

Erectile Dysfunction

Purpose:

This guidance serves to outline the criteria for patient eligibility and suitability of ED treatment

Condition Summary:

Medication suitable for males over the age of 18, any patients under this age should be referred. A previous diagnosis of erectile dysfunction is not required. Consider symptom profile and ensure length is 3 months or greater. Symptoms of ED include

- Persistent inability to obtain or maintain an erection despite sexual stimulus
- Persistent difficulty achieving an erection sufficient for penetration

ED can be a secondary symptom of a wider issue such as cardiovascular problems, as such consider information provided and refer to the GP for further testing and assessment if required.

Consider symptoms which require referral such as

- Angulation of penis
- Peyronie's disease
- Symptoms of prostate issues such as urinary issues, gradual change in normal urinary function, blood in urine or dysuria
 - Change in symptom profile over the age of 40 requires an urgent assessment to discount prostate cancer or other issues.
- Anatomical anomalies are stated such as lumps, bruises, protrusions or angulations
- External factors which may cause or worsen ED, this can be physical issues such as injury, surgery or psychological issues such as stress, anxiety, mental health issues or personal relationship issues

If patients present with symptoms of ED without a diagnosis consider the above, initiation of treatment can be done with sildenafil 25-50mg and adjusted according to response. Patients should be informed to not exceed one tablet per day.

Treatment

Lifestyle changes such as reduction of smoking, alcohol and weight loss can improve erectile dysfunction. Stress reduction and counselling can also provide personal and mental relief which can often reduce incidence. Oral medications can be given in tandem and can provide beneficial effects and improve outcomes.

Oral medications are usually equally effective but some patients may respond better to a particular medication, trial different medications until preferential treatment is found, providing maximal effect with low or no adverse effects.

Take into account

- Frequency of intercourse
- Personal experience and preference

NICE guidance suggests therapy at once per week is suitable for most men, but the frequency can be tailored based on individual needs under the discretion of the Prescriber. Multiple therapy i.e prescribing sildenafil and tadalafil can be considered however, the medication should not be used together or within 24 hours of each other. Adequate counselling and information should be provided and patients must understand how to take this therapy. Consider order frequency for all requests to ensure patients are not overusing.

Medication	Available Brands	Strength	Dosage	Pharmacokinetic Comparison
Sildenafil	Viagra®	25mg 50mg 100mg	One tablet to be taken approximately an hour before sexual intercourse, maximum one dose per day	Effect onset is 12–37 minutes and duration of action is 4–5 hours, absorption rate and therefore onset can be delayed by 60 minutes if taken with food
Vardenafil	Levitra®	5mg	One tablet to be taken 25 -	Effect onset is approx 25 mins and DOA is 4-5

		10mg 20mg	60mins before sexual intercourse, maximum one dose per day	hours, absorption rate and therefore onset can be delayed by 60 minutes if taken with high fat foods
Tadalafil	Cialis®	10mg 20mg	One tablet to be taken at least 30 mins before sexual intercourse, max one dose per 24 hours	Effect onset is 16 mins to 36 hours and DOA is up to 36 hours, not affected by food
Avanafil	Spedra®	50mg 100mg 200mg	One tablet to be taken at least 15-30mins before sexual intercourse, max one dose in 24 hours	Effect onset s 15-30 minutes and DOA is up to 6 hours, absorption rate and therefore onset can be delayed by 75 minutes if taken with high fat food
Alprostadil	Vitaros®	3mg/g	Apply 300 micrograms, to the tip of the penis, 5–30 minutes before sexual activity; max 1 dose in 24 hours not more than 2–3 times per week	Effect onset 5 to 30 minutes after administration. DOA is approximately 1 to 2 hours but can vary from patient to patient. Contraception should be used. max no more than 2-3 times per week and only once per 24-hour period.

For men who prefer spontaneous (rather than planned) sexual activities or who anticipate frequent sexual activity (more than twice weekly), Tadalafil 2.5 and 5 mg tablets may be considered for daily use. However these strengths are not yet considered for use over our online service

The patient must be informed that the medication improves erection in the presence of sexual stimulation. If there is no sexual stimulation, the medication will not take effect. If sexual desire is an issue, then the patient must be referred to their GP as further assessments would be required.

If initial treatment has not been satisfactorily effective:

- Confirm awareness of appropriate use of treatment, including the importance of dose timing and that they require sexual stimulation in order to facilitate erection.
- Reconsider comorbidities and risk factors and manage where possible. In particular, consider the possibility of hypogonadism (which makes PDE-5 inhibitors ineffective).
- Consider increasing to the maximum dose, or switching to an alternative PDE-5 inhibitor. Be aware that a person with erectile dysfunction should receive 6–8 doses of a PDE-5 inhibitor with sexual stimulation at maximum dose before being classified as a non-responder. Consider more frequent dosing regimes if suitable
- If these options fail, refer to GP as further urological assessment required, and if diabetic requires diabetic assessment

Contraindications

- Angulation of penis or if patient suffers from peyronies disease
- Sudden, unexplained erectile dysfunction
- Women
- Uncontrolled hypotension/hypertension
- Uncontrolled Cardiovascular issues
 - If a Doctor has stated not to perform strenuous exercise, refer to GP as sexual intercourse may not be advised at this time
- Liver problems
- Kidney Problems
- Existing visual impairment
- Active Stomach ulcers
- History or active blood disorders

If taking medications such as

- Nitrates such as GTN, nicorandil etc
- Protease inhibitors such as ritonavir
- Alpha blockers
- Amyl Nitrate

Side effects which require referral and further assessment are

- Priapism or prolonged erection lasting longer than 4 hours
- Chest pains: If this occurs before, during or after intercourse, they should get into a semi-sitting position and try to relax. Nitrates must NOT be used to treat and medical attention must be sought
- An allergic reaction. Symptoms include sudden wheezing, difficulty breathing or dizziness, swelling of the eyelids, face, lips or throat
- Serious skin reactions such as Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Syndrome (TEN). Symptoms may include severe peeling and swelling of the skin, blistering of the mouth, genitals and around the eyes, fever Seizures or fits

The patient must seek immediate medical attention if any of the above symptoms occur

Medical Questionnaire

The question list, which is fulfilled by the patient, follows the associated pathway created by Dr Giuseppe Arangona using the Draw.io software. The questions and format of the questionnaire on the Prescription Doctor website follows the core format of the created pathway.

NICE Pathways, Clinical Knowledge Summaries, Manufacturer SPC's and various national guidance has been used to outline patient eligibility for prescriptions. This questionnaire acts as the initial consultation phase, allowing the extraction of key information following criteria to determine if patient is eligible for treatment. For information based on individual questions, please refer to the Draw.io document.

Format

The medical pathway is inserted under the “Your Treatment” section of the medical form as a questionnaire with variable questions dependant on the selection outcome. This creates a more dynamic questionnaire model which is patient-centric as it relies on the input of the patient. The Initial Question Lane will appear on all medical forms, some questions are simple yes/no type questions or variable data entry questions. However, some questions open a pathway if a patient selects the corresponding yes/no selection as seen in the pathway model.

Further Information for consideration

References

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