ANTIPSYCHOTIC GUIDE

Generic Name	Brand Name	Potency†/ CPZ equivalent	Initial Dose (mg/day)	Maint. Dose (mg/day)	Max. Dose (mg/day)	Freq-uency	Tab Strength/ Form Supplied
Novel							
aripiprazole*	Abilify	med	10	10-30	30	od	compassionate release only
clozapine	Clozaril	low	12.5	200-600	900	od-tid	25,100/tab
olanzapine	Zyprexa	med	5-10	5-20	30+	od(hs)	2.5,5,7.5,10,inj,tab,diss tab
quetiapine	Seroquel	low	50	300-750	900+	od-bid	25,100,200/tab
risperidone	Risperdal	high	0.5-1	0.5-4	10	od-bid	0.25,0.5,1,2, 3,4,tab,diss tab,liq
Conventional							
chlorpromazine	Largactil	low(100)	50-100	200-400	1000	od-qid	10,25,50,100/inj tab, supp, liq
flupenthixol	Fluanxol	high(5)	1-3	3-6	12	tid	0.5,3/inj,tab
fluphenazine	Moditen	high(2)	2.5-10	1-5	20	od-tid	1,2.5,10/tab,liq
haloperidol	Haldol	high(2)	0.5-1	1-5	10	b-tid	0.5,1,2.5,10,20/ inj,tab,liq
loxapine	Loxapac	med(15)	10-50	60-100	250	b-tid	5,10,25,50/ inj,tab,liq
mesoridazine	Serentil	med(50)	75-150	100-200	400	bid	10,25,50/tab
metho-trimeprazine	Nozinan	low(70)	25-100	100-200	500	od-tid	2.5,25,50/ inj,tab,liq
pericyazine	Neuleptil	med(15)	15-60	7.5-45	60	bid	5,10,20/cap,liq
perphenazine	Trilafon	high(10)	4-12	12-24	24	tid	2,4,8,16/ inj,tab,liq
pimozide	Orap	high(2)	2-4	2-12	20	bid	2,4,10/tab
thioridazine	Mellaril	low (100)	30-150	75-400	800	od-tid	10,25,50,100,200/ tab, pump, liq
thiothixene	Navane	high(5)	5-10	15-30	60	od-tid	2,5,10/cap
trifluoperazine	Stelazine	high(5)	2-15	6-20	40	b-tid	1,2,5,10/tab
zuclopenthixol	Clopixol	med(20)	10-50	20-40	100	od(hs)	10,25,40/tab
Depot							
flupenthixol decanoate	Fluanxol Depot	high (1)	5-20	20-40	100 q2-3wk	q2-4wk	20,100mg/mL inj
fluphenazine decanoate	Modecate	high (0.5)	2.5-12.5	25	100 q2-4wk	q2-4wk	25,100mg/mL inj
haloperidol decanoate	Haldol LA	high(1)	50-150	100-300	300 q4wk	q4wk	50,100mg/mL inj
pipotiazine palmitate	Piportil L4	high(1)	50-100	75-150	250 q4wk	q3-4wk	25,50mg/mL inj
risperidone long-acting	Risperdal Consta	high	25	25-50	50 q2wk	q2wk	25,37.5,50mg/vial
zuclopenthixol decanoate	Clopixol Depot	med(10)	100-150	150-300	400 q2wk	q2-4wk	200-500mg/mL
zuclopenthixol acetate	Clopixol Acuphase	med(10)	25-50	25-50	150 q3days	q2-3day	50mg/mL inj

Key: CPZ- chlorpromazine; †low potency- more sedation, less extrapyramidal side effects (EPSEs); medium potency- some sedation and EPSEs; high potency- less sedation and more EPSEs; novel antipsychotics do not follow these parameters strictly; NOTE- for elderly patients use lowest initial doses (usually ½ adult dose); higher doses of antipsychotics cause more side effects with limited benefits; doses may not reflect manufacturer's recommendations but are based on clinical literature and experience. *Available upon compassionate release approval only ($400 - 700/mo).

MOOD STABILIZERS GUIDE

Generic Name	Brand Name	Initial Dose	Maint. Dose (mg/day)	Max. Dose (mg/day)	Frequ-uency	mg/Form Supplied	Monitoring Level*
carbam-azepine	Tegretol	100bid	800-1200	1600	b-qid	200/tab; 100,200/chewtab; 200,400/CRtab	17-50µmol/L
lamotrigine	Lamictal	12.5-25hs	50-250†		bid	25,100,150/tab	nil
lithium carbonate	Carbolith, Lithane	300bid-tid	use drug levels	use drug levels	hs-tid	150,300,600/ cap	0.6-1.2µmol/L
	Duralith (long action)	300bid	"	"	hs-bid	300/SR tab	" "
lithium citrate	(Oral liquid)	5ml bid	"	"	od-tid	8mmol/5ml (=300mg Li carb)	"
oxcarbaze-pine	Trileptal	150bid	900-1800	2400	bid	150,300,600/tab 60mg/mlLiq	nil
topiramate	Topamax	25od-bid	200-400	800	bid-hs	25,100,200/tab	nil
valproic acid	Depakene	250bid (load-20/kg)	1000-3000	60mg/kg	b-tid	250,500/cap; 250/5mLliq	350-700µmol/L
divalproex	Epival	"	"	"	"	125,250, 500/tab	"

Key: † dosage strongly determined by concomitant drugs used (see CPS for guidelines); NOTE- doses may not reflect manufacturer's recommendations and are based on clinical literature and experience; most drugs in this category do not have a formal mood stabilizer indication; use lower initial doses for elderly patients. *Lithium has a therapeutic range strongly correlated with response and toxicity. Levels for the other agents are poorly correlated with response, but may be useful for investigating toxicity and compliance.

SEDATIVE/ANXIOLYTIC GUIDE

Generic Name	Common Brand Name	Dose Equiv.	Time to Peak in Plasma	t1/2	Indications/ Average' Dose Range (mg/day)	mg/Form Supplied	Elderly/ LiverDisease
alprazolam	Xanax	0.5	1-2h	10-20h	A,S/0.5-1	0.25,0.5,1,2/tab	avoid
bromazepam	Lectopam	3	1-4h	10-30h	A,S/6-18	1.5,3,6/tab	avoid
buspirone^	BuSpar	N/A	N/A	2-10h	A/15-60	10/tab	ok
chloral hydrate^	N/A	500	0.5h	4-8h	S/250-1000	500/cap,liq	ok
chlordiazepoxide	Librium	25	1-4h	50-100h*	A/25-50	5,10,25/cap	avoid
clonazepam	Rivotril	0.25	1-2h	20-50h	A,S/0.5-1	0.5,2/tab	ok
clorazepate	Tranxene	10	1-2h	30-200h*	A/7.5-15	3.75,7.5/cap	avoid
diazepam	Valium	5	1-2h	30-200h*	A,S/5-20	2,5,10/tab; 5mg/mL inj	avoid
flurazepam	Dalmane	15	0.5-1h	50-250h*	S/15-30	15,30/cap	avoid
lorazepam	Ativan	1	1-6h (po) 1h(IM,SL) 5min (IV)	10-25h	A,S/1-4	0.5,1,2/tab; 4mg/mL inj; 0.5,1,2/SLtab	ok
midazolam	Versed	IV/IM only	1min (IV) 30min(IM)	20h*	S, anesthetic/ variable	1,5mg/mL inj	avoid
nitrazepam	Mogadon	2.5	0.5-7h	15-50h	S/5-10	5,10/tab	avoid
oxazepam	Serax	15	2-3h	5-20h	A,S/15-60	10,15,30/tab	ok
temazepam	Restoril	10	2h	5-25h	S/15-30	15,30/cap	ok
triazolam	Halcion	0.25	1-2h	1.5-5h	S/0.125-0.25	0.125,0.25/tab	avoid
zaleplon^	Starnoc	10	1h	1h	S/10-20	5,10/cap	ok
zopiclone^	Imovane	7.5	1.5h	4-7h	S/3.75-15	7.5/tab	ok

Key: A- anxiolytic; S-sedative-hypnotic; ^ Non-benzodiazepine. * active metabolites accumulate; 'does not reflect maximum doses; NOTE- doses may not reflect manufacturer's recommendations but are based on clinical literature and experience. Benzodiazepines should be used sparingly in the elderly and doses should be at the low end of the usual range.

PSYCHOSTIMULANT GUIDE

Generic Name	Trade Name	Initial Dose (mg)	Maint. Dose (mg/day)	Max. Dose (mg/day)	Frequ-ency	mg/form supplied
atomoxetine	Strattera	n/a	n/a	n/a	n/a	n/a
dextroampetamine	Dexedrine	2.5-5 od	5-40	40	am,noon supper	5/tab
dextroampetamine SR	Dexedrine Spansules	10 od	10-40	40	am	10,15/spansule
methylphenidate	Ritalin	5-10	5-40	60	am, noon	10,20/tab
methylphenidateER	Concerta	18	18-54	54	am	18, 36,54/ER tab
methylphenidateSR	Ritalin SR	20 am	20-40	60	am	20/SR tab
modafinil	Alertec	100 od	200-400	400	am, noon	100/tab

NOTE- doses may not reflect manufacturer's recommendations and are based on clinical literature and experience They are controlled substaces; prescribe with caution.

SWITCHING ANTIDEPRESSANTS GUIDE

Switch From	To	Washout time (from complete drug discontinuation)
MAOI (irreversible)	another MAOI, RIMA SSRI, TCA, NDRI, SNRI, NaSSA	2 weeks. Combined treatment to be avoided.
RIMA i.e. moclobemide	MAOI, SSRI, TCA, NDRI, SNRI, NaSSA	2 days
SSRI	MAOI, RIMA	Wait 2 weeks for sertraline, fluvoxamine, paroxetine; 5 weeks for fluoxetine
SSRI	TCA, NDRI, SNRI, SSRI, NaSSA	Crossover with caution; beware of pharmacokinetic interations
TCA	MAOI, RIMA, SSRI, NDRI, SNRI, NaSSA	1-2 weeks (5 times t1/2 of TCA); TCAs can be cautiously combined with other antidepressants; evaluate risk of drug interaction beforehand.
NDRI i.e. bupropion	MAOI, SSRI, RIMA, SNRI, NDRI, NaSSA	Crossover ok.
SNRI i.e. venlafaxine		Crossover ok except 3d washout before MAOI/RIMA

Key: NaSSA- Noradrenaline Serotonin Specific Antidepressant; NDRI- Noradrenaline Dopamine Reuptake Inhibitor; SNRI- Serotonin Noradrenaline Reuptake Inhibitor, RIMA- reversible inhibitor of MAO type A.

SERIOUS PSYCHOTROPIC DRUG INTERACTIONS

Drug 1	Drug 2	Effect/Mechanism
MAOI	antidepressants (TCA, heterocyclics, SSRI) meperidine dextromethorphan	serotonin syndrome
MAOI	phenothiazines	severe hypotension / vasodilation and alpha blockade
MAOI	levodopa	severe hypertension
MAOI	tyramine	severe hypertension, avoid aged cheeses, cured meats, potentially spoiled meats or fish, sauerkraut, soy, marmite, tap beer, excess wine
lithium	thiazides*, ACEIs, ARBs, NSAIDs, Coxibs	increased lithium concentration causing toxicity *worst offender
clozapine	benzodiazepines	combination may lead to respiratory collapse
clozapine	carbamazepine	increased risk of agranulocytosis
thioridazine	P450 2D6 inhibitors (e.g., paroxetine, fluoxetine)	increased risk of arrhythmias

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CYTOCHROME P450 DRUG INTERACTIONS

Clinically important interactions may occur if: (1) the patient is taking drug(s) (substrate(s)) extensively metabolized by the liver with significant dose-related side effects or toxicities, and (2) the drug to be added is an inhibitor or inducer of an enzyme that metabolizes these drugs. Note: the wide variation of enzyme activity among individuals makes interactions difficult to predict.

	3A3/4	2D6	1A2	2C19	2C9
Substrates	alprazolam amiodarone buspirone calcium channel blockers carbamazepine cisapride clozapine codeine cyclosporine dextromethorphan diazepam	donepezil erythromycin fentanyl fluvoxamine lansoprazole methadone midazolam nefazodone oral contraceptives pimozide protease inhibitors	quinidine sildenafil sertraline statins (not pravastatin) steroids tacrolimus 3° amine tricyclics trazodone triazolam venlafaxine verapamil	amiodarone 1C-antiarrythmics beta blockers clozapine codeine conventional antipsychotics dextromethorphan fluoxetine fluvoxamine hydrocodone m-CPP meperidine	methadone mexiletine morphine nefazodone olanzapine oxycodone paroxetine risperidone 2°&3° amine tricyclics trazodone venlafaxine	acetaminophen caffeine clozapine cyclobenzaprine haloperidol propranolol 3°amine tricyclics theophylline verapamil warfarin	amitriptyline citalopram clomipramine diazepam imipramine lanzoprazole omeprazole pantoprazole propranolol	celecoxib diclofenac ibuprofen irbesartan losartan naproxen phenytoin piroxicam tenoxicam THC tolbutamide torsemide warfarin
Inhibitors	amiodarone diltiazem fluconazole fluoxetine fluvoxamine grapefruit juice indinavir itraconazole ketoconazole	macrolides (not azithromycin) nefazodone nelfinavir omeprazole ritonavir saquinavir sertraline	amiodarone celecoxib clomipramine conventional antipsychotics cimetidine desipramine fluoxetine paroxetine quinidine	ritonavir sertraline		cimetidine ciprofloxacin erythromycin fluvoxamine grapefruit juice norfloxacin zafirlukast	cimetidine fluoxetine fluvoxamine ketoconazole lansoprazole omeprazole sertraline tranylcypromine topiramate	amiodarone cimetidine co-trimoxazole disulfiram fluconazole fluvastatin isoniazid metronidazole phenylbutazone
Inducers	alcohol BBQ food carbamazepine cigarette smoke phenobarbital	phenytoin rifampin St. John's wart	carbamazepine rifampin phenobarbital phenytoin			BBQ food cabbage cigarette smoke phenobarbital phenytoin rifampin	alcohol phenobarbital phenytoin rifampin	rifampin secobarbital

PSYCHOTROPIC TOXICITY / EMERGENCIES GUIDE

Name	*Findings*	*Treatment*
Acute Dystonia	severe muscle spasm including eyes, tongue, neck, torso, arms, legs; oculogyric crisis; torticollis;opisthotonos; impaired breathing	Rx- IM recommended for rapid resolution: benztropine 1-2mg, diphenhydramine 50-75mg, lorazepam 2mg q30min
Akathisia	extreme inner restlessness, inability to sit still, excessive motor activity	generally unresponsive to anticholinergic agents; Rx- propranolol 10-20 mg tid or lorazepam
Anticholinergic Toxicity	delirium, visual hallucinations, urinary retention, dry mouth, blurred vision, tachycardia, no sweating	stop suspected drug(s); Rx-mild to moderate (e.g., urinary retention) use bethanechol; in severe cases seek medical support, may need ICU and physostigmine IV
Hypertensive Crisis *(due to drug or food interactions with MAOIs)*	severe headache, N/V, sweating, severe chest or neck pain, palpitations, visual disturbance, fast or slow pulse	stop MAOI, seek medical support; Rx - supportive care, BP control
Lithium Toxicity	N/V/D, confusion, course tremor, visual disturbance, ataxia, sluggishness	stop lithium, take Li level and electrolytes, high levels may require hospitalization and dialysis
Neuroleptic Malignant Syndrome	stiffness, delirium, hyperpyrexia, diaphoresis, autonomic instability, increased CPK	stop suspected drug(s), supportive care; Rx- bromocriptine (DA agonist), dantrolene (muscle relaxant), lorazepam (anxiolytic, muscle relaxant)
Parkinsonism *(drug induced extrapyramidal side effects)*	'mask like' face, cogwheel rigidity, shuffling gait, resting tremor, motor slowing,drooling	Rx- benztropine 0.5-2mg od-bid, diphenhydramine 50 mg tid, also decrease dose of antipsychotic
QTc Prolongation	Prolonged Qtc (>450ms on on EKG); arrhythmia; sudden death. At risk: selected drugs, female, advanced age, bradycardia, hypokalemia.	Stop causative drugs (antipsychotics, eg thioridazine; antidepressants, eg TCA); correct electrolyte imbalance; treat arrhythmia if needed.
Serotonin Syndrome	delirium, agitation, hyperpyrexia, diaphoresis, myoclonus, hyperreflexia, tremor, hypertension, diarrhea, incoordination	stop suspected drug(s), supportive care; Rx- lorazepam (myoclonus), BP control, propranolol or cyproheptadine (serotonin antagonists)
SSRI / SNRI Discontinuation Syndrome	sense of dysequilibrium, N/V/D, "electric shock" like sensations	most recover with restarting SSRI; may be milder symptoms with slow taper; switch to fluoxetine then taper

Key: N- nausea; V- vomiting; D- diarrhea.

ALCOHOL / BENZODIAZEPINE (BDZ) WITHDRAWAL

ALCOHOL:
Timing of withdrawal states:
- 24-48 hours: coarse tremor, agitation, diaphoresis, confusion, headache, nausea, vomiting, diarrhea, autonomic hyperactivity;
- within 48 hours: seizures ("rum fits")
- within 48 hours (can be up to 2 weeks) hallucinosis;
- Within 5 days: delirium ("DT's");
- hours to days: Wernicke's Encephalopathy

Monitor frequently for progression of symptoms. Rx- thiamine 100mg IM x3days then 50mg po/IM od and folate 5 mg od (thiamine before glucose). Give regular doses of BDZs titrated to symptoms. Average doses - lorazepam 1-3mg or diazepam 5-10mg (q1-4h) until symptom relief. Taper amount needed in first 24hr by 25% daily until gone.

- Check alcohol level before initiating BDZs.

BDZs:
Onset depending on half-life of BDZ. Watch for rebound insomnia, nervousness, GI distress, muscle tension, or in severe cases delirium, psychosis, seizures.

To minimize/avoid:
If use was extended (>3mo.), taper gradually over ≥6 weeks. Reduce dose ~ 10-20%/week. Use longer acting agents. Allow for flexibility in the taper schedule.

THE YELLOW CARD
DALHOUSIE PSYCHOTROPIC DRUG CARD

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***WARNING** - This card is meant to be a guide, rather than an absolute standard for treatment. Errors and omissions may exist. Patients differ widely in their response to medications.*
***NOTE** - Drug doses may not reflect manufacturer's recommendations but are based on clinical literature and experience. In elderly and pediatric patients, use lowest initial doses.*

ANTIDEPRESSANT GUIDE

Generic Name	*Usual Brand Name*	*Primary NT*	*Initial Dose (mg)*	*Maint. Dose (mg/day)*	*Max. Dose (mg/day)*	*Freq-uency*	*mg/Form Supplied*
SSRI							
citalopram	Celexa	5HT	10od	20-40	60	od	20,40/tab
escitalopram	Cipralex	5HT	5od	10-20	20	od	10,20/tab
fluvoxamine	Luvox	5HT	50od	50-300	300	od	50,100/tab
fluoxetine	Prozac	5HT	10od	20-40	80	od	10,20/cap,liq
paroxetine	Paxil	5HT	10od	20-50	60	od	20,30/tab
paroxetine CR	Paxil CR	5HT	12.5od	25-62.5	75	od	12.5,25/tab
sertraline	Zoloft	5HT	25od	50-200	200	od	25,50,100/cap
Novel							
bupropion SR	Wellbutrin	NA,DA	100od	150-300	300	bid	100, 150/SR tab
duloxetine*	Cymbalta	5HT,NA	20bid	40-60	60	od-bid	N/A
mirtazapine	Remeron	5HT,NA	30hs	15-45	60	hs	30/tab, diss tab
trazodone	Desyrel	5HT	50od	100-500	600	hs	50,100,150/tab
venlafaxine XR	Effexor XR	5HT,NA	37.5od	75-225	375	od	37.5,75,150/cap
RIMA							
moclobemide	Manerix	NA,5HT	150bid	300-600	600+	tid	150,300/tab
MAOI							
phenelzine	Nardil	NA,5HT	15od	45-90	90	b-tid	15/tab
tranylcypromine	Parnate	NA,5HT	10bid	20-40	40	od(am)	10/tab
TCA - 2° amine							
desipramine	Norpramin	NA	50od	75-200†	300	od	10,25,50,75,100/tab
nortriptyline	Aventyl	NA	25od	50-150†	150	od	10,25/cap
TCA - 3° amine							
amitriptyline	Elavil	5HT	25tid	75-200	300**	hs	10,25,50,75/tab
clomipramine	Anafranil	5HT	25od	75-300	300**	hs	10,25,50/tab
doxepin	Sinequan	5HT	25tid	75-200	300**	hs	10,25,50,75,100,150/cap
imipramine	Tofranil	5HT	25tid	75-300†	300**	hs	10,25,50,75/tab
trimipramine	Sunnontil	5HT	25tid	50-400	400**	b-tid	12.5,25,50,100/tab
Heterocyclic							
maprotiline	Ludiomil	NA	25tid	75-200	200	hs	10,25,50,75/tab

***Key:** NT- neurotransmitter; 5HT- serotonin; NA- noradrenaline; DA- dopamine; α- alpha adrenergic; SSRI- selective serotonin reuptake inhibitor; MAOI- monoamine oxidase inhibitor (irreversible); RIMA- reversible monoamine oxidase inhibitor 'A' type; †therapeutic level available; * not available in Canada; ** divided doses at higher levels. **NOTE**- doses may not reflect manufacturer's recommendations but are based on clinical literature and experience; in elderly patients use lowest initial doses.*