# Pharmacological Therapy Policy, Practice Guidance Note
## Management of Psychotropic-induced Sexual Dysfunction – V04

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1. Introduction

1.1 Physical illness (such as diabetes, neurological disability and neurodegenerative disorders), substance misuse and prescribed drug treatment can all cause sexual dysfunction (SD) in both sexes.\(^1\) Sexual dysfunction is a common, reversible adverse effect of psychotropic medication which can influence all four phases of the human sexual response, namely; desire, arousal, orgasm and resolution. For many, this can cause considerable distress which can result in non-compliance with medication and consequent relapse. Sexual dysfunction is one of the major causes of treatment non-adherence.\(^2\)

1.2 Sexual dysfunction can occur as a side effect in all antipsychotics, up to 45% of people taking conventional antipsychotics\(^3\) experience sexual dysfunction. The incidence of sexual dysfunction with antidepresants is difficult to quantify; however, one prospective, naturalistic multicentre study (n=1022)\(^2\) interviewed out-patients using the Psychotropic-Related Sexual Dysfunction Questionnaire which demonstrated the following incidences:

- citalopram (73%),
- paroxetine (71%),
- venlafaxine (67%),
- sertraline (63%),
- fluoxetine (58%)
- mirtazapine (24%)

1.3 Duloxetine\(^4\) has been associated with a 46% approximate prevalence of sexual dysfunction, reboxetine 5-10%\(^5\) and tricyclics 30%.\(^6-9\) It has also been shown that men had a higher frequency of sexual dysfunction (62%) than women (57%), although women suffered with greater severity.\(^2\)

1.4 Sexual adverse effect with agomelatine are rare and certainly much less frequent than with serotonergic antidepressants.\(^10,11\)

1.5 Before initiating clients on any psychotropic medication that may adversely affect their sexual functioning, it is important to determine baseline sexual functioning, where possible, as iatrogenic sexual dysfunction can adversely affect quality of life and medication adherence. Persistent elevation in serum prolactin may be indicative of clinically apparent sexual dysfunction but is not necessarily causal.\(^12\)
2. **Sexual Adverse Effects of Psychotropic Medication**

Table 1: Sexual adverse effects of psychotropic medication

<table>
<thead>
<tr>
<th>Sexual Phase Affected</th>
<th>Causative psychotropic agent</th>
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<tbody>
<tr>
<td>Desire</td>
<td>• Antidepressants (less commonly with mirtazapine)</td>
</tr>
<tr>
<td></td>
<td>• Antipsychotics (particularly those associated with hyperprolactinaemia)</td>
</tr>
<tr>
<td></td>
<td>• Drugs with sedative effects (e.g. benzodiazepines)</td>
</tr>
<tr>
<td></td>
<td>• Anticholinergics</td>
</tr>
<tr>
<td></td>
<td>• Anticonvulsants</td>
</tr>
<tr>
<td></td>
<td>• Lithium</td>
</tr>
<tr>
<td>Arousal</td>
<td>• Anticholinergic drugs (including tricyclics and typical antipsychotics)</td>
</tr>
<tr>
<td></td>
<td>• Antipsychotics (particularly those associated with hyperprolactinaemia)</td>
</tr>
<tr>
<td></td>
<td>• Any drugs causing hypotension e.g. tricyclics, antipsychotics</td>
</tr>
<tr>
<td></td>
<td>• Drugs with sedative effects</td>
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<tr>
<td></td>
<td>• Lithium</td>
</tr>
<tr>
<td></td>
<td>• MAOIs</td>
</tr>
<tr>
<td></td>
<td>• Reboxetine</td>
</tr>
<tr>
<td></td>
<td>• SSRIs</td>
</tr>
<tr>
<td>Orgasm</td>
<td>• Antipsychotics (particularly those associated with hyperprolactinaemia)</td>
</tr>
<tr>
<td></td>
<td>• Beta blockers</td>
</tr>
<tr>
<td></td>
<td>• SSRIs</td>
</tr>
<tr>
<td></td>
<td>• Tricyclics</td>
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<tr>
<td></td>
<td>• Gabapentin</td>
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<td></td>
<td>• SNRIs</td>
</tr>
<tr>
<td></td>
<td>• MAOIs</td>
</tr>
<tr>
<td></td>
<td>• Trazodone</td>
</tr>
<tr>
<td></td>
<td>• Less commonly with mirtazapine</td>
</tr>
<tr>
<td>Priapism</td>
<td>• Trazodone</td>
</tr>
<tr>
<td></td>
<td>• Isolated cases with some SSRIs</td>
</tr>
<tr>
<td></td>
<td>• Phenothiazines, particularly thioridazine and chlorpromazine</td>
</tr>
<tr>
<td></td>
<td>• Isolated reports for clozapine, olanzapine, quetiapine, risperidone, zuclopenthixol and haloperidol</td>
</tr>
</tbody>
</table>
3. **Assessment of sexual dysfunction**

3.1 Assessment of sexual dysfunction can be difficult in someone who is psychotic and it has been demonstrated that the prevalence of SD in depressed patients is underestimated. One study demonstrated the incidence of men's SD was 60% when asked directly compared with 20% when reliant on spontaneous report. Several standardised scales of sexual functioning are available including Changes in Sexual Functioning Questionnaire, Psychotropic-Related Sexual Dysfunction Questionnaire (PRSexDQ), Sex Effects Scale and Arizona Sexual Experiences Scale (ASEX). The latter is a simple scale, is concise and easy to use in a clinical setting and has established reliability and validity.

4. **Management of Sexual Dysfunction**

4.1 **Eliminate organic or psychogenic causes**

4.1.1 Any organic or psychogenic causes of sexual dysfunction must first be identified and treated as the first line course of action. Organic causes include diabetes mellitus, heart disease, hypertension, inadequate blood supply to the sex organs as a result of congenital abnormality or trauma, unusual changes in hormones, drug side effects, alcoholism and heavy smoking. Common psychogenic causes include stress or anxiety, worry about the ability to perform, relationship/partner problems and unresolved sexual orientation. If a psychotropic drug is implicated the following steps should be taken.

4.2 **Watchful waiting**

4.2.1 Spontaneous remission of symptoms may occur with time

4.3 **Reduce dose of causative agent/discontinue where appropriate**

4.3.1 Reducing the dose of the causative agent may be effective in the first instance. With antidepressants a drug 'holiday' or delayed dosing may be used. For example, delayed ejaculation with paroxetine may be resolved in some by taking the evening dose after intended sexual intercourse. However, abrupt cessation or a drug 'holiday' approach could precipitate antidepressant discontinuation reactions. Where possible it is therefore preferable to gradually reduce the dose of the offending agent before discontinuing.

4.4 **Switch to a different agent less likely to cause sexual dysfunction**

4.4.1 **Antipsychotics**

- The overall propensity of an antipsychotic to cause sexual dysfunction is similar to its propensity to raise prolactin.
If raised prolactin is a problem, consider a switch to a prolactin sparing drug such as olanzapine, clozapine, quetiapine and aripiprazole.

Risperidone, amisulpiride, sulpiride and many of the older typical antipsychotics are all potent elevators of serum prolactin.

It is recommended that prolactin levels are checked due to the risks associated with long-term chronic hyperprolactinaemia. Guidance on the frequency of monitoring can be found within AMPH-PGN-06 – Appendix 1, monitoring requirements for adult patients prescribed antipsychotics (except clozapine). Where clozapine is prescribed, the monitoring requirements are within PPT-PGN-05 – Appendix 1.

Switch to a less sedating alternative

Switch to one with fewer anticholinergic effects.

4.4.2 Antidepressants

The adverse effect in decreasing order of impact is sertraline, venlafaxine, citalopram, paroxetine, fluoxetine, imipramine, phenelzine, duloxetine, escitalopram and fluvoxamine, with no difference from placebo shown with agomelatine, bupropion, moclobemide and mirtazapine. 15

Switch to agomelatine, mirtazapine, mianserin, moclobemide, trazadone or bupropion (not licensed for depression in UK)

Switch to a less sedating alternative

Switch to one with fewer anticholinergic effects

If an SSRI is still indicated, some evidence 16,17 does suggest that paroxetine may be the most likely to be cause sexual dysfunction and fluvoxamine is the least likely to be associated with sexual dysfunction. However caution should be exercised when using fluvoxamine due to the potential for drug interactions.

4.5 Adjunctive Therapies

4.5.1 If 4.4 fails or is not practicable, the current medication can be continued and an adjunctive treatment added. The addition of Aripiprazole at doses of 5-10mg/day is an option and has been shown to normalise prolactin and improve sexual dysfunction in studies with Haloperidol and Risperidone. 19-21 Dopamine agonists should generally be avoided as they may precipitate psychosis, but with careful monitoring and dose adjustment may be successful in selected cases. Cyproheptadine at doses of 4-16mg/day has been used to treat SSRI-induced sexual dysfunction but can cause daytime drowsiness. Amantadine, bupropion, buspirone, betahanechol and yohimbine have all been used with varying degrees of...
success but have a number of unwanted side effects and interactions with other drugs. There are also anecdotal reports of the use of augmentation of SSRIs with low-dose trazadone (50-100mg/day).

5. **Oral Drugs licensed for Male Erectile Dysfunction (MED)**

5.1 If erectile dysfunction is still not resolved after following the steps outlined above then a phosphodiesterase type-5 (PDE-5) inhibitor may be considered. There are currently four such licensed oral products for the treatment of erectile dysfunction namely avanafil, sildenafil, tadalafil and vardenafil.

5.2 Where clinically appropriate, generic sildenafil may be prescribed to any man requiring treatment for erectile dysfunction. Prescriptions for generic sildenafil do not need to be endorsed ‘SLS’. 18

5.3 There are restrictions in place for the NHS prescribing 18 of Viagra ® (branded sildenafil), avanafil, tadalafil and vardenafil. Any prescribing for outpatients should take place on FP10 (HP) prescriptions and be endorsed with the letters ‘SLS’. These drugs are only available for men who:

- Have diabetes, multiples sclerosis, Parkinson’s disease, poliomyelitis, prostate cancer, severe pelvic injury, single gene neurological disease, spina bifida or spinal cord injury
- Are receiving dialysis for renal failure
- Have had radical pelvic surgery, prostatectomy including transurethral resection of the prostate or kidney transplant
- Were receiving oral or parenteral treatment for erectile dysfunction at the expense of the NHS on 14th September 1998

5.4 Prescribing for the above indications should normally be undertaken by the patient’s GP. Local APC guidelines are available. 19

- Are suffering severe distress as a result of impotence and are being treated at a locally commissioned specialist centre

5.5 Prescribing for the latter indication can be undertaken by the locally commissioned specialist service. GPs cannot however prescribe a restricted use PDE-5 inhibitor for MED where the primary cause is considered most likely to be the side effects of psychotropic medication. Erectile dysfunction can be treated with a restricted use PDE-5 inhibitor if it is a direct consequence of mental illness or its treatment. The following criteria 13 should be considered in determining whether a service user is suffering severe distress:

- Significant disruption to normal social and occupational activities
• A marked effect on mood, behaviour, social and environmental awareness
• A marked effect on interpersonal relationships

5.6 Clinicians should be aware that PDE-5 inhibitors have a potential for diversion and a significant ‘street’ value.

For prescribing information on individual drug treatments for MED please consult the BNF or the manufacturer’s summary of product characteristics (www.medicines.org.uk)

6. Other Treatments available for Male Erectile Dysfunction (Specialist Centres Only)

• Alprostadil (prostaglandin E₁) is given by intracavernosal application or intraurethral injection, which again are NHS prescribable under the conditions outlined in section 4 above
• Papaverine (unlicensed) has also been given by intracavernosal injection for erectile dysfunction
• Phentolamine (unlicensed) is added if the response is inadequate with papaverine

7. Referral to Specialist Sexual Health Services

7.1 Currently if a male service user is referred to their GP and doesn’t meet the above Department of Health criteria for treatment in primary care, they can be referred to a local specialist sexual service (where available) where a more detailed assessment can be offered, further management options considered and follow-up undertaken. If this approach is successful, the service user may then be discharged back to their GP for ongoing prescribing of drugs for MED (check for any local agreements between the relevant specialist service and the local primary care trust). Any service users within Cumbria Northumberland, Tyne and Wear NHS Foundation Trust requiring treatment for erectile dysfunction should be referred where possible to their local specialist service via their GP. However, if a service user is not registered with a GP, a direct referral may be considered from the service user’s consultant. (see appendix 2 for referral contact details)

8. References


Management of Psychotropic-Induced Sexual Dysfunction

**Step 1**
EXCLUDE ORGANIC/PSYCHOGENIC CAUSES

**Step 2**
WATCHFUL WAITING – SPONTANEOUS REMISSION OF SYMPTOMS MAY OCCUR

**Step 3**
DECREASE DOSE OF OFFENDING DRUG, WHERE APPROPRIATE, OR DISCONTINUE

**Step 4**
SWITCH TO A DIFFERENT DRUG LESS LIKELY TO CAUSE SPECIFIC PROBLEM

**Step 5**
ADJUNCTIVE THERAPY

**Step 6**
REFER TO SERVICE USER’S GP

IF IMPROVED?

**YES**

MONITOR AT INTERVALS

IF NO IMPROVEMENT?

**NO**

REFER DIRECTLY TO LOCALLY COMMISSIONED SPECIALIST SERVICE (SEE SECTION 6 & APPENDIX 2)

NO GP
Referral Contact Details

**Northumberland:**
Referrals are taken from Northumberland GPs only.

**Contact:** The Erectile Dysfunction Clinic, Urology, Wansbeck General Hospital.
**Tel:** 01670 529314

**Newcastle, North Tyneside:**
Referrals are taken from GPs in Newcastle and North Tyneside and also from other health care professionals in that area.

**Contact:** Newcastle Contraception and Sexual Health Service, New Croft Centre, Market Street, Newcastle-upon-Tyne
**Telephone:** 0191 2292862

**Gateshead:**
Referrals are taken from GPs and other health care professionals in the Gateshead area. However, under the ‘choose and book’ system referrals are taken from any area.

**Contact:** Andrology Clinic, Queen Elizabeth Hospital, Gateshead.
**Tel:** 0191 4452217

There is a Sexual and Relationships Clinic (SARC) based at Walkergate Park for service users who have a neurological diagnosis and/or their partners. Referrals are taken from GPs and other health care professionals, self-referrals are also taken.

**Contact:** SARC, Walkergate Park, Benfield Road, Newcastle upon Tyne.
**Tel:** 0191 287 5116