The Antipsychotic Algorithms for treatment of Schizophrenia

Medication Dosing Table

ATYPICAL

Atypical	First Dose	Titration	Range	Schedule
clozapine	12.5 mg. (½ a 25 mg tab) Starting Day 3, dose is increased every 3 days >	Day 2: 25 mg hs Day 3: 25 mg bid Day 6: 25 mg am 50 mg hs Day 9: 50 mg bid Day 12: 75 mg bid Day 15: 100 mg bid Day 18: 125 mg bid Day 21: 150 mg bid Day 24: 100 mg am 200 mg hs	300 – 900 mg/day (serum level for doses>600 mg/day)	Eventual maintenance dose schedule is: BID (1/3 in am, 2/3 in p.m.)
olanzapine	5-10 mg QD	5 mg/week	10 – 20 mg/day	HS
risperidone	0.5 - 1 mg QD	0.5 - 1 mg/2-3 days	2 – 6 mg/day	HS or AM
quetiapine	25 mg BID	50 mg/day	300 –750 mg/day	BID
ziprasidone	20 mg BID	20 mg every 2- 3 days	20 –160 mg/day	BID

TYPICAL

Antipsychotic	Range
chlorpromazine	400 – 1200 mg/day
fluphenazine	5 – 15 mg/day
fluphenazine D	12.5 –75 mg/2-3 weeks
haloperidol	5 – 15 mg /day
haloperidol D	50 – 200 mg/ 3- 4 weeks
thioridazine	300 – 800 mg/day
thiothixene	10 – 30 mg/day

Side Effects

	EPS	Sedation	TD	Anticholinergic	BP	Sexual Dysfunction	Weight Gain
clozapine (Clozaril)	+/-	++++	-	++++	+++	+	+++
haloperidol (Haldol)	++++	+	++++	+	+	+	+
olanzapine (Zyprexa)	+	++	+	++	+	-	+++
risperidone (Risperdal)	++	+	+	+	+	+	++
quetiapine (Seroquel)	-	++	**?**	±	++	-	++
ziprasidone (Geodon)	++	+	+	+	+	±	+

Side Effects/Co-existing Symptoms

Anti-EPS	Starting Dose	Range (daily dose)
benztropine (Cogentin)	1 mg bid	2 - 6
trihexphenidyl (Artane)	2 mg bid	4 - 12
propanolol (Inderal)	10 mg qid	20 – 160
benzodiazapines	Starting Dose	
lorazepam (Ativan)	0.5 - 1 mg t.i.d	1 – 8
clonazepam (Klonopin)	0.25 - 0.5 mg. bid	0.5 - 4

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Switching Antipsychotics

Out-patients

1. Institute new antipsychotic at usual rate.

2. Overlap old antipsychotic with new antipsychotic with new antipsychotic by 1-3 weeks, clozapine must be tapered over 3 months.

3. Consider having patient bring both old and new medications in and set up 7 day pill boxes to get patients through the transition.

4. Assess the patient's ability to follow complicated instructions and enlist family members to help if possible

*****Refer to instructions for Using the Algorithm for detailed explanation of switching drugs.*****

Problems Associated with Switching Antipsychotic Agents		
Nature of Switch	Potential Problems	Management
Typical Agent to an atypical agent	Possible decompensation, particularly in early stages of treatment (may take > six weeks for atypicals to become effective), with abrupt discontinuation of typical agent.	Slow transition, overlap use of typical and atypical agents. Awakening" experience with resolution of psychosis may be associated with depression, suicidiality. Monitor closely.
Typical Agent to an atypical agent	New side effects; e.g. hypersalivation rather than dry mouth with change to clozapine; weight gain more with clozapine than with some conventional agents that was being given with large doses of anticholinergic agent that were not "carried forward." Withdrawal dyskinesia or akathisia possible whenever typical agent stopped abruptly (dyskinesia especially after abrupt cessation of high-potency agent in young males).	Consider continuing anticholinergic with changes to risperidone. Increase risperidone slowly. Avoid abrupt discontinuation of high-potency agents. Withdrawal dyskinesia usually self-limited, but can be treated by adding back small amount of original agent, or brief use of benzodiazepine.
Atypical agent to another atypical agent	Possible loss of antipsychotic efficacy. Depending on anticholinergic effects of previous agent and abruptness of switch, patient may experience either new onset anticholinergic side effects or cholinergic rebound symptoms. EPS may also follow abrupt conversion to high (>5 mg/day) doses of risperidone. Weight gain,	Monitor closely. Sedation may abate after a few weeks; if not, consider dosage reduction. For weight gain, consider dietary counseling and increased exercise.

Recommended Doses of Antidepressants

Type/Class	**Medication**	**Usual target dose mg/day to achieve in weeks 1-3**	**Usual maximum recommended dose**	**Recommended administration schedule**
SSRI	Fluoxetine	20	40-80	Qam
	Paroxetine	20-30	40-60	Qam
	Sertraline	50-100	150-200	Qam
OTHER	Bupropion SR	200-300	400	BID $\leq$ 200 mg/dose
	Bupropion	225-300	450	BID-TID $\leq$150 mg/dose
	Nefazodone	200-400	600	BID
	Venlafaxine	150-225	375	BID-TID
	Venlafaxine XR	150-225	375	QD

Antidepressant/Antipsychotic Interactions

	1A2	2D6	3A3/4
fluoxetine (Prozac)	clozapine haloperidol olanzapine thiothixene	PHENOTHIAZINES RISPERIDONE CLOZAPINE* OLANZAPINE*	clozapine quetiapine
fluvoxamine (Luvox)	CLOZAPINE HALOPERIDOL OLANZAPINE THIOTHIXENE		clozapine quetiapine
nefazodone (Serzone)		phenothiazines risperidone clozapine* olanzapine*	CLOZAPINE QUETIAPINE
paroxetine (Paxil)	clozapine haloperidol olanzapine thiothixene	PHENOTHIAZINES RISPERIDONE CLOZAPINE* OLANZAPINE*	
sertraline (Zoloft)	clozapine haloperidol olanzapine thiothixene	phenothiazines risperidone clozapine* olanzapine*	clozapine quetiapine

venlafaxine (Effexor) increases haloperidol levels, but not by Cytochrome P450 interaction)

Regular type = small changes in levels (20% range)
Bold type = moderate changes in levels (40% range)
CAPS = large changes in levels (50% - 100 range)
BOLD CAPS = very large changes in levels (several-fold)

***=Minor pathway**