BRIGHTON & HOVE
HOMELESS HEALTH
CONFERENCE

Mental Health Meds

WHAT, WHY, WHEN & HOW

Dr Tim Worthley 22.10.25

Arch. JL St Martin in the Fields Frontline Network Partner

Outline

- What are mental health medications?
- Neurotransmitters
- Questions to ask before prescribing/taking
- Run through of the main types of medications
  - How they work
  - Potential side effects
  - Useful (hopefully) info

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This is not ….(!)

- An in-depth biochemical explanation of how they all work
- A list of every single mental health medication
- A conversation about psychiatry vs anti-psychiatry, the evils of drug companies, or a profound comment on what is normal and what are we even medicating anyway

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What is MH medication

- Prescription drug that affects the brain to alter mood, behaviour, thoughts, or perceptions, often used to treat mental health conditions like depression, anxiety, and psychosis.
- These medications work by influencing brain chemistry, specifically neurotransmitters like dopamine, serotonin, and noradrenaline.
- Common types include antidepressants, antipsychotics, mood stabilisers, stimulants, sedatives & anxiety medication.

Neurotransmitters

Serotonin

BRAIN: ↑mood, sleep, ↓libido

BODY: stimulates gut, insulin, vasoconstriction. Pain & Temperature regulation

Noradrenaline

BRAIN: stress, attention, focus; alertness, arousal

BODY: Raised BP, pulse, sugar, slows intestines

Dopamine

BRAIN: reward, motivation, pleasure, cognition, sleep

BODY: fine tuning of movements, GI both, CV both

GABA "off switch"

BRAIN: slows brain down (calm, sleep, reduced stress)

BODY: reduced seizures, tone, pain

Acetylcholine

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Glutamate "on switch"

Excitatory – pain, sensory information, nerve activity

Histamine

Promotes wakefulness, modulates feeding behaviour, and controls motivational behaviour

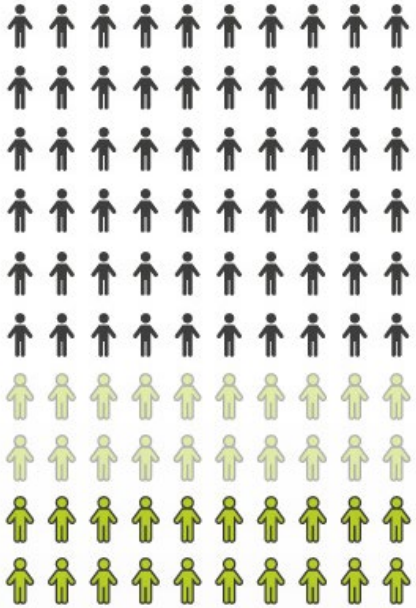
Antidepressants

- Questions to ask
  - Depression vs Distress
  - Other chemical influences in brain
  - Moderate-Severe Depression
  - First 2 weeks
  - Take regularly?
  - Impact of side effects, any contraindications?
  - Risk of overdose
  - What's the plan?
  - Risk of discontinuation/withdrawal
  - Placebo

How well can **antidepressants** relieve symptoms?

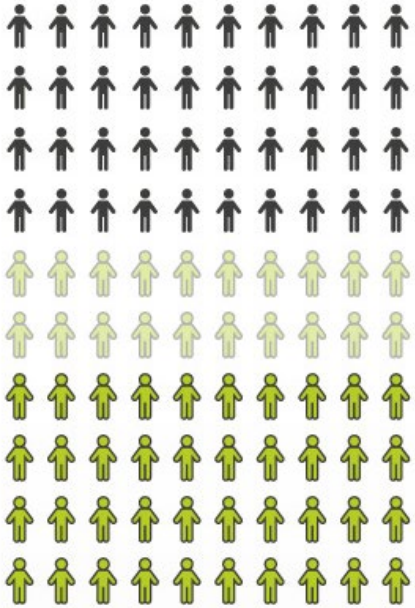
Studies of people with moderate or severe depression showed:

Without antidepressant



= About **20 to 40** out of 100 people who took a placebo noticed an improvement of their symptoms within six to eight weeks

With antidepressant



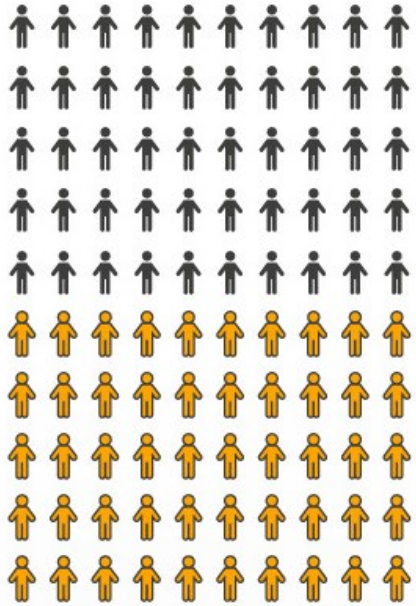
= About **40 to 60** out of 100 people who took an antidepressant noticed an improvement of their symptoms within six to eight weeks

That means: **Antidepressants improved symptoms in about 20 out of 100 people.**

How well can **antidepressants** prevent relapses?

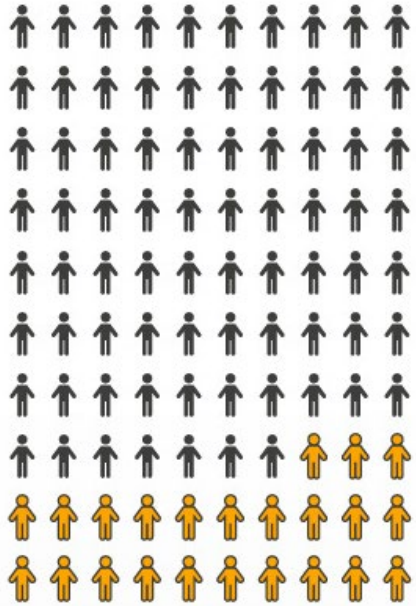
Studies showed that antidepressants cannot completely prevent relapses, but that they can lower the risk:

Without antidepressant



= About **50** out of 100 people who took a placebo had a relapse within one to two years

With antidepressant



= About **23** out of 100 people who took an antidepressant had a relapse within one to two years

That means: **Taking an antidepressant for a longer period successfully prevented a relapse in 27 out of 100 people on average.**

Tricyclic Antidepressants (Amitriptyline)

- 1st Generation
- Not very selective - NA & Serotonin, BUT ALSO block ACh, histamine
- Mood, Sleep, Pain, Migraines, Agitation
- **BUT**
- Side effects – dry you up and knock you down
- Very risky in overdose
- Consider if other options fail, or other effects needed
- Very careful dose management

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SSRI Antidepressants

- Serotonin Selective Re-uptake Inhibitors
- Citalopram, Sertraline, Fluoxetine, Escitalopram, Paroxetine
- More selective. But other NTs are impacted
- Can also be useful for anxiety & sometimes chronic pain
- Beware – reflux, weight, GI, sexual side effects, serotonin syndrome, discontinuation (esp Paroxetine)
- “Take every morning after breakfast”

Other Antidepressants

SNRI's

Venlafaxine, Duloxetine

- More stimulating
- Can be useful in chronic pain

Mirtazapine

NA, Serotonin, Histamine

- Sedative – as much at 15mg as 45mg
- Weight gain ++

Trazodone

NA, Serotonin, Dopamine, Ach, Histamine

- Unselective, therefore more side effects
- Drowsiness, NA side effects

Pause

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Antipsychotics

1st Generation – "typical"
eg Haloperidol, Chlorpromazine

2nd Generation – "atypical"
eg Risperidone, Olanzapine, Quetiapine, (Aripiprazole)

CLASSES

* TYPICAL (1st GENERATION)
  ~ HIGH or LOW POTENCY → AMOUNT of DRUG REQUIRED to MINIMIZE SYMPTOMS
  ~ NOT SELECTIVE TO D2 RECEPTORS in MESOLIMBIC PATHWAY → WORSENING NEGATIVE SYMPTOMS
* ATYPICAL (2nd GENERATION)
  ~ BLOCK BOTH D2 RECEPTORS & SEROTONIN 5-HT2A RECEPTORS → ↓↓ NEGATIVE SYMPTOMS

SIDE EFFECTS

* HIGH-POTENCY, 1ST GENERATION
  ~ EXTRAPYRAMIDAL SYMPTOMS
  ~ TARDIVE DYSKINESIA
  ~ NEUROLEPTIC MALIGNANT SYNDROME

* LOW-POTENCY, 1ST GENERATION
  ~ DRY MOUTH
  ~ SEDATION
  ~ CONSTIPATION
  ~ DIZZINESS

* 2nd GENERATION
  ~ WEIGHT GAIN
  ~ DRUG-INDUCED TYPE 2 DIABETES
  ~ TIREDNESS

	Extrapyramidal	Sedation	Weight gain	Hyperglycaemia	Anticholinergic	Orthostatic hypotension
Atypical antipsychotics						
Risperidone	●●	●● initially	●●	●●	●	●● initially
Quetiapine	●*	●●●	●●	●●●	●●	●●
Olanzapine	●	●●●	●●●	●●●	●●●	●
Clozapine	●	●●●	●●●	●●●	●●●	●●
Amisulpride	●●*	●	●	●	●	●
Aripiprazole	●	●	●	●	●	●
Ziprasidone	●	●●	●	●	●	●●
Typical antipsychotics						
Haloperidol	●●●	●	●●	●●	●	●
Chlorpromazine	●●	●●●	●●●	●●●	●●●	●●●

Approximate frequency of adverse effects: ● (<2%) = negligible or absent; ● (>2%) = infrequent; ●● (>10%) = moderately frequent; ●●● (>30%) = frequent. * rarely a problem at usual therapeutic doses

Antipsychotics and Prolactin Levels

- Prolactin-elevating antipsychotics
  - Risperidone and paliperidone
- Variable effect on prolactin
  - Olanzapine, lurasidone, asenapine, ziprasidone
- "Prolactin-sparing" antipsychotics
  - Iloperidone, quetiapine, clozapine, aripiprazole

Huhn, M., Nikolakopoulou, A., Schneider-Thoma, J., Krause, M., Samara, M., Peter, N., Arndt, T., Bäckers, L., Rothe, P., Cipriani, A., Davis, J., Salanti, G., & Leucht, S. (2019). Comparative efficacy and tolerability of 32 oral antipsychotics for the acute treatment of adults with multi-episode schizophrenia: a systematic review and network meta-analysis. The Lancet, 394(10202), 939-951. https://doi.org/10.1016/S0140-6736(19)31135-3

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  - ~ DIZZINESS

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  - ~ WEIGHT GAIN
  - ~ DRUG-INDUCED TYPE 2 DIABETES
  - ~ TIREDNESS

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Pause

ADHD Medication

- Stimulants
  - Methylphenidate
  - Lisdexamfetamine
  - Slow and steady wins the race, esp for adults
  - Extraordinary BUT risky especially in substance use

- Non-stimulants
  - Atomoxetine
  - (Guanfacine, Clonidine)

Sedatives

- Benzodiazepines
  - Stimulate GABA (like alcohol)
  - Addiction, memory loss, depression, falls, possibly dementia, death
  - Never more than 2 weeks
  - Opportunity cost
- Z-drugs – questionable as to whether they are any better
- Antihistamines – promethazine. Lower histamine and ACh

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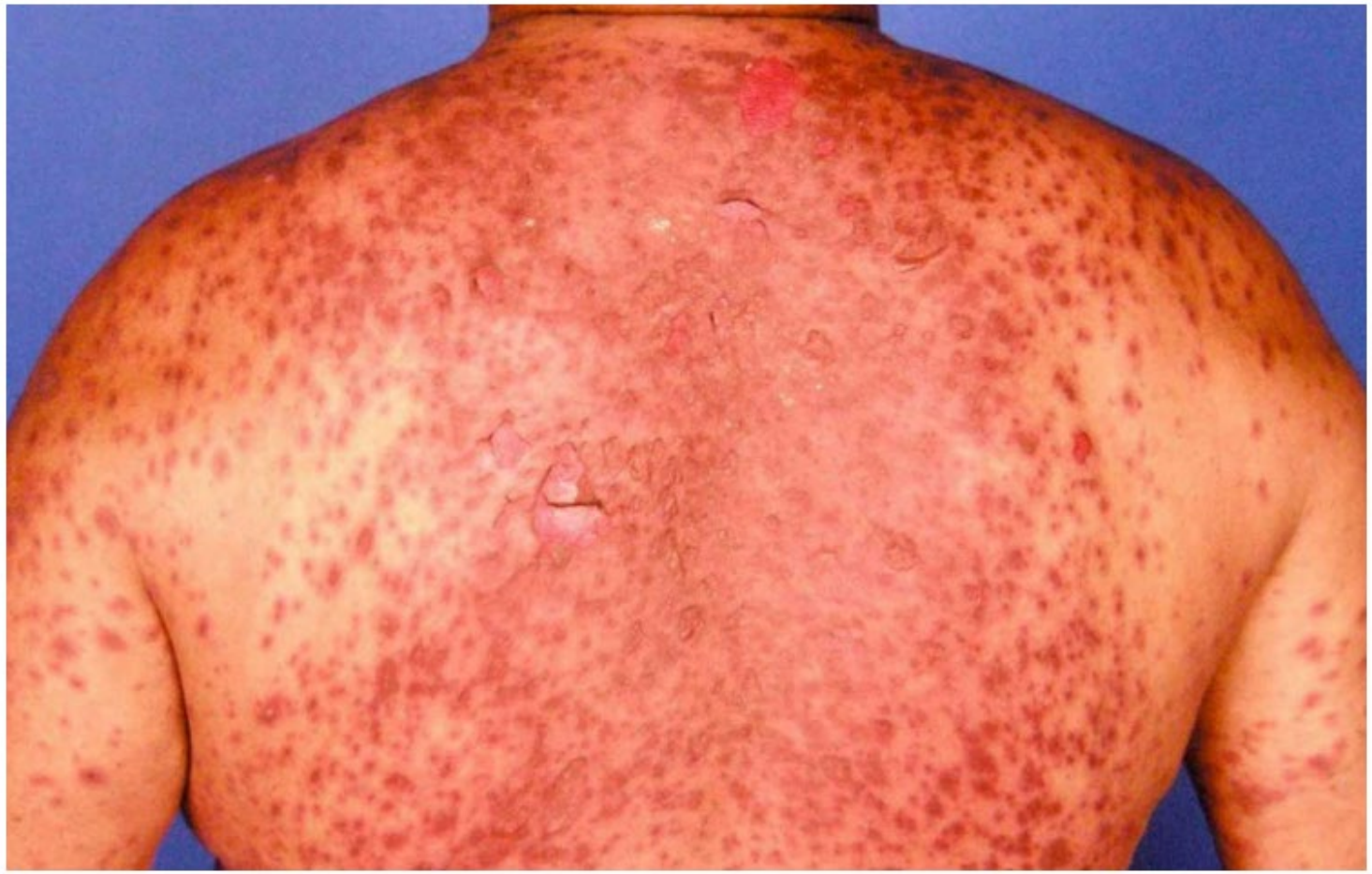
Mini Pause

Mood Stabilisers

- Recycled & Lithium
- Anticonvulsants (Epilepsy Medications)
  - Beware Pregabalin and Gabapentin!!
  - Special mention to Lamotrigine
  - Also Sodium Valproate (Epilim), Carbamazepine (Tegretol)
- Antipsychotics – particularly in mania
- Antidepressants - with caution

Lamotrigine rash (SJS)



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Anxiety Medication

- Recycled & Difficult

- "When required"
  - Non-sedative – propranolol (beware asthma)
  - Sedative
    - promethazine, BDZ (only very short-term)
    - low dose Quetiapine but only if severe – usually Psychiatrists
- Regular
  - Antidepressants
    - Beware the more stimulating options
    - Sometimes need higher doses
  - Antipsychotics – Only if severe, usually Psychiatrists, only 2nd Gen
  - (Buspirone)

Mini Pause

Closing thoughts

- Complex
- Potential for more harm than good
- Can have profoundly positive impact
- Lack of available lifestyle interventions results in increased prescribing
- Effective prescribing requires:
  - Understanding of the person and good relationship
  - Regular monitoring
  - Avoidance of long-term if possible, unless SMI
  - Changing when situation changes
- De-prescribing can be hugely impactful

Thank you

Any Questions?

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