Postpartum Haemorrhage (PPH) Management

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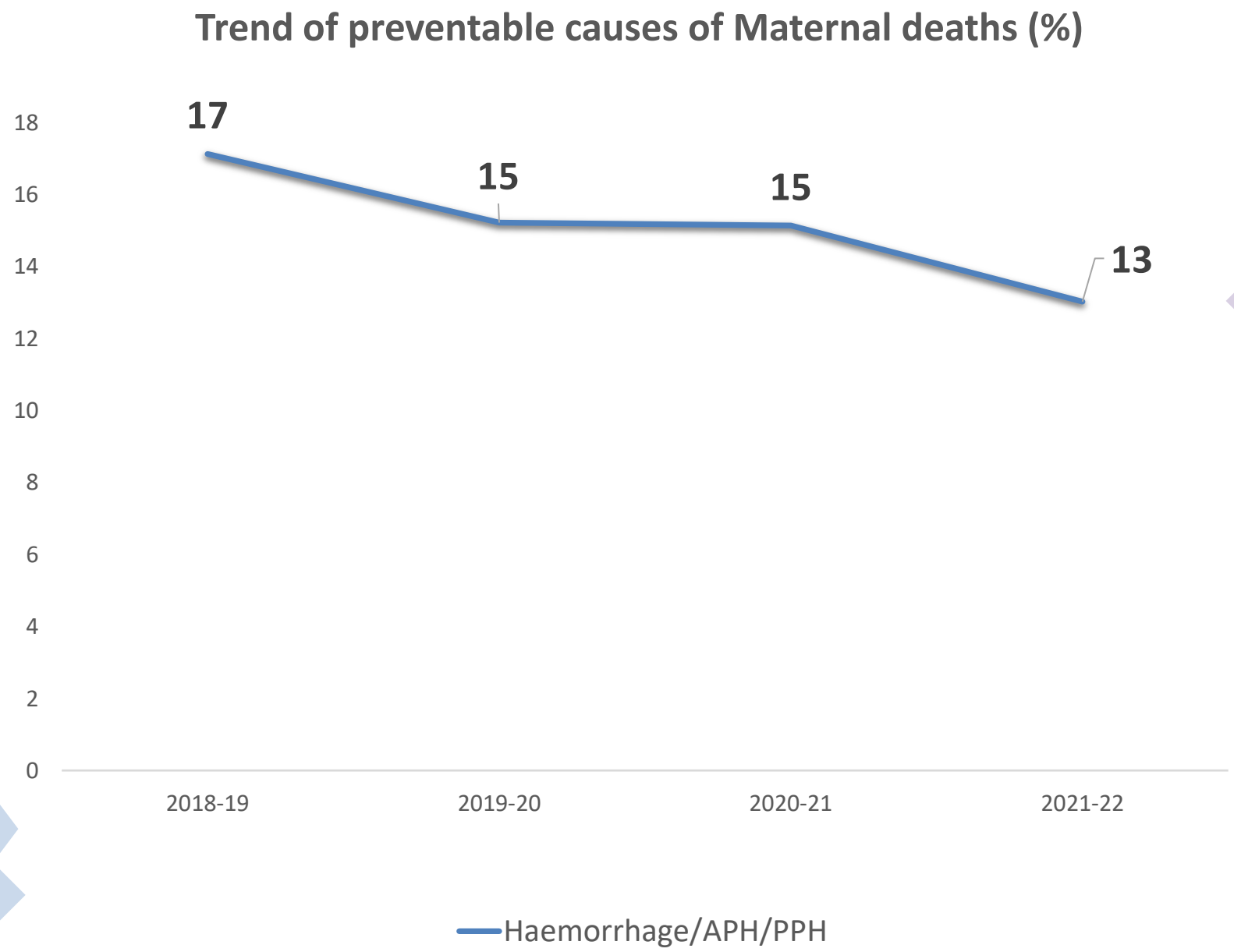
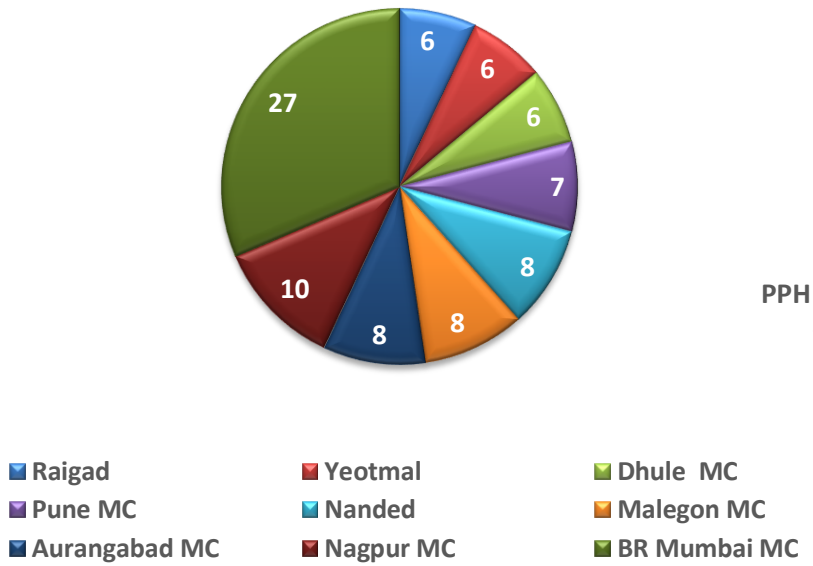
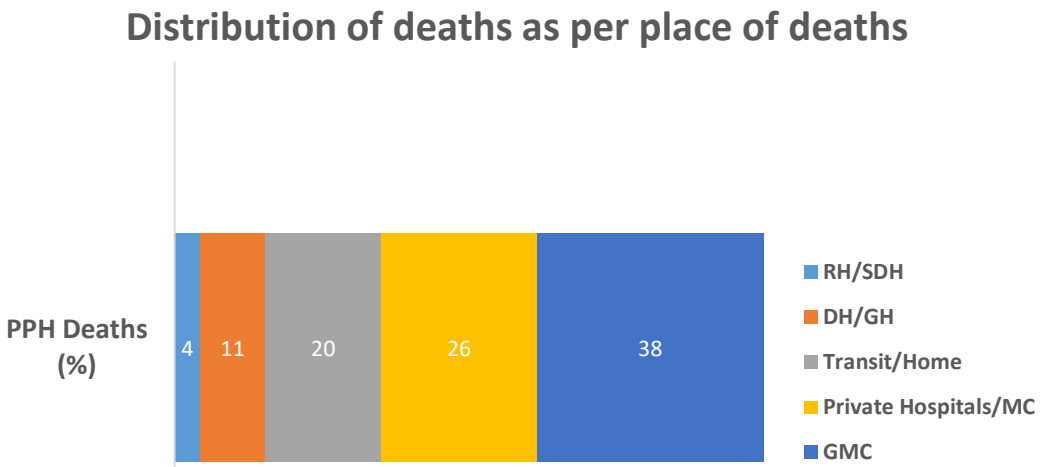
Maternal Mortality

- Total deaths due to haemorrhage /APH/PPH till Feb 2022 - **169**
- **i.e. 13%** of total reported Maternal deaths (out of 1297 total MD reported till Feb 22)
- **PPH is the most common cause of maternal death in transit - 23 cases**
- Maternal death due to PPH - 117 (**9%**)

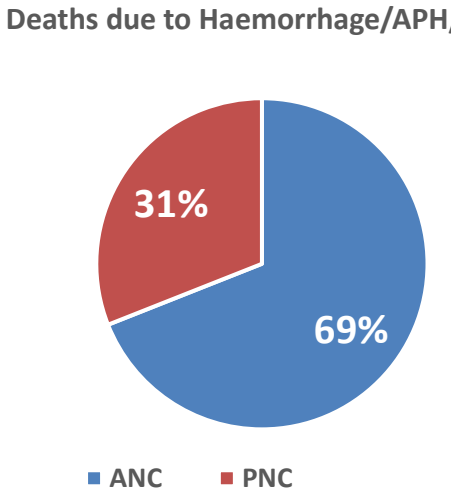

Trend of preventable causes of Maternal deaths (%)
18
16
14
12
10
8
6
4
2
0
17
15
15
13
2018-19
2019-20
2020-21
2021-22
Haemorrhage/APH/PPH

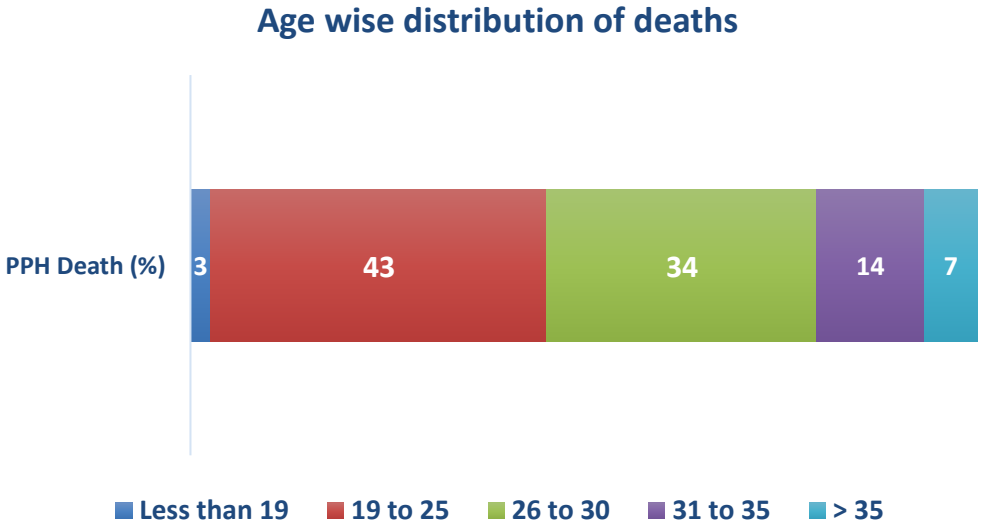
Maternal deaths due to Haemorrhage /APH/PPH (State= 169 , April)





51% of total Maternal Deaths due to Haemorrhage/APH/PPH reported from 6 Municipal Corporations and 3 Districts .





How Much Time Do We Have?

It is estimated that, if untreated, death occurs on average in:

2 hours	from Postpartum Hemorrhage
12 hours	from Antepartum Hemorrhage
2 days	from Obstructed Labor
6 days	from Infection

Thus **Golden Hour** 

First 20 minutes…

PPH means. . .

A Test of-

- Preparedness
- Speed of actions
- Monitoring
- Teamwork &
- Communication/Network

Note:

- Interventions are **not difficult**
- Preventable

Identification of PPH

- Loss of 500 ml or more of blood during delivery and up to 6 weeks after delivery (may be less in anemia)

or

- Blood loss sufficient to cause signs and symptoms of hypovolemia

or

- Woman soaks 1 pad or cloth in <5 min

Causes of PPH

- **Primary/ Immediate PPH**

Occurring during delivery till 24 hours postpartum **4'T's**

- Tone - Atonic PPH - Most common cause (80-90%)
- Tears or trauma
- Tissue - retained or incomplete placenta, membranes
- Thromboembolic - Coagulopathy

- **Secondary/ Delayed PPH**

From 24 hours postpartum till 42 days or 6 weeks

- Infection in the uterus
- Retained placental fragments

Principles of Management of PPH

- Call for additional support
- Manage shock
- Continue uterine massage
- Treat specific causes of PPH
  - Try medical (uterotonics) and conservative management (such as bimanual compression, aortic compression, balloon tamponade) before conducting surgical procedures
- Stabilize patient's condition before referrals
- Referral in cases where needed - continue fluids, uterotonics & temporizing measures to control bleeding **in transit**

Remember that the interval from the onset of PPH to death can be as little as 2 hours, unless appropriate life-saving steps are taken immediately.

PPH: Facts

1. Estimates of blood loss are notoriously low, often half the actual loss.
   - Blood is mixed with amniotic fluid, urine.
   - Dispersed on sponges, towels and linens, in buckets, and on floor.
2. The importance of a given volume of blood loss varies with the ANC Hb level.
   - A woman with a normal Hb level will tolerate blood loss that would be fatal for an anaemic woman.
3. Bleeding can occur at a slow rate over several hours; the condition might not be recognized until the woman suddenly enters shock.

Rapid Initial Assessment

- Airway and breathing
- Circulation (signs of shock)
- Vaginal bleeding
- Unconscious or convulsing
- Fever
- Abdominal pain

Assessment of Blood Loss

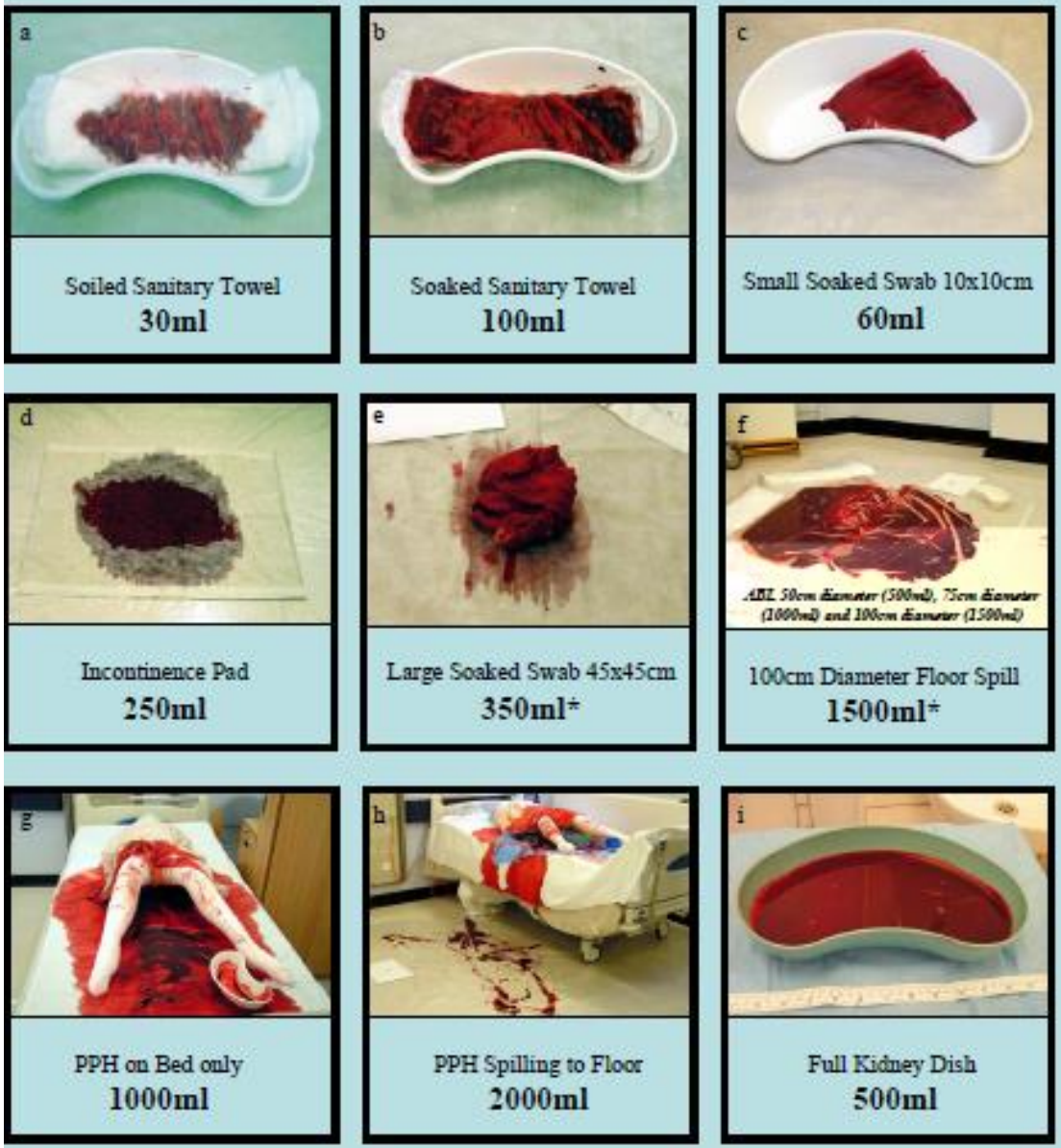
- Recognize APH/PPH by correctly assessing the blood loss.

PR, BP, GC normal	Blood loss upto 1000 ml
PR 100 /min and BP normal	Blood loss can be 1200 ml or more
PR 120/min , systolic BP =< 80 mm Hg, woman is pale, cold, restless and agitated	Blood loss is 1800 – 2000 ml

- Woman with low BMI Blood volume is less
- Severe PE/Eclampsia
- Moderate/severe anaemia

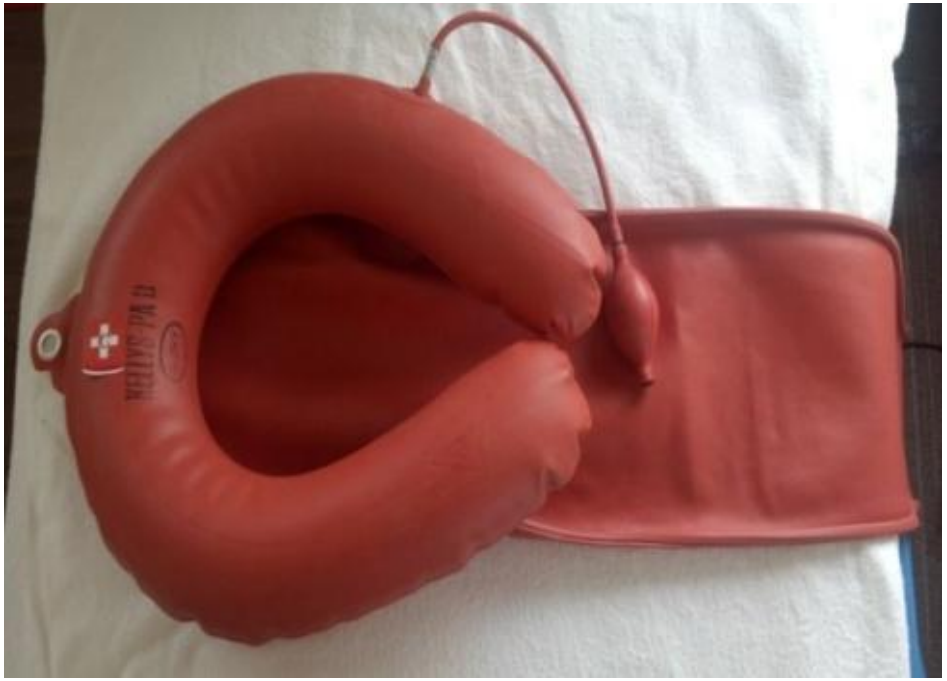
A Pictorial Reference Guide to Aid Visual Estimation of Blood Loss at Obstetric Haemorrhage: Accurate Visual Assessment is Associated with Fewer Blood Transfusions

Dr Patrick Bose, Dr Fiona Regan, Miss Sara-Paterson Brown



Kelly's pad

- The Kelly's Pad is a simple medical device to funnel blood to a collection device.
- Helps to detect postpartum haemorrhage early and accurately.
- The pad is washable and sterilizable.



Classification of hypovolemic shock

Signs	Class I	Class II	Class III	Class IV
Blood loss (mL)	500-1000 15%	1200-1500 20-25%	1800-2100 30-35%	> 2400 > 40%
Pulse/min	Normal	100	120	140
Systolic BP (mm Hg)	Normal	Normal	70-80	60
Tissue Perfusion	No symptoms or signs		Pallor, rapid respiration, restlessness, oliguria, cold skin	Collapse, anuria, Rapid RR (air hunger), cold skin
Mental status	Normal		Agitated response	Confused, agitated, aggressive

The blood loss is replaced by IV fluids.
IV fluids should be given when losses amount to 700mls
Initially give 1 lt in 20 min and decide further fluid requirement based on the vital parameters

Blood Volume 65 ml/Kg

Initial Management of PPH

- Shout for Help: Mobilize all available health personnel
- Evaluate Vital Signs: Pulse, BP, respiration and temperature
- Establish two IV lines with wide bore cannula (16-18 gauge), draw blood for blood grouping and cross matching; catheterize the bladder
- Start rapid infusion using cannula number 16 with Normal Saline/ Ringer Lactate, 1L in 15-20 mins
- Give Inj. Oxytocin 10 IU I/M (if not already given)
- Start Inj. Oxytocin 20 IU in 1000mL RL @ 40-60 drops/min.
- Give Oxygen @ 6-8 L per minute by mask
- Check if placenta expelled ?, uterus tone - manage PPH cause specific
- Monitor vital signs and blood loss (every 10 minutes)
- Monitor fluid intake and urinary output. Catheterize bladder

Volume Replacement

- I/V Fluids -Give 3 mL of fluid for 1 mL of blood loss.
- Only crystalloids (RL, 0.9% NS or Hartman's solution) should be used
- 5% Dextrose and colloids are to be avoided.
  - only 10% maintained in circulation; affects the platelet function and compatibility testing.
- Blood transfusion required if loss > 40% of the patient's blood volume representing 2000-3000mL.
- Fresh frozen plasma, cryoprecipitate and platelet concentrates

Differential Diagnosis of PPH

- Atonic uterus
- Retained placenta
- Tears of cervix, vagina or perineum
- Retained placental fragments
- Ruptured uterus
- Inverted uterus

PPH Management Principles: Cause-wise

4 'T's

Tone	Trauma	Tissue	Thrombin
Uterotonics Pressure- - Aortic - Bimanual - UBT Surgery	Suture Pack	MRP Removal	Blood Blood products

PPH Management Approach

(1) Check **placenta** - Retained complete? Partial ?**=>** Remove

- Expelled **=>** See **uterus tone**

(2)

Uterus contracted**=>** ? Traumatic PPH **=>** Repair

Uterus soft **=>** Atonic PPH **=>** Treat

- Massage uterus to expel clots and feel to see that it is contracted—recheck intermittently
- Examine the cervix, vagina and perineum for tears
- Anticipate the need for blood early, and transfuse as necessary
- Continue close observation and monitoring of blood loss and clinical parameters throughout.

Management of Atonic Uterus

UTERINE MASSAGE AND MEDICINES

- Continue massage uterus to stimulate effective uterine contractions
- If still uterus is relaxed can give other uterotonics like-
  - Prostaglandins (**Misoprostol** or **Carboprostol**) or
  - Methyl ergometrine or its combination with oxytocin
- If other uterotonics fail to respond or if the bleeding may be partly due to trauma, administer Tranexamic acid.

All the while:

- Transfuse blood as needed
- Consider other diagnoses
- Do not pack uterus

Drugs for PPH Management

Drug	Dose and route	Continue dose	Max dose	Precaution and contraindication
Oxytocin	20IU in 1000ml RL/DNS 60 drops/ min IV infusion	IV infuse 20 IU in 1000ml RL/DNS 40 drops/min IV infusion	Not more than 3L of IV fluids containing Oxytocin	Do not give IV as bolus
Ergometrine	IM or IV (slowly) 0.2 mg	Repeat 0.2. mg after 15 min. If required give 0.2 mg IM/IV slowly every 4 hrs	Five dose (Total 1.0mg)	High BP, PE, Heart disease
15- Methyl prostaglandin F2-alpha	IM o.25 mg	0.25 mg every 15 min	8 doses (total 2mg)	Asthma
Misoprostol PGE-1	800 micrograms PR/sublingual	Single dose	Single dose	-
Tranexamic acid	IV (slowly): 1 g	Repeat after 30 minutes if bleeding continues	Not more than 10 mg/kg body wt, 3 to 4 times daily	History of coagulopathy or active intravascular clotting, convulsions

Management of Atonic Uterus

If bleeding continues:

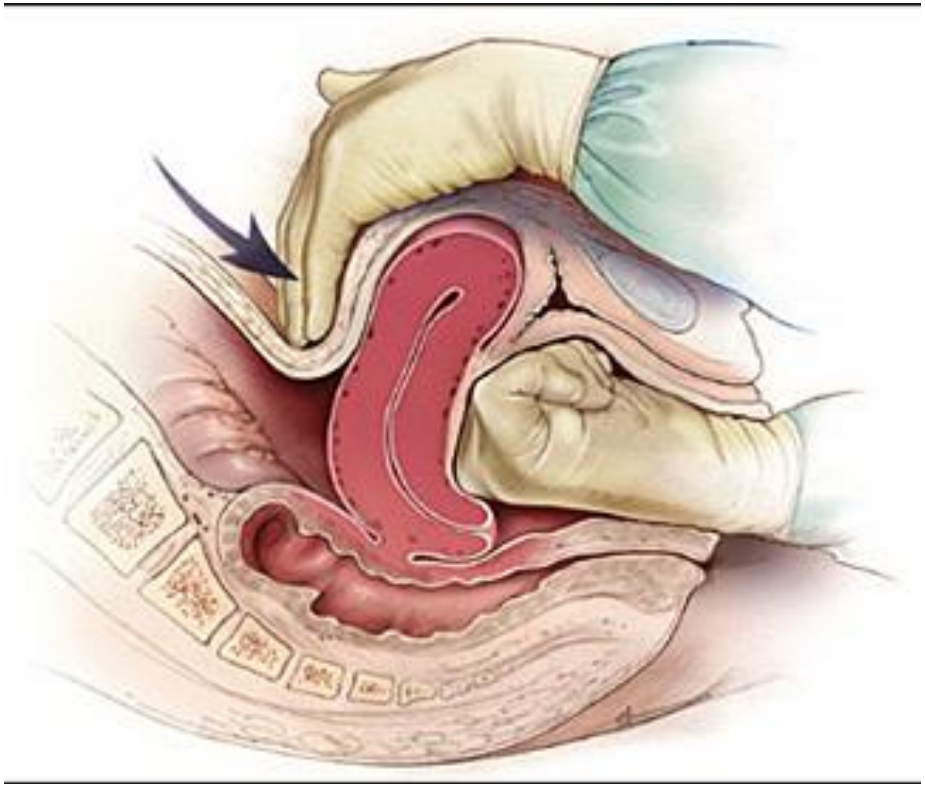
- Check again placenta for completeness.
- If there are signs of retained placental fragments (absence of a portion of maternal surface or torn membranes with vessels), remove remaining placental tissue.
- Assess clotting status using a bedside clotting test. Failure of a clot to form after 7 minutes, or a soft clot that breaks down easily, suggests coagulopathy.

Cause Specific Management: Atonic PPH

- If uterus is still relaxed-
  - Perform bimanual uterine compression/aortic compression as a temporary measure,
  - Perform condom tamponade (at facilities where medical officers available)
- Arrange for transportation to FRU where facilities for blood transfusion and surgery available
- If bleeding is controlled by drugs- repeat uterine massage every 15 min for first 2 hrs, closely monitor vitals, continue oxytocin (total not exceeding 100 IU in 24 hrs)

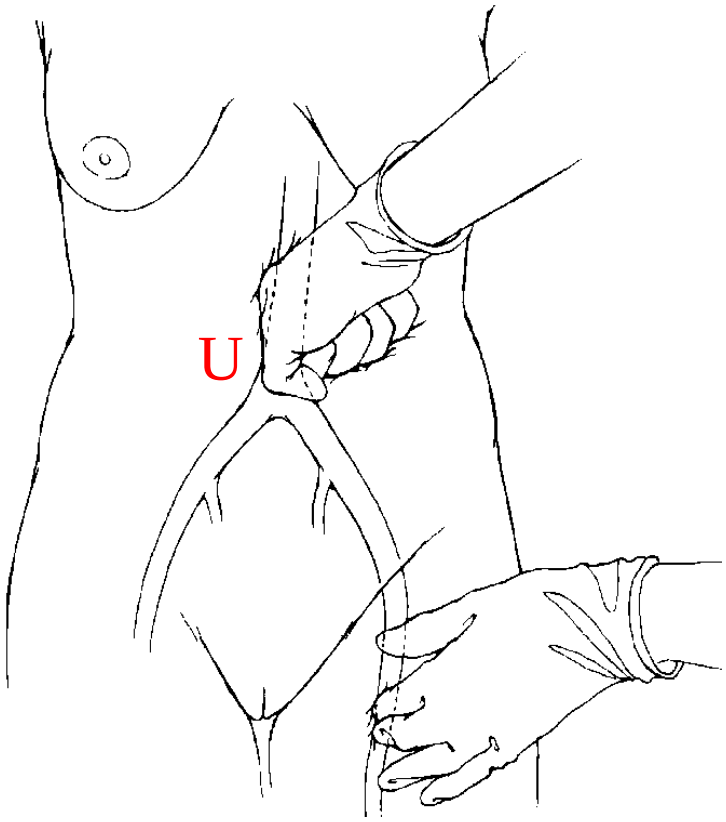
Bimanual Uterine Compression

- Empty urinary bladder with Foley's catheter
- Insert gloved hand in vagina, remove any visible clots from vagina
- Place fist in anterior vaginal fornix and press against anterior wall of uterus
- Place other hand on abdomen behind uterus, pressing against posterior wall of uterus
- Maintain compression until bleeding is controlled and uterus contracts



Compression of Abdominal Aorta

- Apply downward pressure with closed fist over abdominal aorta directly through abdominal wall just above the umbilicus and slightly to the left.
- With other hand, palpate femoral pulse to check adequacy of compression
  - Pulse palpable = inadequate
  - Pulse not palpable = adequate
- Maintain compression until bleeding is controlled
- Life-saving during transit

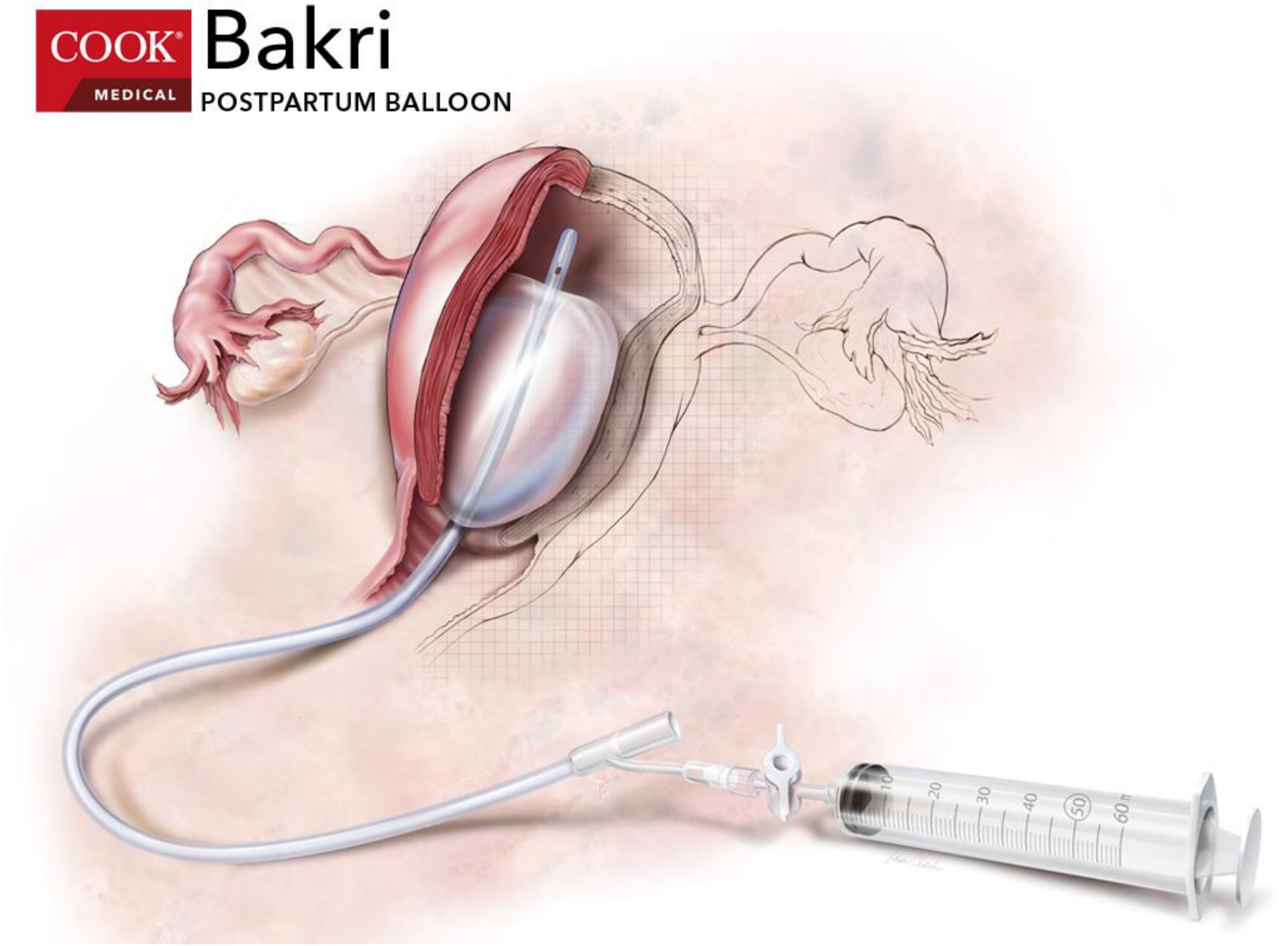


Intrauterine Balloon Tamponade

- If bleeding continues in spite of bimanual and aortic compression, perform intrauterine balloon tamponade (UBT):
- - Bakri Balloon OR
- - Condom balloon tamponade

- **Packing the uterus is ineffective and wastes precious time.**

PPH : Ballooning



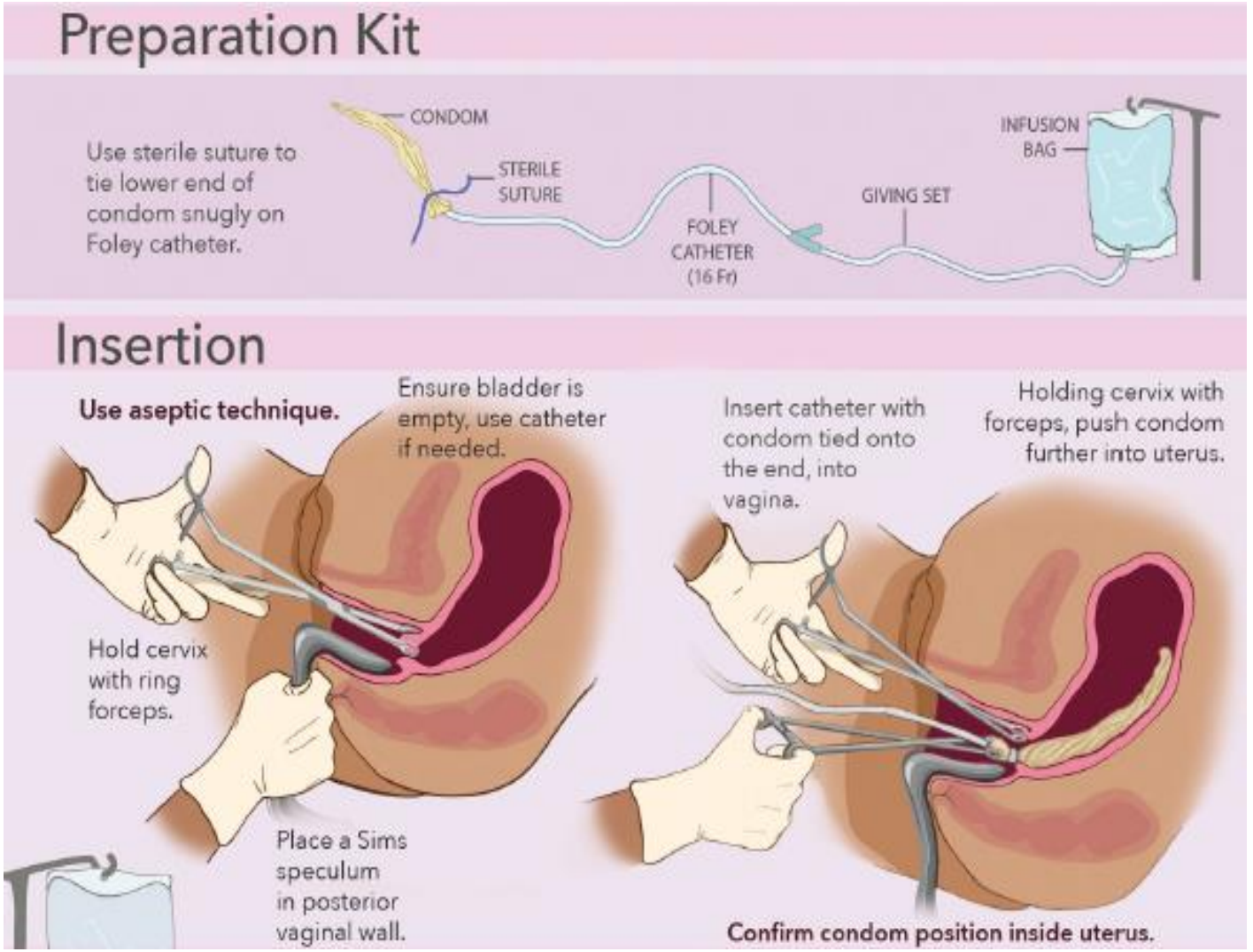
PPH : Ballooning
Condom

PPH : Ballooning
Condom

Condom Tamponade

Insertion:

- Ensure that the bladder is empty.
- Hold cervix with a ring forceps.
- Place a Sims speculum in posterior vaginal wall.
- Insert catheter with condom tied onto the end (tied using sterile suture), into the vagina.
- Holding cervix with forceps, push condom further into uterus.

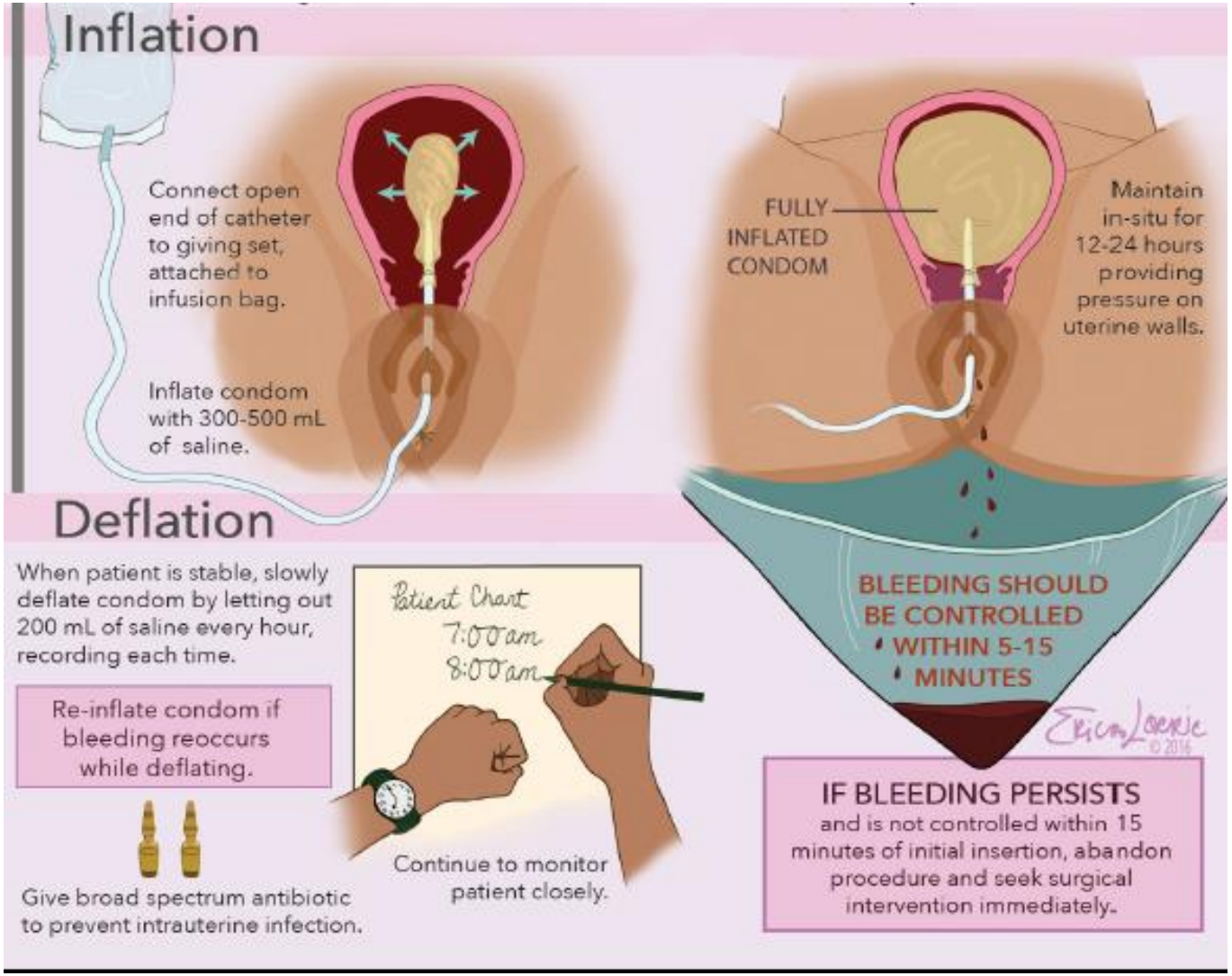


Source: Jhpiego

Condom Tamponade

Inflation:

- Connect open end of catheter to IV set attached to infusion bag & inflate with 300 to 500 ml saline.
- Clamp catheter after inflating.
- Maintain in-situ for 12 to 24 hours.
- Keep bladder empty by indwelling Foley's, put on woman on prophylactic antibiotics.
- Monitor the patient closely.



Source: Jhpiego

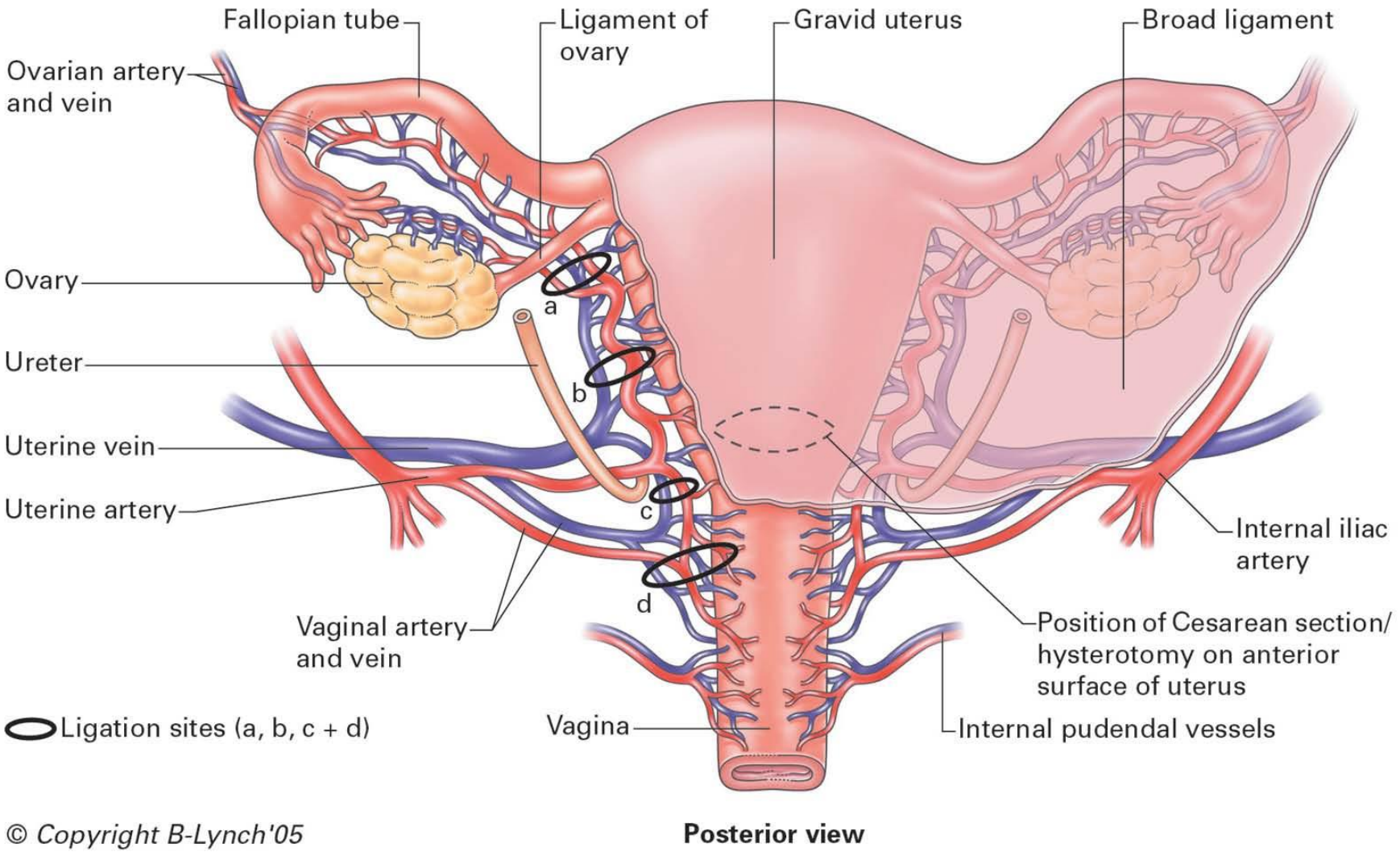
Surgical Interventions in PPH Treatment

- If bleeding does not stop in spite of treatment with uterotonics, other available conservative interventions (e.g. uterine massage, balloon tamponade), and external or internal pressure on the uterus **=>** surgical interventions should be initiated.
- Conservative approaches should be tried first, followed— if these are not successful **=>** by more invasive procedures.

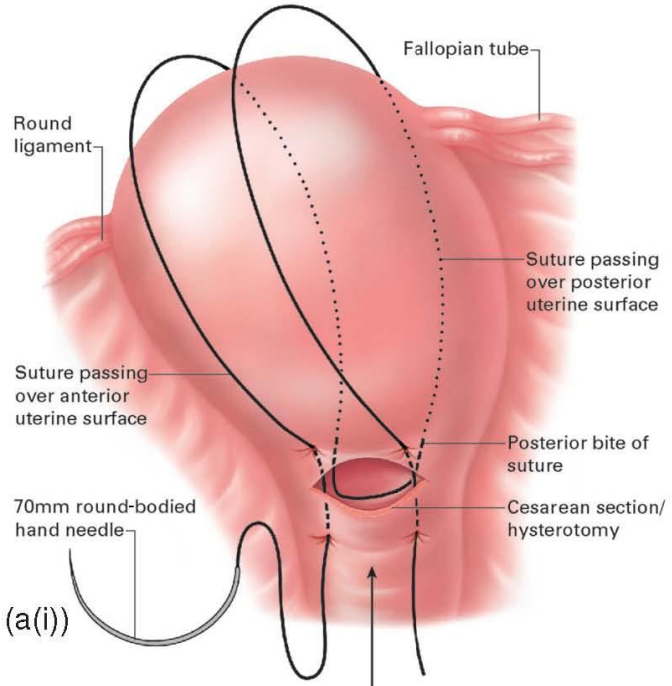
  For example, **compression sutures** may be attempted first; if that intervention fails =>> uterine or **Utero-Ovarian A. ligation** can be tried.
- If life-threatening bleeding continues even after ligation, Subtotal (also called Supracervical) or Total **Hysterectomy** should be performed.

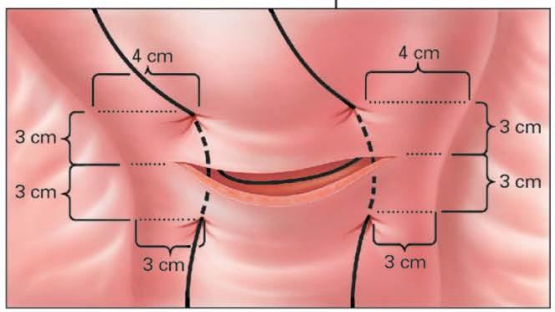
TIMELY DECISION must

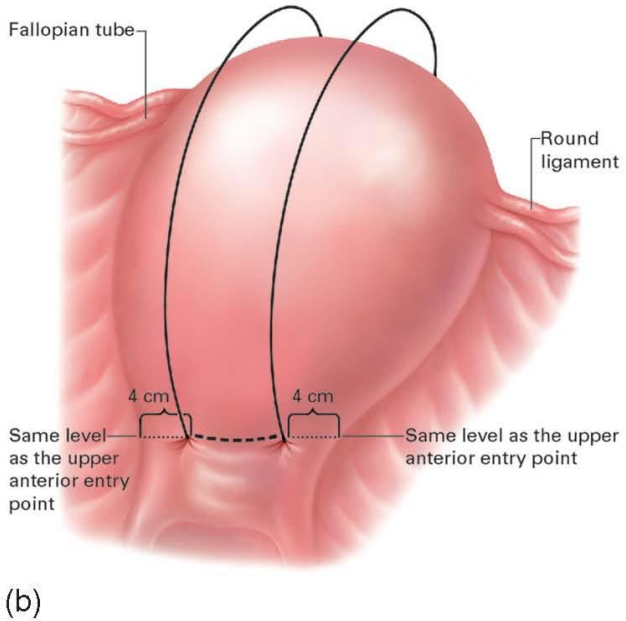
Stepwise Devascularization

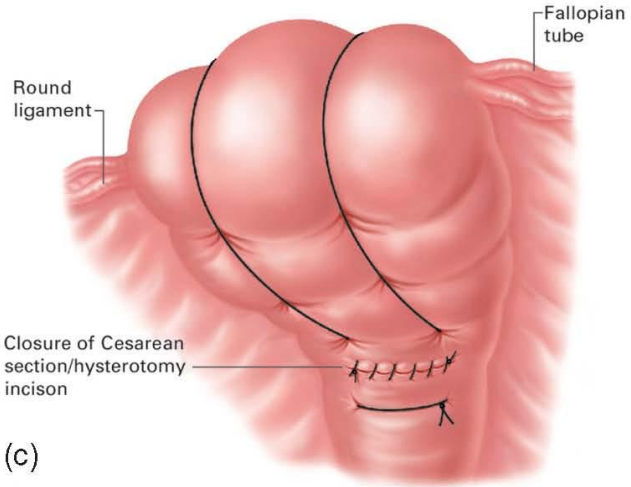


B-Lynch Sutures









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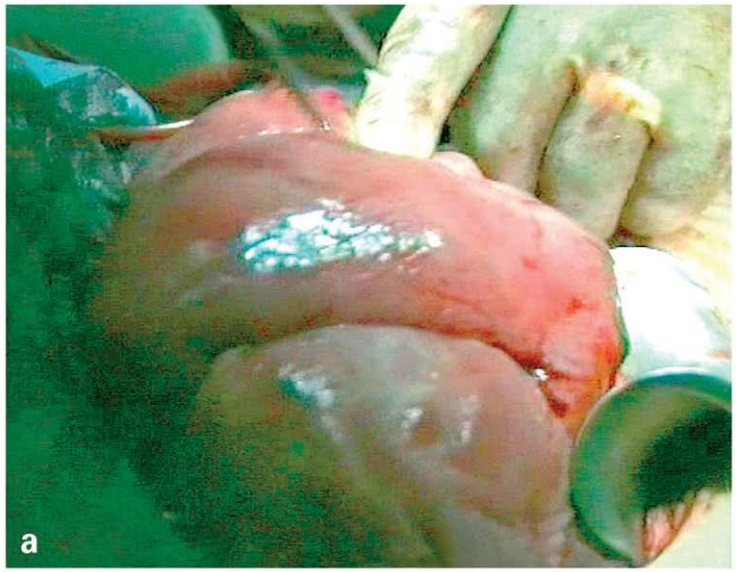
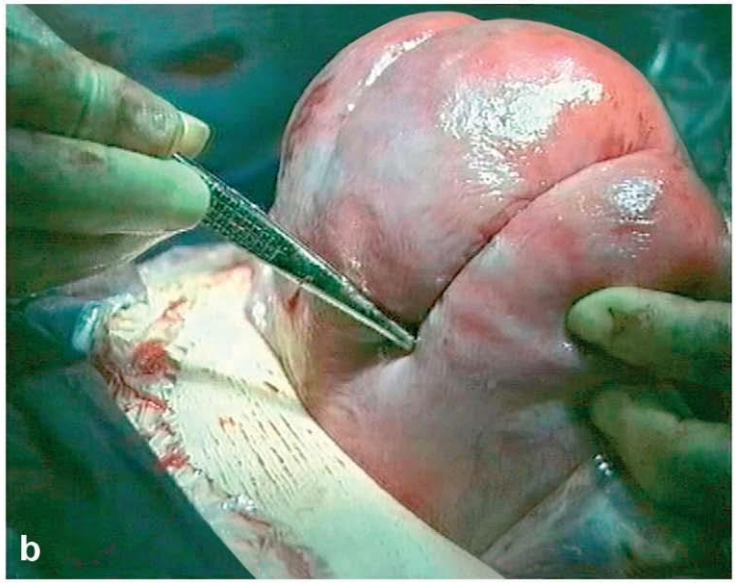
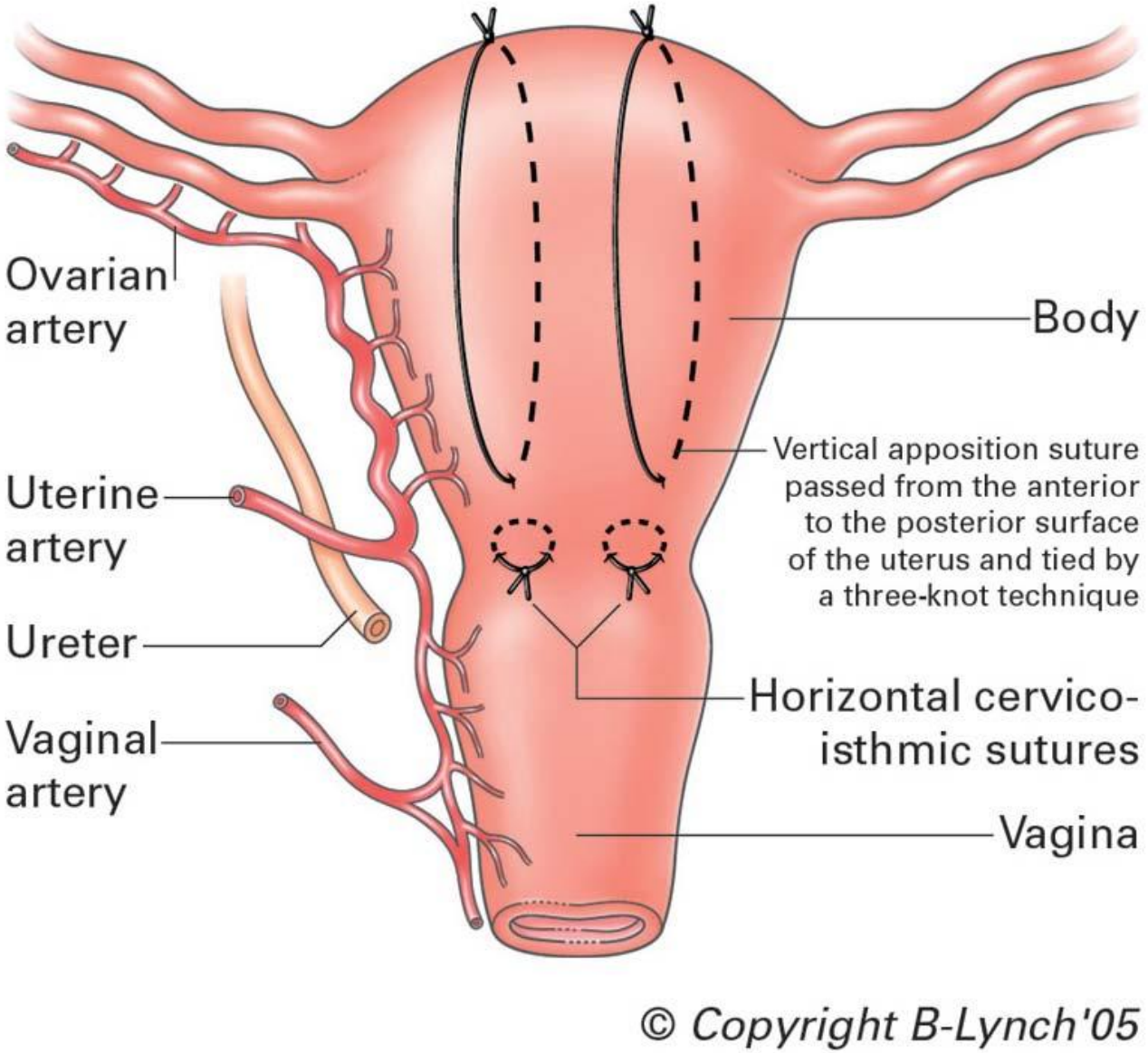
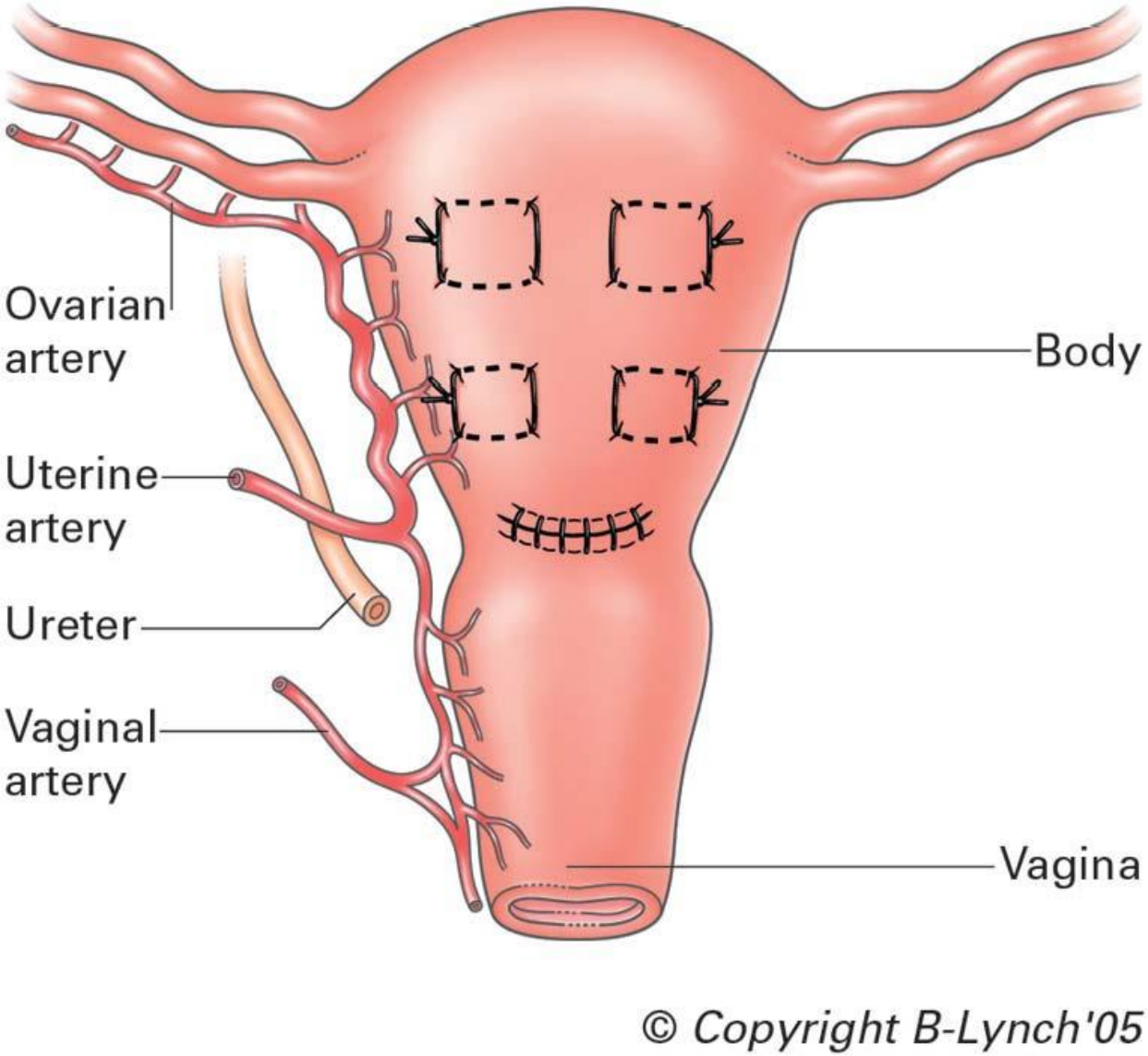




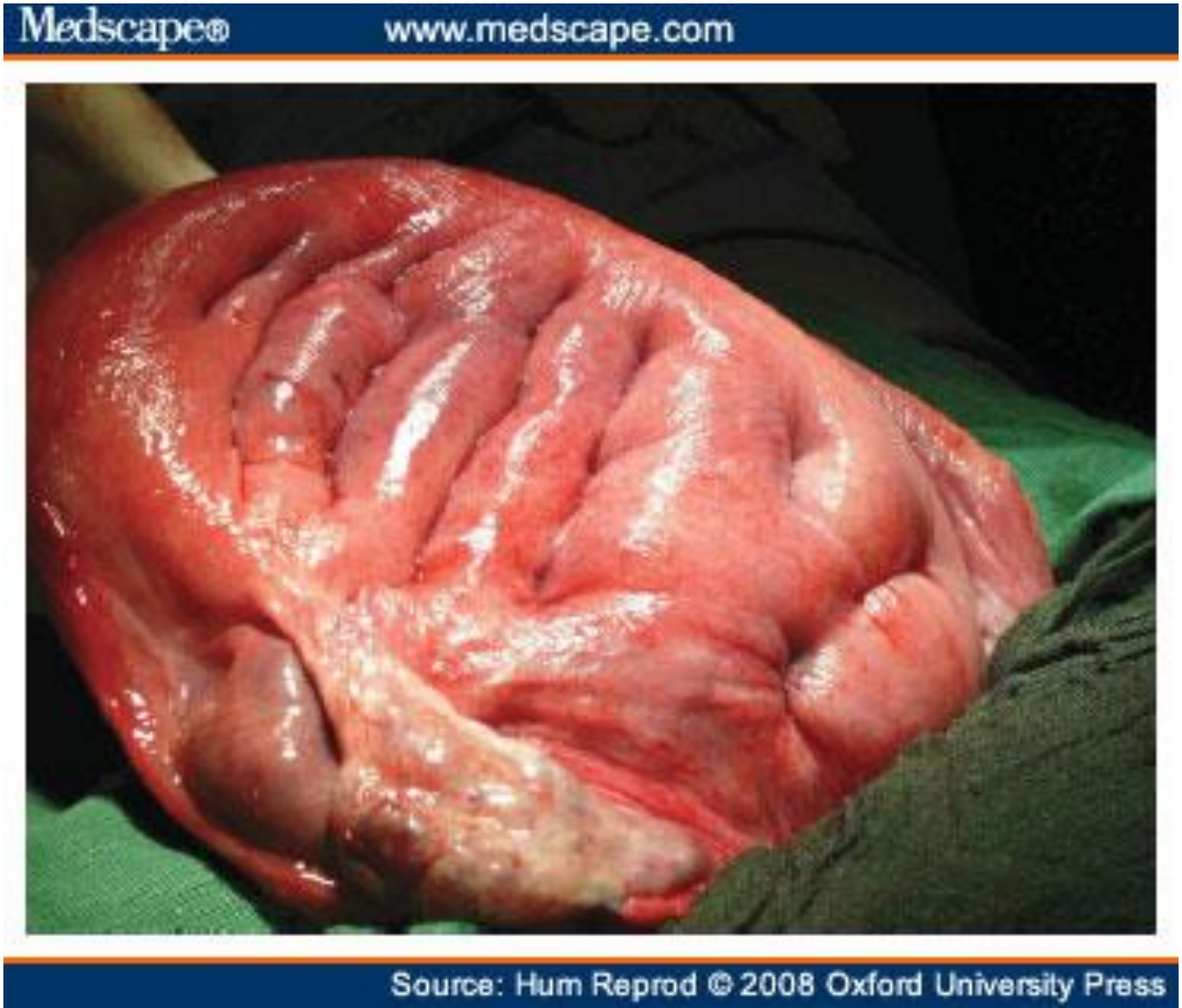
Hayman Sutures



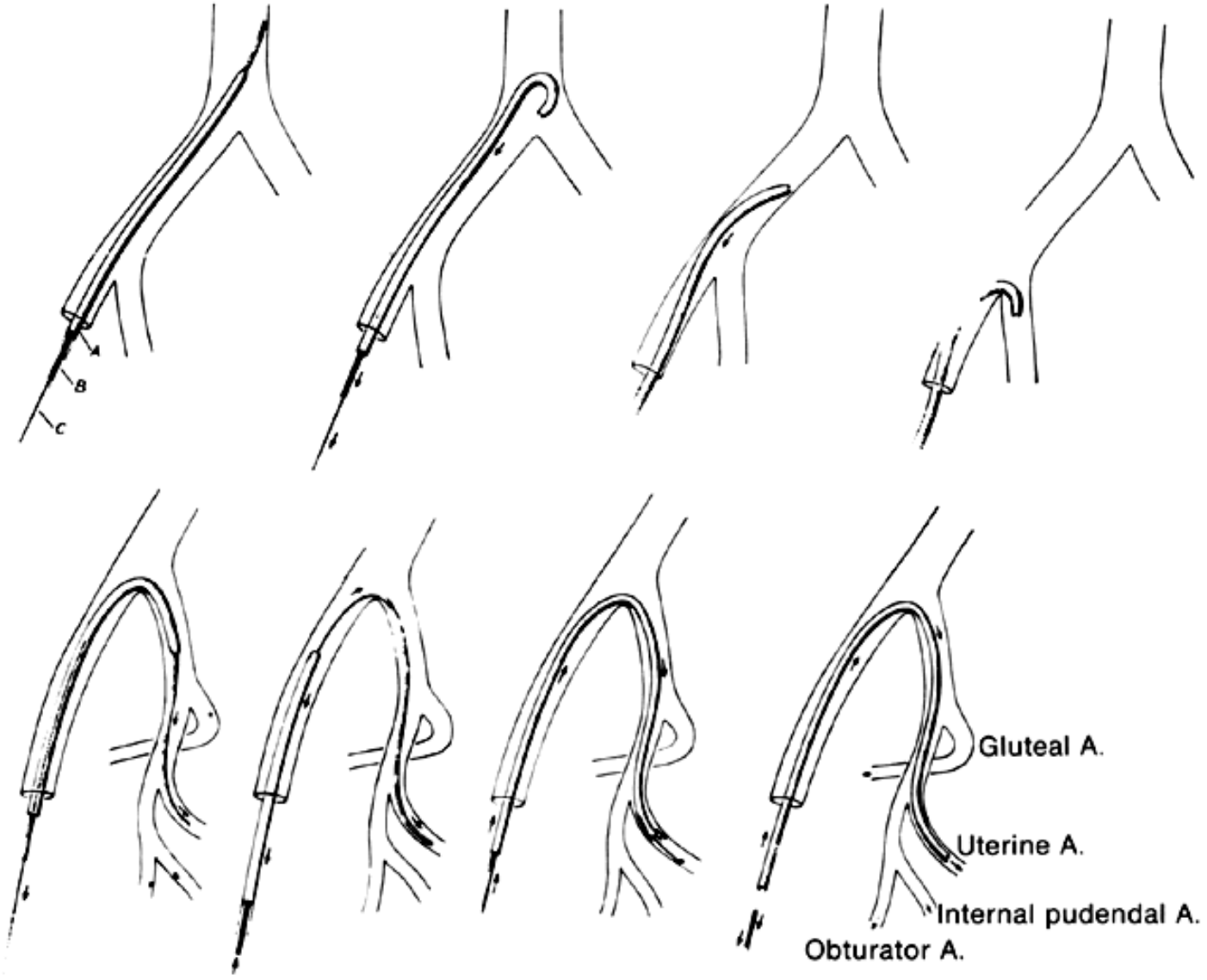
Cho Sutures


Ovarian artery
Uterine artery
Ureter
Vaginal artery
Body
Vagina
© Copyright B-Lynch'05

Haemostatic Sutures



Uterine Artery Embolization



Coagulopathy (Clotting Failure)

- Coagulopathy is both a cause and a result of massive obstetric haemorrhage.
- It can be triggered by abruptio placentae, HELLP, IUFD, DIC, Sepsis and many other causes.
  - The clinical picture ranges from
    - major haemorrhage, with or without thrombotic complications, to a
    - clinically stable state that can be detected only by laboratory testing.

Coagulopathy

- Can be prevented if blood volume is restored promptly by infusion of IV fluids (NS or RL).
- Treat the possible cause of coagulation failure
- Use blood products to help control haemorrhage:

  - Give Fresh Whole Blood, if available, to replace clotting factors and red cells.

  - If fresh whole blood is not available, choose one of the following based on availability:

    – Fresh Frozen Plasma for replacement of clotting factors (15 mL/kg body weight);

    – Packed (or sedimented) Red Cells for red cell replacement;

    – Cryoprecipitate to replace fibrinogen; or

    – Platelet concentrates (if bleeding continues and the platelet count is less than 20,000).

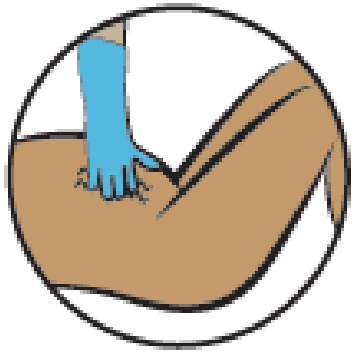
PPH Emergency Response

AMTSL

CALL FOR HELP!

First Response Bundle

Uterine Massage



IV Fluids

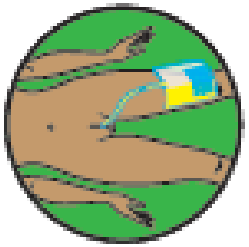
Uterotonics

Tranexamic Acid

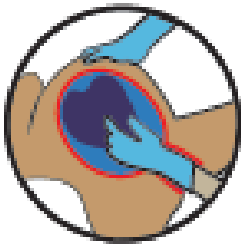
SUPPORTIVE MEASURES

Treat tears

Empty bladder

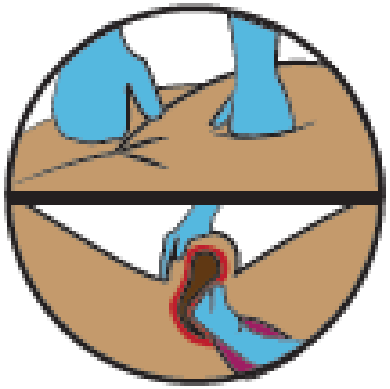


Empty uterus

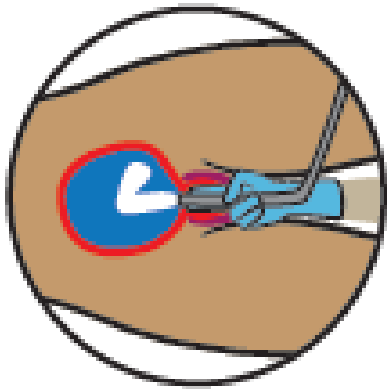


Refractory PPH Interventions

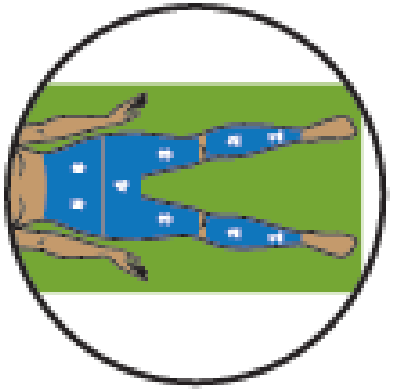
Compression



Uterine Balloon

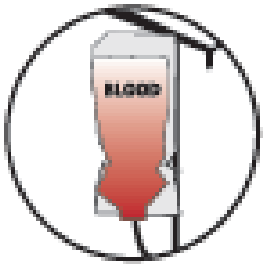


Anti-shock Garment



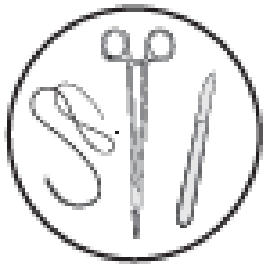
SUPPORTIVE MEASURES

Transfusion



Referral

Surgery



Cause Specific Management: PPH due to Retained Placenta

If placenta is not out with CCT during AMTSL for 30 minutes suspect retained placenta

- Give Inj. Oxytocin 10 IU I/M stat if not given during AMTSL
- Add 20 IU of oxytocin to 1000 ml of Ringer Lactate or normal saline and infuse at the rate of 40-60 drops/minute, No ergometrine/PG
- Ensure bladder is empty; catheterize if necessary
- Arrange for transportation to FRU where facilities for blood transfusion and MRP is available. Arrange for blood donor.
- Give first dose of broad spectrum antibiotics before referral

Do not attempt manual removal of placenta at centers where operative facilities are not available

Management of Retained Placental Fragments

- Feel inside uterus for placental fragments.
- Remove placental fragments by hand, ovum forceps or large curette
- Assess clotting status if bleeding continues

Cause Specific Management: Tears or Trauma

Suspect tears in case of contracted uterus with PPH:

- Look perineum, cervix and vagina for any tears or laceration
- 1st degree PT apply pressure through perineal pads
- 2nd, 3rd or 4th degree PTs or Cx tears. Cover tear with sterile pad, establish IV line , infuse fluids rapidly, raise foot end of stretcher, keep her warm during transportation and refer woman to higher center for suturing
- Place catheter if necessary

All the while:

- Transfuse blood as needed
- Consider concurrent diagnoses if bleeding still heavy

Ruptured Uterus

- Amount and type of vaginal bleeding depends on the uterine site and if rupture involves the bladder;
- vaginal bleeding may be modest, despite major intra-abdominal haemorrhage.
- Bleeding tends to be heavy when the cervix and upper vaginal wall are involved.
- Haematuria may occur if the rupture extends into the bladder.
- Rupture of the lower uterine segment into the broad ligament, however, will not release blood into the abdominal cavity.

Ruptured Uterus: Management

- Restore blood volume by infusing IV fluids (normal saline or Ringer's lactate).
- Immediate laparotomy to facilitate birth of the baby and delivery of the placenta.
- If the uterus can be repaired with less operative risk than hysterectomy (the edges of the tear are not necrotic), repair the uterus. This involves less time and blood loss than hysterectomy.
- If the uterus cannot be repaired, perform subtotal hysterectomy.
- If the tear extends through the cervix and vagina, total hysterectomy might be necessary.

Management of Inverted Uterus

- Act quickly
- Assess clotting status
- Reposition of uterus
- Hold oxytocics until uterus is repositioned
- Give antibiotics as for metritis if signs of infection are present
- Perform hysterectomy if necrosis is suspected

All the while:

- Give IV fluids
- Transfuse blood as needed
- Give pain medication and antibiotics
  - Ampicillin 2 g IV one dose and metronidazole 500 mg IV OR
  - Cefazolin 1 g IV and metronidazole 500 mg IV

Delayed Postpartum Hemorrhage

- Give Inj. Oxytocin 10 IU I/M stat
- Start IV infusion of 20 IU Oxytocin in 1000 ml of Ringer Lactate/Normal saline at rate of 40-60 drops/min
- Suspect infection if fever and/or foul smelling vaginal discharge
- Give antibiotics as per protocol
- The woman must be referred to a functional FRU for care after giving the first dose
  - If severe anemia, to arrange for transfusion and provide oral iron and folic acid
  - To remove large clots and placental fragments if cervix is dilated
  - To evacuate uterus if cervix is not dilated
  - To consider uterine and utero-ovarian artery ligation if bleeding continues

Prevention of PPH is the Most Important Management

- Focussed ANC care
  - Anaemia prevention and early detection & treatment
  - Identification of previous and current co-morbidities
- Ensuring **BPCR**, SBA
- Early identification of prolonged and obstructed labour by partograph. Avoid exhaustion, dehydration.
- Avoiding unnecessary augmentation, fundal pressure and episiotomies
- Controlled head delivery with perineal support
- **Active Management of Third stage of Labour (AMTSL)**
- Checking of completeness of placenta after delivery routinely
- Routine immediate postpartum care & monitoring : 4th Stage of Labour management- Observe vital signs, atony, bleeding and treat

PPH Prevention:
Community Interventions

- Community awareness-BCC & IEC
- Birth preparedness & complication readiness plan (BPCR)
- Promotion of skilled attendant at birth
- Detection & treatment of Anemia
- Misoprostol at Community level

PPH Management: Interventions

Community

- Facility or place of birth
- Skilled provider
- Early detection of danger signs
- Designated decision maker(s)
- Communication
- Emergency transportation
- Emergency funds
- Blood donors

Clinical

- Active triage of emergency cases
- Resuscitation
- Rapid assessment & diagnosis
- Emergency protocol for PPH management
- Basic emergency Obstetric care
  - IV fluid resuscitation
  - Manual removal of Placenta
  - Parental Oxytocics & antibiotics
- Comprehensive EmOC:
  - Blood transfusion
  - Surgery

PPH bundle supporting elements

- Advocacy
- Training
- Teamwork
- Communication
- Use of best clinical practices

प्रसूतीच्या ३ ऱ्या टप्प्याचे सक्रिय व्यवस्थापन

AMTSL

 बाळाची नाळ उशीरा क्लॅम्प करुन कापणे. (**Late cord clamping)**

१) गर्भाशयावर हात ठेवून दुसरे बाळ नसल्याची खात्री करा.

२) बाळंतपणानंतर १ मिनिटात इंजेक्शन ऑक्सीटोसीन (10 I.U) स्नायुतुन दया.(बाळाच्या जन्मानंतरच्या १ मिनिटात हे इन्जेक्शन दिल्यास प्रसूतीपश्चात रक्तस्त्राव खूपच कमी होतो.)

३) बाळाच्या जन्मानंतर १–३ मिनिटांनी (नाळेची स्पंदने थांबल्यावर) नाळेला दोन चिमटे लावून त्याच्या मध्ये नाळ कापा, एक चिमटा योनीमुखाच्या जवळ लावा. अशा उशीरा नाळ कापल्यांमुळे बाळाला अधिक रक्ताचा पुरवठा होतो.

४) गर्भाशयावर हात ठेवून ते कडक झाल्याची (आकुंचन पावले असल्याची) खात्री करा.

५) पुढच्या कळेमध्ये वारेला हळुवार ताण देऊन त्याच वेळी गर्भाशय उलट दिशेने वरच्या बाजूस ढकलून वार खाली येते आहे का ते पहा.

६) वार खाली न येत असल्यास पुढच्या कळेची वाट पहा व हीच क्रिया करुन वारेची प्रसूती करा. या क्रियेला Controlled Cord traction (CCT) असे म्हणतात. नाळेला ताण प्रत्येक वेळी गर्भाशय आकुंचन पावलेले असताना दयावा. ही प्रक्रिया वार बाहेर पडेपर्यंत चालू ठेवावी. (CCT only by skilled birth attendant)

७) वारेची प्रसूती झाल्यावर गर्भाशयास मसाज करा.

८) वारेची तपासणी करुन ती पूर्णपणे बाहेर आल्याची खात्री करा.

AMTSL

९) बाळंतपणाच्या रुग्णपत्रीकेवर खालील नोंदणी करा.

– इंजेक्शन ऑक्सिटोसीन दिल्यावी वेळ.....

– वार पडल्याची वेळ.....

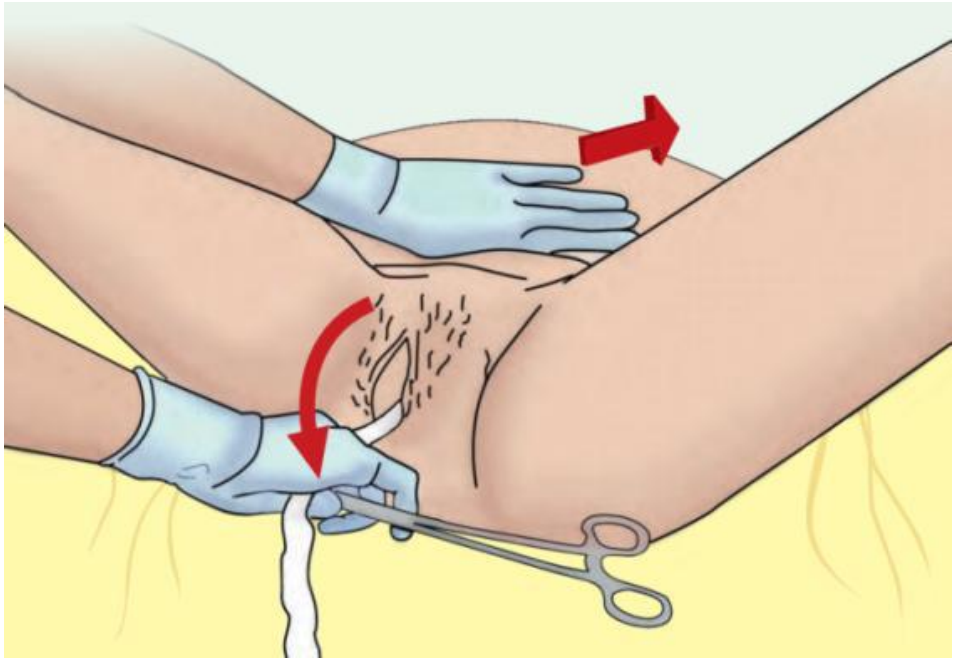
– बाळाला स्तनपान सुरु केल्याची वेळ.....

प्रसूती पश्चात होणाऱ्या ॲटोनिक पीपीएच साठी प्रतिबंधात्मक उपाययोजना

☐ प्रत्येक बाळंतपणानंतर ३ –या टप्प्याचे सक्रिय व्यवस्थापन (AMTSL)

☐ बाळंतपण करताना इंजेक्शन ऑक्सीटोसीन १० युनीटस सिरिंज मधे भरुन ठेवा.

- आकृती
- वारेची प्रसुती (**controlled cord traction**)



बाळंतपणाच्या तिसऱ्या टप्प्याचे सक्रिय व्यवस्थापन

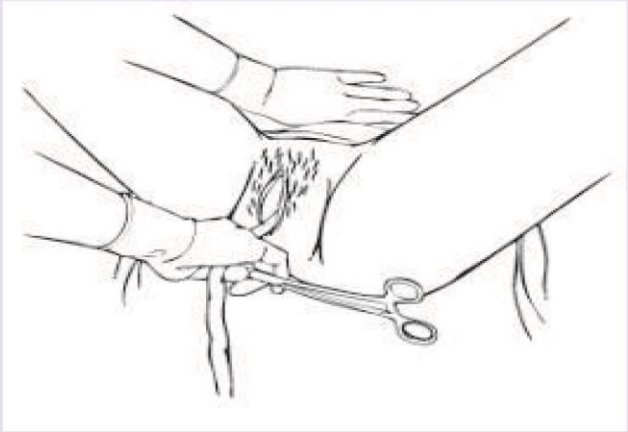
- सर्व प्रकारच्या बाळंतपणासाठी अनिवार्य (स्वाभाविक व सिझेरियन व्दारा)
- अर्भकाचे बाळांतपण झाल्या नंतर दुसरे बाळ नसल्याची खात्री करा.

कृती (१)

बाळंतपणानंतर तात्काळ इंजेक्शन ऑक्सीटोसीन् १० युनिटस् स्नायूमध्ये दयावे.

कृती (२)

- गर्भाशय आकुंचन झाल्यानंतर नाळेला नियंत्रित ताण दयावा.
- नाळेला खालच्या दिशेने नियंत्रित ताण दयावा व त्याच वेळेस डाव्या हाताच्या तळव्याने गर्भाशय बेंबीच्या दिशेने ढकलावे.



कृती (३)

गर्भाशयाला मसाज दयावा, जेणेकरुन गर्भाशय आकुंचित स्थितीत राहील.

PPH Box

प्रसूती पश्चात अतिरक्त स्त्रावाचे व्यवस्थापन करण्या करिता औषध व साहित्याची एका बॉक्समध्ये साठवण करुन ठेवावी. जेणे करुन आकस्मिकता उद्भवल्यास त्याचा वापर करता येईल.(PPH Box)

- 18 No. 2 intracath , Strap
- Sterile syringe –10, 5, 2 ml
- I.V. set 2
- I.V. fluids – 2 pint Inj. Ringer lactate.
- Inj. normal saline 500ml
- Foley's catheter 16 no., uro bag, syringe & distilled water for inflation
- Tab. Misoprostol 200 mcg- 4
- Blood urine sample collection bulb
- Sim's speculum, sponge holders, suture material, scissors
- Sterile gloves , long elbow length sterile gloves
- Sterile sponge – 3
- Sanitary Napkin (2)
- Alcohol swabs, dry swabs,
- Adhesive tape
- Antiseptic solution
- Condom – 2 , Sterile linen, Foley catheter, IV set, Normal saline 500 ml
- Management chart

List of items kept in refrigerator :
Oxytocin – 6 ampoules,
Methyl ergometrine – 2 amp.,
Inj 15 methyl PG F2α –Carboprost 2 amps

प्रसूतीचा चौथा टप्पा : निरिक्षणे

- **प्रसूतीनंतरचे दोन तास अतिशय महत्वाचे असतात.**
- या काळात मातेची दर १५ मिनिटांनी किमान २ तासा पर्यंत तपासणी करा तिची नाडी, जीभेचा पांढुरकेपणा, गर्भाशय कडक लागते आहे ना, योनीतून होणाऱ्या रक्तस्त्रावाचे प्रमाण यांवर लक्ष ठेवा.
- निरिक्षणे खालील तक्त्यामध्ये नोंदवा.

धोक्याची लक्षणे:

- रक्तस्त्राव ५०० मि.लि. पेक्षा अधिक
- नाडी १०० पेक्षा अधिक
- रक्तदाब ९० सिस्टॉलिक पेक्षा कमी

प्रसूतीचा चौथा टप्पा : निरिक्षणे

दिनांक	दर्शक	दर १५ मिनिटांनी माहिती नोंदवावी								
		वेळ								
	नाडीचे ठोके प्रति मि.									
	रक्तदाब									
	श्वसन दर									
	फिकेपणा (चेहऱ्याचा),									
	गर्भाशयाची आकुंचन स्थिती									
	योनी मार्गातुन रक्तस्त्रावे प्रमाण									

प्रसुती पश्चात रक्तस्त्रावाचे व्यवस्थापन

मदतीसाठी हाक द्या- जे आरोग्य कर्मचारी उपलब्ध आहेत त्यांना गोळा करा. तात्काळ मुल्य मापन करा – नाडीचे ठोके, रक्तदाब, श्वसन दर. शिरेतून औषधे देण्यासाठी इन्ट्राकॅथ/ स्काल्पव्हेन शिरेत टाका. १५ ते २० मिनिटात १ लिटर रिंगर लॅक्टेट / नॉर्मल सलाईन द्या. मास्कव्दारे ऑक्सिजन ६ ते ८ लिटर प्रति मिनिट दराने द्यावे. मुत्राशयामध्ये कॅथेटर टाकावे. दर १५ मिनिटाला रक्तस्त्रावाचे प्रमाण व नाडीरक्त दाब श्वसनदर मोजा. शिरेतून दिलेल्या सलाईन व लघवी चे प्रमाण मोजा.

बाळंतपणानंतर इंजेक्शन ऑक्सीटोसीन १० युनिट स्नायूत दिले नसल्यास दयावे.

५०० मिलि. रिंगरलॅक्टेटमधून २० युनिट इंजे.ऑक्सीटोसीन प्रति मिनिटे ४० ते ६० थेंब प्रमाणे दयावे.

वार पडल्याबाबत खात्री करावी.

वार पडली नसल्यास

वार अडकल्याची शक्यता

इंजे. ऑक्सीटोसीन २० युनिट ५०० मि.ली. रिंगरलॅक्टेट मधून प्रतिमिनिट ४० ते ६० थेंब चालू ठेवावे.

रुग्णालयात संदर्भीत करावे

वार पडली आहे

गर्भाशयातील रक्ताच्यागाठी पडण्यासाठी मसाज करा

वार व आवरणाची पूर्णपणे पडल्याबाबत तपासणीकरा.

पूर्ण असल्यास

गर्भाशयाची पिशवीची स्थिती पोटावरुन तपासून पहावे.

गर्भाशयाची पिशवी आकुंचित/ टणक असल्यास(जखमेमुळे रक्तस्त्राव)

योनी मार्गात पॅकिंग करावे व रुग्णालयात संदर्भीत करावे.

इंजे. ऑक्सीटोसीन २० युनिट ५०० मि.ली. रिंगरलॅक्टेट मधून प्रतिमिनिट ४० ते ६० थेंब चालू ठेवावे.

गर्भाशय मऊ (अटोनिक प्रसुती पश्चात रक्तस्त्राव)

गर्भाशयाला दोन्हीबाजूने दाब दयावा.

इंजे.ऑक्सिटोसीन २० युनिट ५००मि.ली आर.एल. डी.एन.एस मधून दयावे.

गर्भाशयाच्या आकुंचनासाठी इंजे. मेथेरजीन किंवा टॅबलेट मिझोप्रोस्टॉल व्यावे.

रक्तस्त्राव चालू असल्यास

संदर्भीत करावे

पूर्ण नसल्यास

इंजे. ऑक्सीटोसीन २० युनिट ५०० मि.ली. रिंगरलॅक्टेट मधून प्रतिमिनिट ४० ते ६० थेंब चालू ठेवावे.

रुग्णालयात संदर्भीत करा

Key Messages

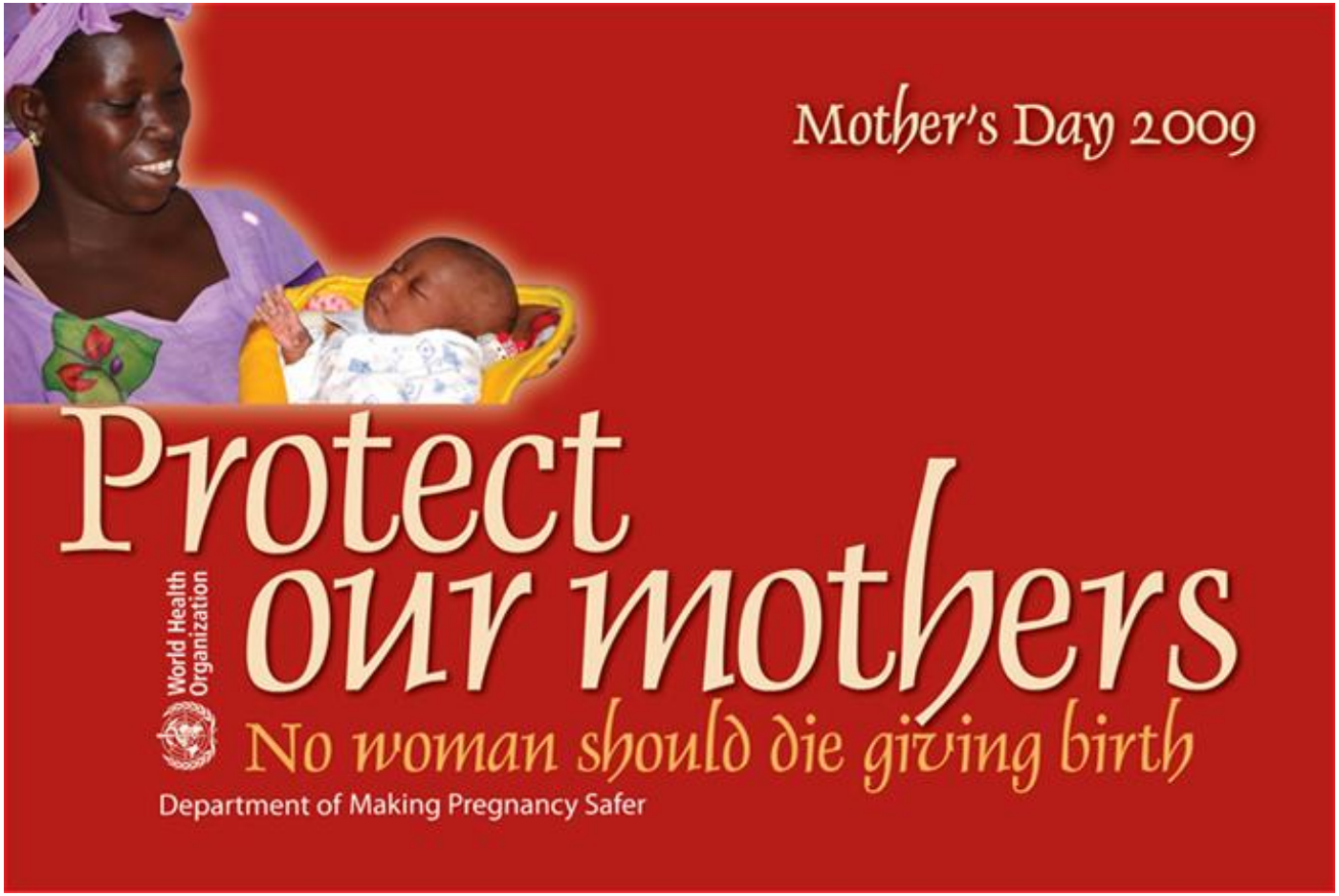
- PPH is the most important causes of maternal deaths
- 70% chances of PPH can be prevented by doing AMTSL for every delivery
- Deaths from PPH can occur within 2 hours of its occurrence, so timely identification, management and/or referral is very important
- If the woman is in shock, manage it and stabilize her on priority then manage PPH according to the cause
- Major cause of PPH is due to atonic uterus which can be prevented by AMTSL and early initiation of breastfeeding
- Secondary PPH is mainly due to infection of uterus so apart from PPH management, antibiotics will be required in such cases if the woman has fever and foul smelling lochia.

Implementing a Rapid Initial Assessment Scheme

- Need of immediate attention from a health worker for Obst. Emergencies- Recognition, treatment
- Train ALL staff to react in agreed upon fashion when woman arrives at facility with obstetric emergency or pregnancy complication
- Practice clinical drills or emergency drills with staff to ensure readiness at all levels

Implementing a Rapid Initial Assessment Scheme (contd.)

- Ensure that an emergency trolley with equipment, medications and supplies is accessible. Equipment is in working order and staff is properly trained to use it.
- Develop norms and protocols to distinguish a real emergency and how to react immediately
- Clearly identify women who need prompt or immediate attention


Mother's Day 2009
Protect our mothers
World Health Organization
No woman should die giving birth
Department of Making Pregnancy Safer

Thank You