JPP: March Copy:

7 days of quetiapine

Day 1: [#quetiapine](https://twitter.com/search?q=%23quetiapine) is a derivative of the 2nd generation atypical anti-psychotic clozapine, with superior side-effect profile. Developed in the 80s/90s, [#quetiapine](https://twitter.com/search?q=%23quetiapine) was approved for schizophrenia in 1997, then bipolar disorder in 2008. Licensed for adults; it also has antidepressant activity

Day 2: Immediate & m.r tablet options for schizophrenia titrated to desired response;300-450mg twice/day or up to 800mg m.r once/day. Bipolar mania 400-800mg x2/day or 400-800mg m.r once/day. Bipolar depression 300mg o.d. Bipolar mania & depression 300-800mg daily (divided doses or once/day)

Day 2 (cont); Unlicensed use as low dose [#quetiapine](https://twitter.com/search?q=%23quetiapine) for psychosis in Parkinson’s disease (first-line option). All dosing lower in elderly because clearance is 30-50% lower than for adults 18-65 yrs. Oral suspension available

Day 3: Kinetics [#quetiapine](https://twitter.com/search?q=%23quetiapine): Oral formulations only. High absorption /bioavailability & moderate volume of distribution. Hepatic metabolism with an active metabolite ‘norquetiapine’ formed via CYP3A4 breakdown. ¾ renal excretion; mostly inactive. T½ 7hrs, but longer for the metabolite ~12 hrs. Reduce dose if hepatic impairment

Day 4:[#quetiapine](https://twitter.com/search?q=%23quetiapine) modulates multiple central neurotransmitter systems including serotonin, dopamine, noradrenaline & histamine. Quetiapine has high affinity for serotonin (5HT2) & dopamine (D2) receptors, with greater 5HT2 receptor blockade relative to D2 blockade; this is believed relevant to fewer extrapyramidal effects e.g dystonia, BUT akathisia is ‘common’, especially early stages of treatment-may prevent dose increase.

Day 5: Common ADEs [#quetiapine](https://twitter.com/search?q=%23quetiapine): fatigue, insomnia, erectile dysfunction, dysarthria, neutropenia, suicidal ideation, increased prolactin levels. Serious/rare; hypersensitivity/SCARs, pancreatitis, VTE (NOT exhaustive). Moderate risk among the atypical anti-psychotics for weight gain, driven (at least in part) by metabolic changes & anti-histamine activity.

Day 5 (cont): #quetiapine must be tapered gradually to reduce risk of relapse or withdrawal syndrome. Interaction with muscarinic receptors is higher for metabolite; this can cause constipation, dry mouth etc

Day 6: Drug-drug interactions for [#quetiapine](https://twitter.com/search?q=%23quetiapine) are mostly ‘moderate'. ‘Severe’ arise from enzyme inhibition from drugs such as protease inhibitors, clarithromycin, azole anti-fungals, grapefruit juice all leading to increased exposure. Lithium increases neurotoxicity. NOT exhaustive

Day 7: There is a caution for [#quetiapine](https://twitter.com/search?q=%23quetiapine) where history/problems with drug/alcohol abuse, as [#quetiapine](https://twitter.com/search?q=%23quetiapine) can lower anxiety, with some sedative effects. Further, this is reported as an abuse issue in prisons. This caution is stated in SPC & [patient.info](https://t.co/rwASk2qm8W), but not in the BNF

**CPD-** in addition to the tweets, read the BNF section treatment summary on Psychoses and related disorders and the monograph on quetiapine.

<https://bnf.nice.org.uk/treatment-summary/psychoses-and-related-disorders.html>

<https://bnf.nice.org.uk/drug/quetiapine.html>

**The SPC for quetiapine also contains some useful information**

<https://www.medicines.org.uk/emc/product/8252/smpc#gref>

1. Quetiapine is related to first generation anti-psychotics like haloperidol

TRUE or FALSE

1. Quetiapine has a better side-effect profile compared to clozapine

TRUE or FALSE

1. Which is NOT an advantage of quetiapine compared to clozapine?
2. Less extra pyramidal symptoms
3. Low hyperprolactinaemia risk
4. Less dystonia
5. No drug-drug interactions
6. Quetiapine dosing is likely to be reduced if there is hepatic impairment, or for use in the elderly

TRUE or FALSE

1. Which of the following is TRUE?
2. Quetiapine has an active metabolite which also causes side-effects
3. Quetiapine has low oral bioavailability
4. Quetiapine has 100% renal excretion of active drug
5. Quetiapine undergoes mainly phase 2 metabolism
6. The primary mechanism of action for quetiapine is via blockade of several dopamine receptors

TRUE or FALSE

1. One reason why quetiapine has less extra pyramidal symptoms is because there is a higher ration of serotonin to dopamine blockade

TRUE or FALSE

1. Which of the following is a common adverse drug event for quetiapine?
2. Severe cutaneous adverse reactions (SCARs)
3. Pancreatitis
4. Erectile dysfunction
5. VTE
6. Several drug groups e.g azole anti-fungals can inhibit the breakdown of quetiapine leading to risk of toxicity

TRUE or FALSE

1. Quetiapine may be used in a drug abuse capacity

TRUE or FALSE