Psycholeptics, anti-depressants, antiepileptic, anti-RA and anti-spastic medications available at Zithulele hospital

Note that with the exception of NSAIDs, none of the following medications are available at a primary healthcare centre. However, by special arrangement with the pharmacy, medications for individuals can be pre-packed and delivered to clinics by therapists or visiting doctor.

AGENTS USED FOR RHEUMATOID ARTHRITIS

The most common strategy is to combine a NSAID (non-steroidal anti-inflammatory drug) with a DMARD (disease modifying anti-rheumatic drug).

NSAIDs available :	**DMARDs available:**
Ibuprofen • **Use:** Causes less fluid retention than other agents (like Indomethacin), thus quite safe in hypertensive patients • **Side-effects and cautions:** Avoid in patients recovering from acute thrombo-embolism, patients immediately post infarct that require aspirin for its blood-thinning attributes. Wait until patients' blood-profile has stabilized before putting them on long-term, high dose Ibuprofen. • **Dosage:** 600-1200mg/day in divided doses up to a maximum of 2400mg/day. **Diclofenac** • **Use:** It accumulates in synovial fluid, which is beneficial in rheumatoid arthritis • **Side effects and cautions:** Of all the NSAIDS, this agent has the least propensity to cause gastric irritation and upset. Impairs renal blood flow the most of all the agents, so exercise caution in patients with renal impairment and/or renal failure. • **Dosage:** 150mg/day **Indomethacin** (A reserve agent for patients not responding to other NSAIDs) **Aspirin** (Rarely used, newer agents are more potent) Note: All of the above should be taken after food to avoid gastric upset	**Methotrexate** • **Contra-indications:** clotting defects, renal or hepatic disease, serous effusion, pregnancy, lactation. • **Treatment:** Review by doctor monthly initially after starting treatment • **Dosage**: 15-25mg once weekly, but can be increased to 30-35mg weekly. **Sulfasalazine** • Bad side effect profile Note: Maximal damage occurs in the first 2 years of the disease, so early intervention is essential!

ANTISPASTICITY AGENTS

	Baclofen	**Diazepam**	**Orphenadrine**
Use	Management of spasticity of spinal cord origin - less effective in the management of spasticity of cerebral origin. Can also be used to relieve pain due to trigeminal neuralgia. Not effective for normal skeletal muscle spasms.	Most efficacious agent for spasticity, although its use is limited by its sedating properties. In its usual therapeutic dose (5-20mg/day), its muscle relaxant effect is centrally mediated, but at higher doses it also has a direct relaxant effect on muscles.	Not useful for spasticity of spinal or cerebral origin; more used to relieve normal muscle spasms.
Side-effects	May cause severe sedation and reduced muscle tone if not titrated properly.	May cause sedation	Antimuscarinic effects like dry mouth, urinary retention and blurred vision .
Cautions	It should not be abruptly discontinued, since rebound spasticity can occur		Use cautiously in older patients (they are more prone to its side-effects), those with chronic , recurrent urinary tract infections (urine retention pre-disposes to infection) and those who are already on Amitriptyline.
Dosage	Start dose for adults is 5mg three times a day, increase by 5mg per dose every 3 days until desired effect is obtained (usually 30-75mg/day). Paediatric dosing for children 2-7 years old is 30-40mg/day; over 8 years: 60mg/day. Starting dose is 1-1.5mg/kg daily in divided doses.	Dose used to relieve muscle spasm is 2mg 3-4 times daily; can be increased to 40mg/day in divided doses.	50mg three times a day, or 100mg twice daily.

ANTI-EPILEPTIC MEDICATION AND AGENTS USED FOR NEUROGENIC PAIN

The same medication is generally used for both conditions since both conditions involved faulty firing of nerve fibres.

Phenobarbitone is also available but should only be used once all other agents have failed to control epilepsy.

	Phenytoin	**Carbomazepine**	**Sodium Valproate**
Class and use	Used for the treatment of partial seizures and general tonic-clonic seizures.	In epilepsy, it is useful for partial and generalized tonic-clonic seizures. Also effective as a mood stabilizer in bipolar disorder and as adjuvant therapy to neuropathic pain.	Useful in the treatment of all forms of partial and primary generalized seizures. The drug of choice in patients who are on TB and/or ARV medication. It can be used to treat the manic phase of bipolar disorder.
Side-effects	Initiation should be carefully monitored.		
Cautions	Avoid its use in patients that are on ARVs and low-dose oral contraceptives. (Only use high dose oral contraceptives like Ovral). Avoid the concurrent use of Bactrim. No generic substitution is allowed.	Never use for absence seizures. Can cause sub-therapeutic levels of low-dose oral contraceptives. Do not use with the TB medication Isoniazid Do not use with ARV medication	Avoid use inpatients with liver cirrhosis Does not decrease the efficacy of the oral contraceptives. The formulation on hospital code must never be crushed or halved.
Dosage	Standard dose: 300mg/day. Check blood levels before increasing. Dose increases should be done in 20-30mg increments and the blood levels monitored.	Epilepsy: start on 100-200mg twice daily, increasing dose by 100-200mg per day at weekly intervals until seizures are under control. Maintenance dose is usually between 600-1200mg per day. Mood stabilizer: 400-600mg/day. Note the therapeutic effect may only become evident after 7-10 days. Trigeminal neuralgia and other neuropathic pain: start with 100mg twice daily, increase with 100mg every 12hours until pain is relieved (max dose 1600mg/day). Once pain is under control, the dose may be decreased gradually to a maintenance dose of 400-800mg/day.	Dose for epilepsy: start patient on 600mg/day in divided doses. Increase with increments of 200mg/day every 3rd day until control of seizures are achieved. The usual maintenance dose is 1-2g/day. Dose for epilepsy in children: under 20kg, give 20mg/kg/day, increasing up to 40mg/kg/day. Over 20kg, give 400mg/day in divided doses, increasing gradually until control is achieved (usually at 20-30mg/kg/day). Doses for acute mania in bipolar disorder: 600-900mg/day in divided doses (can be increased to 1500mg/day in severely agitated patients), increase dose every 4th day until control is reached (normally in the range of 1-2g/day)

Diazepam is the drug of choice in status epilepticus.

PSYCHOANALEPTICS AND PSYCHOLEPTICS

	Amitriptyline (Trepiline)	**Diazepam** (Betapam)	**Fluoxetine** (Lorien)	**Lorazepam** (Tranqipam)
Class and use	Tricyclic class Used to treat depression, particularly with co-morbid anxiety. Aids sleep. Also useful in treating neuropathic pain.	Benzodiazepine class More effective as an anxiolytic than a sedative Used for status epilepticus, alcohol withdrawl and as an anxiolytic	The only anti-depressant of the SSRI class that we stock. Preferred over Amitriptyline because it is safer in overdose.	Benzodiazepine class Useful for treating anxiety, status epilepticus and insomnia. Also acute panic attacks (dissolve tablet under tongue) Few drug interactions
Side-effects	More extensive than newer agents (e.g. fluoxetine) Anti-muscarinic actions (dry mouth, blurred vision, drowsiness, difficulty passing urine, increased heart rate). Minimise side-effects by giving at night (also helps sleep).	Can cause drowsiness and sedation (in the elderly)	Variable response in patients; makes some patients sleepy (in should take it at night) and others might be stimulated by it (should take it in the morning)	
Cautions	Elderly patients are more prone to side effects Do not use with a history of heart disease. Do not give to alcoholics Very dangerous in overdose. Do not give a full month's supply when starting.	Exercise care in use with the elderly. If used for longer than 6 weeks, must be gradually withdrawn to prevent rebound anxiety. Decrease by 10% every week until the pt is weaned off it.		Likely to cause withdrawal symptoms when suddenly stopped – needs tapering.
Dosage	Depression: ranges from 100mg-300mg/day. Start on a low dose (50mg) and titrate upwards weekly until therapeutic benefit is achieved and side-effects are tolerable. Neuropathic pain: ranging from 25-100mg per day.	As an anxiolytic: 5-15mg per day	Starting dose is 20mg per day. Wait at least for 4 weeks before increasing the dose. Bring patient back for review 1 month after starting. Anti-depressants need 2-4 weeks for their effect to become evident.	Anxiety: 1mg 2-3 times a day Insomnia: 1-4mg at night Status Epilepticus: slow IV, 4mg (2mg/minute). Can be repeated after 10-14 minutes. Do not give more than 8mg/ 12 hours.

ANTI-PSYCHOTICS

General considerations • Typical anti-psychotics treat positive symptoms quite well, but not the negative. • They are NOT effective for the agitation state that accompanies alcohol withdrawal; patients should be treated with Benzodiazepines (diazepam is particularly effective for this indication), not anti-psychotics. • Major long-term side effects of the typical class is movement disorders (often resembling Parkinson's)	• Initially, anti-psychotics cause a cholinergic excess which may lead to dystonia and akathisia. Later on, a dopaminergic excess occurs causing traditive dyskinesia, which is not always reversible. • Movement disorders and tardive dyskinesia may be eliminated by switching to an atypical anti-psychotic (or for tardive dyskinesia adding Diazepam 30-40mg/day). Consult with doctor or pharmacist.

Also: **Flupenthixol** and **Zuclopenthixol** – high potency anti-psychotics, similar to Fluphenazine (Modecate).

	Clorpromazine (Largactil)	**Clozapine** (Leponex)	**Fluphenazine** (Modecate)	**Haloperidol** (Talomide)
Class and use	Low potency typical anti-psychotic Very sedating Useful in organic psychosis and schizophrenia, also to calm down violent psychotic episodes. Can be used for intractable hiccups	**Atypical** anti-psychotic Use only for severe cases which do not respond to the typical agents or for those patients that suffer from severe movement disorders, or when negative symptoms dominate over positive.	High-potency typical anti-psychotic Very useful for chronic schizophrenia Very useful for patients who cannot or will not adhere to oral therapy Not as sedating as other drugs	High potency typical anti-psychotic Can be used for Tourette syndrome and intractable hiccups Safe for epileptics Used as emergency tranquilizers in acute psychotic episodes – violent/agitated psychotic patients
Side-effects and cautions	Numerous side effects: orthostatic hypotension, sexual dysfunction, blurred vision, tachycardia, constipation and urinary retention. Photosensitisation Not as prone to cause movement disorders. Lowers the seizure threshold, so should preferably not be used in epileptic patients.	Weight gain Can cause fatal agranulocytosis. Patients should see the doctor immediately if they experience sore throat and flu-like symptoms. White cell count should be taken within 6 weeks of starting therapy and again after 18 weeks. Avoid giving to epileptics Monitor diabetic patients' blood sugar	Not many cardiovascular side-effects. Can cause movement disorders (especially with depot injections) Takes 24-72 hours to exert an effect, so patients suffering from active psychosis should first be stabilised on an oral agent	Highest propensity to cause movement disorders
Dosage	Starting dose is 25mg three times a day, increased until control is reached, as a single nightly dose. Maintenance treatment: 75-300mg per day. Severely psychotic patients may need up to 1g initially.	Start on 12.5-25mg per day, increasing gradually in increments of 25-50mg weekly until control is reached in 2-3 weeks. Usual maintenance dose is 200-450mg/day.	Depot Varies from patient to patient; initial dose is normally 12.5mg, maintenance dose is between 6.25-25mg every 2-4weeks. The effect can last up to 6 weeks.	Anti-psychotic: 0.5-5mg three times a day, increased if needed to 20mg/day. Once stabilized, it must be reduced to lowest possible effective dose, normally 2-10mg/day.