

Misc Drugs

[MD01](#) [Mar96] [Jul97] [Mar03] Oxytocin:

- A. Synthetised in posterior pituitary
 - B. Poorly absorbed orally
 - C. Metabolised by oxytocinase in the liver
 - D. Bolus dose will increase central venous pressure
 - E. Bolus dose will increase systemic vascular resistance
 - F. Metabolised by the liver and kidney
- (see also EM15)

[MD01b](#) [Mar99] [Jul99] Oxytocin:

- A. Has diuretic effect
- B. Partially depolarises uterine muscle / ?effect on membrane threshold
- C. Causes emesis
- D. Increases threshold of receptors for depolarisation
- E. Hypertension

[MD01c](#) [Feb00] Oxytocin:

- A. Ringed octapeptide
- B. Effects on uterus antagonized by beta agonists
- C. ADH like effect
- D. ?

[MD02](#) [Mar96] [Mar97] [Jul97] [Jul98] [Jul99] [Feb00] Cisapride:

- A. Will increase gastric motility in the presence of atropine
- B. Can be used to treat opioid induced gastric stasis
- C. Decreases/increases lower oesophageal sphincter tone (?due to atropine)
- D. Decreases gastric pH
- E. Increases gastric volume
- F. Blocks histamine receptors
- G. Agonist at D2 receptors

[MD03](#) [Mar96] [Jul97] [Jul98] Regarding the plasma half-life of heparin:

- A. Clearance affected by warfarin
- B. Depends on site of injection
- C. Less for low MW heparins
- D. Depends on dose given

[MD03b](#) [Jul97] Heparin:

- A. Has a half life dependent on dose
- B. Inactivates factors XII, XI, X, IX
- C. ?
- D. ?

(see also [\[\[MD49\)](#)

[MD04](#) [Mar96] [Jul99] [Apr01] [Paracetamol](#):

- A. Has an active metabolite
- B. Interferes with renal blood flow
- C. Does NOT cause gastric irritation
- D. Causes [methaemoglobinaemia](#)
- E. Maximum adult dose 4g

Apr 2001 version: Paracetamol:

- A. Frequently causes dyspepsia (?gastric irritation)
- B. Acid-base abnormalities common with overdose
- C. Maximum dose 4 grams in adult
- D. ?
- E. ?

[MD04b](#) [Jul98] [Mar99] [Feb00] [Jul04] [Paracetamol](#):

- A. Is a powerful anti-inflammatory agent
- B. Should never be given in a dose > 20 mg/kg to children
- C. Increased risk of hepatic necrosis in chronic alcoholics
- D. Sulphate conjugation is major metabolic pathway
- E. pKa 3.5
- F. ?Glutathione conjugation

Alt version remembered from Feb 2000:

Paracetamol:

- A. Has analgesic, antipyretic and anti-inflammatory effects
- B. Is metabolised to BENZOQUINONIMINE which is inactivated by conjugation to glutathione
- C. Dose should not exceed 4000mg/day in an adult
- D. Gastric irritation is common

July 2004

[Paracetamol:](#)

- A. Has analgesic, antipyretic and anti-inflammatory effects
- B. Is metabolised to N-methyl-p-benzoisopuionimine conjugated to glutathione
- C. Toxic dose is 10 times the normal ?daily dose?
- D. pKa 3.5
- E. ?

[MD04c](#) [Jul00] Paracetamol:

- A. Minimum toxic dose 8-12G/day in an adult
- B.-E. ?

[MD05](#) [Mar96] Aspirin:

- A. At low doses inhibits prostacyclin
- B. Reversibly inhibits lipoxygenase
- C. Irreversibly inhibits cyclooxygenase
- D. Can cause asthmatic reactions

[MD06](#) [Mar97] [Jul97] [Jul99] [Feb00] Serotonin (5-HT) is most common in:

- A. [Platelets](#)
- B. Enterochromaffin cells
- C. Cerebral cortex (?neurones)
- D. Pineal gland
- E. GIT

F. Mast cells

[MD07](#) [Mar97] [Jul97] [Jul98] [Mar99] [Feb00] [Mannitol:](#)

- A. Metabolised in the liver
 - B. Half-life is proportional to GFR
 - C. Increases Na⁺
 - D. Excretion is dependent on GFR
 - E. Urine will be hyperosmolar compared to plasma
 - F. Absorbed orally
 - G. Isotonic
 - H. Clearance dependent on GFR
- (see also [\[\[CD17\]](#))

[MD07b](#) [Feb04] Mannitol:

- A. is a sugar and is not metabolised
- B. does not increase delivery of sodium to distal tubule

[MD08](#) [Mar97] [Jul97] [Mar99] [Mar03] [Jul04] Gastric drugs: Which is true?

- A. [Sucralfate](#) is a mixture of sulphated sucrose and bismuth that sits in the ulcer
- B. Gastrin & acetylcholine directly & indirectly inhibit H⁺ secretion
- C. [Misoprostil](#) decreases gastric acid and causes marked constipation
- D. Pirenzepine is less effective than H₂ blockers
- E. [Omeprazole](#) reversibly inhibits proton pump

[MD09](#) [Mar97] [Feb00] A decrease in renal function might be expected with:

- A. Gentamicin
- B. Cis-platin
- C. Busulphan
- D. Methotrexate
- E. All of the above

[MD10](#) [Mar97] [Jul02] Thrombocytopenia is a side-effect of which ONE of the following:

- A. Busulphan
- B. Cis-platin
- C. Methotrexate
- D. All of the above

E. ?

[MD11](#) [Jul97] [Jul98] [Jul99] Theophylline levels increased with:

- A. Smoking
- B. Phenytoin
- C. Cimetidine
- D. ?

[MD12](#) -renumbered as EN02

[MD13](#) [Jul97] [Feb00] When a beta agonist binds to a G-protein:

- A. There is a fall in cAMP
- B. The signal is amplified 108 times
 - (Comment: Several sources indicate that the wording on the paper in July 97 was as above but this doesn't make sense as a beta-agonist does not bind directly to the G protein but to a G-protein coupled receptor)
 - (Comment Mar 2000: This question has now been corrected to read: "When a ligand binds to a receptor linked to a G-protein:")

(see also [EM18](#) in Physiol MCQs)

[MD14](#) [Jul97] [Apr01] [Dantrolene](#):

- A. Is a benzyl-isoquinoline derivative
- B. Undergoes oxidative and reductive metabolism
- C. Inhibits sodium channel activation
- D. Causes a marked reduction in contractility
- E. Not effective as prophylaxis because of poor oral bioavailability
- F. Acts via [ryanodine receptor](#)

Alt version: [Dantrolene](#):

- A. Benzyliisoquinolonium
- B. Undergoes hepatic and renal metabolism
- C. Profound myocardial depression

D. Poor oral bioavailability

[MD15](#) [Jul97] [Omeprazole](#):

- A. Irreversibly inhibits the parietal cell
- B. Acts at apical membrane of parietal side
- C. Acts at the basolateral membrane of the parietal

[MD16](#) [Mar98] [Diclofenac](#):

- A. Plasma protein binding is%
- B. Percent absorption . . %
- C. Mechanism of action via increase in endorphins
- D. ?

[MD17](#) [Mar98] [Apr01] [Jul04] Regarding [phenytoin](#)

- A. Acts via blockade of Na channels and via effect on K channels
- B. Weak base with pKa 8.3
- C. Has active metabolites
- D. ?
- E. ?

[MD18](#) [Mar98] [Mar99] [Feb00] [Apr01] [Jul02] [Mar03] Which ONE of the following decrease gastric pH?

- A. Omeprazole
- B. Famotidine
- C. Calcium salts
- D. Misoprostil
- E. PGE2

July 2000, 2002 and 2003 version : Which ONE of the following decreases gastric acid secretion?:

- A. ?
- B. Misoprostil
- C. [Cisapride](#)
- D. Na citrate
- E. Metoclopramide

Apr 2001 version: Decrease gastric pH:

- A. Calcium salts
- B. H2 antagonists (?ranitidine)
- C. Omeprazole
- D. Pirenzipine
- E. PGE2

[MD19](#) [Jul98] [Mar99] [Feb00] [Jul01] [Jul04] NSAIDs:

- A. Exhibit no selectivity for COX 1 & 2
- B. Exert renal effects other than effect on afferent arterioles
- C. Cause renal toxicity separate to inhibition of prostaglandins
- D. Aspirin & ketorolac irreversibly bind COX1 & 2
- E. Directly cause gastrointestinal ulceration

Alt version: NSAIDs:

- A. All inhibit COX 1
- B. Aspirin and ketoralac inhibit COX irreversibly
- C. They can cause renal toxicity by mechanisms other than alterations in renal blood flow by PG mediators.

[MD20](#) [Jul98] [Mar99] [Feb06] Irreversible cardiomyopathy can be due to: (OR: Which of the following causes dose-dependent cardiac toxicity?)

- A. Vincristine
- B. [Bleomycin](#)

- C. Danorubicin
- D. Asparaginase
- E. Cyclophosphamide
- F. All of the above

[MD21](#) [Jul98] [Jul99] [Mar02] Streptokinase:

- A. Acts on circulating plasmin
- B. ?
- C. Is antagonised by aminocaproic acid (EACA)
- D. ?
- E. ?

[MD22](#) [Mar99] [Apr01] [Mar03] Gastric lavage:

- A. Not useful if more than one hour has elapsed
- B. In children, use normal saline instead of water
- C. Contraindicated if poison corrosive
- D. Is performed in the right lateral position
- E. Should not be performed in the unconscious

(Comment: The restriction in unconscious patients is they should be intubated for airway protection)

[MD23](#) [Mar99] [Apr01] Long term prednisolone 20mg/day will result in:

- A. Increased lymphocyte count
- B. Increased capillary permeability
- C. Metabolic alkalosis
- D. ??glucose

[MD24](#) [Mar99] NSAIDs cause gastric side-effects by:

- A. Direct effects on mucosa

B. Indirect effects

C. ?

[MD25](#) [Mar99] Phenylbutazone:

- A. Interferes with heparin metabolism
- B. Increases warfarin plasma concentration
- C. Decreases warfarin plasma concentration
- D. Reduces the elimination of warfarin

July 2000 version: Phenylbutazone's effect on the coagulation system are due to:

- A. Binding to albumen, displacing warfarin
- B. Inhibiting warfarin metabolism
- C. ? some interaction with aspirin
- D. ? effect on platelets

[MD26](#) [Jul98] [Jul99] With respect to prednisone:

- A. [[Prednisone] is converted to active prednisolone in the gut
- B. Prednisone 5mg is equivalent to 100mg cortisol
- C. Betamethasone has equivalent mineralocorticoid activity
- D. Methylprednisolone ?

Alternative version of options A & E:

- A. Prednisone is converted to prednisolone after absorption from the gut.
- E. Betamethasone has adrenocorticoid and mineralocorticoid activity

[MD27](#) [Jul98] [Jul99] [Jul00] Aspirin:

- A. Greatest absorption is from the stomach
- B. Peak plasma level is achieved in 30]] minutes
- C. Has cross-reactivity with all NSAIDs
- D. Half-life 4 hours

July 2000 version: [Aspirin](#):

- A. Plasma half-life 4 hrs
- B. Peak plasma concentration within 10mins of oral administration
- C. Requires conversion to salicylic acid for activity

- D. ? is more ?? than salicylic acid
- E. Better absorption if food in stomach
- F. Cross reactive sensitivity with all NSAIDs

[MD28](#) [Jul98] [Mar03] Organophosphates:

- A. Phosphorylate the esteratic site
- B. Phosphorylate the anionic site
- C. ?
- D. ?

(See also [MB11](#), [MB27](#))

[MD29](#) [Mar99] [Feb00] Warfarin affects:

- A. Factor XIII
- B. Protein S (? or Protein C)
- C. ?

[MD30](#) [Jul99] [Feb00] [Bleomycin](#)

- A. Related to nitrogen mustard
- B. Can cause agranulocytosis (or: frequently causes myelosuppression)
- C. Causes pulmonary toxicity in 90% of patients
- D. Is an alkylating agent
- E. Causes pulmonary oxygen toxicity due to production of superoxide radicals

[MD31](#) [Jul99] Which drug causes the most anaphylaxis?

- A. [Suxamethonium](#)
- B. High potency non-depolarisers
- C. ?
- D. ?

[MD32](#) [Jul99] [Jul04] [Syrup of Ipecac](#):

- A. Is not effective in phenothiazine overdose
- B. Has peripheral irritant and direct CTZ action
- C. The syrup is more potent than the fluid
- D. ?

[MD33](#) [Feb00] Regarding antiemetics which drug has anti-5HT₃, anti-H₁ and anti-D₂ actions:

- A. [Ondansetron](#)
- B. [Scopolamine](#)
- C. [Domperidone](#)
- D. [Droperidol](#)
- E. Prochlorperazine
- F. Chlorpromazine

Alternative versions:

- Which of the following anti-emetics have D₂, ACh, 5 HT-3 antagonist effects?
- Which drug is a D₂ antagonist, H₁ antagonist and 5HT₃ receptor antagonist?

[MD34](#) [Jul99] [Feb00] With regard to nitric oxide

- A. It is anaesthetic at high concentration
- B. May improve V:Q mismatch
- C. Is a liquid in the cylinder, gas at room temperature
- D. ?

[MD35](#) [Feb00] [Jul01] Ethanol

- A. About 35% excreted via the lungs
- B. Concentration falls at a fixed rate with respect to time
- C. Only 60% is metabolised, the remainder being excreted in expired air
- D. Is excreted at a rate independent of the plasma concentration
- E. Constant elimination independent of plasma concentration
- F. Elimination is not dependant upon amount absorbed from GIT

[MD36](#) [Feb00] Which drugs cause convulsant activity?

- A. Cocaine
- B. Lithium
- C. Norpethidine
- D. Enflurane
- E. All of the above

[MD37](#) [Feb00] Metoclopramide

- A. Increases gastric emptying faster with an oral dose than an IV dose
- B. Causes diarrhoea in children
- C. Is a dopamine agonist
- D. ?

[MD38](#) [Feb00] [Jul00] Physostigmine

- A. Causes (? excitatory activity / ?alerting response) on the EEG
- B. Doesn't cross the blood brain barrier
- C. Doesn't cause sedation
- D. Only has its effects at nicotinic receptors
- E. Causes amnesia
- F. Causes excitatory activity on the EEG
- G: Is/isn't a quaternary ammonium that does/doesn't cross BBB

[MD39](#) [Jul00] Drugs filtered and secreted in the PCT include:

- A. Penicillin
- B. Probenecid
- C. Chlorothiazide
- D. ?

Also remembered as:

Which basic drug is secreted by the kidney for excretion?

- A. Procainamide
- B. Probenecid
- C. Penicillin
- D. Acetazolamide

[MD40](#) [Jul00] Which of the following is bacteriostatic only?

- A. Penicillin
- B. Gentamicin
- C. Vancomycin
- D. Trimetophan
- E. ?Cefoxitin /?cefuroxime

(see also [[MD40)

[MD41](#) [Jul00] With respect to serotonergic receptor action, which ONE of the following is true?

- A. Sumatriptan is a 5HT1 antagonist
- B. Ondansetron is a 5HT3 agonist
- C. ?Serotonin is a 5HT3 agonist
- D. Metoclopramide is a 5HT4 agonist
- E. ?

[MD42](#) [Jul00] Acetazolamide:

- A. ? secreted by the renal tubules
- B. ? diuresis
- C. ? develop tachyphylaxis

[MD43](#) [Jul00] Best antiemetic for motion sickness:

- A. Metoclopramide
- B. Ondansetron
- C. ?
- D. ?
- E. Hyoscine

[MD44](#) [Jul00] Complications of salbutamol used in asthma treatment include the following EXCEPT:

- A. Tachycardia
- B. Decreased V/Q mismatch
- C. Tremors

D. Pulmonary oedema

E. Hyperkalaemia

[MD45](#) [Apr01] (Antibiotic sensitivities against certain bacteria)

A. Penicillin and ...?

B. Amoxicillin and ...staph +?

C. Flucloxacillin and G +ve?

D. ?cephalosporin and ...?

[MD46](#) [Apr01] Aspirin overdose

A. Causes metabolic & respiratory acidosis

B. Causes metabolic & respiratory alkalosis

C. Causes metabolic alkalosis & respiratory acidosis

D. Causes metabolic acidosis & respiratory alkalosis

[MD47](#) [Apr01] Atropine overdose in neonates

A. Causes hyperpyrexia

B. ??

[MD49](#) [Apr01] [Jul01] [Jul02] [Jul04] Low molecular weight heparin

A. Has better bioavailability

B. Molecular weight 1/10 that of normal heparin

C. More protein bound than heparin

D. ?

E. ?

[MD50](#) [Apr01] [Jul01] [Mar03] [Jul04] Desmopressin

A Increases factor X

B Increases factor V

C Causes sustained severe hypertension

D Can be used to improve haemostasis in haemophilia

E Increases factor VIII activity

F. ? v2B receptors?

[MD51](#) [Jul01] An intravenous infusion of 8.4% sodium bicarbonate to a healthy adult may cause:

- A. Hypotonicity
- B. Intracellular Acidosis
- C. Ionized Hypercalcaemia
- D. ?Respiratory Alkalosis
- E. Rebound Metabolic Acidosis

[MD51b](#) [Feb04] Bicarbonate

- A. Complications include intracellular acidosis
- B. 100ml of 8.4% NaCO₃ has 200 milliosmoles
- C. ?

[MD52](#) [Jul01] [Jul04] Cyclo-oxygenase-1 (COX-1) isoenzyme:

- A. Is increased by inflammation
- B. Is ?predominant mode of action of indomethacin
- C. Is increased by lipopolysaccharide
- D. Is NOT involved in gastric mucosal protection
- E. Is increased by cytokines

[MD53](#) [Jul01] Caffeine

- A. Is a CNS depressant
- B. Causes cerebral vasoconstriction
- C. Reduces the acidity of gastric fluid secretion (or: Not a gastric irritant)
- D. Reduces plasma glucose level
- E. Is a potent diuretic.
- F. Has been shown to be dependence producing
- G. Does not show an improvement in psychomotor function

[MD54](#) [Jul02] Which of the following drug interactions is mediated by serotonin?

- A. ?
- B. ?

- C. ?
- D: Pethidine & Tranylcypromine
- E. ?

[MD55](#) [Feb04] Metabolism of which drug is decreased in pseudocholinesterase activity:

- A. Mivacurium
- B. Cocaine
- C. Procaine
- D. Remifentanyl
- E. Esmolol

[MD56](#) [Jul04] What drugs affecting ganglia ?

- A. Hexamethonium,
- B. ?carbachol
- C. ?

[MD57](#) [Jul04] Which of these agents does not reduce uterine contractions?

- A. Nifedipine
- B. Glycerol trinitrate
- C. Indomethicin
- D. Isoprenaline
- E. Phenytoin

[MD58](#) [Jul04] Which of the following is the MOST COMMON side effect of oxytocin?

- A. Hypotension
- B. ADH effect
- C. Supraventricular tachycardia
- D. Histamine release

[MD59](#) [Jul04] Cause of hypotension during iv [Vancomycin](#) administration

- A. ?
- B. ?
- C. ?

[MD60](#) Which of the following is a non particulate antacid

- A. Aluminium hydroxide
- B. Sodium citrate
- C. Magnesium hydroxide
- D. [Cimetidine](#)
- E. ?

[MD61](#) Mechanism of action of ondansetron?

- A - blocks ligand gated ion channel - True, blocks non selective cation channel - only 5HT3 subtype are ion channels, others are GPCR
- B peripheral blockade 5HT3 - false - central and peripheral action - CTZ and vagal afferents / myenteric plexus
- C blockade 5HT4 - false - low affinity
- D increases amount of serotonin in CTZ - false I think, but only rough lack of confirmatory information

[MD62](#) Which of the following is true regarding action on [platelets](#)?

- A. Non-selective COX inhibitors act irreversibly - false
- B. [Clopidogrel](#) acts reversibly
- C. ?
- D. [Abciximab](#) acts reversibly
- E. ?

[MD63](#) Regarding [warfarin](#)?

- A. Affects platelet function
- B. Increases the action of vitamin K epoxide reductase
- C. ?More effective when given as an intravenous dose
- D. Doesn't cross the placenta
- E. Peak effect 36-72 hours following dose

[MD64](#)

[MD65](#)

[MD66](#)

[MD68](#)

[MD69](#)

[MD70](#)

[MD71](#)

[MD72 Vancomycin:](#)

- A. Is less sensitive than penicillin for methicillin sensitive Staphylococci
- B. ?
- C. Something like "*equal sensitivity for both gram positive and negative bacteria*"
- D. Can be used orally in outpatient
- E. Half life of ?12 hours and not removed by haemodialysis

[MD73](#) A patient for surgery is allergic to [azithromycin](#). What else would you avoid?

- A. [Clindamycin](#)
- B. tobramycin
- C. clarithromycin
- D. .?..-mycin
- E. ..?..mycin

[MD74](#)