GUIDELINES FOR THE INITIAL MANAGEMENT IN PRIMARY CARE OF PATIENTS WITH ERECTILE DYSFUNCTION (ED)

Initial Assessment
- Include: BP, urinalysis, fasting glucose and cholesterol, smoking status.
- Consider full profile (LFTs, U&Es, testosterone, prolactin, TSH, fasting glucose and cholesterol) especially in patients under 50 years of age or where loss of libido appears to be a primary problem.

History *(See notes)*
- Explain possible causes of ED and treat any co-morbidity.
- Consider withdrawal of any drugs possibly causing ED

Examination (external genitalia, secondary sexual characteristics, lower limb pulses, gross sensation, possibly PR)

Treatment (see also cautions and contra-indications below)
Discuss modifying lifestyle, if appropriate.
Explain the government guidelines regarding prescribing and methods of obtaining drugs. Available at:
http://www.advisorybodies.doh.gov.uk/smac/viagra.htm

Phosphodiesterase type 5 (PDE5) inhibitors
All patients should be offered a trial of 4 doses of a PDE5 inhibitor unless contra-indicated. Onset of action may be delayed if taken with food.
Sildenafil and vardenafil have a similar, short duration of action. Tadalafil is longer-acting. Sildenafil considered first line choice.
- **Sildenafil** 50mg approx 1 hour before sexual activity. Adjust subsequent doses according to response if necessary to 25-100mg. Max 1 dose in 24 hours. Cost per month: 25mg £16.59, 50mg £21.27, 100mg £23.50
- **Vardenafil** 10mg (elderly 5mg) 25-60 minutes before sexual activity. Adjust subsequent doses to between 5mg and 20mg if necessary. Max 1 dose in 24 hours. Cost per month: 5mg £16.59, 10mg £22.24, 20mg £23.50
- **Tadalafil** 10mg at least 30 minutes before sexual activity. Adjust subsequent doses up to max of 20mg if necessary. Max 1 dose in 24 hours. Cost per month: 10mg and 20mg both £23.40

History
**Physical Causes**
- History of occlusive arterial disease
- Diabetes
- Hypertension
- Dyslipidaemia
- Heavy smoking
- Alcoholism and drug abuse
- Pelvic surgery, trauma
- Spinal injury,
- Radiotherapy
- Neurological disease, stroke
- Obesity

**Psychological Causes**
- Libido and relationship factors
- Stress and anxiety
- Depression

Drug History
- Antihypertensives, particularly β blockers and thiazide diuretics. Less risk with ACE inhibitors, calcium channel blockers and α blockers.
- Unless there is an obvious temporal relationship between commencing drugs and onset of erectile dysfunction, withdrawal of drugs rarely helps.
- Antidepressants, particularly SSRIs and tricyclics
- LHRH analogues eg goserelin
- Fibrates eg gemfibrozil
- Anticonvulsants eg phenytoin, carbamazepine
- H2 antagonists eg cimetidine
- Anti-Parkinson’s drugs eg levodopa

Treatment Failure
- Check the patient used the drug appropriately
- Increase the dose of the same drug, if tolerated, or try an alternative PDE5 inhibitor.
- Referral to ED clinic at Arrowe Park Hospital NHS Trust for other treatment options (see page 2 for these.)

Cautions and contraindications with PDE5 inhibitors
- Concomitant treatment with nicorandil or nitrates (potentially serious hypotension and possibly myocardial infarction )
- Recent MI (within the last 90 days [6 months for vardenafil])
- Recent CVA (within the last 6 months)
- Unstable angina or uncontrolled arrhythmias
- Hypotension - blood pressure < 90/50 mmHg
- Uncontrolled hypertension
- Severe hepatic impairment
- Retinitis pigmentosa.
- Hypotensive effect with alpha blockers, establish treatment before starting PDE5 inhibitors.

Drug interactions
- Erythromycin, itraconazole, ketoconazole, possibly cimetidine – reduce dose of sildenafil or tadalafil.
- Use with extreme caution if taking ritonavir or saquinavir.
- Rifampicin, barbiturates and phenytoin may possibly reduce serum levels of sildenafil and tadalafil.
- No need to avoid PDE5 inhibitors in patients taking other antihypertensives but see alpha blockers above.
Erectile dysfunction clinic

- Reassess patient and reconsider psychosexual referral and hormonal profile.
- If patient requires antidepressants consider use of trazodone.
- If testosterone supplementation being considered check PSA to rule out occult prostate malignancy.

Other Treatment Options (from secondary care pathway)

- Patients with a principally psychosexual disorder can be referred for psychosexual counselling to Dr Helen Wilkins at Women’s Services, St Catherine’s hospital (Tel: 604 7290) or to Relate (Tel: 0870 240 4246) if there are relationship issues.
- Patients with ejaculatory disorders, hormonal problems, pain or other pathology precluding intercourse should be referred to the appropriate specialist.
- If erectile problems are principally curvature due to Peyronies disease and this curvature is not precluding intercourse, the patient can be reassured. If curvature is not progressing there is probably no need to review the patient.
- If the patient has progressive curvature or pain as a result of Peyronies disease and this is precluding to intercourse, the patient should be referred to the ED clinic if they wish to undergo treatment.
- **Alprostadil** (intracavernosal or transurethral). Refer to dose instructions in the BNF. The first dose must be given by medically trained personnel. **MUSE urethral stick** Max 2 doses in 24 hours and 7 doses in 7 days. Cost per device: 125micrograms £10.38, 250micrograms and 500micrograms £11.30 1000micrograms £11.56. **Caverject Dual Chamber** Max 1 dose in 24 hours and 3 doses per week. Cost for 2 cartridges: 10 micrograms £14.70, 20 micrograms £19.00. **Caverject vials** Cost 5 micrograms £7.73, 10 micrograms £9.24, 20 micrograms £11.94, 40 micrograms £21.58.
- **Active II vacuum pump.** Cost £149.00. GPs may be asked to prescribe this on the NHS following referral from the ED clinic.

Prescribing for ED

Drug therapies and vacuum devices are currently only available on the NHS for certain patients under the prescribing system “Schedule 11”. The prescription should be marked “SLS” (selected list scheme). These patients fall into two main groups:

1. Men who are suffering from any of the following:
   - Diabetes
   - Multiple sclerosis
   - Parkinson’s disease
   - Poliomyelitis
   - Prostate cancer
   - Severe pelvic injury
   - Single gene neurological disease
   - Spina bifida
   - Spinal cord injury
   - On dialysis for renal failure or who have renal failure treated by transplant
   - Men who have undergone a prostatectomy or radical pelvic surgery

2. Men who were already being treated for ED on the NHS on 14th September 1998

Additionally for other men who are suffering from extreme distress as a result of ED, government guidelines state that they can receive treatment on the NHS in exceptional circumstances. **Assessing the degree of distress can be left to the GPs discretion without the need for specialist assessment.**

Patients being prescribed drugs under Schedule 11 would pay the normal prescription charge unless they are exempt from doing so. Patients who do not fit into any of the above categories can be prescribed treatment for their ED on private prescription.

The DOH has recommended that 4 doses per month of PDE5 inhibitors are prescribed for financial reasons. There is no clinical reason why patients may not obtain larger quantities than this on private prescription.

Guidelines written by:
- Mr Paul Kutarski, Consultant in Urology, Wirral Hospital NHS Trust
- Ms Jo Goodfellow, Directorate Manager, Surgical Department, Wirral Hospital NHS Trust
- Ms Sue McGorry, Head of Service Redesign, Wirral PCT
- Ms Helen Dingle, Clinical Effectiveness Pharmacist, Wirral PCT
- Ms Karen Herbert, Principal Pharmacist, Medicines Management, Wirral Hospital NHS Trust

Date produced: June 2006

Date to be revised: June 2008

Endorsed by: Wirral Drugs and Therapeutics Committee July 2006