tretinoin (topical)  (tret-i-noyn)  
Atralin, Avita, Rejuva-A, Retin-A, Retin-A Micro, Stieva-A, Vitamin A Acid

Classification
Therapeutic: keratolytic agents
Pharmacologic: retinoids

Pregnancy Category C

Indications
Management of acne vulgaris. Decreased facial dermal effects of photoaging (used with sun avoidance; 0.05% water-in-oil cream formulation only).

Action
Decreases the formation of microcomedomes and stimulates turnover of follicular epithelium.

Therapeutic Effects:
Decreases acne formation with improved skin appearance. Decreased skin roughness, hyperpigmentation, and wrinkling due to photoaging.

Pharmacokinetics
Absorption: Minimal systemic absorption occurs with limited surface-area application.
Distribution: Unknown.
Metabolism and Excretion: 5% of dose applied to skin is excreted in urine.
Half-life: Unknown.

TIME/ACTION PROFILE (improved skin appearance)

ROUTE ONSET PEAK DURATION
Topical (acne) 2–3 wk 6 wk unknown
Topical (photoaging) within 24 wk unknown 2 mo†

†Following discontinuation.

Contraindications/Precautions
Contraindicated in: Hypersensitivity to tretinoin or any components in the formulation; known alcohol intolerance (gel and liquid only).

Use Cautiously in: Areas around the mouth, eyes, angles of the nose, or other mucous membranes; OB, Lactation, Pedi: Safety not established; Safety/effectiveness in patients 50 yr, with a history of skin cancer or with moderately pigmented skin or for 48 wk not established.

Adverse Reactions/Side Effects
Derm: photosensitivity, redness, blistering, edema, crusting, hyperpigmentation, hypopigmentation.

Interactions
Drug-Drug: Concurrent use with keratolytic agents (benzoyl peroxide, salicylic acid, sulfur, or resorcinol) q risk of excessive skin irritation.
q risk of photosensitiv-
ity with other photosensitizing agents. Risk of irritation q to other topical skin-care products (after-shave, cover-up, perfumes, colognes). q absorption of topical minoxidil.

Route/Dosage
Acne
Topical (Adults and Adolescents ≥12 yr): Apply a thin film once at bedtime.

Photoaging
Topical (Adults): — Apply a thin film once at bedtime; if irritation occurs, lower concentration or less frequent application may be tried.

NURSING IMPLICATIONS
Assessment
• Assess skin prior to and periodically during therapy. Note number and severity of cysts, degree of skin dryness, erythema, and itching. Response to frequency of application and dose concentration is variable and should be closely monitored. Transient worsening of acne may occur at initiation of therapy. This may be due to the effects of tretinoin on deep, previously undetected lesions and is not a reason to discontinue therapy.

Potential Nursing Diagnoses
Risk for impaired skin integrity (Indications) (Side Effects)
Disturbed body image (Indications)

Implementation
• Topical: Tretinoin should be applied once a day before bedtime. Cover the entire area lightly. Wash hands immediately after application.

Class: ~d ~k ~g ~n ~t ~a ~s ~u ~w ~b ~c ~f ~i ~l ~e ~o ~r ~h ~v ~q ~x ~y ~z ~A ~B ~C ~D ~E ~F ~G ~H ~I ~J ~K ~L ~M ~N ~O ~P ~Q ~R ~S ~T ~U ~V ~W ~X ~Y ~Z ~a ~b ~c ~d ~e ~f ~g ~h ~i ~j ~k ~l ~m ~n ~o ~p ~q ~r ~s ~t ~u ~v ~w ~x ~y ~z ~0 ~1 ~2 ~3 ~4 ~5 ~6 ~7 ~8 ~9

G = Generic Implication. OPT = indicates no-onset data available; subscripts indicate most frequent. discontinued.
Liquid: Apply with fingertip, gauze pad, or cotton swab. Do not saturate gauze pad or cotton swab to the extent that medication runs onto unaffected area.

Gel: Excessive application results in “pilling” of gel, which minimizes overapplication of tretinoin.

May induce severe local edema and peeling at the site of application. If this occurs, treatment may be used less frequently, or discontinued temporarily or completely.

Patient/Family Teaching

Instruct patient to apply tretinoin as directed. Application may cause a transient burning, warm feeling, and a slight stinging. Local application near eyes, mouth, angle of the nose, or mucous membranes. Do not apply excessive amounts, because this may cause redness, peeling, or discomfort and will not improve results. If a dose is missed, omit and apply next dose at regularly scheduled time; do not double dose.

Explain to patient that a temporary worsening of acne may occur at beginning of therapy.

Advise patient to consult with health care professional before using other acne preparations while using tretinoin. Normal use of cosmetics is permissible, but area to be treated must be thoroughly cleansed prior to application. Medicinal or abrasive soaps or cleansers, soaps and cosmetics that have a strong drying effect, and products that have a high concentration of alcohol, astringents, spices, or lime also may worsen dry skin.

Caution patient to use sunscreen with an SPF of at least 15, and protective clothing to prevent photocomedication reactions. Consult health care professional about sunscreen; some sunscreens may worsen acne. Patients should be taught to minimize exposure to sunlight and sunlamps, and if sunburned to cease tretinoin treatment until fully recovered. Other weather extremes (wind, cold) also may irritate skin.

Evaluation/Desired Outcomes

Decrease in the number and severity of cysts in severe acne. Therapeutic results are usually seen in 2–3 wk but may require 6 wk for optimal results. Once results are satisfactory, maintain therapy with less frequent applications or other dosage forms.

Decreased skin roughness, hyperpigmentation, and wrinkling due to photoaging.

Why was this drug prescribed for your patient?

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