

Protocols— Glycolic Acid Chemical Peels (30% and 50%)

(Clinical/professional protocols for an experienced clinician / cosmetic formulator. Sources: clinical reviews, manufacturer directions, and consensus guidelines.)

★ PROFESSIONAL OVERVIEW – CHEMICAL PEELS

Glycolic 30%, 50%

GLYCOLIC ACID PEELS (30% & 50%)

INDICATIONS

- Dullness, photoaging
- Hyperpigmentation
- Congestion, mild acne
- Texture irregularities

30% GLYCOLIC ACID (Superficial AHA)

- Mild epidermal exfoliation
- Lowest irritation risk

General Treatment Principles

- Shorter exposure times
- Tingling/burning normal
- Monitor erythema
- Neutralize with standard AHA neutralizer or sodium bicarbonate solution

50% GLYCOLIC ACID (Mid-Strength AHA) Stronger superficial peel

- Higher erythema, stinging, and PIH risks
- Requires tight control on exposure

General Principles

Pre-conditioning recommended (retinoids stopped, AHAs reduced)

Strict time-monitoring

Immediate neutralization upon signs of excessive irritation

A — GENERAL PRINCIPLES (applies to both strengths)

Indication: superficial chemical peel for photo-damage, fine lines, mild hyperpigmentation, texture improvement and comedonal acne. Adjust choice of strength and timing to Fitzpatrick skin type and history of PIH.

Pre-treatment (recommended 2–4 weeks before):

Discontinue topical retinoids, topical exfoliants (AHAs/BHAs), benzoyl peroxide, and depilatories 3–7 days before; stop retinoids longer if skin is sensitive. Use gentle cleanser and hydrating products. Consider preconditioning with low-strength AHA or retinoid to increase predictability (only if safe for the patient).

For patients at risk of PIH (darker phototypes), consider 2–4 week pre-treatment with sunscreen + topical lighteners (e.g., azelaic acid, niacinamide, tranexamic acid, or hydroquinone under supervision) to reduce risk.

Contraindications: active infection/eczema/rosacea flare, open wounds, isotretinoin within past 6–12 months (many clinicians avoid peels for 6–12 months after oral isotretinoin), recent radiation to area, keloid history (relative), known hypersensitivity to ingredients. Pregnancy/breastfeeding — evaluate risks/benefits.

Informed consent: document expected sensations, downtime, peeling timeline, risk of erythema, crusting, post-inflammatory hyperpigmentation (PIH), hypopigmentation, infection, scarring; discuss sun protection and possible need for multiple sessions.

B — SETUP & PREPARATION

Room & patient: well-lit, reclined patient. Remove makeup. Cleanse with mild cleanser then with alcohol (or acetone if manufacturer recommends) to degrease—but follow product guidance. Protect hairline, nostrils, lips and eyes with petroleum jelly. Provide patient with dampening cloths and access to water for neutralization if needed.

Materials to have ready: gloves, cotton-tipped applicators / gauze / fan (for patient comfort), neutralizing solution (10–15% sodium bicarbonate in water or manufacturer neutralizer), potable water, moisturizer/ emollient, cold

compresses, topical antibiotic (if indicated), topical steroid (low-potency) in clinic supply for severe reaction, emergency protocol for chemical burns.

C — ENDPOINTS (how to judge when to stop)

Mild erythema and uniform frosting is expected for higher strengths; *in glycolic peels the usual endpoint is persistent erythema and subtle blanching/frosting depending on concentration and time.* If *intense erythema, grayish whitening, epidermolysis or blistering* occurs, **immediately neutralize**. Manufacturer guidance often recommends neutralization after predetermined time or earlier if endpoints reached.

D — PROTOCOL: 30% Glycolic Acid (superficial peel)

Form: solution/glycerin-based or aqueous as per product.

Purpose: mild resurfacing, maintenance, suitable for Fitzpatrick I–IV with caution on higher phototypes.

Directions of use (clinical):

Cleanse area and remove oils. Apply protective petroleum jelly to sensitive areas (eyelids, lips).

Apply 30% GA evenly using cotton-tipped applicator or brush in a single thin coat. Work in sections (forehead, right cheek, left cheek, nose, chin).

Exposure time: typical 1–4 minutes depending on skin tolerance and endpoint; start with 1–2 minutes for first treatment and increase in subsequent sessions as tolerated. (If manufacturer gives a specific time, follow it).

Monitor patient: mild stinging is normal. Observe for rapid progression to intense erythema, edema, or frosting.

Neutralization / removal: either neutralize with 10–15% sodium bicarbonate solution or copious water wash-off at end of exposure, per product guidance. Some 30% GA formulations are leave-on for the timed interval then washed off.

Apply a soothing emollient / barrier cream after neutralization and advise cold compress if needed.

Frequency:

Repeat every 2–4 weeks depending on indication and skin response. Do not exceed recommended frequency by manufacturer.

Warnings / precautions (labelable points):

For external use only. Avoid contact with eyes and mucous membranes. Discontinue use for severe irritation, blistering, or signs of infection. Avoid sun exposure; use broad-spectrum SPF 30+ daily. Not for use on broken or inflamed skin. Keep out of reach of children.

Post-treatment care:

Gentle cleanser, avoid scrubs/abrasive devices for 7–14 days. Use moisturiser frequently. Avoid sauna/heavy exercise for 24–72 hours to reduce sweating that may interfere with healing. Use SPF 30+ and physical sun-avoidance. Expect mild flaking for up to 7–10 days. For PIH risk, consider topical lightening regimen post-healing.

E — PROTOCOL: 50% Glycolic Acid (strong superficial to medium-superficial peel)

Warning: 50% GA is substantially stronger — greater irritation and higher PIH risk in darker phototypes. Use only in experienced hands and consider lower concentrations for Fitzpatrick IV–VI.

Directions of use (clinical):

Pre-check: ensure informed consent and that preconditioning was performed. Remove oils and apply protective petroleum jelly to periorbital and perioral areas.

Apply 50% GA in a single thin coat with cotton applicator, working sectionally. Keep patient talking and observe sensation.

Exposure time: typical 1–3 minutes (some protocols allow up to 5–10 minutes by product instructions and depending on tolerance); however, many manufacturers recommend **2–10 minutes depending on tolerance**—start low for first procedure. If you reach desired endpoint (uniform mild frosting/erythema) sooner, stop.

Neutralization: Neutralize immediately if intense erythema, grayish white change, or blistering occurs. Otherwise neutralize at end of timed exposure using sodium bicarbonate 10–15% solution or the manufacturer’s neutralizer and wash with copious water. Some clinicians prefer wash-off rather than neutralizer—follow product IFU.

Apply soothing occlusive emollient / post-peel balm.

Frequency:

Typically spaced 3–4 weeks apart; many clinicians reserve 50% for single or limited repeated sessions with caution.

Warnings / precautions (labelable points / clinical cautions):

Higher risk of prolonged erythema, crusting, pigmentary changes and scarring if misapplied. Avoid in patients with active dermatitis or recent isotretinoin exposure. Strict sun avoidance and SPF are mandatory post-peel. Consider prophylactic antiviral in patients with history of herpes simplex (per local guidelines).

Post-treatment care:

Expect stinging, redness and flaking; peeling may last 7–14 days. Cleanse gently, apply emollient frequently. Avoid picking or manual exfoliation. Avoid sweating/exercise that may cause premature lifting. Use sunscreen SPF 30+ daily and physical measures (hat). Return for review if signs of infection, severe pain, blistering, or pigmentary change occur. Consider topical steroid if significant inflammation per clinician judgement.

F — EMERGENCY / ADVERSE EVENTS

If epidermolysis / blistering / gray-white epidermal necrosis occurs: immediately neutralize (10–15% sodium bicarbonate), cool the area, rinse copiously, apply bland emollient and arrange prompt clinical follow-up. Consider topical antibiotic if secondarily infected. Document and photograph.

G — Practical label / clinic-handout wording (concise)

Clinical Peel — Glycolic Acid 20% (or 50%)

Directions (clinic use only): Apply thin even layer to clean, dry skin for 1–4 minutes (30%) / 1–5 minutes (50%) depending on tolerance and clinician judgement. Neutralize and wash with water. Single-use professional application. Avoid sun exposure and use broad-spectrum SPF 30+ daily. Discontinue for severe irritation. Keep out of reach of children. For external use only. Performed by a licensed clinician. See consent and post-care instructions.

(Customize exact exposure times to product IFU and patient factors.)

H— Notes for the formulator / clinician

Buffering, pH and vehicle significantly alter GA activity — a 30% GA at pH 2.0 is far more active than at pH 3.5. Match formulation pH and intended exposure time; many clinical preparations specify product pH and recommend timing. Validate via small-area test before full face application.

Consider including post-peel soothing agents in aftercare (panthenol, allantoin, hyaluronic acid) and sun filters (avoid leaving sunscreens with chemical actives immediately on fresh peel until re-epithelialization).

For regulatory labeling, include concentration, lot/batch, warnings, contraindications, storage conditions and clinician contact.

POST-CARE FOR ALL GLYCOLIC PEELS

Redness for several hours

Light desquamation

Gentle cleansing 24h later

No retinoids, acids for 5–7 days

SPF 50 daily