

HCPC Register

POMs Annotation

POMs-A = Administered by injection
POMs-S = Supplied as tablets, creams etc



HCPC Register Annotations from end of September 2016

➤ Change of terms of annotation in HCPC Register

- 1: 'Local anaesthetics' (LA) will become 'POMs – Administration'
 - E.g.: LAs; CS; Adrenaline
- 2: 'Prescription-Only Medicines' (POMs) will become 'POMs – Sale / Supply'
 - E.g.: Flucloxacillin; Codeine
- **NB: SP and IP annotations remain unchanged**

Old-Style of HCPC Register entry (www.hpc-uk.org/check)

Data valid at: 13:57, 15 September 2016

Name Jean Mooney

Registration number CH07848

Location Mitcham

Status Registered

Registered from 01/08/2016

Registered until 01/08/2018

Additional entitlements

Local anaesthetics (LA)

Prescription only medicines (POM)

Supplementary prescribing (SP)

Independent prescribing (IP)

[Back to search results](#)

New-Style of HCPC Register entry (www.hpc-uk.org/check)

Data valid at: 14:27, 28 April 2017

Name Jean Mooney

Registration number CH07848

Location Mitcham

Status Registered

Registered from 01/08/2016

Registered until 01/08/2018

Additional entitlements

Prescription only medicines – administration (POM-A)

Prescription only medicines – sale/supply (POM-S)

Supplementary prescribing (SP)

Independent prescribing (IP)

POMs: Administration

- E.g.: LAs, Adrenalin; CS for injection
- **Conditions:**
 - Registered chiropodists/podiatrists only.
 - Administration must be in the course of their professional practice.
 - Must be within scope of professional practice
 - Must hold certificate of competence in use of analgesia

Current list of POMs – Administration (POM-A)

- Bupivacaine
- Bupivacaine with adrenaline
- Lignocaine
- Lignocaine with adrenaline
- Mepivacaine
- Prilocaine
- Adrenaline (Epinephrine) Inj BP
- Methylprednisolone
- Levobupivacaine Hydrochloride
- Ropivacaine Hydrochloride

POMs – Sale / Supply

➤ **E.g.: Abx; PKs; AFs; AIs**

➤ **Conditions:**

- Registered chiropodists/podiatrists only.
 - Medicine must be pre-packed
 - Sale / supply must be in the course of their professional practice.
 - Supply must be within scope of practice
 - Must hold certificate of competence in the use of the medicines.
- These medicines may also be sold / supplied by a Pharmacist against a written order from an appropriately qualified podiatrist

Current List

POMs Sale / Supply (POM-S)

- Amoxicillin
- Amorolfine hydrochloride cream (max. 0.25% w/w)
- Amorolfine hydrochloride lacquer (max. 5% w/v)
- Co-Codamol
- Co-dydramol 10/500 tablets
- Codeine Phosphate
- Erythromycin
- Flucloxacillin
- Silver Sulfadiazine
- Tioconazole 28%
- Topical hydrocortisone (max. 1% w/w)

POMs Annotation: Accessible PO-Medicines

➤ Antimicrobials

- Systemic
- Topical

➤ Analgesics

- (LAs)
- Painkillers
 - Codeine containing
 - Non-codeine containing

➤ Anti-inflammatory agents

- Systemic
- Injected
- Topical

Independent Prescribing

Supplementary Prescribing

➤ 26-week HEI-based course

- Need a mentor / DMP (identified pre-course)
- Attendance at HEI
- Self-study
- ~90hrs prescribing practice
- Reflective portfolio
- Course work
- Diet of examinations

➤ HCPC Register annotation: IP and/or SP

- Requirement for ongoing CPD

Mixing Medicines

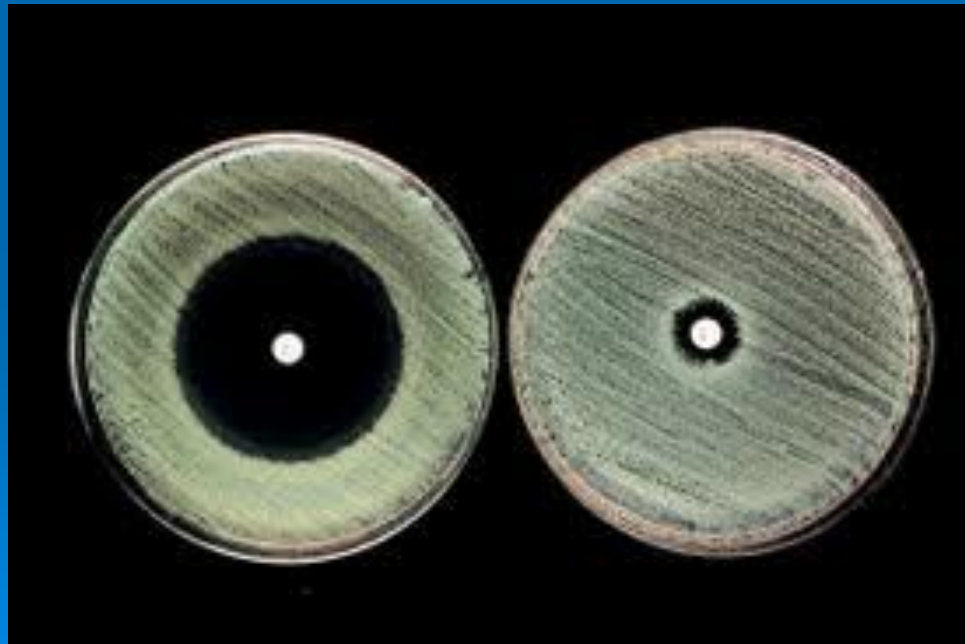
➤ HCPC Annotation = IP

- Can mix any medicine, as appropriate

➤ HCPC Annotation = SP; POMs-A; POMs-S

- Cannot mix any medicines
- May use pre-mixed meds, e.g. steroid (prenisolone) + Local anaesthetic (Lidocaine)

Antibiotics



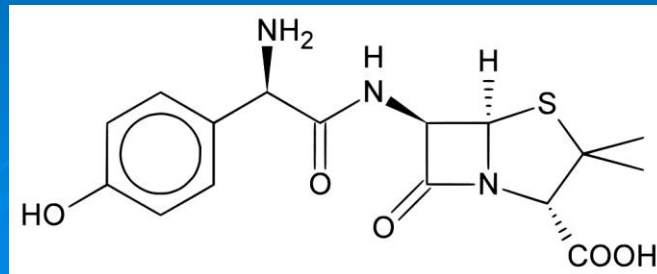
**Amoxicillin
Flucloxacillin
Erythromycin
Silver Sulfadiazine**

Available to HCPC POM-annotated Podiatrists since Nov 2006



Amoxicillin

- Beta-lactam penicillin-type antibiotic with **moderate-spectrum of activity**
 - Bacteriolytic
 - Inhibits synthesis of G+ve and G-ve bacterial cell walls
- Good absorption with **oral administration**
- **MO resistance is common**
 - MOs produce beta-lactamase and degrade amoxicillin
 - Often formulated in combination with clavulanic acid (Co-amoxiclav / Augmentin) to overcome MO resistance



Amoxicillin Contd:

➤ Dose:

- 250mg / 500mg tds

➤ Uses

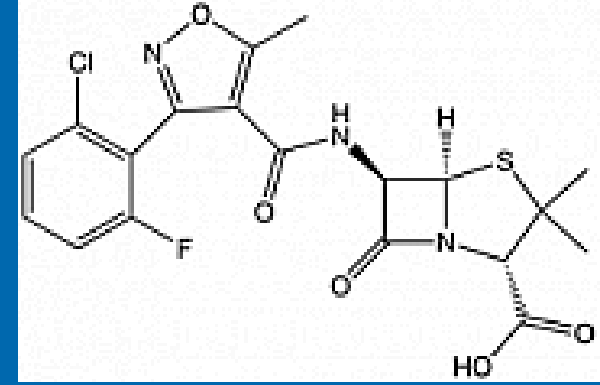
- Skin infections
- (No longer recommended for prevention of bacterial endocarditis)

➤ Side effects (ADRs)

- D+V
- Non allergic rashes
 - Affects 3-10% of children
- Anaphylaxis



Flucloxacillin



- Beta-lactam penicillin-type antibiotic with **narrow spectrum of activity**
 - Inhibits synthesis of bacterial cell walls
- Used to treat infections caused by susceptible G+ve bacteria
 - **Active against beta-lactamase MOs, such as Staph aureus**
 - *Non-complicated skin and soft tissue infections*
 - Not effective against G-ve organisms or non-beta lactamase producing G+ves
 - Ineffective against MRSA
 - **MO Resistance**

Flucloxacillin Contd.

➤ Dose

- 250-500mg qds

➤ Uses

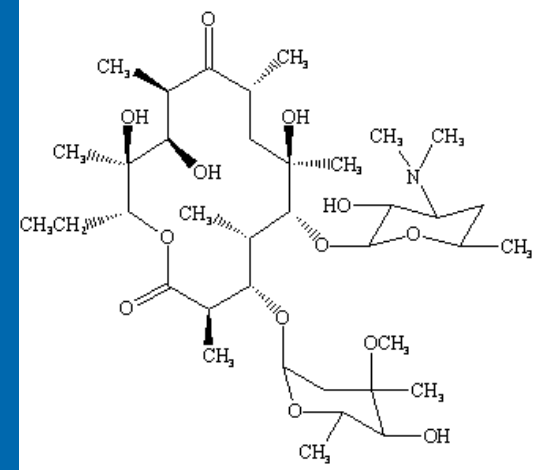
- Skin infections
- Surgical prophylaxis
- Cellulitis
 - May be combined with ampicillin (Co-fluampicil) if Strep pyogenes suspected

➤ ADRs include

- D+V, superinfection (candidiasis), allergy
- Avoid use in patients with renal or hepatic impairment



Erythromycin



- Bactericidal macrolide antibiotic
- Slightly **wider antimicrobial spectrum than penicillins**
 - Unknown mechanism of activity
 - Taken up by macrophages so **concentrates in area of infection**
- Often used in **subjects with penicillin allergy**
 - Indicated for skin infections
- Metabolised in the liver

Erythromycin Contd.

➤ Dose

- 250mg qds
- Non acid-stable (give after meals)
- Clarythromycin is acid-stable

➤ ADRS include

- D+V, nausea and abdo cramps
- Cardiac arrhythmias and deafness

➤ Allergies

- To be avoided in infancy, pregnancy and lactation

➤ Not used in conjunction with many drugs

- e.g.: Warfarin, OCs, corticosteroids, simvastatin, anti-migraine drugs, verapamil, terfenadine, theophylline, clindamycin, alcohol

Silver Sulfadiazine

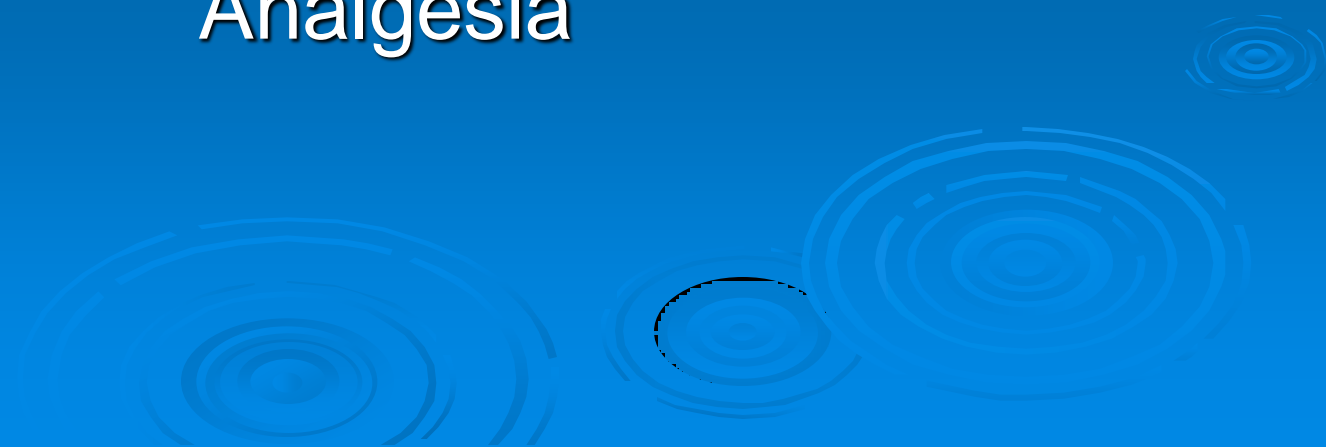
- **Topical agent**
 - 1% cream
 - Sulfonamide and Silver
- **Antibacterial:** broad-spectrum activity in chronic wounds
 - G+ve and G-ve bacteria (including *Pseudomonas aeruginosa*)
 - Some yeasts and fungi
 - Poor penetration on normal skin
- **Up to 1% show hypersensitivity reaction, e.g.:**
 - Rashes; erythema multiforme
 - Skin discolouration (argyria)
 - Avoid in late pregnancy / infancy
 - Avoid in patients with G6PD deficiency
- **May increase wound healing times**
 - Not recommended by Cochrane review



Pain control

Anaesthesia

Analgesia



Local Anaesthetics

- **Lidocaine**
 - +/- adrenaline
- **Mepivacaine**
 - MSD child = 50% MSD adult
 - +/- adrenaline
- **Prilocaine**
- **Bupivacaine**
- **Ropivacaine**
- **Levo-bupivacaine**

Adrenaline

- **Impending / presumed anaphylactic shock:**
 - Airway – noisy breathing / stridor
 - Blood pressure – very, very low;
 - Circulation – racing pulse; irregular pulse
 - Drug – Adrenaline / Epinephrine
 - (O)edema - fluid moves into tissue space (angio-oedema; hives)
 - Feeling awful
- **1ml of 1:1000 adrenaline**
 - IM injection into lateral side of the thigh
 - Monitor patient (ABC)
 - Repeat 1ml of 1:1000 adrenaline injection if symptoms persist
- **Remove to hospital**
 - Biphasic response

Analgesics

➤ Analgesic = painkiller

- *an* = without; *algos* = pain
- NB: Anaesthetics = without sensation

➤ Act at PNS and / or CNS membrane receptors

➤ Include

- **Paracetamol** (acetaminophen in US),
- **NSAIDs**, e.g.: Salicylates (aspirin), Ibuprofen
- **Opioids**, including Morphine and Codeine

➤ CoPod advice:

- **Max administration = 3 days, then direct patient review**

Analgesic choice is determined by

➤ Severity of pain

➤ Pain type

- Peripheral pain
- Central pain
- Neuropathic pain
 - May respond to tricyclic antidepressants (amitriptylline) and anticonvulsants (gaba-pentin)
 - Duloxetine is best drug (54% success)
 - Vit D supplements work nearly as well (45% success)

Codeine phosphate

➤ Opiate drug

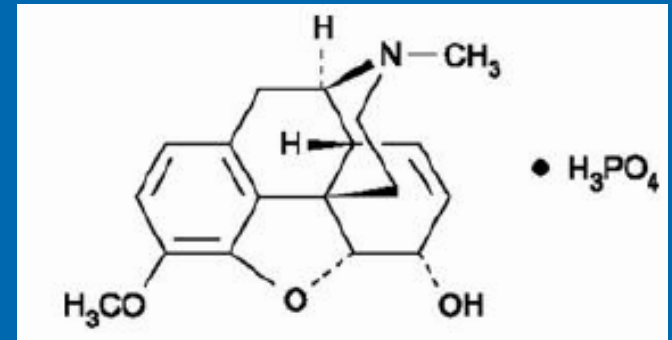
- Weak to mid-range opioid
- Makes up 3% of opium
- CSN and PNS action

➤ Actions

- Analgesic, anti-tussive, anti-diarrhoeal

➤ Side effects (especially in overdose)

- Gut immobility
- Respiratory suppression
- Tolerance, habituation, addiction, coma, death
- Codeine is **metabolised to morphine**
 - 5% show rapid metabolism to morphine → 'High'
 - Avoid use during lactation



Codeine contd.



➤ Unwanted side effects include

- Euphoria, itching, nausea, vomiting, drowsiness, orthostatic hypotension, urinary retention, depression, constipation, and paradoxical coughing
- Hives and rashes due to allergic reaction
- Long-term administration causes erectile dysfunction and hypogonadism (especially in white males)
- Sugar cravings
 - Induces hypoglycaemia (the 'munchies')
 - Was once used to control diabetes, as was morphine

Co-dydramol



➤ Compound analgesic

- Dihydro-codeine tartrate 7.5 / 10 / 20 / 30mg
- + Paracetamol 500mg

➤ Used to relieve moderate pain

➤ Side effects

- Allergic reactions - urticaria, breathing difficulty, increased sweating, facial flushing, mouth ulcers.
- Abdominal pain
- GIT upsets: abdominal pain, nausea, heartburn, constipation, loss of appetite, dry mouth,
- Blood problems - anaemia, nose bleeds, increased risk of infection, bruising.

Co-dydramol Side Effects Contd

- **UT upsets** - pain or difficulty in passing urine.
- **Nervous system** - confusion, drowsiness, dizziness, mood changes, depression, hallucinations, restlessness, excitation, fits, painful eyes, headache, sleeping problems,
- **Tolerance and / or dependence.**
- **Eyes** - blurred or double vision, extremely small pupils.
- **Other** - trembling, tiredness. weakness, malaise, low body temperature, muscle stiffness, changes in libido.

Co-Codamol



- Compound analgesic
 - Codeine phosphate 8 / 12.8 / 15 / 30mg
 - + Paracetamol 500 / 1000mg
- For the relief of mild – moderate pain,
 - where paracetamol alone, or NSAIDS (aspirin, ibuprofen, naproxen) does not control the pain

Co-codamol Contd.

➤ Side effects include

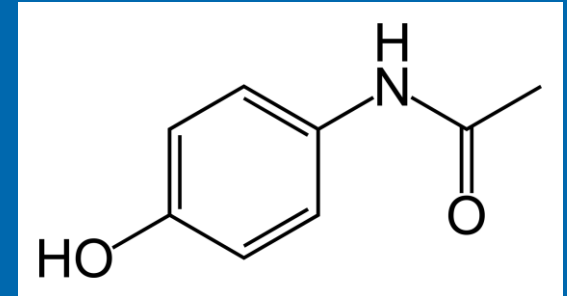
- *Allergic reactions*: Shortness of breath
Hypersensitivity, pruritis, Rashes,
- *CNS effects*: Confusion, Loss of short term memory, Dizziness, Fainting, Drowsiness, Sedation, Euphoria, dysphoria, addiction.
- *Blood changes*: bleeding gums, easy bruising
- *GIT effects*: Abdominal pain, Nausea / vomiting, Constipation
- *Others*: Dry mouth;



Paracetamol (Acetaminophen)

➤ OTC analgesic and antipyretic

- Relief of minor aches and pains
 - COX2 inhibitor
 - COX + arachidonic acid → prostaglandin
 - Reduces Prostaglandin E2 → lowers temperature
 - Modulates endogenous cannabinoid system
 - → pain awareness reduced
 - Inhibits sodium channels in pain fibres
- Constituent of many cold and 'flu relief remedies
- Does not cause gastric irritation
- Does not have marked anti-platelet effect



➤ Used in combination with opioid analgesics to control more severe pain, e.g.: post surgery

Paracetamol contd.

- **Onset of analgesia** is approximately 11 minutes after oral administration
 - Half-life = 1–4 hours.
 - Metabolised by liver
- Recommend **dose = 1g tds**
 - 3g daily
 - *2g daily maximum for heavy drinkers*
 - 325mg tds in USA
 - **Acute overdose causes potentially fatal liver damage**
 - First aid = activated charcoal
 - Paracetamol toxicity is foremost cause acute liver failure
 - Rare individuals develop irreversible liver damage at normal dose
 - **Risk of overdose increased by alcohol consumption**



College of Podiatrists Recommendations

Codeine, Co-codamol and Co-dydramol

- Indicated for **short term treatment** of acute / moderate pain unrelieved by paracetamol, ibuprofen or aspirin
- Limited to a **maximum of 3 days** prior to direct patient review
 - even though the pack size may exceed that dose level
- Essential that all Medicines are **correctly labelled and supplied with an explanatory leaflet** that clearly states
 - Dosage
 - Side effects (e.g.: constipation)
 - Possibility of addiction or habituation

Anti-Inflammatory Agents

NSAIDs

Corticosteroids

The background of the slide is a solid blue color. In the lower half, there are several decorative elements consisting of concentric white circles, resembling ripples on water. These ripples are positioned in the bottom right and bottom center areas of the slide.

Ibuprofen



- Iso-butyl-propanoic-phenolic acid
- **OTC Non-steroidal anti-inflammatory agent (NSAID)**
 - Used to control pain that has an inflammatory component
 - Mild, short-lasting anti-platelet effect (*cf* aspirin) NB: avoid with other A/coags
 - Vasodilatory action
- **Common adverse side effects include:**
 - **GIT:** Nausea, Indigestion, GIT ulceration/bleeding, Raised liver enzymes, Diarrhoea, Constipation,
 - **Cardiovascular effects:** Epistaxis, Hypertension, Increased risk of myocardial infarction, Increased risk of heart failure, Priapism
 - **Neurological:** Dizziness, Hearing loss, Tinnitus
 - **Others:** Skin rashes, Fluid retention, Spontaneous abortion
- **All SEs minimised by low-dose administration**

Ibuprofen Contd.

➤ Action:

- Non-selective inhibition of
 - COX-2 (prevents degradation of arachidonic acid to prostaglandin)
 - COX-1 (prevents platelet aggregation)
- Off label
 - Treatment of acne
 - Prophylaxis of Alzheimer's disease and Parkinson's diseases (low dose, long term)

➤ Dose-dependent duration of action (4-8 hrs)

- Self-medication: Max 1200mg (400mg tds) daily
- Prescribed: Max 3200mg (800mg qds) daily
- Stable in solution: supplied as topical gel



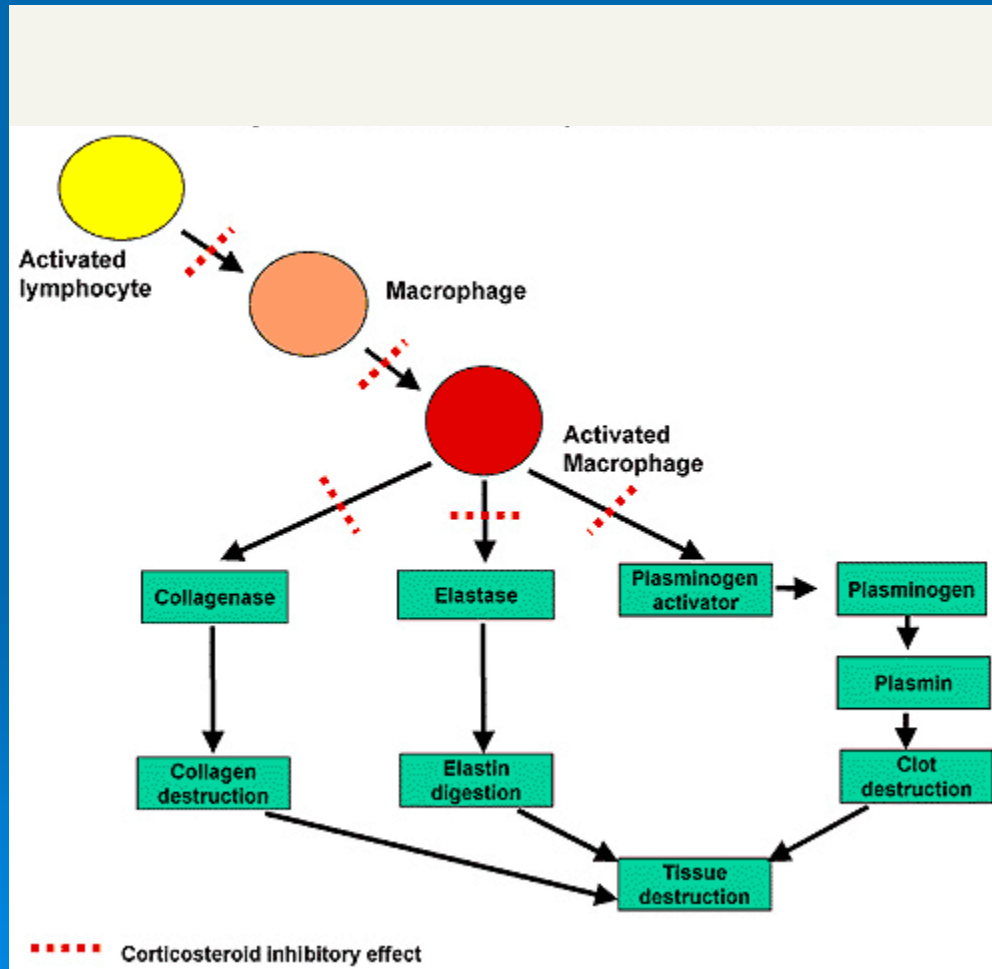
Corticosteroids



Anti-inflammatory effects of corticosteroid

- **Modifies gene transcription**
 - 'Switches off' pro-inflammatory genes
 - OR: 'Switches on' anti-inflammatory genes
- **Reduces formation of pro-inflammatory mediator chemicals, e.g.: cytokines**
 - Local pain reduction
 - Reduction of local swelling
 - Reduction of local erythema and tissue irritation

Anti-inflammatory Effects of Glucocorticoid



'Dermatitis' and Skin Inflammation

- **Topical application**
 - 1% hydrocortisone acetate cream, e.g. HC45
 - Daktacort
- Standardized unit of application = fingertip unit
 - **FTU**.
- One FTU = amount of topical steroid squeezed from the tip of the index finger to DIPJ
 - One FTU will treat an area of skin twice the size of an adult's hand.



Methylprednisolone acetate

➤ Synthetic corticosteroid

- Reduces normal cellular wall adhesion
- Reduces normal collagen production

➤ Pharmacological effects by

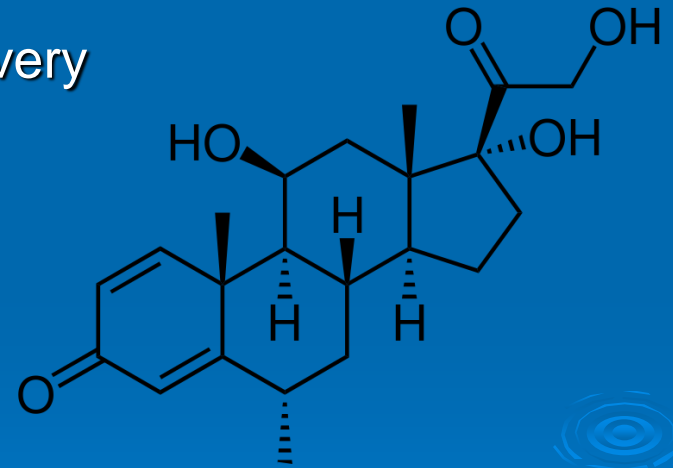
- topical, inhaled, injected, or systemic delivery

➤ Glucocorticoid action

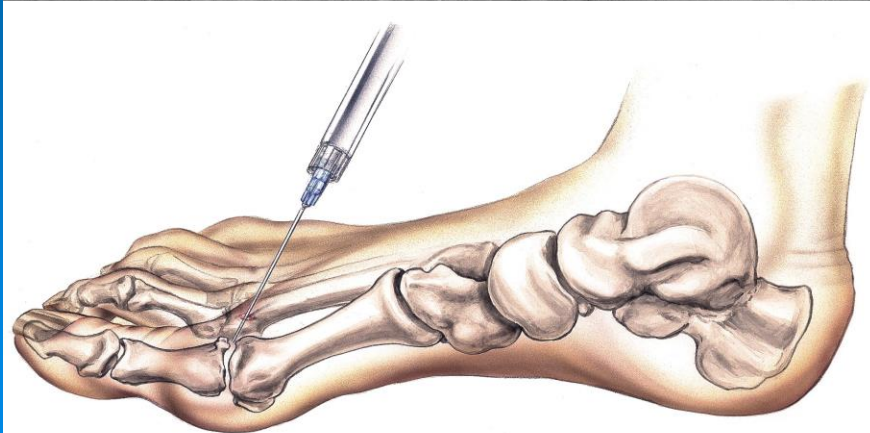
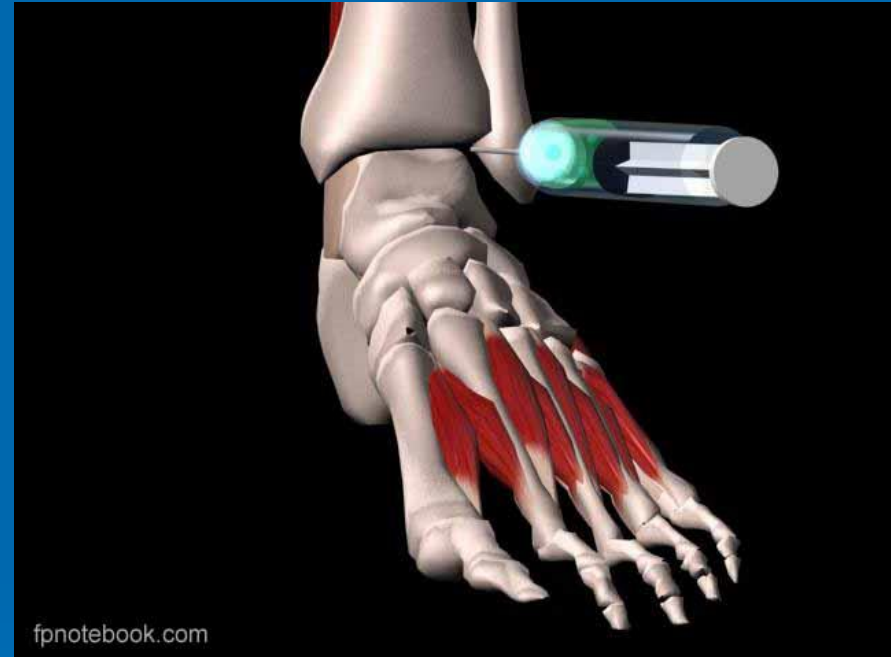
- Hypertensive
- Immunosuppressive
- Diabetogenic

➤ Anti-inflammatory

- Administered as pre-mix prednisolone + LA
- E.g.: Depo-medrone + Lidocaine (40mg + 10mg / ml)



Intra-articular Injection



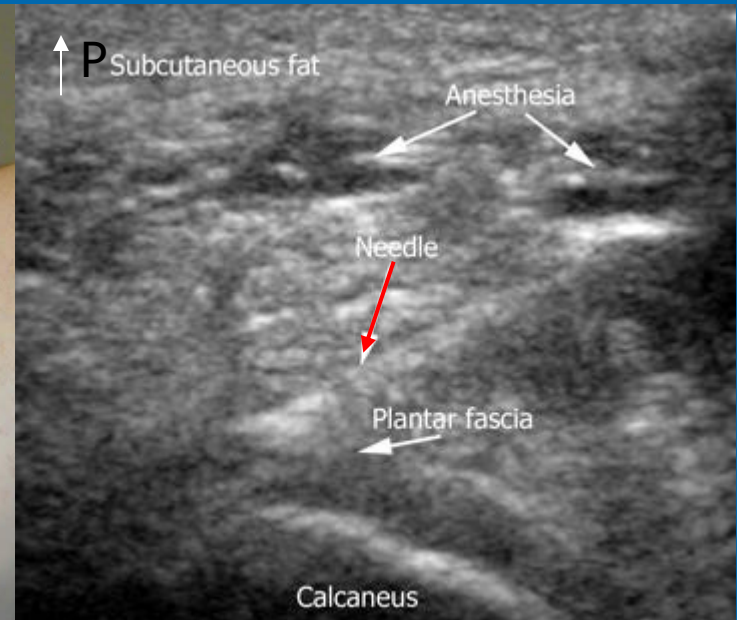
Dose: 40mg / ml

Delivered under U/S guidance

Forms a depot injection

Repeated x3 at monthly intervals

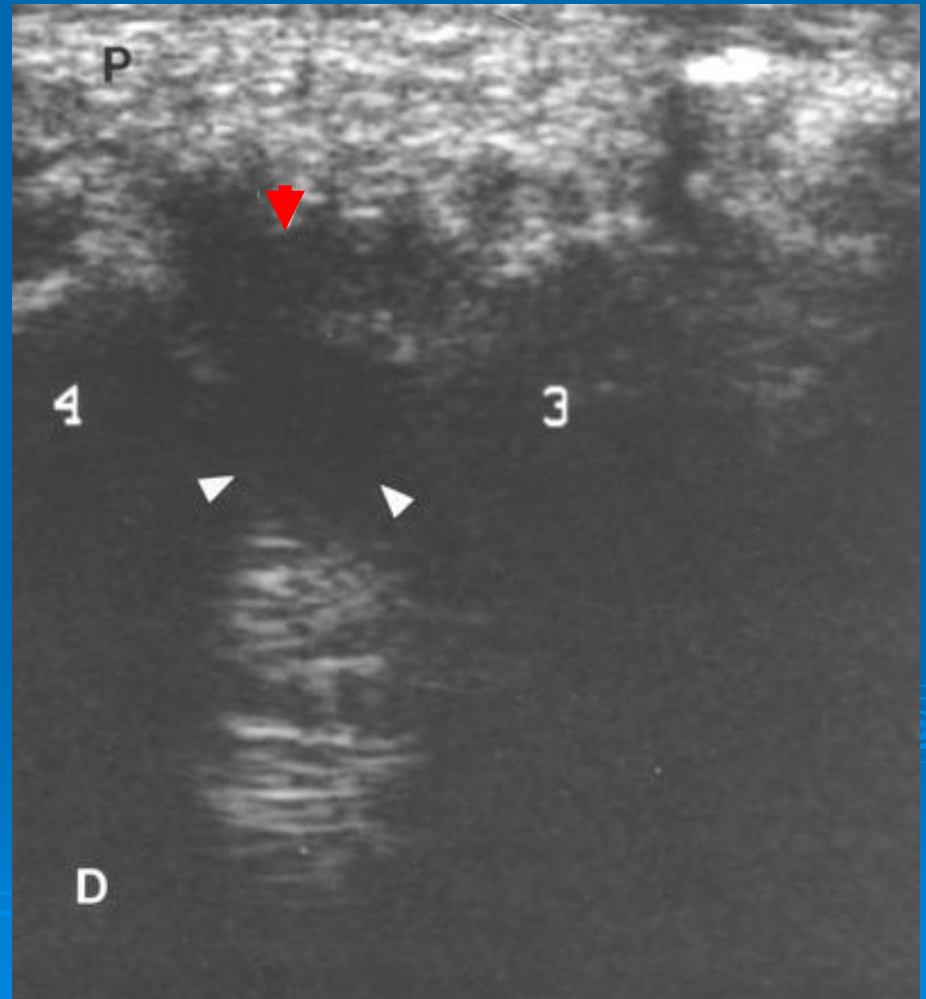
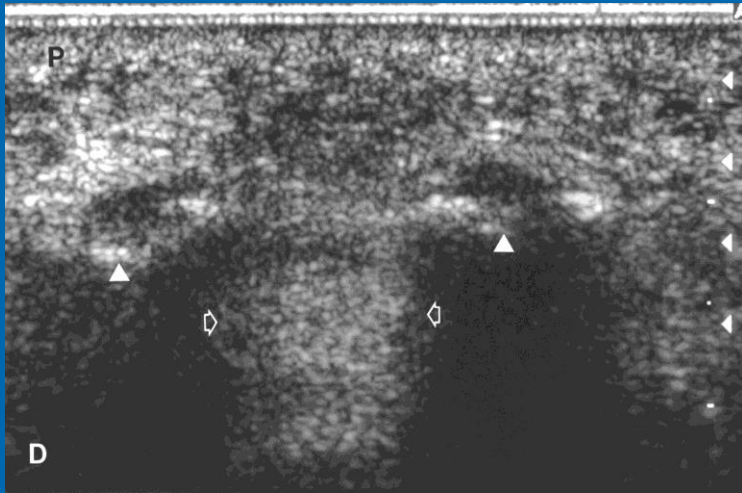
Plantar Fasciitis



Beneficial effects may not persist beyond 3/12

Indicated for short term relief of intractable heel pain

Plantar Digital Neuroma



Ct-St Drug Interactions 1

- Systemic effects of corticosteroids are increased (or their hepatic metabolism is reduced) when administered with
 - Erythromycin
 - Clarithromycin
 - Ketoconazole (Nizoral)
 - warning re: use of Ketoconazole now (liver function)
 - Oestrogens, including OCs and HRT
- Lower doses of corticosteroids may be indicated in these cases
- The doses of both methylprednisolone and cyclosporin may need to be reduced to if they are administered concurrently, to avoid increased side effects of either drug
 - Cyclosporin reduces the hepatic metabolism of methylprednisolone
 - Methylprednisolone reduces the metabolism of cyclosporin

Ct-St Drug Interactions 2

- **Increase or decreases the effect of warfarin**
 - Anti-coagulated patients on corticosteroids should be monitored and therapy adjusted to achieve the appropriate levels of anti-coagulation
- **Phenobarbital, Phenytoin and Rifampicin may increase corticosteroid metabolism, reducing corticosteroid effects.**
 - Dose of methylprednisolone may need to be increased
- **The effects of CS in pregnancy and lactation have not been fully evaluated**

Systemic side effects of corticosteroid therapy 1

Vary: mild temporary to severe permanent body wide effects:

- Fluid retention, weight gain and central obesity
- Hypertension
- Potassium depletion
- Headache
- Muscle weakness
- Facial puffiness (moon face)
- Hirsuties
- Thinning of the skin
- Glaucoma
- Cataracts
- Incidence or exacerbation of diabetes
- Irregular menses
- Growth retardation in children
- Convulsions

Systemic side effects of corticosteroid therapy 2

- Psychic disturbances (depression, euphoria, mood swings, psychoses)
- Suppression of adrenal cortex activity, causing Addisonian crisis if the corticosteroid therapy is stopped abruptly
- Masked signs of infection
- Impaired immune response to infection
- Increased susceptibility to infection
- Exacerbations of viral infections
- Development of e.g.: small pox if live vaccines administered
- Reactivation of dormant TB and malaria
- Loss of vaccine-induced immunity
- False negative results from the TB (Heaf) test
- Impaired calcium absorption causing osteoporosis and fractures
- Aseptic necrosis of joints / tendons

Side-Effects of CS+LA injection

- **Cortisone flare**
 - Steroid crystallizes after being injected
 - Causes 1-2 days increased pain
 - Resolves spontaneously over a few days
 - RICE of benefit
- **Loss of skin colour at injection site**
 - Temporary or permanent effect
- **Intra-articular infection**
 - Rare complication
 - Sterile pre-op skin preparation
- **Allergic reaction** to the steroid or local anesthetic
- Transient **increase in blood glucose** post-LA+CS injection in DM

"We combined all your medications
into ONE convenient dose."



NICKEL

**Thank you for your
kind attention!**

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Web-page

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