





Commonly used drugs in high care

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Aims for session

- ▶ To give you an overview of the drugs used when women become unwell
 - ▶ Relate to the ABCDE approach to care and midwifery care that you will need to consider.
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Post delivery Syntocinon for sick women

- ▶ Drug- Synthetic Oxytocin
- ▶ Action-Contraction of smooth muscle of the uterus
- ▶ Dose- 40iu in 500mls or 40iu in 40mls for cardiac disease and PET (both over 4 hours)
- ▶ Indications- as per hospital guideline (twins, LSCS, PPH, Bakri Balloon)
- ▶ **A, B, C,D-** nil effect
- ▶ **E-** Urine output decreases as antidiuretic hormone- usually have increase within hour of stopping unless underfilled
- ▶ Monitor PV loss

Note- if bakri in situ use routine dose, then have 50iu in 500mls continuously until after bakri removed



Haemabate

- ▶ Drug- Synthetic prostaglandin (carboprost)
- ▶ Action- contraction of smooth muscle
- ▶ Dose- 250mgs every 15 minutes IM- need to give a chance to work prior to giving second dose
- ▶ Indications- major PPH
- ▶ Caution with renal, hepatic or cardiac disease.
- ▶ **A,B-** not used in asthmatics,
- ▶ **C-** potential to reduce BP as become hypovolaemic secondary to diarrhoea
- ▶ **D-** Nil effect
- ▶ **E-** profuse diarrhoea as contraction of smooth muscle pushes faeces through the bowel very quickly-




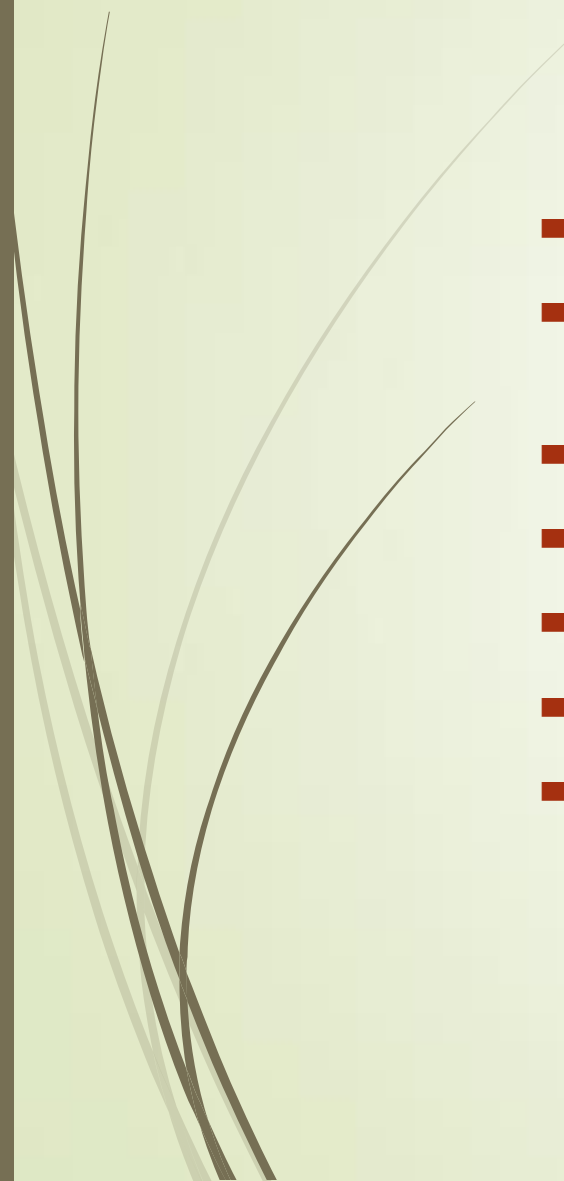
Tranexamic Acid

- ▶ Drug- Tranexamic acid
- ▶ Action- Slows the breaking down of fibrolyntic clots
- ▶ Dose- 1gram over 10 mins
- ▶ Indications- major PPH, APH
- ▶ A ,B nil effects
- ▶ C Hypotension if given too quickly
- ▶ D- Nil
- ▶ E- nausea and vomiting when given too quickly.
- ▶ F- fetus- if used antenatally crosses the placenta



MgSO₄


- ▶ Action: stabilises cell membrane
- ▶ Dose: 4 g bolus (20mls 20% neat over 10-20 minutes/ 50% is an 8ml bolus may be mixed with NSaline to reduce side effects) followed by 10g over 10 hrs (20% neat 50mls-5 mls hour)
- ▶ Indications: PET
- ▶ Preterm labour- offers neurological protection to the pre 30/40- consideration between 30 and 33+6 weeks
- ▶ **A-** Nil effect
- ▶ **B-** RR increases usually when giving bolus dose
- ▶ **C** Do ¼ hourly BP, Pulse, Resps during initial bolus, reduce as condition indicates
IV fluid restriction if PET, Bloods if PET to include urates, NBM

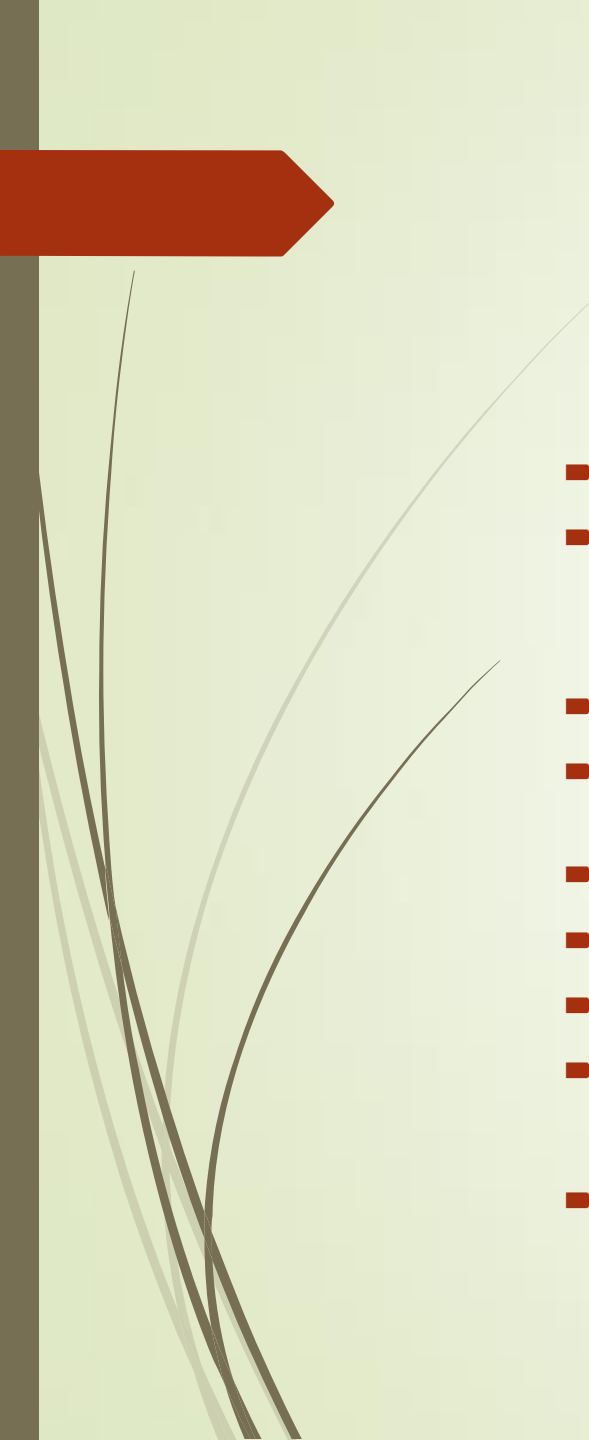
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- **D-** monitor AVPU and reflexes hourly
 - Calcium gluconate is the antidote to MgSO₄ if absent reflexes. (10mls 10% over 10 minutes)
 - **E-** Flushing- warn them they will feel lightheaded and quite sick with bolus
 - Strict fluid balance required (PET)
 - 1 hourly urine output with PET
 - Baseline renal function prior to starting
 - **F-** Fetal well being-like labetalol associated with reduced variability



Anti-hypertensives

- ▶ Labetalol
- ▶ Drug- Beta Blocker
- ▶ Action-Blocks beta cells in the peripheries
- ▶ Dose- 100mg- 200mg (occasionally up to 400mgs QDS) up to QDS PO or IV 20mg bolus (20mg further bolus then neat infusion starting at 4mls/hr then increase half hourly up to 32mls/ hour)
- ▶ Indications- Hypertension, severe hypertension
- ▶ **A, B** - not for asthmatics as effects beta cells in lungs
- ▶ **C**- should see reduction within 40 minutes if oral intake and within 20 minutes if bolus- IV labetalol bp $\frac{1}{4}$ hourly
- ▶ **D**- no effect
- ▶ **E**- fetal wellbeing as bp drops, warn them they will feel unwell with it
- ▶ If 200mgs TDS or greater as inpatient should have fluid balance
- ▶ Postnatally baby will require hypoglycaemic protocol

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- ▶ Nifedipine- IR versus MR
 - ▶ Drug- Calcium channel Blocker- inhibits displacement of calcium channel ions through cell membranes
 - ▶ Action-Contraction of the vascular smooth muscle Dose- 10-20mg MR orally
 - ▶ Indications: Hypertension, tocolytic
 - ▶ **A,B**- nil effect
 - ▶ **C**- should see some effect within 40-60 mins, contraindicated with cardiac disease as reduces myocardial contractility
 - ▶ **D**- nil effect
 - ▶ **E**- Headache, flushing
 - ▶ **F**- fetal wellbeing- when drops BP may see concurrent decelerations

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- ▶ Ramipril (1.25-2.5mg orally once day)/ Enalapril (5mg)- ACE Inhibitor-
 - ▶ Action- inhibits conversion of angiotensin 1 to angiotensin 2 (angiotensin 2 causes vasoconstriction and vascular smooth muscle hypertrophy which raises BP)

 - ▶ Hydralazine (IV)
 - ▶ Action- vasodilation of the smooth muscles and reduce peripheral resistance and therefore BP
 - ▶ Usually effective within 15 minutes
 - ▶ **A,B**, Nil, **C**- increased heart rate, drop in BP within 15 mins
 - ▶ **D**- Headaches
 - ▶ **E**- check fetal well being

 - ▶ Methyldopa- contraindicated postnatally due to increase in postnatal depression



Nebulisers

- ▶ Ventolin
- ▶ Drug- Inhaled or nebulised ventolin
- ▶ Action-
- ▶ Dose- 2 puffs prn, 2.5- 5mg nebulised through oxygen (if 2.5mg mix with normal saline)
- ▶ Indications- asthma, wheeze
- ▶ **A, B-** should hear wheeze decrease by time nebulised complete, need regular RR in initial asthma attack
- ▶ **C-** will increase heart rate- ¼ hourly obs at a minimum in acute asthma attack
- ▶ **D-** Nil effect
- ▶ **E-** can make them feel clammy/ sweaty

Adrenaline for anaphylaxis

- ▶ Drug- Adrenaline 1:1000 (Midwifery exemption)
- ▶ Action- Works on beta cells- peripherally constricting vessels that have dilated (that have caused profound hypotension)
- ▶ Dose- 0.5mg **IM** (be aware epi pens have 0.3mg, if they give own dose can follow up with hospital dose)
- ▶ Indications- anaphylactic reaction
- ▶ **A** anaphylaxis causes potentially life threatening breathing difficulties- works on beta 2 cells in bronchii to relax them and reduce difficulty breathing as well as reducing angioedema around mouth, upper airway
- ▶ **B**- Always give O2 and prepare to support with breathing using BVM, airway adjuncts- monitor RR and SpO2
- ▶ **C**- Hypotension caused by peripheral dilatation needs reversing with IV fluids (will also dilute any potential IV drugs that have caused anaphylaxis)- BP and Pulse ¼ hourly
- ▶ **D**- Often agitated, scared- needs a lot of support (as well as prepare to follow adrenaline with Hydrocortisone IV 200mg and Chlorphenamine 10mg IV)
- ▶ **E**- look for urticarial rash, monitor fluid balance, consider catheterisation



Furosemide

- Drug- Loop diuretic
- Action- Works on loop of henle in the kidney to increase the urinary excretion rate by inhibiting transport of NaCl, altering the osmotic gradient in the distal loop and the cortico collecting duct
- Dose- 20mg IV or 40mg IV
- Indications- pulmonary oedema
- **A-** no effect
- **B-** In Pulmonary oedema may have frothy sputum and Lower SpO₂- will require monitoring of that and RR ¼ hourly in HDU
- **C-** monitor Pulse, BP and CRT ¼ hourly in first instance
- **D-** No change
- **E-** consider catheterisation as urine output increases rapidly (in five minutes IV and an hour if PO) (if does not consider are they hypovolaemic)





Antibiotics

- ▶ Augmentin- broad spectrum antibiotic (1.2 g in 20mls 0.9% N saline)
- ▶ Cefuroxime (covers cephalosporins) and metronidazole (antiprotozoal) (750mg/ 1500mg in Metronidazole 500mg)
- ▶ Tazocin- covers gram negative and gram positive bacteria (4.5g- Piperacillin and Tazobactam) do not shake- needs rolling
- ▶ Gentamycin (3-5ml per kg)-also covers gram positive and negative bacteria, gent levels required pre third dose to determine next dose.
- ▶ Vancomycin covers gram positive bacteria and usually only given when resistant to other antibiotics, vancomycin levels due pre third dose

Now part of the GBS guidance for those with severe penicillin allergy and GBS non sensitive to Clindamycin. Consider renal function prior to first dose

1 gram over 120 minutes 12 hourly for GBS, non GBS- 15-20mg/kg (max 3g per dose) 8-12 hourly – can give profound hypotension/ shock if given too quickly or with anaesthetic agents

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- Clindamycin usually 300mg or 600mg vials and dose of 900mg dose (SPC says to give over 10-60 minutes)
 - Lincosamide antibiotic against gram positive aerobes and a range of anaerobes so indicated with GBS with penicillin allergy and sensitivity and potential Group A strep
 - Contraindication- colitis (can cause diarrhoea even after one dose)
 - ALWAYS consider whether contains penicillin- check allergies- common drug error- especially with Augmentin

COVID



- As with all practice- Oxygen should be prescribed
- If they have an oxygen requirement consider them for all therapies they would get if not pregnant including :
- Dexamethasone contraindication
- Anti-Viral Therapy
- Once tested as positive consider recruitment to the Recovery Trial

RECOVERY
Randomised Evaluation of COVID-19 Therapy




Documentation

- ▶ Always check previous doses- and allergies- JACS
- ▶ ANTT- protect them and you
- ▶ Are you allergic to the drug you are giving-there are cases of staff becoming sensitive to drugs they have repeated exposure to
- ▶ Professional boundaries- check you are allowed to give prescribed drug- just because prescribed- should you give, do you feel comfortable doing so?



Conclusion

- ▶ Some of these drugs will be familiar to everyday practice, others less so but by considering how it works, physical effects it will have this will determine the care you give and the observations you perform.
- ▶ Any questions?

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- ▶ South Central Antimicrobial Network (2018) Guidelines for Antibiotic Prescribing in the Community 2018.
 - ▶ EMC- Electronic Medicines compendium for SPC for each drug