Medication to Manage Sexual Arousal - Prescribing Guidelines

Revised September 2017

Background

These guidelines are designed to assist doctors when prescribing medication intended to enable sex offenders better manage their sexual arousal. In this capacity doctors are treating a medical indication and are not acting as agents of public protection. Risk reduction may be a welcome secondary outcome, but the focus is on the patient and the problem for which he seeks help. As in any other medical condition, therefore, medication is taken on a voluntary basis and with informed consent that includes a discussion of both its potential benefits and side effects. It is recommended that consent should be revisited on at least an annual basis. Medication should not form part of a condition of parole or a community order.

This service is not intended to replace or circumvent local mental health referral procedures. Offenders with mental health problems should be referred to local services in the usual way.

Prescribing considerations

Prescribing protocols often focus on risk and the nature of potential reoffending rather than on clinical indications. [1] Although risk needs to be taken into account, as referred to above the starting point should be clinical presentation and need.

It is expected that prescribing will be an adjunct to psychological treatment, not a replacement for it. The role of the doctor is primarily to prescribe and to manage issues associated specifically with medication. Risk monitoring and management is the responsibility of those working in the criminal justice system, with whom the doctor should communicate.

In cases where medication is being considered prior to release from prison, it is recommended that sufficient time is allowed to assess the response to treatment, ideally six to nine months before the release date. Medication should also be considered when sexual arousal is interfering with psychological therapies, or when high levels of sexual arousal are causing distress to the individual.

A number of different medication types are known to have an effect on sexual arousal and its management. Evidence of reliability and efficacy is best for two classes of drug – selective serotonin reuptake inhibitors (SSRIs) and anti-androgens. Drugs from one of these two groups should typically be used in the first instance unless specific indications suggest that another class of drug would be more appropriate, for example a mood stabiliser where an underlying affective disorder appears to be closely associated with difficulties in managing arousal.

Selective serotonin reuptake inhibitors (SSRIs)

Although SSRIs are not licenced for the management of sexual arousal, there is a supportive body of evidence to support their off label use for this indication dating back to the 1990s comprising multiple case reports and open clinical trials, although there is an absence of large placebo-controlled studies. Their mode of action in this setting is uncertain, and may relate to reduction in libido, attenuation in the intensity

[1] for example, Thibaut et al. (2010), World J Biol Psychiatry 11:604-655.

of sexual rumination and urges (similar to their effect in obsessive compulsive disorder), mood enhancement, a decrease in impulsivity, lessening the pleasure associated with sexual activity, or a combination of some or all of these factors. SSRIs do not have a direct effect on testosterone levels.

Fluvoxamine, fluoxetine, and sertraline are the SSRIs most commonly prescribed in the published studies. There is no evidence to suggest any difference in efficacy between them (although patients who don't respond to one sometimes respond to another), so the choice of drug should be based on patient preference and drug tolerability. In this respect either **sertraline** or **fluoxetine** are suggested as the SSRI of first choice.

SSRIs appear to be particularly effective in cases where sexual rumination or compulsive behaviour is prominent, where deviant arousal or behaviour is associated with negative mood states, or where this is a marked impulsive aspect to offending. Thus, SSRIs should be considered in the first instance where there is evidence of any of the following:

- sexual preoccupation (indicated for example by sexual rumination, intrusive sexual fantasies or thoughts, a low threshold for the triggering of sexual thoughts, or psychometric findings);
- a compulsive aspect to offending;
- increased deviant arousal linked to low mood;
- impulsivity.

Offenders who benefit from SSRIs typically describe a reduction in the frequency and intensity of their sexual thoughts and fantasies, and decreased sexual behaviour. Many report that they find it easier to distract themselves from inappropriate fantasies.

The standard starting dose for fluoxetine is 20mg, and for sertraline 50mg. Higher doses are often needed when used in the management of sexual arousal. Therefore, if after 4 weeks there is no or limited benefit from the starting dose, consideration should be given to an increase to the next dose level (40mg fluoxetine/100mg sertraline). If after another four weeks at the higher dose there is still limited benefit, a further dose increase should be tried (60mg fluoxetine/150mg sertraline). If there is still no effect after another four weeks, a change to a different SSRI may be effective. Consideration can also be given to initiating an anti-androgen.

The most commonly reported side effect of SSRIs is nausea, which often subsides after a couple of weeks of use. Other common side effects are diarrhoea, poor appetite, sleep problems, headache, and dizziness, which again usually subside. Agitation, manifested for example by marked restlessness and irritability, is a rare but important side effect that some believe may be associated with violent behaviour. There have been a few reports linking SSRIs with suicide, but the evidence for this association is weak at best, and mainly in adolescents; however, partly because of this only fluoxetine is licensed for use in those under 18.

Anti-androgens

These drugs act by reducing testosterone levels to those found in pre-pubescent boys, thereby decreasing libido as well as impairing sexual function. Although offenders can still become sexually aroused when on anti-androgens, they are generally less interested in sex, and there is a great reduction in spontaneous sexual

behaviour. Response is not immediate, with effects typically not becoming apparent for one or two weeks, and it may take a number of months before having maximum effect.

The most commonly used anti-androgen in the UK is cyproterone acetate (Androcur), which is taken orally, although a depot formulation can be obtained on a named patient basis. Its primary mode of action is blockage of testosterone receptors in both the body and the brain.

Although not technically 'anti-androgens', Gonadotropin Hormone Releasing Hormone (GnRH) agonists also lower testosterone levels through their actions on the hypothalamic-pituitary axis and luteinising hormone (LH) secretion, although they may in addition have effects elsewhere in the brain. Leuprorelin acetate, goserelin, and triptorelin are the most commonly prescribed, but as only triptorelin is licensed for this indication in the UK it is recommended as the GnRH agonist of first choice. They are all given by long acting injection. Unlike cyproterone acetate, however, their dosage cannot be titrated.

GnRH agonists have the benefit of a depot formulation and provide reassurance regarding compliance. They are, however, more expensive than cyproterone acetate.

Anti-androgens are most effective when a high sex drive, or 'hypersexuality', is the presenting issue. This is typically indicated by a high frequency of sexual behaviour in the form of masturbation and/or sexual activity with partners. However, they should also be considered where the offender is seeking a lessening of sex drive because of its direction, as might be the case in paedophilia, and they would prefer to be rendered asexual.

Consideration should be given to recommending an anti-androgen where there is evidence of any of the following:

- hypersexual behaviour;
- difficult to control sexual behaviour associated with offending.

Anti-androgen medication is associated with a number of side effects, ranging from the unpleasant to the more serious. When considering prescribing one of these drugs the following should be taken into account:

Contraindications

- persons under 18 years of age (because of the effects on bone maturation)
- significant osteoporosis (because of a reduction in bone mineral density invariably caused by these drugs)
- sickle-cell disease (relevant to cyproterone)
- hepatic disease (relevant to cyproterone acetate and leuprorelin)

Cautions

- metabolic bone disease (because of the decrease in bone density)
- pituitary pathology (in the case of GnRH agonists)
- diabetes (as these drugs can impact glucose metabolism)
- history of thrombo-embolic disorders (because of their adverse effect on blood lipids)

Common Side Effects

- hot flushes and night sweats
- gynaecomastia
- fatigue
- peripheral oedema
- weight gain and a redistribution of body fat to a female pattern
- osteoporosis (it may be worth considering vitamin D and calcium supplements with or without a bisphosphonate on a prophylactic basis, but advice regarding exercise, smoking, and alcohol are also important)

The above considerations are not exhaustive and prescribers should note product descriptions and information found in the British National Formulary (BNF).

In the case of GnRH agonists, when first prescribed there is an initial rise in serum testosterone levels, sometimes referred to as a 'testosterone flair'. This is an important consideration when these drugs are used to treat androgen sensitive tumours, and 'cover' is therefore provided with an androgen blocking drug such as cyproterone acetate or flutamide in the first few weeks of treatment. However, as there is no evidence to show that this transient rise in testosterone produces a marked change in sexual arousal, such 'cover' is probably unnecessary when used in the treatment of hypersexuality. There is also a rebound effect in testosterone levels when the GnRH agonist is stopped, for which the same considerations apply.

When prescribing anti-androgens a number of investigations need to be carried out before and during treatment. Recommendations in this respect are provided as an appendix to this document.

Other drugs

Antipsychotic medication has in the past been used as a means of reducing sexual arousal. Blockade of dopamine receptors and the increase in prolactin produced by many of these drugs can have an impact on sexual behaviour, but the effect is inconsistent and unreliable. However, they are of course the drugs of first choice when problematic sexual behaviour is secondary to psychotic illness.

Mood stabilisers, anxiolytics such as buspirone, and the opioid receptor blocker naltrexone have also been reported to be effective in a small number of case reports, but there is neither the evidence nor the clinical experience to reach any conclusions about them in treating sexually problematic behaviour. It may, however, be worth considering these types of drug in specific cases.

Confidentiality

The doctor should discuss with the patient issues of confidentiality and come to an agreement about what information is to be shared with whom. Provided that the patient agrees, the expectation is that the doctor will pass on relevant details regarding response to treatment to those involved in providing psychological therapies or supervision.

Because this is a medical setting, if a patient does not agree for information to be disclosed the doctor will be limited in terms of what can be communicated. As a minimum this should relate to whether or not he is attending appointments, is taking medication, and a general statement about the effectiveness of it. If the patient does

not agree to even this basic information exchange, then serious consideration will need to be given as to whether or not treatment should be provided.

Where there is evidence of immediate risk it may be appropriate for information to be disclosed with the consent of the patient, in which case the patient should be informed about what is being communicated unless this would make the risk worse.

PRESCRIBING PROTOCOL

1. Where mood state, sexual preoccupation, sexual rumination, or compulsive sexual behaviour appears to be the main problem, start with an SSRI:

    i. fluoxetine 20mg, increasing after 4 weeks to 40mg, and then after another 4 weeks to 60mg, depending on response; 40mg is usually sufficient

    or

    ii. sertraline 50mg, increasing to 100mg and 150mg at 4 week intervals depending on response; 100 mg is usually sufficient

    iii. if the initial choice of SSRI is ineffective, consider changing to an alternative SSRI, then cyproterone acetate 100mg a day

Note: a common side effect of SSRIs is delayed ejaculation. In some cases patients report reverting to deviant fantasies in order to strengthen arousal to achieve ejaculation. In such cases it may be of benefit to reduce the dose of SSRI.

2. Where sexual drive is exceptionally strong, there is evidence of a high level or sexual activity, or where fantasies/urges are associated with particularly high risk behaviours which in the past have proven difficult for the individual to control, start with anti-androgen medication:

    i. cyproterone acetate is typically commenced at a dose of100mg, but a starting dose of 50mg may be sufficient in older offenders (over 40) or in prison settings where the individual is exposed to less sexual stimuli; this lower dose may reduce the frequency of side effects. If there is little or only partial effect the dose can be increased in 50mg increments on an 8 week review basis up to 200mg

    ii. if cyproterone acetate is ineffective, or if side effects are intolerable, switch to a GnRH agonist (triptorelin recommended)

    Where compliance may be an issue (because the offender may miss doses, motivation is variable, or the offender himself is concerned), or where a failure in drug efficacy could result in a severe offence:

    i. start with a GnRH agonist (triptorelin recommended)

Follow-up

Typically patients should be seen every four weeks until stable, at which point they can either be discharged back to the GP or reviewed every three to six months depending on local protocols, and then on an annual basis.

sexual behaviours during the week prior to this review

name of patient _____ **date of review** _____

medication _____ **dose** _____

Number of days masturbated whether or not leading to orgasm _____

Number of days engaged in sexual behaviour with partner whether or not leading to orgasm _____

Number of days engaged in any type of sexual behaviour on more than one occasion _____

Maximum number of times engaged in sexual activity in any one day _____

Number of days engaged in internet related sexual activity _____

Maximum of hours in any one day engaged in internet related sexual activity _____

Each line below is 10cm in length. Ask the patient to rate himself on the line for each of the three considerations, then measure and record where he has indicated.

Strength of sexual urges or fantasies

_____

(low) (high)

Amount of time spent thinking about sex

_____

(very little) (a lot)

Ability to distract from sexual thoughts

_____

(easy) (hard)

Side effects reported:

:

Anti-androgen Investigations

(developed in conjunction with the Clinical Committee of the Society for Endocrinology)

	initial visit	6 months	annual*
full blood count	X		
liver function	X	X (cyp. acetate)	X
glycosylated haemoglobin	X	X	X
thyroid	X		X
lipids (not fasting)	X		X
vitamin D	X		X
testosterone	X	X	X
bone density (for GNRH agonist only)			every 2 years
weight	X		X
physical exam. (esp. cvs, breast)	X		X

*after one year investigations are carried out annually unless otherwise indicated

If there are concerns regarding side effects or investigation results, consider consultation with an endocrinologist.