

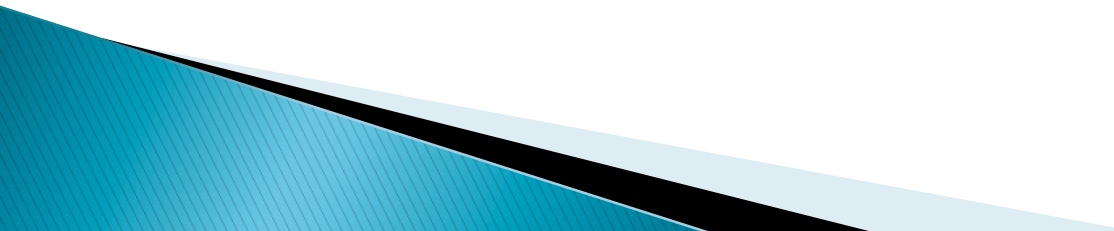
Prescribing & The Elderly

Dr Chris Linton

Consultant Psychiatrist for Older Adults

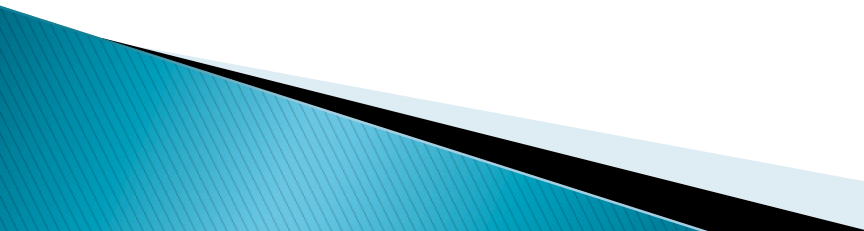
What are the issues here ?

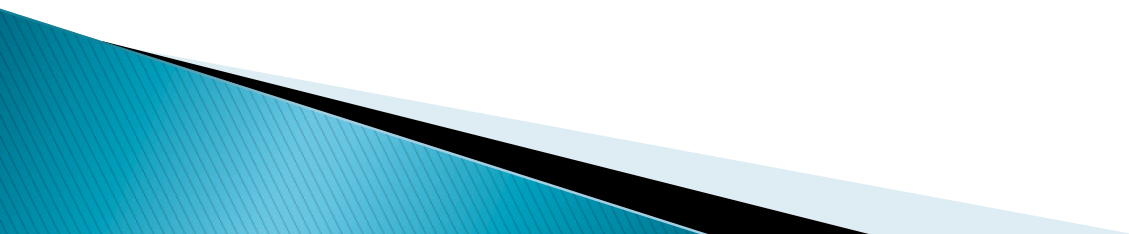
- ▶ 5 minute discussion in pairs / small groups

- ▶ Start low
 - ▶ And go slow
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▶ Find a friendly
pharmacist !

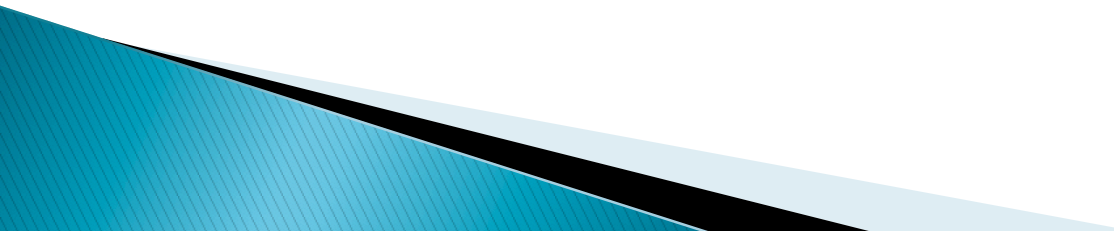


- ▶ Get a copy of the Maudsley Prescribing Guidelines!
 - ▶ Available in all good book shops !!
 - ▶ And via Athens accounts
 - ▶ Acknowledgment – I have used the Maudsley PG's to produce this talk
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General principles

- ▶ Altered:
 - Pharmacokinetics
 - Pharmacodynamics
 - ▶ Concurrent illness is common
 - ▶ Polypharmacy is common

 - ▶ All drugs are more likely to cause adverse effects in the elderly
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▶ Pharmacodynamics ?

▶ Pharmacokinetics ?



Pharmacodynamics

- ▶ (How drugs affect the ageing body)
- ▶ Reduced homeostatic mechanisms and increased receptor sensitivity in older adults
- ▶ So for the elderly:
 - Anticholinergics and opioids – more likely to cause constipation
 - TCA's and diuretics – greater effect on BP and inc falls risk

Pharmacodynamics

- ▶ (How drugs affect the ageing body)
- ▶ Delayed therapeutic response – antidepressant effects take longer
- ▶ More prone to serious SE's:
 - Neutropenia with Clozapine
 - Stroke with antipsychotics
 - GI bleeding with SSRI's

Pharmacokinetics

- ▶ (How ageing affects drug handling by the body):

- ▶ **A**

- ▶ **D**

- ▶ **M**

- ▶ **E**

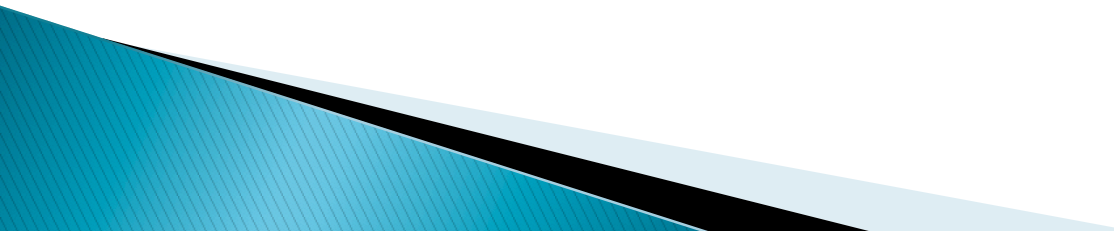
Pharmacokinetics

- ▶ (How ageing affects drug handling by the body):
- ▶ In the Elderly:
 - ABSORPTION – reduced gut mobility so drugs absorbed more slowly, slower onset of action
 - DISTRIBUTION:
 - more fat– longer duration of action for fat–soluble drugs eg benzo's
 - less water;
 - less albumin – more active free drug eg warfarin

Pharmacokinetics

- ▶ (How ageing affects drug handling by the body):
- ▶ In the Elderly:
 - METABOLISM – Nb most drugs are metabolised in liver and only affected if hepatic pathology
 - EXCRETION – Nb most drugs are metabolised and then renally excreted. Wrt renal function – 35% loss by age 65 and 50% by age 80. Use eGFR.
 - Nb. Lithium is primarily excreted by the kidney ie no metabolism first. So in renal disease, increased risk of accumulation and toxicity

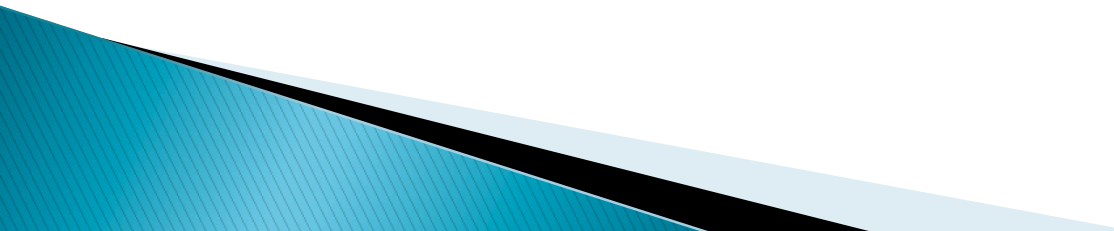
Drug Interactions

- ▶ Narrow therapeutic window eg Li, (also dig, warfarin)
 - ▶ Inhibition or Inducing hepatic metabolising enzymes
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Reducing prescribing risks in the elderly

- ▶ Only prescribe when absolutely necessary
- ▶ Try to avoid:
 - α 1-adrenoreceptor blocking drugs (eg doxazosin, tamsulosin etc)
 - Anticholinergics (eg oxybutinin)
 - Sedatives
 - Long half life meds

Reducing prescribing risks in the elderly


- ▶ Start low and go slow – Maudsley has table of starting doses of psychotropics and max doses
 - ▶ Avoid polypharmacy – don't treat SE's with another drug
 - ▶ Keep it simple – Once daily preparations where possible
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Prescribing for Dementia

BAP Summary of recommendations		
	First choice	Second choice
Alz Disease	AChE-I's	Memantine
Vasc dem	None	None
Mixed dem	AChE-I's	Memantine
Lewy body dem	AChE-I's	Memantine
MCI	None	None
PDD	AChE-I's	None

British Association for Psychopharmacology 2011 –
revised consensus statement

Prescribing in Dementia

- ▶ Patients with dementia are more sensitive to cognitive SE's.
 - ▶ Avoid concomitant use of AChE-I's and anticholinergics
 - ▶ Anticholinergics cause cog impairment, delirium, sedation, falls
 - ▶ Avoid oxybutinin – penetrate CNS and causes cog impairment
 - ▶ Maudlsey has table of anticholinergic potency of common drugs
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Prescribing in Dementia

- ▶ Avoid alpha-blockers eg tamsulosin for urinary retention- cause drowsiness, dizziness and depression
- ▶ Caution with:
- ▶ Antiemetics –
 - Cyclizine's histamine antagonism can impair cognition
- ▶ Oral anticholinergics for hypersalivation – eg hyoscine – risk of cog impairment, delirium and constipation

Prescribing in Dementia

- ▶ Caution with:
 - Analgesics – opiates – delirium and sedation, increased falls
 - Antihistamines – first gen eg chlorphenamine – cross B-B barrier and have anticholinergic effects
 - Digoxin – delirium even within therapeutic concentration window
- ▶ MPG has a table of drugs to avoid and favoured drugs in dementia

Prescribing for Delirium

- ▶ Try to prevent
- ▶ Identify and treat underlying cause
- ▶ Try non medication approaches

- ▶ Then:
 - Haloperidol is drug of choice (NICE guideline; but no evidence of superiority – must do ECG at baseline and monitor and look out for EPSE's.
 - Benzo's good for alcohol or hypnotic withdrawal or for PD/DLB and NMS

Treating depression in the Elderly

- ▶ No ideal antidepressant
- ▶ SSRI's better tolerated than TCA's
- ▶ But SSRI's:
 - increase risk of GI bleed (check history of GI bleed and caution with concomitant prescribing of steroid, NSAID, warfarin etc)
 - Increase risk of other bleed eg CVA
 - Hyponatraemia
 - Falls
- ▶ TCA's associated with cog impairment, seizures, arrhythmias, fatality in OD

Treating depression in the Elderly

- ▶ No ideal antidepressant
- ▶ “Other” antidepressants eg mirtaz, venlafax are, in comparison with SSRI’s:
 - Associated with more CVA’s, TIA’s, falls n fractures and seizures
- ▶ Need to choose on basis of:
 - Individual circumstances
 - Target symptoms
 - Previous patient medication history
 - Physical comorbidities, other medication

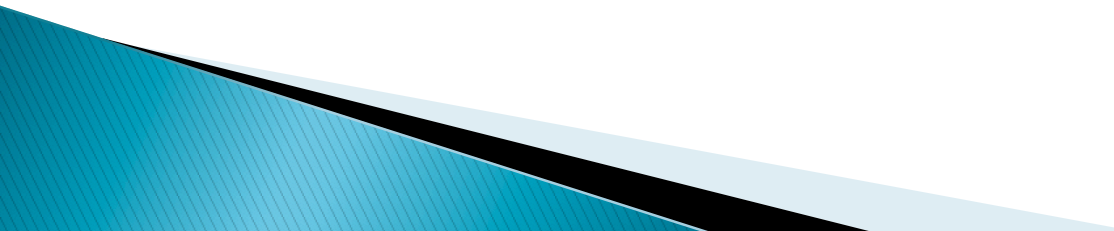
Psychiatric side effects of common medications

Symptom	Medication which can cause
agitation	Aspirin, salbutamol, fentanyl
aggression	Omeprazole, diazepam
anxiety	Amantadine, ISMN
Cog impairment	Atenolol, L-dopa
Delirium	Aciclovir, corticosteroids
Depression	Digoxin, prednisolone
Hallucinations	Amoxicillin, B-blockers
mania	Isoniazid, Verapamil, Steroids

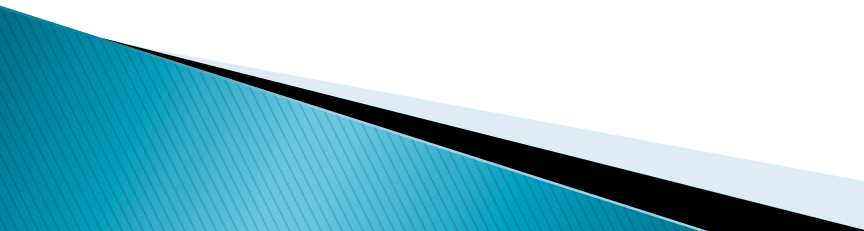
Prescribing in Renal Impairment

- ▶ Assume elderly (>65) have mild renal impairment (eGFR 60–89)
- ▶ Avoid nephrotoxics eg Li if eGFR <60
- ▶ Choose a drug which is safer in renal impairment – refer to MPG
- ▶ Be cautious – start low, go slow
- ▶ Avoid long acting drugs
- ▶ Avoid drugs with risk of prolonging QTc (as electrolyte change occur with progressive renal disease) and risk increase

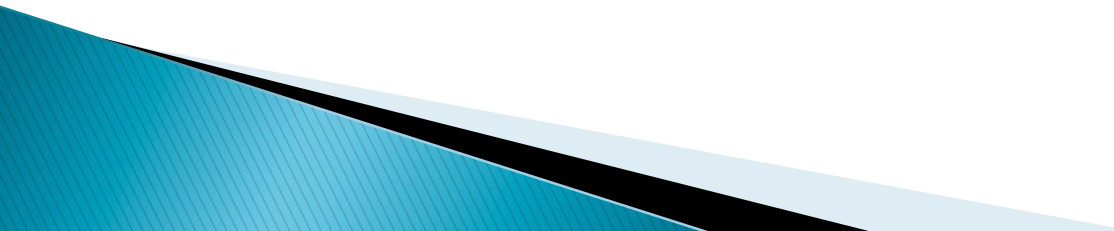
Prescribing in Renal Impairment

- ▶ Antipsychotics– AVOID Sulpiride or Amisulpiride
 - ▶ Antipsychotics – suggest low dose haloperidol or olanzapine
 - ▶ Antidepressants – sertraline
 - ▶ Mood stabilisers – AVOID lithium if poss
 - ▶ Anxiolytics & hypnotics – short acting eg lorazepam or zopiclone
 - ▶ Dementia – no preference
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Prescribing in Hepatic Impairment

- ▶ LFT's are a poor guide to hepatic metabolising capacity
 - ▶ Prescribe as few drugs as possible
 - ▶ Start low n go slow (AGAIN!!!!)
 - ▶ Caution with drugs which are extensively metabolised by liver
 - ▶ Avoid sedative meds– risk of hepatic encephalopathy
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Prescribing in Hepatic Impairment

- ▶ Antipsychotics – haloperidol or amisulpiride (if renal function ok)
 - ▶ Antidepressants – imipramine or paroxetine
 - ▶ Mood stabilisers – Lithium
 - ▶ Anxiolytics and hypnotics – lorazepam and zopiclone (short half-life)
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Any Questions

