fils, stérile	1
SINSNEED21-	NEEDLE, s.u., Luer, 21 G (0.8 x 40 mm) green, IM AIGUILLE, u.u., Luer, 21 G (0,8 x 40 mm) vert, IM	1