Maidstone and Tunbridge Wells NHS Trust

Ref: FOI/GS/ID 3950

Please reply to:
FOI Administrator
Trust Management
Service Centre
Maidstone Hospital
Hermitage Lane
Maidstone
Kent
ME16 9QQ
Email: mtw-tr.foiadmin@nhs.net

08 May 2017

Freedom of Information Act 2000

I am writing in response to your request for information made under the Freedom of Information Act 2000 in relation to the Frances Cappuccini inquest.

I *would like to make a Freedom information request for the following;*

1) the Response made to the Regulation 28 Report ('Report to Prevent Further Deaths') relating to the inquest Frances Cappuccini sent to Maidstone and Tunbridge Wells NHS Trust by senior coroner Roger Hatch on 27 January 2017.
For reference, the PFD report reference on www.judiciarygov.uk is 2017-0020.

OR

2) where the coroner has granted an extension to the Trust to receive a response, the new date that the PFD Response is required by.

The PFD response was due on 24 April 2017. The Trust sent its response on 31 March 2017. A copy of the letter and relevant attachments is given below.

Maidstone and Tunbridge Wells NHS Trust

31st March 2017

Glenn Douglas
Chief Executive
Maidstone and Tunbridge Wells NHS Trust
Maidstone Hospital
Hermitage Lane
Maidstone, ME16 9QQ

Telephone: 01622 226419
E-mail: glenn.douglas@nhs.net

PRIVATE & CONFIDENTIAL

Mr Roger Hatch
North West Kent Coroners Officers Office
The Old Town Hall
High Street
Gravesend
DA11 0AZ

Sent via email & post: NWKCoroner@kent.gov.uk

Dear Mr Hatch

Re: Regulation 28 Report to Prevent Future Deaths following the inquest of Frances Cappuccini who died at Maidstone Hospital on 12 October 2012.

I am writing to respond to the concerns you raised during your investigation into the death of Frances Cappuccini, and to explain the actions that Maidstone and Tunbridge Wells NHS Trust has taken in order to address those concerns.

1) **What action is taken to check and ensure no part of the placenta remains following a caesarean section delivery?**

The standard practice for checking full removal of the placenta during a caesarean section delivery is as follows:

The Obstetrician performing the caesarean section inspects the uterine cavity and swabs it out prior to closure.

The Midwife inspects the placenta itself once removed – noting its appearance in the healthcare records – and determines if it looks intact. Each placenta is different in terms of shape and size, which makes this a challenging task, but if the Midwife has any concerns regarding the appearance of the placenta these are immediately escalated to the Obstetrician conducting the surgery for further investigation and exploration of the uterine cavity.

Once the caesarean section is completed, patients are initially monitored in Recovery before they are transferred to the Ward. Observations and vaginal blood loss are monitored closely and recorded in the healthcare records. Patients with significant blood loss (1500mls or above) remain on the Delivery Suite until their Haemoglobin (HB) is rechecked and observations remain stable. HB is a protein in red blood cells that carries oxygen throughout the body – by monitoring the level of HB we can quickly identify a lower level which might indicate complications that need to be investigated. By performing these checks

immediately after the surgery this affords patients prompt access to Obstetric and Anaesthetic input if needed.

We acknowledge, with regret, that this process was not successfully followed in Mrs Cappuccini's case, however in the intervening years since this tragic incident all of our Obstetricians and Midwives have completed several rounds of annual training (theoretical and practical) to ensure that they are as qualified and experienced as possible to ensure better outcomes in the future.

Post-Partum haemorrhage (PPH) is a common occurrence in child birth, however due to the robustness of our processes and the additional training and support provided to staff, our outcomes are positive. Just three-weeks ago in our weekly Trust-wide newsletter I was able to praise the hard work of the entire team involved in providing care to a woman in our care which ultimately saved her life. The woman had suffered significant PPH after the caesarean section delivery of her baby but the volumes of blood loss were higher and over a more prolonged period that would be expected. The professionalism of the whole team involved in her care – from administrators, Porters, Haematology, Anaesthetics, Neonatal, Theatres, ITU, Obstetricians and Midwifery - meant that both mother and baby were stabilised and discharged home. We are a Trust that prides itself on learning, and so we are preparing a report on the case to be shared internally and externally as an example of good practice.

2) **The protocol for the management of post-partum haemorrhage was not followed by the medical staff. What procedures have been instigated to avoid this happening again.**

We ensure that all staff involved in providing care to patients who are at risk of suffering a Post-Partum haemorrhage (PPH) have read the Post-Partum Haemorrhage Protocol, and they sign a compliance slip to confirm this which is recorded within the department.

Although all staff have read the protocol, we find that the most effective way to ensure that protocols are followed is to imbed them in the day-to-day practice of our staff, so the required action becomes 'second nature'.

The PROMPT method of training (Practical Obstetric Multi-Professional Training), which is a training programme run in maternity units across the country, incorporates the management of a range of Obstetric emergency situations with interactive drills and workshops to provide 'hands on' experience of practical skills and decision-making. The components of team working, including training for communication in an emergency, feature throughout the course. In the training sessions, which are attended by multidisciplinary groups of staff, each member of staff plays the role in the training scenario that they would play in a real situation.

PROMPT training supports the development of the technical skills required in an emergency and also the development of non-technical skills, such as effective communication, calling for help effectively, team working, making the best use of the resources available, and delegation. The training is modified

to target any trends that have been identified in incident analysis. The Anaesthetic scenarios that we use are varied from year to year so that they are relevant and tailored to the particular training needs identified. The scenarios we use include the types of problems that were encountered in the care of Mrs Cappuccini, and examples of the training scenarios are enclosed.

All Obstetricians, Midwives, Operating Theatre Practitioners and Anaesthetists who have a regular commitment to the Delivery Suite are required to attend mandatory PROMPT training annually. The relevant policies and guidelines are discussed as part of the training. Staff are reminded of any recent changes or updates to policies and guidelines and they are provided with further information about those changes. The attendance at training is recorded centrally and reviewed at annual appraisal and as staff approach the expiration date of their training, they and their managers receive a reminder via NHS email from our Learning and Development team to complete the training.

Within the Obstetric department, massive PPH is reviewed at the weekly risk review and staff receive regular feedback and guidance on best practice at monthly Clinical Governance sessions, through doctors' newsletters and maternity risk updates.

In addition to the PROMPT training, the Trust also offers high fidelity simulation training for Obstetricians, Midwives and Operating Theatre Practitioners, and live emergency drills are run on the Delivery Suite when acuity allows. An example of this training is enclosed.

On 22 March 2017 we also ran a joint Clinical Governance session with Obstetrics and Anaesthesia and Mrs Cappuccini's case (including inquest outcome and department reflections) was presented to a cross-section of staff – Consultants, Junior Doctors, Nurses, Midwives and Operating Theatre Practitioners. The session was well received and promoted much discussion and reflection, with suggestions for best practice shared across the two Directorates.

We are always seeking to improve our service and minimise patient harm, and to that end we constantly review our processes, training and documentation. In light of the potential issues regarding drug use in PPH cases, our Pharmacy team have created a new guidance document for staff (copy enclosed). The Obstetric department is also reviewing fluid replacement at PPH, and undertakes yearly audits regarding PPH documentation including the regular review of the PPH Proforma to ensure it meets the needs of staff in the time critical situations they work in. The latest version of the PPH Proforma, which includes a new section for recording fluid input and output in theatre, is enclosed for your information.

3) **Supervision - What action has been taken to ensure that staff grade anaesthetists are supervised and that both the staff grade and supervisor are provided details of the respective identities of the parties involved?**

All Anaesthetists have an electronic rota app on their phones and can identify who is the staff grade on for Labour Ward and who is the consultant covering.

The rota has a simple, easy to understand format which shows that during day time hours Monday to Friday the staff grades are supervised by the Consultant Anaesthetist covering the Labour Ward and out of hours by the Consultant Anaesthetist on call. There is a policy within the department that in the unlikely event that the consultant covering Labour Ward is not contactable then the junior staff are to phone an alternative consultant - this would be the intensivist on call, the Anaesthetist or intensivist covering Maidstone hospital and failing that, the Clinical Director.

All staff grade and trainee Anaesthetists understand that they are in supervised roles, as this is detailed within their job descriptions and in their induction packs. This information is also included within the induction packs for locum staff so they are aware of supervision arrangements and how to contact key personnel in an emergency.

4) **What steps have been taken to avoid there being delays in a request for urgent help for an intensivist/anaesthetist.**

There is now a Consultant Anaesthetist who exclusively provides cover for the elective caesarean section list. This means that the Consultant Anaesthetist on duty for the Delivery Suite has no other duties and is free to attend emergencies. Consultants are on site between 8am-6pm and on call outside of these hours.

The Anaesthetic and Obstetric departments, as well as switchboard, have access to a real-time electronic rota for the Anaesthetic department. There is also a weekly paper rota kept on Delivery Suite, and consultants add their name and bleep number to the whiteboard in the Labour Ward handover room. Additionally, the rotas are emailed out weekly to all senior staff and Delivery Suite Band 7 Midwives.

The rota now also incorporates the informal terms for the on-call Consultant Anaesthetist at Tunbridge Wells Hospital (‘the Man in Blue') and at Maidstone Hospital (“the Man in Red”) and all staff identified on the rota carry a mobile telephone and can be contacted either directly or via the Trust switchboard.

Maidstone and Tunbridge Wells NHS Trust

I would also add that the PROMPT training that staff working in the Delivery Suite undergo, provides greater assurance that staff have the awareness and confidence to identify the situations in which assistance should be requested.

5) **The inquest showed a number of examples of inadequate note keeping at the hospital – what actions have been taken to ensure this is not repeated in the future.**

Documentation training underpins core training for nurses, doctors and allied health practitioners at all levels within the organisation. All staff are aware of the importance of clear, and contemporaneous record keeping and the balance that must be struck between this obligation and the immediate care and treatment to be provided to our patients.

All staff undergo annual training which includes aspects of documentation within their departments, as well as the Trust-wide mandatory Information Governance training. The Trust Legal Services department also runs an update training programme which delivers training at departmental Clinical Governance, to Foundation Year (FY) 1 and FY2 doctor training days, and as part of the mandatory clinical update training and the nurse leadership training programme.

We continually review the documentation to be completed in addition to noting in the healthcare records, to ensure they are easy to use in the highly-pressurised situations in which our staff work.

We also undertake regular clinical audits on documentation. These audits can be local to each department - based on the challenges identified through previous audits or incident investigations - as well as the formal national audits we are obliged to conduct.

I want to thank you for taking the time to bring your concerns to my attention, and I trust that this response is to your satisfaction.

Yours sincerely

Glenn Douglas
Chief Executive

Enc:

1. Example training materials
2. Pharmacy guidance
3. PPH Proforma

Enc.1

Obstetric Haemorrhage

PROMPT
Making Childbirth Safer, Together

Current Policy

Available on Q-Pulse:-

- Obstetric Haemorrhage 2011

PROMPT
Making Childbirth Safer, Together

Obstetric haemorrhage

- Haemorrhage is the leading cause of maternal death worldwide
- Accounts for 50% of maternal deaths globally:
  - Approximately 250 000 deaths from haemorrhage per year
- UK deaths from haemorrhage are now rare:
  - Maternal mortality rate of 0.39 per 100 000 births
  - Previously 0.85 per 100 000 in 2000–2002 report
  - Nine direct deaths in UK between 2006 and 2008
  - Sixth leading cause of direct maternal deaths in UK

PROMPT
Making Childbirth Safer, Together

Not all good news in the UK…

- ‘Major substandard care’ in over 50% of women who died:
  - Lack of early senior multi-professional involvement
  - Lack of close postoperative monitoring
  - Failure to act on signs and symptoms
  - Inadequate use and interpretation of maternal obstetric early warning score charts
- The incidence of major obstetric haemorrhage is increasing
  - 3.7 per 1000 births

PROMPT
Making Childbirth Safer, Together

Uterotonics used at MTW

Drug	Dose	Comment
Syntometrine	Active 3rd stage	
Ergometrine	500 micrograms IV	Direct into vein or cannula
Syntocinon	10 units IV	Given Slowly
Syntocinon infusion	40 units in 500 ml Hartmans Soultion over 4 hours (125mls hour)	Will not initiate uterine contraction, but may maintain it

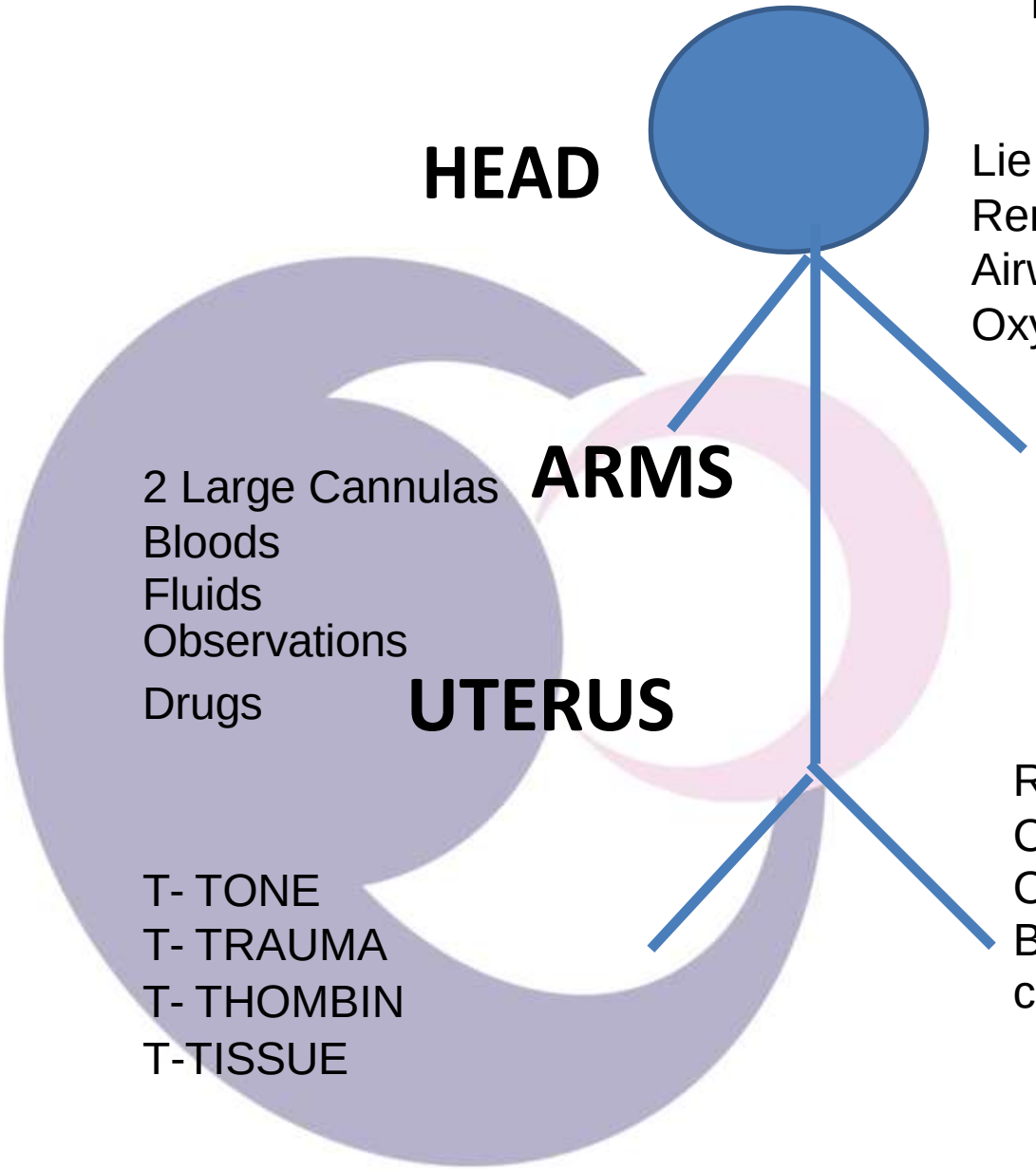
PROMPT
Making Childbirth Safer, Together

Uterotonics

Drug	Dose	Comment
Carboprost/ Haemobate	250 micrograms IM At least 15 minutes between doses To a maximum of 8 doses	Contraindicated in severe asthma SE – pyrexia & diarrohea
Misoprostol	800 micrograms PR	Less effective than carboprost Side effects: pyrexia and diarrhoea

PROMPT
Making Childbirth Safer, Together

MANAGEMENT



HEAD

Lie Flat
Remove bed head
Airway
Oxygen

ARMS

2 Large Cannulas
Bloods
Fluids
Observations
Drugs

UTERUS

Rub up contraction
Check for trauma
Catheter
Bi-manual compression

T- TONE
T- TRAUMA
T- THOMBIN
T-TISSUE

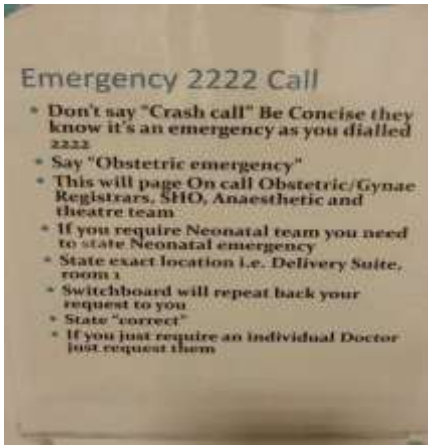
PROMPT
Making Childbirth Safer, Together

Need Staff

Call 2222

Don’t say “Crash Call” The operator knows its an emergency as you have dialled 2222

Say **OBSTRETIC EMERGENCY**
This will bleep On call Obstetric/Gynae Registrars, SHO, Anaesthetic and theatre team.
If you require Neonatal team you need to state NEONATAL EMERGENCY



Sate exact location i.e Delivery Suite room 1
Switchboard will repeat back your request to you
State “Correct”
If you just require an individual Doctor just request them

PROMPT
Making Childbirth Safer, Together

Need Blood

Massive Obstetric Haemorrhage: CODE RED; defined as haemorrhage> 1.5 litres and approaching 2.0 litres and ongoing. The massive haemorrhage trigger phrase used should be **CODE RED** and would cover both ante- and post partum haemorrhage, besides haemorrhage secondary to obstetric operative delivery/ intervention.

CODE REDDIAL 2222
STATE CODE RED (i.e Obstretic theatre Delivery Suite)
Switch board will fast bleep the transfusion Lab and the emergency porter

The Lab will be on standby wating for you to contact them extention 35550. Have name DOB patient's hospital number & name of designated person for them to liaise with.
The porter will attend to location of the code red and await your instruction.

They will supply you with an initial 4 units of RBC and 4 units of FFP. Unless otherwise directed they will then start to prepare a further 6 units of RBC and 4 units of FFP and also order platelets.

Cardiac Arrest

- **Cardiac Arrest**
- Dial 2222
- You should state either **ADULT** or **NEONATAL**
- Cardiac arrest or peri-arrest
- Delivery Suite Level 2 Tunbridge Wells Hospital
- Await conformation from the operator before disconnecting

PROMPT
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Remember

- Close postoperative monitoring
  - MOEWS charts
  - Fundal height and PV loss
- Act on signs and symptoms
- Early senior multi-professional involvement, including haematologists

PROMPT
Making Childbirth Safer, Together

Estimated blood loss Aide Memoire

Small swab:
50ml

Medium swab:
100ml

Large swab:
350ml

Sanitary towel:
100ml

Inco sheet:
250ml

Kidney dish:
600ml

Bedpan:
500ml

Vomit bowl:
300ml

Floor spills:
50x50cm (500ml)
75x75cm (1000ml)
100x100cm (1500ml)

PPH:
On bed only(1000ml)
Spilling to floor(2000ml)

PROMPT
Making Childbirth Safer, Together

Obstetric Haemorrhage

PROMPT
Making Childbirth Safer, Together

Current Policy

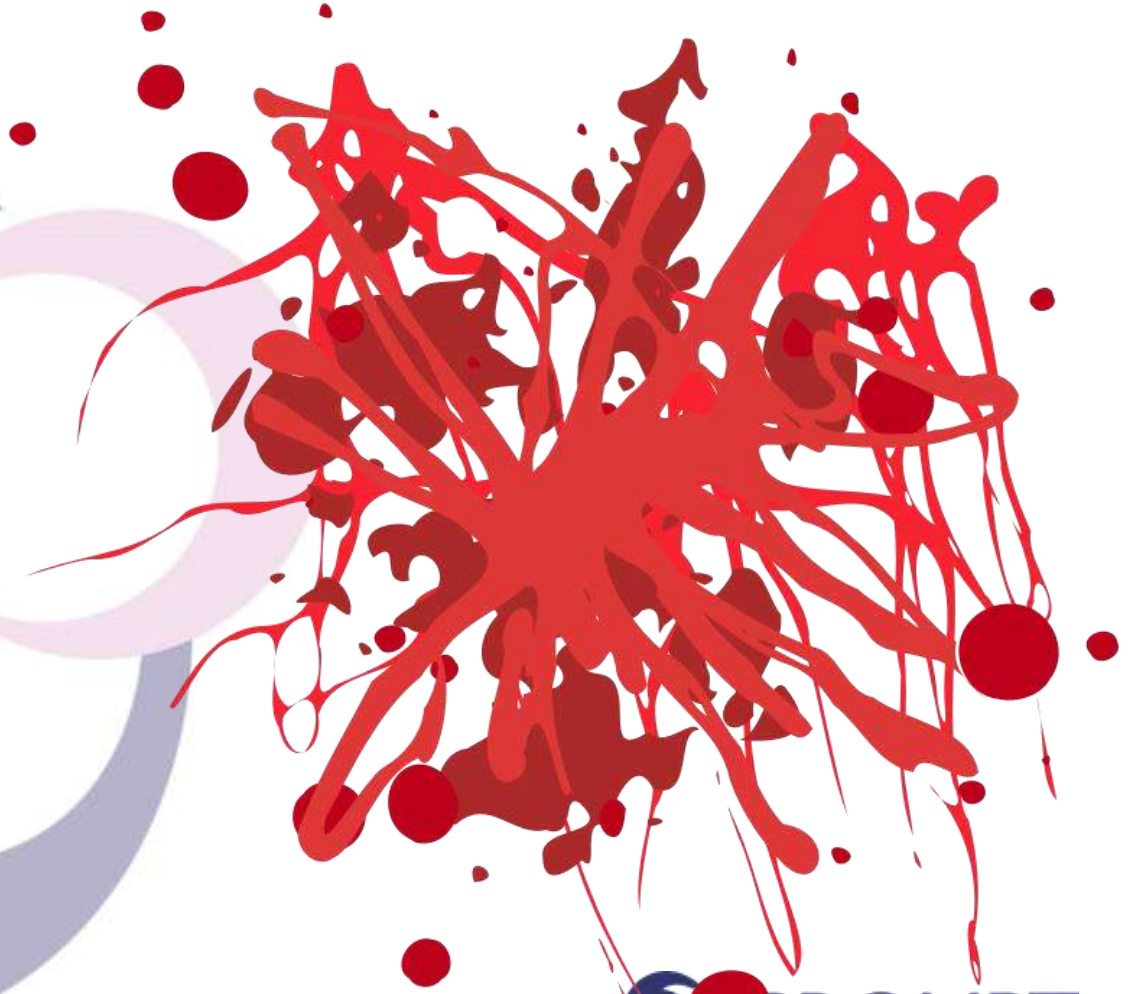
Policy Available on Q-Pulse

MBRRACE 2015 Report decline in no of deaths from Haemorrhage

PROMPT
Making Childbirth Safer, Together

Causes

- T- TONE
- T- TRAUMA
- T- THROMBIN
- T-TISSUE



PROMPT
Making Childbirth Safer, Together

Drugs

Drug	Dose	Comment
Syntometrine	1ml IM	Active third stage for all women except those with hypertensive disorders
Syntocinon	10 units IM	Active third stage for women **with** hypertensive disorders
Syntocinon	10 units IV	Direct into vein if given via cannula follow by 5ml n/saline flush
Ergometrine	500 micrograms **IM**	

Drug	Dose	Comment
Syntocinon infusion	40 units in 500 ml Hartmans Soultion over 4 hours (125mls hour)	Will not initiate uterine contraction, but may maintain it
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Making Childbirth Safer, Together

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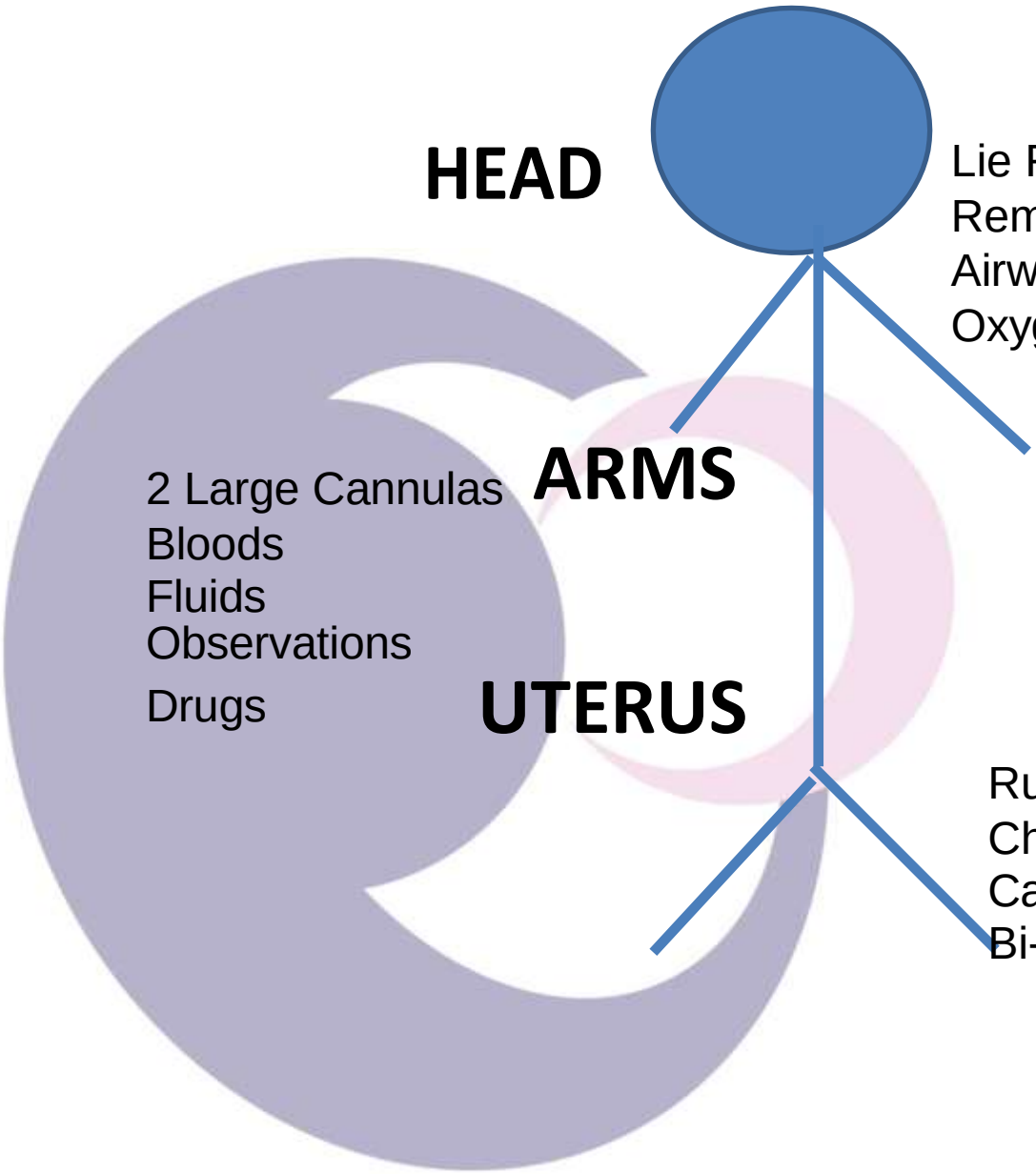

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Airway
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ARMS

2 Large Cannulas
Bloods
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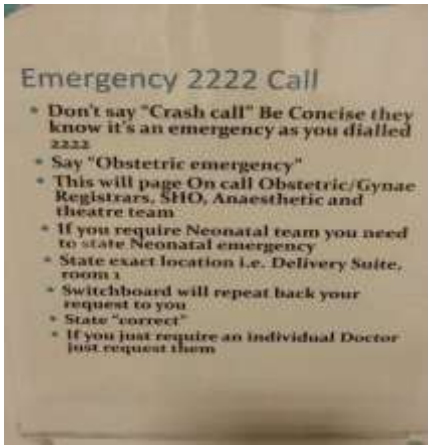

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PROMPT
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Remember

- Close postoperative monitoring
  - MOEWS charts, Fluid balance chart, completion of proforma and accurate EBL documentation.
  - Fundal height and PV loss
- Act on signs and symptoms
- Early senior multi-professional involvement, including haematologists
- If you administer a blood transfusion, you must fate the blood on the bloodhound system, if you need training, ASK !

PROMPT
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Estimated blood loss Aide Memoire

Small swab:
50ml

Medium swab:
100ml

Large swab:
350ml

Sanitary towel:
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Spilling to floor(2000ml)

PROMPT
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Diagnosis – PPH

Brief Overview:
22 year old woman who has just had a NVD, develops PPH secondary to Atonic Uterus.

Learning Objectives

Technical Skills: Recognition and management of PPH and cause Assessment and re-evaluation of treatment Clear communicati	**Non-t** Use o Callin Leade Deleg			

Patient details

Name:	Age:	Hosp No:	PMH:	DH:	Allergies:
Anthea Jones	22	M288207 **Labour History:** G3 P2, 39 +4, Spontaneous onset, 2 hrs labour	Nil	Nil	NKDA

Environment

In Room: Usual set up, intact placenta in a bowl on the side.
Outside room: trolley with emergency PPH drugs and protocols, O neg blood in control room

SimMom set up: Blood and urine in bags ready for activation, heavily blood soaked incos, blood pooled in vagina. Uterus and boggy uterus in place.

	Initial	deterioration	Collapse
HR	105	125	140
BP	95/65	80/55	60/30
RR	18	28	35
Sats	98	96	92
Temp	36.8		

Investigations

Hb 8.2	Na 139	pH 7.2	
WBC 14.6	K 4.3	pO2 18.5	
Plts 224	Ur 5.1	pCO2 5.5	
Cr 64		BE -8	
Glucose 4.3		Lact 3.6	
		HCO_3^- 17	
Other: ECG sinus tachy			

DRIVER DIRECTION

Load 'Anthea Jones' scenario.
Patient will start tachycardic and hypotensive, set the uterus to Atonic and enable bleeding. Manually worsen observations to deterioration obs above.
If candidate massages uterus for > xx mins then change uterus to 'tonic', if urinary catheter inserted then enable passing urine.
If PPH managed well then manually improve obs to stabilise pt, if not enough fluid and blood given then manually change obs to collapse values.

CAST ROLES

Patient: You are very worried about your new baby. Complain about pain and as the BP drops complain of feeling sick and dizzy. If you deteriorate to collapse then just mumble etc.

Relative: If enough faculty then have partner in the room, be very concerned about all the blood loss and keep asking if Anthea is okay.

Midwife (plant): If faculty as midwife then pull the emergency buzzer and handover to arriving help explaining that baby has been delivered and mum has started bleeding +++

CSW (Plant): Be competent, can make all 2222 calls but ask explicitly who candidate wants to call. Retrieve the crash trolley and PPH drugs etc but only if asked. Can attach monitoring and carry out observations.

Senior Help: Candidates should request senior help, hold back Registrar for a few minutes and let Midwives and SHOs start initial management.

Consultant: you are at home and will be there in 20 minutes. Find out current management and give advice for drugs/blood etc if asked. Prompt for theatres to be contacted and check on ITU beds.

ITU/Anaesthetist: If there is an Anaesthetic candidate then send them in with Obs Registrar after a couple of minutes.

If no anaesthetic candidate, faculty can attend as part of the arrest team. Try not to lead scenario but if candidate is floundering then guide them to the correct management.

Candidate Instructions:

Midwife (take into room first): You are looking after Anthea Jones, 22yr old (G3 P2), she has had a precipitous labour and you have just delivered baby Jones by NVD, placenta has also been delivered. You need help as Anthea is feeling unwell and she is bleeding.

SHO/Registrar/Anaesthetist: stay outside of the room until you are called in.

Changes to Pharmacological Management of PPH

Enc.2

from April 1st 2016 at 00:00

Management of third stage as per guideline Either Active (Syntocinon 10 u OR syntometrine IM) OR Physiological

If PPH develops

⇩

Syntocinon 10 units IV
Followed by Bolus 5ml Normal Saline IV

⇩

Ergometrine 500 mcg IM

⇩

Syntocinon 40 units IV in Hartmans 500mls at 125mls per hour

⇩

Haemabate 250 mcg IM
(Repeat as required – Maximum of 8 doses)

⇩

Misoprostol 800mcg

Note

Ergometrine is no longer given IV EXCEPT by a Consultant Obstetrician / Anaesthetist

At CS in theatre management of 3rd stage continues to be 5 units Syntocinon IV

Haemabate and Misoprostol are not available in out of hospital birth settings

Patient details

Surname: _____

First name: _____

ID number: _ _ _ _ _ _ _ _

Date of birth: _ _ / _ _ _ / _ _ _ _

POSTPARTUM HAEMORRHAGE (PPH) PROFORMA

Risk factors:

Antenatal	Intrapartum	At delivery
☐ Previous PPH	☐ Intrapartum haemorrhage	☐ Retained placenta
☐ Antepartum haemorrhage	☐ Failure to progress	☐ Episiotomy/ perineal laceration
☐ Placenta praevia/accreta	☐ Sepsis	☐ Baby > 4kg
☐ Pre-eclampsia		☐ Operative delivery
☐ Multiple pregnancy		☐ (General anaesthesia)
☐ Fetal macrosomia		

If <u>any</u> risk factor present during labour:

- ☐ 14 or 16G IV cannula in situ
- ☐ Obstetric middle grade review
- ☐ Inform on call anaesthetist
- ☐ Confirm G&S received by blood tranfusion
- ☐ PPH badge on board

Patient Name: _____ Hospital ID:_____ Date: __/__/____

Escalation policy:

Blood loss:

> 500 ml	"PPH"	☐ Senior midwife present?
↓		
> 1000 ml	"Major PPH"	☐ Obstetric registrar present? ☐ On call anaesthetist present?
↓		
> 1500 ml and ongoing	"Code Red"	☐ Obstetric consultant informed? ☐ Consultant anaesthetist informed? ☐ Major haemorrhage protocol activated?

Staff involvement:

Staff role	Name	Time called	Time present
Named midwife		__:__	__:__
Senior midwife		__:__	__:__
Obstetric SpR		__:__	__:__
Obstetric SHO		__:__	__:__
2nd Obs SpR		__:__	__:__
Obs Consultant		__:__	__:__
2nd Obs Consultant		__:__	__:__
Anaes SpR / SAS		__:__	__:__
Anaes Consultant		__:__	__:__
ODP		__:__	__:__
		__:__	__:__
		__:__	__:__
		__:__	__:__
		__:__	__:__

Patient details

Surname: _____
First name: _____
ID number: _ _ _ _ _ _ _ _
Date of birth: _ _ / _ _ _ / _ _ _ _

Management

EBL > 1000ml: "Major PPH"

Declared by: _____ Date: __ / __ / ____ Time: __ : __

Immediate management:

- ☐ ABC approach
- ☐ Administer oxygen
- ☐ Lie patient flat
- ☐ Palpate uterine fundus and rub to stimulate contractions
- ☐ Ensure bladder is empty (Foley catheter, leave in place)
- ☐ x2 14 or 16G IV cannula
- ☐ Send urgent bloods:
  - ☐ FBC
  - ☐ Clotting including fibrinogen
  - ☐ U&Es including Ca^{2+}
  - ☐ Cross match (if required)
- ☐ Administer warmed intravenous fluid
  - ☐ Initial resuscitation with crystalloid – NB replacement should be at least **2 L crystalloid for every 1 L of blood lost**
  - ☐ Further fluid should be guided by anaesthetist
- ☐ Monitor and maintain mother's temperature
- ☐ Prepare for transfer to theatre if indicated

EBL > 1500ml (and ongoing): "Code Red"

Declared by: _____ Date: __ / __ / ____ Time: __ : __

Activate Code Red protocol via 2222

- ☐ Nominate person to liaise with blood transfusion: _____
- ☐ **Do not wait** for Hb result to give blood if required:
  - ☐ 2 units of O –ve blood stored in Delivery Suite blood fridge
  - ☐ Type specific blood should be available in 15 minutes
- ☐ Refer to Trust-wide 'Code Red' guideline for further details

Patient Name: _____ Hospital ID:_____ Date: __ / __ / ____

Drugs:

- ☐ Syntometrine 5 units / 500 mcg IM __:__
- ☐ Syntocinon IV bolus __:__ ___ units __:__ ___ units (if repeated)
- ☐ Syntocinon 40 units IV infusion __:__
- ☐ Ergometrine 0.5 mg IM __:__
- ☐ Carboprost 250 mcg IM every 15 mins (max 2mg = 8 doses)

  __:__ / __:__ / __:__ / __:__ / __:__ / __:__ / __:__ / __:__
- ☐ Misoprostol 800 mcg/ 1 mg PR __:__
- ☐ Tranexamic acid 1000 mg IV __:__

Fluids:

Time	INPUT			OUTPUT			Balance (ml)
	IV fluid type	Vol (ml)	Running total	Blood loss (ml)	Urine (ml)	Running total	

Once haemorrhage control achieved:

- ☐ Code Red stood down
- ☐ Unused blood products returned (if not required)
- ☐ All used blood products fated on BloodHound
- ☐ All administered fluid prescribed on the patient's drug chart
- ☐ All documentation completed, inc obstetric and anaesthetic management plan
- ☐ HDU admission
- ☐ ICU admission
- ☐ Debrief planned for patient
- ☐ Debrief planned for staff