

Medication Appropriateness Index (MAI) – Examples

Question	Example
1. Is there an indication for the drug? A= indicated B= marginally indicated C= not indicated Z= do not know	<ul style="list-style-type: none"> Amlodipine is prescribed and hypertension is recorded in patient history =A KCl prescribed to patient taking a diuretic without history of hypokalaemia =B Olanzapine prescribed but schizophrenia and related psychoses or bipolar disorder not documented=C
2. Is the medication effective for the condition? A= effective B= marginally effective C= ineffective Z= do not know	<ul style="list-style-type: none"> Pantoprazole prescribed for peptic ulcer disease =A Amitriptyline for neuropathic pain =B (not indicated but accepted as effective) Quinine sulfate prescribed for leg cramps =C
3. Is the dosage correct? A= correct B= marginally correct C= incorrect Z= do not know	<ul style="list-style-type: none"> Warfarin 3mg daily for patient with AF and stable INR of 2.2 =A Atorvastatin at highest end of usual dose range but cholesterol level remains elevated =B (dose is necessary but additional therapy is needed) Digoxin 250mcg daily for elderly patient with CrCl 25ml/min =C+ (dose too high)
4. Are the directions correct? A= correct B= marginally correct C= incorrect Z= do not know	<ul style="list-style-type: none"> Prednisolone 5mg m with food =A Latanoprost eyedrops instil 1 drop into the eye at night =B (should specify which eye or both eyes) KCl without directions regarding food =C
5. Are the directions practical? A= practical B= marginally practical C= impractical Z= do not know	<ul style="list-style-type: none"> Amitriptyline 25mg tab 1 n =A Directions given as 'mdu' =B Ipratropium MDI 2 puffs q6h =C (qds more appropriate to fit waking hours rather than directing every 6 hours)
6. Are there clinically significant drug-drug interactions? A= insignificant B= marginally significant C= significant Z= do not know	<ul style="list-style-type: none"> Metoprolol and rabeprazole =A Metformin and esomeprazole =B (interaction documented but clinical significance not established) Diltiazem and atorvastatin =C (diltiazem inhibits CYP3A4 metabolism of atorvastatin)

<p>7. Are there clinically significant drug-disease/condition interactions? A= insignificant B= marginally significant C= significant Z= do not know</p>	<ul style="list-style-type: none"> • Rivaroxaban in a patient with asthma =A (no interaction or precaution documented) • Atenolol in a patient with diabetes and no worsening of glycaemic control =B • Doxepin in an elderly patient with glaucoma =C (contraindicated)
<p>8. Is there unnecessary duplication with other drugs? A= necessary B= marginally necessary C= unnecessary Z= do not know</p>	<ul style="list-style-type: none"> • Regular indacaterol inhaler plus prn use of salbutamol MDI in patient with COPD =A (necessary duplication of beta agonists for therapeutic effect) • Combination of paracetamol 500mg & 665mg SR tabs not exceeding max total recommended daily dose =B • citalopram m plus fluvoxamine n =C (2 drugs from same SSRI class with resulting risk of serotonin overload)
<p>9. Is the duration of therapy acceptable? A= acceptable B= marginally acceptable C= unacceptable Z= do not know</p>	<ul style="list-style-type: none"> • Dual antiplatelet therapy with aspirin & clopidogrel for 6-12 months after insertion of drug-eluting stent =A • Long-term PPI use with occasional intermittent symptoms =B • Long term monotherapy with oral corticosteroid in patient with COPD =C (unfavorable risk:benefit ratio) <p>*note that if the drug is not indicated, rating =C</p>
<p>10. Is this drug the least expensive alternative compared to others of equal utility? A= less expensive B= equally expensive C= more expensive Z= do not know</p>	<ul style="list-style-type: none"> • Magmin tab =A (PBS-subsidised for Aboriginal and Torres Strait Islander patients, cheaper to patient than OTC magnesium supplement) • Ramipril 5mg tab =B (same cost to patient as perindopril 5mg tab, listed in CARPA as alternative option for heart failure) • FerroGrad C tab =C (non-PBS, >10% more expensive than Ferro-tab which is PBS-subsidised for Aboriginal and Torres Strait Islander patients) <p>*note that if the drug is not indicated, rating =C</p>