

Clinical Pearls

wardmm
institute
medication management training

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Each week we will aim to bring out a concise email that provides 4-5 key pieces of information addressing a specific issue in clinical therapeutics.

This week: Agitation or Drug-induced Movement Disorder?

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Movement disorders are a common adverse effect of many drugs, most commonly dopamine receptor blocking drugs e.g. antipsychotics or anti-emetics. Click on this [link](#) for more information.

- The time of onset of the movement disorder may be acute, subacute, or chronic
- The severity can range from mild to severe and life-threatening.

Movement disorder	Implicated drugs
Akathisia	Dopamine receptor blocking drugs (e.g. antipsychotics, metoclopramide) Selective serotonin reuptake inhibitors (SSRIs) Antiepileptics
Tremor	SSRIs Lithium Tricyclic antidepressants Antiepileptics (e.g. valproate) Bronchodilators Amiodarone Immunosuppressive drugs (tacrolimus, cyclosporin)
Acute dystonic reaction	Dopamine receptor blocking drugs SSRIs Opioids Methylphenidate Rivastigmine Gabapentin
Neuroleptic malignant syndrome	Antipsychotics (e.g. haloperidol, fluphenazine, chlorpromazine) Prochlorperazine Metoclopramide Droperidol Promethazine Tetrabenazine Lithium

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Parkinsonism	Dopamine receptor blocking drugs (e.g. antipsychotics) Calcium channel antagonists Antiepileptics (e.g. phenytoin, valproate, levetiracetam) Antidepressants (e.g. SSRIs, monoamine oxidase inhibitors) Lithium Immunosuppressive drugs (e.g. ciclosporin, tacrolimus)
Tardive drug-induced movement disorders	Antipsychotics Antiemetics

Some common examples include:

- **Akathisia**
 - Is common and may be misdiagnosed as “agitation”
 - A feeling of motor restlessness (usually in the lower extremities)
 - Most cases are acute and are dose related
 - **Akathisia tends to improve with dose reduction/cessation** of the offending drug and **deteriorate when the dose is increased** (vice versa with agitation)
- **Tremor**
 - Is typically postural or kinetic, or both
 - Is symmetrical and occurs acutely following drug ingestion or dose escalation
- **Dystonias**
 - Includes spasm of craniocervical muscles which is typical, but oculogyric crises, truncal spasm or limb dystonia can also occur
 - More common in younger patients
- **Parkinsonism**
 - Includes tremor, rigidity or bradykinesia (slowness of movement)
 - Usually develops after weeks or months
 - Poor response to antiparkinsonian drugs
- **Tardive dyskinesia (TD)**
 - Involuntary movements of the face, mouth or tongue, and sometimes head and neck, trunk or limbs
 - May appear after medium- to long-term treatment, or even after stopping the antipsychotic (especially with sudden cessation)
- **Neuroleptic malignant syndrome (NMS)**
 - A potentially fatal condition
 - Characterised by fever, marked muscle rigidity, altered consciousness and autonomic instability, raised CK

Early recognition of a drug-induced movement disorder is essential to allow for prompt intervention. This may include dose reduction or cessation of the offending drug, switching to an alternative drug, supportive care and sometimes other pharmacological treatment.

Please consider these issues when preparing or interpreting RMMR reports or education sessions. Contributions of content or suggested topics are welcome and should be sent directly to natalie@wardmm.com.au