**DRUG INDUCED HYPERPROLACTINAEMIA: EVALUATION & REFERRAL PATHWAY**

**CHECK BASELINE PROLACTIN**

(before starting an antipsychotic drug known to cause hyperprolactinaemia1)

Take blood sample at least 1 hour after waking or eating

Normal level

Women < 530 mIU/litre

Men < 424 mIU/litre

Elevated level

Women ≥ 530 mIU/litre

Men ≥ 424 mIU/litre

Start the drug

Recheck prolactin if symptoms develop2

Normal level

Hyperprolactinaemia excluded

Elevated level

Prolactin < 2500 mIU/litre and no symptoms of mass effect3

Prolactin > 2500 mIU/litre or symptoms of mass effect3

**Discuss with or refer to Endocrinology**

Most likely drug-induced hyperprolactinaemia

Drug review by psychiatry team – options:

* Reduce dose
* Substitute
* Add aripiprazole

Prolactin persistently raised and symptomatic

At the time of referral please request:

TSH, FT4, FT3, cortisol, macroprolactin and:

**Females**: exclude pregnancy and send LH, FSH and oestrogen (only if not on contraception)

**Males:** send FSH, LH and testosterone

1. We suggest avoiding drugs known to cause hyperprolactinaemia in patients <25 years (who have not attained peak bone mass), women planning pregnancy, and patients with history of breast cancer, prolactinoma or osteoporosis.
2. Symptoms in premenopausal female: infertility, oligomenorrhoea, or amenorrhoea and galactorrhoea. Symptoms in male: reduced libido, erectile dysfunction, infertility, gynecomastia or galactorrhoea.
3. Symptoms of mass effect: headaches and/or visual impairment (loss of peripheral vision, reduced visual acuity, double vision).

**MEDICATIONS CAUSING HYPERPROLACTINAEMIA**

|  |  |
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| **Medication**  | **Frequency of prolactin elevation\*** |
| **First generation antipsychotics** |
| Chlorpromazine | +++ |
| Flupentixol | +++ |
| Fluphenazine | +++ |
| Haloperidol | ++ |
| Sulpiride | +++ |
| Trifluoperazine | +++ |
| Zuclopenthixol | +++ |
| **Second generation antipsychotics** |
| Aripiprazole | - |
| Amisulpride | +++ |
| Asenapine | +/- |
| Clozapine | - |
| Lurasidone | + |
| Olanzapine | + |
| Paliperidone | +++ |
| Quetiapine | - |
| Risperidone | +++ |
| **Antidepressants** |
| Amitriptyline | + |
| Clomipramine | +++ |
| Nortriptyline | +/- |
| SSRIs (Es/citalopram, fluoxetine, fluvoxamine, sertraline) | + |
| Others (Bupropion, mirtazapine, trazodone) | +/- |
| Venlafaxine | ++ |
| **Antiemetic and gastrointestinal** |
| Metoclopramide | +++ |
| Domperidone | +++ |
| Prochlorperazine | + |
| **Antihypertensives** |
| Verapamil | + |
| Methyldopa | ++ |
| Most antihypertensives including calcium channel blockers | +/- |
| **Opioid analgesics** |
| Methadone, morphine, others | Transient increase for several hours following dose |

\* +++ = high; ++ = moderate; + = low; - = very low / case reports only.

Effect may be dose-dependent.



Additional supporting guidance

* Quick guide for patients and clinicians
* Management of drug induced hyperprolactinaemia

**References:**

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Coker, F., Taylor, D. (2010) ‘Antidepressant induced hyperprolactinemia’, CNS Drugs, 24, pp. 563.

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