pilocarpine (oral) (pye-loe-kar-perm)

Indications
Management of xerostomia, which may occur as a consequence of radiation therapy for cancer of the head and neck. Treatment of dry mouth in patients with Sjögren’s syndrome.

Action
Stimulates cholinergic receptors, resulting in primarily muscarinic action, including stimulation of exocrine glands. Other effects include: Increased sweating, gastric secretions, increased tone and motility of the urinary tract, gallbladder, and liver due to smooth muscle. Therapeutic Effects: Increased salivary gland secretion.

Pharmacokinetics
Absorption: Well absorbed after oral administration.
Distribution: Unknown.
Metabolism and Excretion: Inactivated at neuronal synapses and in plasma. Some unchanged pilocarpine and metabolites are excreted in urine.
Half-life: After 5-mg dose for 2 days—0.8 hr; after 10-mg dose for 2 days—1.3 hr.

TIME/ACTION PROFILE
ROUTE ONSET PEAK DURATION
PO 20 min 1 hr 3–5 hr

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Uncontrolled asthma; Unilateral ocular conditions.

Use Cautiously in: History of pulmonary disease (asthma, bronchitis, or chronic obstructive pulmonary disease); Biliary tract disease or cholelithiasis; Cardiovascular disease; Seizure disorders; Psychiatric abnormalities; History of psychiatric or cognitive disorders; Glaucoma; Pregnancy; Lactation: Safety not established.

Adverse Reactions/Side Effects
CNS: dizziness, headache, weakness.
EENT: amblyopia, epistaxis, rhinitis.
CV: edema, hypertension, tachycardia.
GI: nausea, vomiting, dyspepsia, dysphagia.
GU: urinary frequency.
Derm: flushing, sweats.
Neuro: tremors.
Misc: chills, voice change.

Interactions
Drug-Drug: Concurrent use of anticholinergics will impair the effectiveness of pilocarpine. Concurrent use of bethanechol or ophthalmic cholinergics may result in increased cholinergic effects. Concurrent use with beta blockers may increase the risk of adverse cardiovascular reactions (conduction disturbances).

Route/Dosage
Head and Neck Cancer Patients
PO (Adults): 5 mg three times daily initially, then titrated to need/response, usual range 15–30 mg/day (no single should exceed 10 mg).

Patients with Sjögren’s Syndrome
PO (Adults): 5 mg four times daily.

NURSING IMPLICATIONS
Assessment
● Assess oral mucosa for dryness and ulceration periodically during therapy.

Potential Nursing Diagnoses
Impaired oral mucous membrane (indications)

Implementation
● Do not confuse Salagen (pilocarpine) with selegiline.

Patient/Family Teaching
● Instruct patient to take medication as directed.
● Caution patient that pilocarpine may cause visual changes, especially at night; avoid driving or other activities requiring alertness until effects of medication are known.
Advise patient to drink adequate daily fluids (1500–2000 mL/day), especially if sweating occurs. Less than adequate fluid intake may lead to dehydration.

Evaluation/Desired Outcomes

- Increased salivary gland secretion in patients with xerostomia.
- Decrease in dry mouth in patients with Sjögren's syndrome. Full effects in cancer patients may not be seen for up to 12 weeks or 6 weeks in patients with Sjögren's syndrome.

Why was this drug prescribed for your patient?