Erectile dysfunction

THE JOURNAL OF SEXUAL MEDICINE

Men with ED are cardiac patients until otherwise proven

Readability	✓ ✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓ ✓ ✓
WOW! factor	✓ ✓ ✓ ✓

1 Guidelines for the safe management of cardiac patients regarding sexual activity and the treatment of erectile dysfunction (ED) were developed at the first Princeton Consensus Conference in 1999.

2 The recommendations were updated at the second conference and are reviewed here.

3 Multinational studies in safety and drug interaction data for three phosphodiesterase type 5 inhibitors were reviewed by a panel of experts, who reached a number of conclusions.

4 ED is a signal or symptom of cardiovascular disease, due to common risk factors and the pathophysiology mediated through endothelial dysfunctions (diabetes, hypertension, hyperlipidaemia and heart disease are among the major co-morbidities).

5 Asymptomatic men presenting with ED should be screened for vascular disease and have blood pressure, lipids and blood glucose measures taken.

6 All those at risk, but asymptomatic for coronary disease, should ideally have an elective exercise electrocardiogram to facilitate risk stratification.

7 The literature supports lifestyle intervention in ED (particularly in people with ED and cardiovascular disease), specifically increased physical activity and weight loss.

8 A man with ED and no cardiac symptoms is considered a cardiac patient until proven otherwise.

Jackson G, Rosen RC, Kloner RA, Kostis JB (2006) The second Princeton consensus on sexual dysfunction and cardiac risk: new guidelines for sexual medicine. *The Journal of Sexual Medicine* **3**(1): 28–36

Safe sex for people with diabetes – to the heart of the matter

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As practising healthcare professionals, we are increasingly aware of the links between erectile dysfunction (ED), diabetes and cardiovascular disease – thus we look for their coexistence. However, perhaps the more difficult implication is what we do practically to help a person with diabetes who has ED and has (or may have) macrovascular disease. Such decisions may require the co-ordinated input of diabetes, urological and cardiac teams to ensure an optimal outcome, and to a certain extent may be a case of entering uncharted territory.

A welcome addition to the arena is the release of the Second Princeton Consensus on Sexual Medicine and Cardiac Risk (Jackson et al, 2006; see left). These guidelines draw on the expertise of a renowned panel of multidisciplinary individuals who have reviewed multinational studies to address sexual dysfunction and cardiac risk. The consensus focuses, in particular, on the safety of oral agents (phosphodiesterase type 5 inhibitors) in cardiac risk.

There are two key messages. Firstly, that men with ED who do not have an obvious cause for the presence of vascular disease and risk factors should be screened. Secondly, that newer evidence supports the role of potentially modifiable lifestyle factors in the development and maintenance of ED – yet more incentive for men with diabetes to follow healthy lifestyle advice.

The new guidelines draw on the excellent original (Princeton Consensus Guidelines; De Busk et al, 2000). De Busk and colleagues' consensus provided an expert opinion on the safety of sexual activity for the 'cardiovascular' patient and which men could safely receive treatment for ED, those who could not and those who would benefit from further cardiovascular investigation and treatment before embarking on a renewed sex life.

Sexual activity, through increasing cardiac output, does have an associated morbidity and mortality in men with diabetes and ED. However, through careful evaluation, this risk can be substantively minimised. The Princeton Guidelines collectively provide an excellent basis for ensuring we limit this risk and come highly recommended for those involved in treating ED.

De Busk R, Drory Y, Goldstein I et al (2000) Management of sexual dysfunction in patients with cardiovascular disease: recommendations of the Princeton Consensus Panel. *American Journal of Cardiology* **86**(2): 175–81

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

ED should prompt cardiovascular investigation

Readability	✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓ ✓
WOW! factor	✓ ✓ ✓

1 This study investigated the relationship between erectile dysfunction (ED) and cardiovascular disease.

2 Men from the placebo group in the Prostate Cancer Prevention Trial, who were at least 55 years of age, were assessed for cardiovascular disease (CVD) and ED every 3 months between 1994 and 2003.

3 The association of CVD and ED was evaluated using proportional hazards regression models.

4 A total of 9457 men were in the placebo group, 8063 men had no CVD at study entry, of whom 3816 had ED at study entry. Of the 4247 men with no ED at study entry, 2420 (57 %) reported ED after 5 years.

5 Incident ED was associated with a hazard ratio of 1.25 for subsequent cardiovascular events during study follow-up. For men with incident or prevalent ED, the hazard ratio was 1.45.

6 For subsequent cardiovascular events, the unadjusted risk of an incident cardiovascular event was 0.024 and 0.015 per person-year in men with and without ED at study entry, respectively.

7 In some men, ED is a harbinger of cardiovascular events.

Thompson IM et al (2005) Erectile dysfunction and subsequent cardiovascular disease. *Journal of the American Medical Association* **294**(23): 2996–3002

'Erectile dysfunction following statin therapy is more likely in those with severe endothelial dysfunction due to established cardiovascular risk factors'

'As penile arteries are smaller in diameter than coronary arteries, men with erectile dysfunction (ED) will not often have concomitant symptoms of coronary artery disease (CAD), but men with CAD will often have ED'

INTERNATIONAL JOURNAL OF CLINICAL PRACTICE

Cardiovascular risk factors key to ED after statin therapy

Readability	✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓ ✓
WOW! factor	✓ ✓ ✓ ✓

1 This prospective observational study examined the relationship of erectile function to cardiovascular (CV) risk factors and drug therapies before and after 6 months of statin therapy.

2 International Index of Erectile Function (IIEF) scores were taken in 93 men attending CV risk clinics; CV risk factors and drug therapies were investigated before and after 6 months of statin therapy.

3 The median IIEF score was 21 before statin therapy, and 57 % of men had impaired erectile function; IIEF scores were 6.5 after statin therapy, and 22 % experienced new-onset erectile dysfunction (ED).

4 No correlation was observed between IIEF score and individual CV risk factors before statin therapy; after 6-months statin therapy, correlations were observed between lower IIEF scores and age and diabetes.

5 ED following statin therapy is more likely in those with severe endothelial dysfunction due to established CV risk factors.

Solomon H, Samarasinghe P, Feher MD et al (2006) Erectile dysfunction and statin treatment in high cardiovascular risk patients. *International Journal of Clinical Practice* **60**(2): 141–5

THE AMERICAN JOURNAL OF CARDIOLOGY

Hypothesis offers macrovascular link between ED and CAD

Readability	✓ ✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓
WOW! factor	✓ ✓ ✓ ✓ ✓

1 The authors have previously proposed the artery-size hypothesis, a pathophysiologic mechanism to explain the link between erectile dysfunction (ED) and coronary artery disease (CAD).

2 Due to the systemic nature of atherosclerosis, all major vascular beds should be affected to the same extent, but symptoms rarely become evident at the same time.

3 The authors propose that the difference in the rate that symptoms occur is caused by the variable size of the arteries supplying different vascular beds.

4 Larger vessels could thus better tolerate the same amount of plaque compared with smaller vessels.

5 As penile arteries are smaller in diameter than coronary arteries, men with ED will not often have concomitant symptoms of CAD, but men with CAD will often have ED.

6 The authors say that clinical evidence seems to support their hypothesis.

Montorsi P, Ravagnani PM, Galli S et al (2005) The artery size hypothesis: a macrovascular link between erectile dysfunction and coronary artery disease. *The American Journal of Cardiology* **96**(12B): 19M–23M

ASIAN JOURNAL OF ANDROLOGY

Diabetes may exaggerate fibrotic process in Peyronie's

Readability	✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓
WOW! factor	✓ ✓ ✓

1 Clinical characteristics of people with diabetes and Peyronie's disease (PD) were examined in this study.

2 A total of 307 men were diagnosed with PD over 8 years.

3 Of the 102 men who also had diabetes, clinical characteristics, penile deformities and erectile status were compared with men with only PD who had no risk factors for systemic vascular disease.

4 The prevalence of PD in men with diabetes and sexual dysfunction was 10.7 %.

5 The mean age of men with PD was 55.9 ± 8.9 years, and in the no-risk-factor group was 48.5 ± 9.0 years.

6 Most people with diabetes and PD presented in the chronic phase, and were more likely to have severe penile deformity than the no-risk-factor group.

7 In the diabetes group, 19.6 % of men were unaware of their penile deformities; erectile function was diminished in men with PD and diabetes.

8 Men with diabetes and PD have a higher risk of deformity and ED; PD may be a silent result of diabetes.

Tefekli A, Kandirali E, Erol B et al (2006) Peyronie's disease: a silent consequence of diabetes mellitus. *Asian Journal of Andrology* **8**(1): 75–9

BMC UROLOGY

Analysis shows similar efficacy of PDE-5 inhibitors

Readability	✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓ ✓
WOW! factor	✓ ✓ ✓

1 The objective of this study was to compare phosphodiesterase type 5 (PDE-5) inhibitors with one another in a normal home setting.

2 Reference lists from reviews and electronic searches were used to find randomised double-blind trials of oral PDE-5 inhibitors for erectile dysfunction (ED).

3 Analyses of harm and efficacy were carried out and results compared where there was a common comparator; differential reporting of outcomes meant that analysis was limited.

4 Sildenafil trials were geographically and clinically more diverse – tadalafil and vardenafil trials tended to use enriched enrolment.

5 The three interventions were similar for consistently reporting efficacy outcomes, using all trials.

6 For sildenafil, tadalafil and vardenafil, rates of successful intercourse were 65 %, 62 % and 59 %, respectively, with placebo rates of 23–28 %; rates of improved erections were 76 %, 75 % and 71 %, respectively, with placebo rates of 22–24 %.

7 Efficacy was similar between PDE-5 inhibitors for common outcomes.

Moore RA, Derry S, McQuay HJ (2005) Indirect comparison of interventions using published randomised trials: systematic review of PDE-5 inhibitors for erectile dysfunction. *BMC Urology* **5**: 18