Penile Implants

Policy

NHS NWL CCG will not fund penile implants as first or second-line treatment for erectile dysfunction (Grade C recommendation).

Exceptions to this policy are patients with severe structural disease, where first and second line treatments may not be effective, are conditions such as:

- Peyronie's disease
- post-priapism
- complex penile malformations

These polices have been approved by the eight Clinical Commissioning Groups in North West London (Brent CCG, Central London CCG, Ealing CCG, Hammersmith and Fulham CCG, Harrow CCG, Hillingdon CCG, Hounslow CCG and West London CCG)

Background

This is a surgical intervention to improve male erectile dysfunction (ED). ED is the persistent inability to attain and maintain an erection sufficient to permit satisfactory sexual performance. ED is highly prevalent, and 5–20% of men have moderate to severe ED[1]. First-line therapy is either oral phosphodiesterase inhibitors or vacuum erection devices combined with risk factor modifications. If these are not effective, second-line therapy includes intracavernous injections or intraurethral medication. Penile implants are usually third-line therapy for patients who fail to respond to or are unable to continue with medical therapy or vacuum devices[2].

Two types of penile implants (PI) exist: malleable and inflatable. The malleable version uses semi-rigid rods that keep the penis fairly rigid all the time, but allow it to be bent down when an erection isn't needed. The other type is a hydraulic system comprising a fluid-filled reservoir in the abdomen, a pump placed in the scrotum and two inflatable cylinders. The prosthesis is activated by squeezing the pump which transfers fluid from the reservoir to the cylinders, causing the penis to become rigid. Patients must be medically fit for surgery and accept potential complications of infection and mechanical failure which may require re-operation.[2]

Background (continued)

Evidence Base

Although older devices have had technical problems, the latest generation of three-piece inflatable devices have low rates of complications and mechanical failure [3-5]. A health technology assessment from Spain put prosthesis survival rate at five years at 78%-91% and the complication rate as 3%-8%[6].Several studies have also reported high patient satisfaction levels after penile implants, including with regard to intercourse ability and confidence, and device rigidity and function[1,5,6]. However, no systematic reviews or randomised controlled trials were available.

PI has the highest initial cost of all the treatments for ED[2,7]. First and second-line treatments are considerably cheaper and have proven efficacy[2,7]. A Canadian cost-utility study assessed the cost of various ED treatments and their utilities in patients with spinal cord injury[7]. The incremental cost-utility ratios for PI compared to sildenafil (a phosphodiesterase inhibitor) and vacuum erection devices were CAN $63,412 and CAN $178,626 per quality- adjusted life year, respectively. Therefore first and second-line treatments are more likely to be cost-effective in patients with ED than PI. Several guidelines including the British Society for Sexual Health concur that the management of ED should be staged, with PI as a last-stage treatment for those in which previous treatments have failed[1,2,4,6] or those with severe structural disease, such as Peyronie's disease, post-priapism or complex penile malformations[2,6].

Summary

- Low failure and complication rates (level 2b)
- High patient satisfaction outcomes (level 2b)
- Less cost-effective than first and second-line treatments (level 2b)

References

Patient information
http://www.nhs.uk/Conditions/Erectile-dysfunction/Pages/Treatment.aspx

References:

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