ONE PCN 10 MINUTE CLINIC PODCAST SHOW NOTES - ERECTILE DYSFUNCTION

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Erectile dysfunction (ED) is defined as a man's consistent or recurrent inability to attain and/or maintain penile erection that is sufficient for sexual activity. Although it is a very common problem, sexual dysfunction is often underdiagnosed in primary care settings. General practitioners, pharmacists and practice nurses play a key role in the early diagnosis and treatment of men with erectile dysfunction, and ED should be used as a platform to investigate possible risk factors and comorbidities, as well as a means to look at patient education and lifestyle changes.

Even when specialist assistance is required, involvement of primary care health professionals is crucial for a long-term positive outcome. This podcast discusses the basics of erectile dysfunction and its management, and focus on the pivotal role of primary care.

Key take home points

- There is a high incidence and prevalence of ED worldwide, with a rate of almost 40% for lifetime ED in men aged 18-75
- Its incidence increases with increasing age although one in four patients seeking first medical help for new onset ED is younger than 40
- Although only a minority of men (up to 1 in 5) with ED are believed to have a solely psychogenic cause, psychogenic factors are also often present in those who are diagnosed as having a physical cause of their ED.
- ED is typically classified into organic, psychogenic or mixed causes but in practice, anxiety and depression often accompany it irrespective of the original aetiology.
- When taking a history from a patient with ED it can be helpful to use a validated questionnaire to assess sexual function and the effects of treatment such as the International Index of Erectile Function (IIEF)
- The history should include discussing current and past sexual relationships, the onset and duration of ED, any previous advice or treatments and erection quality.
- Factors suggesting an organic cause include an insidious onset with progressive worsening of ED, being present during any type of sexual activity including masturbation, a lack of morning erections and reduced nocturnal erections and the presence of cardiovascular, endocrine or neurological risk factors.
- Factors suggesting a psychogenic cause include younger patients with no identifiable medical risk factors, sudden onset ED, or ED linked to a specific event, normal nocturnal or early morning erections and no ED present with masturbation or with a different sexual partner

- Examination of a man with ED should always include taking their blood pressure, and measuring their waist circumference and weight.
- Laboratory investigations should be tailored to each individual patient in order to rule out suspected underlying diseases.
- Routine laboratory testing may include fasting blood glucose to screen for diabetes, HbA1c in those known to have diabetes, fasting lipid profile, and thyroid-stimulating hormone. Hormonal evaluation may be considered in cases of suppressed libido by testing serum testosterone levels. If low, this should be followed by FSH, LH and prolactin assays.
- NICE suggest considering checking the PSA in all men presenting with ED
- ED is also a strong predictor of coronary artery disease (CAD), especially in men under the age of 60.
- The main aim of ED management is to diagnose and treat the cause of ED when possible. Non-pharmacological intervention strategies for reducing weight, improving quality of diet, and increasing physical activity can improve erectile function in men at risk and should be recommended prior to beginning medical therapy.
- Lifestyle changes should accompany any pharmacotherapy given, but medication to treat ED should not be withheld on the basis that lifestyle changes have not been made.
- If there are psychosexual causes of ED, psychosexual therapy should be offered as psychological interventions are as effective as vacuum devices and local injections
- PDE5 inhibitors are the primary pharmacotherapy used in ED patients. In most studies, PDE5 inhibitors have been shown to effectively and safely improve erectile function regardless of cause, severity, or presence of comorbid conditions.

- Choice depends on personal preference of the patient and frequency of intercourse. Adverse effects are generally mild.
- PDE5 inhibitors contraindications include concurrent use of organic nitrates, severe cardiovascular disease and left ventricular outflow obstruction, a myocardial infarction within the previous 90 days and unstable angina or coital angina.
- Tadalafil has a substantially longer half-life compared with the other PDE5-inhibitors. This longer half-life allows for continuous daily dosing, as well as the ability to have improved erections for 36 hours (in contrast to 4-6 hours with the shorter acting agents).
- Vacuum erection devices can be used if other treatments fail or are unsuitable.
- Men who do not respond to PDE5 inhibitors can be considered for locally delivered drug therapy by intracavernosal injection. Alprostadil is given into the corpora cavernosa to produce an erection and is licensed in the UK for a maximum dose of 40 micrograms.
- Intraurethral alprostadil suppositories deliver medication into the corpus spongiosum rather than the corpus cavernosum, and these can be used if treatment with PDE5 inhibitors or intracavernous injection has failed or is contraindicated.
- Third line treatments include penile prostheses which are semi-rigid, malleable or inflatable devices that are surgically inserted to produce an erect state and may be considered in patients with organic ED who are unwilling to consider, fail to respond to, or are unable to continue with medical treatment or other external devices

References

- European Association of Urology Guidelines on Sexual and Reproductive Health-2021 Update: Male Sexual Dysfunction - PubMed (nih.gov)
- British Society for Sexual Medicine guidelines on the management of erectile dysfunction - PubMed (nih.gov)
- Erectile dysfunction - PubMed (nih.gov)
- The effect of lifestyle modification and cardiovascular risk factor reduction on erectile dysfunction: a systematic review and meta-analysis - PubMed (nih.gov)
- Pharmacotherapy for Erectile Dysfunction: Recommendations From the Fourth International Consultation for Sexual Medicine (ICSM 2015) - PubMed (nih.gov)
- Treatment Strategy for Non-Responders to PDE5 Inhibitors - PubMed (nih.gov)
- An Evaluation of a Clinical Care Pathway for the Management of Men With Nonorganic Erectile Dysfunction - PubMed (nih.gov)
- Comparison of erectile dysfunction guidelines between the UK (BSSM/NICE) and Europe (EAU) (baus.org.uk)