KISS: Erectile Dysfunction

Based on EAU Guidelines, Sexual Health 2023

- **Diagnostic evaluation of self-reported erectile dysfunction ED**
  - Assess with medical and psychosexual history, and a focused physical examination looking for signs of penile deformities, prostatic disease, signs of hypogonadism and cardiovascular and neurological status
  - Assess for mental health issues and psychological distress which are frequently comorbid in ED, as well as cognitive factors such as dysfunctional and unrealistic expectations around sexual function and performance
  - Check simple bloods including a glucose and lipid profile (if not done in the previous year) and a morning sample of total testosterone (fasting between 7 am and 11 am) looking for modifiable and potentially reversible risk factors
  - ED significantly increases the risk of CVD, heart disease and stroke - assess cardiovascular risk status
- **Management**
  - Assess patients' needs and expectations, and offer conjoint medical and psycho-sexual treatment
  - Provide education and counselling, and advise re necessary lifestyle changes and risk factor modification
  - *Optimise control of underlying risk factors (e.g. hypertension, diabetes etc) as the first step of ED management*
  - Treatment with phosphodiesterase type 5 inhibitors as a first-line therapeutic option
    - In patients who do not wish or are not suitable for vasoactive therapy, use topical or intra-urethral alprostadil
    - Referral for consideration of alprostadil intracavernous injections as an alternative option in well-informed patients
    - Vacuum devices are a first-line option in well-informed patients requiring non-invasive, and drug-free management
- **Prescribing phosphodiesterase type 5 inhibitors**
  - An absolute contra-indication to all these drugs is the concomitant use of nitrate, including nitrates used therapeutically (e.g. drugs for angina) and recreationally during sex (e.g. amyl nitrate, or ‘poppers’)
  - Note all of these drugs only work in the context of sexual stimulation
  - Drug choice depends on the likely frequency of use and patient choice
  - **Sildenafil**
    - Recommended starting dose is 50mg, adapted to response, most effective 30 to 60 minutes after ingestion
    - Efficacy reduced after a heavy meal due to impaired absorption

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- **Prescribing phosphodiesterase type 5 inhibitors**
  - **Tadalafil**
    - Effective from 30 minutes after ingestion, with peak efficacy after 2 hours and maintained for up to 36 hours
    - Can use on-demand 10mg or 20mg dose, or for men with frequent use a daily dose of 5mg
    - Daily tadalafil can also improve urinary symptoms in men with comorbid BPH-related LUTs, and may improve erectile function in men who have had only a partial response to on-demand PDE5i therapy
  - **Vardenafil**
    - Effective from 30 minutes after ingestion, and efficacy reduced after a heavy meal
    - Recommended starting dose of 10mg adapted to the response
  - **Avanafil**
    - A highly selective PDE5i, so theoretically has a lower side effect profile (head-to-head comparisons not available) and is an option for men unable to tolerate sildenafil and tadalafil
    - Starting dose 100mg, 15 to 30 mins before sexual activity
    - Has shown efficacy in difficult-to-treat sub-groups e.g. men with diabetes
  - **Management of non-responders to PDE5i**
    - The most common cause of failure is incorrect drug use with failure to have sufficient sexual stimulation, use adequate doses or wait sufficient time
    - Advise at least 6 attempts with a particular drug; if continued failure try switching to an alternative PDE5i
    - Men with low testosterone need referral for testosterone treatment, this can be used concomitantly with PDE5i
    - In refractory cases, a combination approach may be tried e.g. daily tadalafil plus on-demand short-acting sildenafil