

ACTIVE LEARNING TEMPLATE: *Medication*

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MED **Viagra, (sildenafil)** CLASS Erectile dysfunction agent, vasodilator, phosphodiesterase type

PURPOSE OF MEDICATION

Action: amplifies the effect of nitric oxide during sexual stimulation, triggering guanylate cyclase to boost cyclic guanosine monophosphate (cGMP) levels. Leads to smooth muscle relaxation in the corpus cavernosum. cGMP causes vasodilation in the pulmonary vasculature. By inhibiting phosphodiesterase type 5 (PDE5), sildenafil prevents cGMP breakdown, promoting vasodilation in the pulmonary

Therapeutic Use: Improves blood flow to the corpus cavernosum, enabling an erection suitable for sexual activity, but sexual stimulation is necessary. Enhances exercise capacity, support pulmonary hemodynamics, and slow disease progression

Complications: hypotension, MI, SUDDEN DEATH, vaso occlusive crises, rash, epistaxis, hearing loss, nasal congestion, vision loss, dyspepsia, diarrhea, priapism, UTI, myalgia, headache, dizziness, insomnia, paresthesia.

Medication Administration:
PO: 50mg 1hr before sexual activity. Range (25-100mg). not more than once daily. Concurrent use with alpha blocker hypertensives (50-100mg). Geriatric: 25mg 1hr before. Range (25-100mg). Not more than once daily

Contraindications/Precautions: cardiovascular disease (MI, stroke, arrhythmia within 6 mo); cardiac failure; coronary artery disease; dehydration; severe hypertension (>170/110 mm Hg) or hypotension (<90/50 mm Hg); pulmonary hypertension (sickle cell anemia ↑ risk of vaso-occlusive crises); renal/hepatic impairment; anatomic penile deformities; priapism risk (sickle cell anemia, multiple myeloma, leukemia); bleeding disorders; peptic ulceration; vision loss history

Nursing Interventions: Monitor BP and HR with concurrent use of medications that ↓ BP. Monitor for pulmonary edema (SOB, edema in hands/feet). Viagra: Confirm ED before administration (sexual stim required for effect). Revatio: Assess hemodynamic parameters and exercise tolerance before and during

Interactions: Nitrates, riociguat ↑ risk of severe hypotension. CYP3A4 inhibitors (cimetidine, erythromycin, ketoconazole, itraconazole, nelfinavir, ritonavir) ↑ levels and toxicity risk. CYP3A4 inducers (rifampin, bosentan, barbiturates, carbamazepine, phenytoin) ↓ levels and effectiveness. Alpha adrenergic blockers, alcohol ↑ hypotension risk. Bosentan ↑ toxicity risk. Glipizide requires caution. Warfarin ↑ bleeding risk.

Client Education:). Take 1hr before sexual activity. Notify healthcare provider about all current medications and health concerns. Seek immediate medical attention for chest pain, prolonged erection, vision or hearing loss, or dizziness. Does not protect against STDs—consider preventive measures. Women should consult healthcare provider regarding pregnancy or breastfeeding

Evaluation of Medication Effectiveness: Viagra: Enhanced blood flow to the corpus cavernosum; erection sufficient for sexual intercourse (requires sexual stimulation). Revatio: Improved exercise tolerance or pulmonary hemodynamics; delayed disease progression.