

ACTIVE LEARNING TEMPLATE: *Medication*

STUDENT NAME _____

MEDICATION Nitroglycerine

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Organic Nitrates

PURPOSE OF MEDICATION

Expected Pharmacological Action

Increase coronary blood flow by dilating coronary arteries and improving collateral flow to ischaemic regions.
Decrease myocardial oxygen demand by reducing the heart rate, ventricular volume, blood pressure and cardiac contractility.

Therapeutic Use

In management of Ischaemic heart disease
Acute and long-term prophylactic management of angina pectoris
Treatment of Heart Failure associated with acute Myocardial Infarct

Complications

Headache
Dizziness
Postural hypotension
Drug rash

Medication Administration

Sublingual route
Translingual spray
Per oral
Intravenous (IV)
Transdermal

Contraindications/Precautions

Tolerance develops fast for this medication
Contraindicated in patients taking phosphodiesterase 5 inhibitors.

Nursing Interventions

Assess location, duration, intensity, and precipitating factors of patient's anginal pain.
Monitor Blood Pressure (BP) and pulse before and after administration.
Patients receiving IV nitroglycerin require continuous ECG and BP monitoring.
Additional hemodynamic parameters may be monitored.

Interactions

With phosphodiesterase 5 inhibitors such as sildenafil, tadalafil, and vardenafil. Their interaction can cause extreme hypotension.
Additive hypotension with antihypertensives, beta blockers, acute ingestion of alcohol, calcium channel blockers, haloperidol or phenothiazines.
Agents having anticholinergic properties (tricyclic antidepressants, antihistamines or phenothiazines) may decrease absorption of translingual or sublingual nitroglycerin

Client Education

To take medication as directed, even if feeling better.
Take missed doses as soon as remembered unless next dose is scheduled within 2 hr (6 hr with extended-release preparations).
Do not double doses.
Do not discontinue abruptly; gradual dose reduction may be necessary to prevent rebound angina.
To change positions slowly to minimize orthostatic hypotension.
Avoid concurrent use of alcohol with this medication.
Consult health care professional before taking OTC medications while taking nitroglycerin.
Inform them of the common side effects with continued therapy
Advise them to notify health care professional if side effects persist or become severe.

Evaluation of Medication Effectiveness

Decrease in frequency and severity of anginal attacks.
Increase in activity tolerance. During long-term therapy, tolerance may be minimized by intermittent administration in 12–14 hr or 10–12 hr off intervals.
Controlled hypotension during surgical procedures.
Treatment of Heart Failure (HF) associated with acute Myocardial Infarct (MI).