A Statement on the Use of Sildenafil in the Management of Sexual Dysfunction in Patients with Cardiovascular Disease

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Responsible, consensual sexual activity is a healthy aspect of human life. Penile erection is a normal consequence of sexual arousal and is essential to the enjoyment of orgasm during sexual intercourse. Sexual dysfunction is common in men and increases with age.

Physicians and other health care workers are responsible for the care and counseling of individuals with erectile dysfunction who may also have overt or undiagnosed cardiovascular disease. Systemic hypertension, atherosclerotic coronary artery disease, and congestive heart failure are common in men with erectile dysfunction. Most individuals with these disorders may benefit from some form of therapy for their erectile dysfunction, improving quality of life without increasing cardiovascular risk. With sildenafil however, there is a potential risk of an adverse effect in a small proportion of individuals of which health care workers must be aware.

Sildenafil is a phosphodiesterase 5 enzyme (PDE-5) inhibitor, which decreases the breakdown of cyclic guanosine monophosphate, which is essential for normal erection. Simultaneous systemic arterial and venous vasodilation occurs with PDE-5 inhibition along with an average 8/5 mm of Hg lowering of blood pressure that is not dose related. In the majority of individuals with cardiovascular disease the systemic effects of sildenafil have no adverse consequences. However, sildenafil should not be used in patients on any form of nitrate therapy, or those patients with active myocardial ischemia who are likely to be prescribed nitrate therapy.

In patients on multiple concomitant antihypertensive therapy, a careful evaluation should be conducted to ensure that there is no adverse, symptomatic hypotension. Because of the vasodilating properties of sildenafil, it should not be administered to patients with left ventricular outflow tract obstruction or low blood volume.

The majority of cardiovascular patients may be treated with sildenafil with the exception of those already taking nitrate therapy in any form. For patients in whom nitrate therapy is essential, other types of therapy for erectile dysfunction should be considered.
Nitrate Therapy in Erectile Dysfunction

Never use sildenafil with any form of nitrates, including non-prescription nitrates, poppers, etc.

Do not use sildenafil within 24 hours after use of any nitrates including prophylactic use of short-acting sublingual nitroglycerin.

Do not use sublingual nitroglycerin in acute coronary syndromes in patients who have taken sildenafil within 24 hours.

If indicated, intravenous nitroglycerin should be used with extreme caution in a patient who has an acute coronary syndrome and has taken sildenafil and only in an acute care setting with constant ECG and BP monitoring and where trained staff are available to discontinue the nitrate and use volume infusion and/or an alpha agonist for prompt resuscitation.