SkinCeuticals **INTEGRATED SKINCARE**

# GLYCOLIC 10 RENEW OVERNIGHT + CHEMICAL PEEL

Safety and Clinical Efficacy of Pre- and Post-Peel Care

## INTRODUCTION

Glycolic acid is recognized as a leading ingredient clinically proven to improve aging-marked skin, specifically with decreased cellular renewal associated with photodamage and intrinsic aging. Its small molecular size allows glycolic acid to efficiently penetrate the epidermis and disrupt cellular cohesion to promote desquamation and increase cellular turnover leading to visible improvements in skin tone, texture, and radiance. While it has been traditionally associated with chemical peel formulations, in recent years, medical professionals have observed an increasing demand for glycolic acid-based creams and lotions for at-home use. Topical efficacy of the glycolic acid depends on its free acid value, which takes into account the bioavailable concentration and the vehicle used, a detail commonly overlooked in many glycolic acid-based formulations. Integrating glycolic acid in a pH-regulated topical formulation may largely neutralize the acid, attenuating its performance.

Additionally, glycolic acid can provide complementary benefits when utilized in conjunction with a procedure, specifically chemical peels.[1] Although various topical agents have been utilized in combination with chemical peels, there has yet to be a standardized regimen that has been implemented.[2] SkinCeuticals tested the benefits and tolerance of integrating Glycolic Renewal Cleanser and Glycolic 10 Renew Overnight cream with a chemical peel with the goal of standardizing a pre- and post-peel care regimen.

## OBJECTIVE

To evaluate the tolerance and efficacy of SkinCeuticals Glycolic 10 Renew Overnight (containing: 10% free glycolic acid, 2% phytic acid, and 1% soothing complex), Glycolic Renewal Cleanser (8% free glycolic acid, 1% phytic acid), and Micropeel 30 (30% glycolic acid) to maintain and optimize results of the chemical peel procedures.

## CLINICAL METHODOLOGY

A 10-week, single-center, clinical study was conducted on 60 healthy female subjects in two regimen cells.

**Inclusion Criteria:**

- Females ages 30-55
- Fitzpatrick skin types I-IV
- Normal, oily, dry, or combination skin
- Having not had a chemical facial peel in the past 6 months
- Mild to moderate for the following parameters:
  - Fine lines/wrinkles
  - Roughness/smoothness
  - Skin tone evenness
  - Dullness/radiance
  - Lack of skin tone clarity
  - Overall skin appearance

Efficacy measures included clinical grading and VISIA imaging at baseline, pre-peel, and subsequent peels at weeks 3, 6, 9, and 10.

In addition, efficacy parameters were assessed globally using a modified Griffith's scale. Cutaneous tolerability was evaluated by assessing subjective and objective irritation of the treatment area. Clinically-graded objective irritation parameters included erythema, dryness, and edema. In addition, subjects self-assessed burning, stinging, and itching in the treatment area.

Tables 1 and 2 list the products used for both the glycolic regimen as well as the control. The regimen for each treatment cell is outlined in Tables 3 and 4.

**TABLE 1 - ROUTINE A: GLYCOLIC ACID REGIMEN**

- Initiated every other day, and increased to daily as tolerated. In addition, Routine A was not performed 3 days before and 5 days after each peel and was substituted with Routine B instead

| PRODUCT | REGIMEN |
|---|---|
| Glycolic Renewal Cleanser | twice daily |
| Daily Moisture | every morning |
| Glycolic 10 Renew Overnight | every evening |
| Sheer Physical UV Defense SPF 50 | every morning as needed |

**TABLE 2 - ROUTINE B: DAILY BASIC REGIMEN**

| PRODUCT | REGIMEN |
|---|---|
| Balancing Foam Cleanser | twice daily |
| Daily Moisture | twice daily |
| Sheer Physical UV Defense SPF 50 | every morning as needed |

**TABLE 3 - CELL 1: GLYCOLIC ACID REGIMEN + TREATMENT**

| PHASE | ROUTINE |
|---|---|
| Baseline Evaluation | - |
| 3 weeks Pre-Peel | Routine A and B on alternating days |
| | Routine A as tolerated |
| | Routine B daily |
| Peel 1 | In clinic peel application |
| 3 weeks Post-Peel | Routine B Daily |
| | Routine A as tolerated |
| | Routine B daily |
| Peel 2 | In clinic peel application |
| 3 weeks Post-Peel | Routine B daily |
| | Routine A as tolerated |
| | Routine B daily |
| Peel 3 | In clinic peel application |
| Post-Peel | Routine B daily |

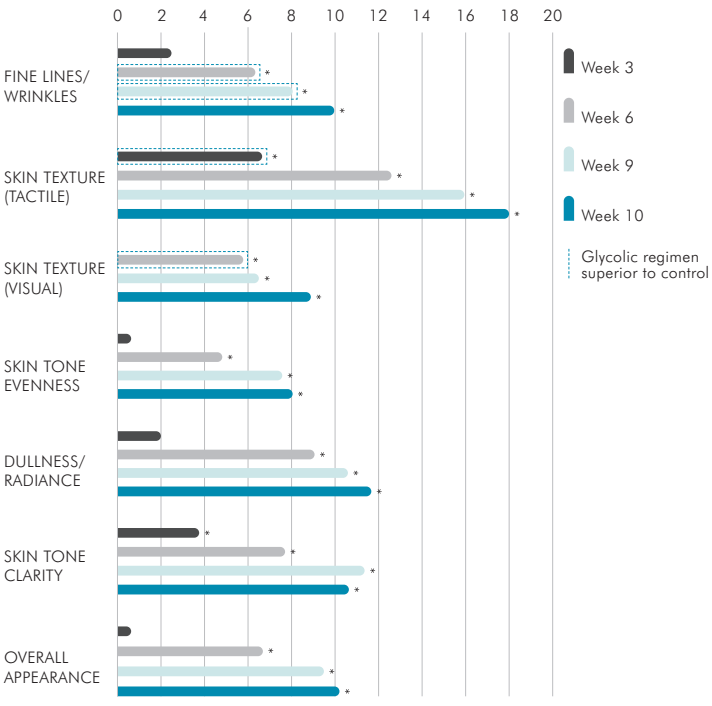
**TABLE 4 - CELL 2: CONTROL CELL. DAILY BASIC REGIMEN + TREATMENT**

| DAY | ROUTINE |
|---|---|
| Weeks 1-10 (Days 1-70) | Routine B daily, with baseline evaluation and a set of 3 peels scheduled at the same time as Cell 1 (Days 21, 42, and 63). |

## RESULTS

In the clinical evaluation of the two facial routines and series of peels, both treatment cells showed significant statistical and clinical improvement at the time points listed in Table 5 when compared to baseline. Time points where the glycolic acid regimen performed better than the control are also indicated by the boxes in the graph.

**TABLE 5: PERCENT IMPROVEMENT FROM BASELINE IN CLINICAL PARAMETERS**




*indicates statistical significance

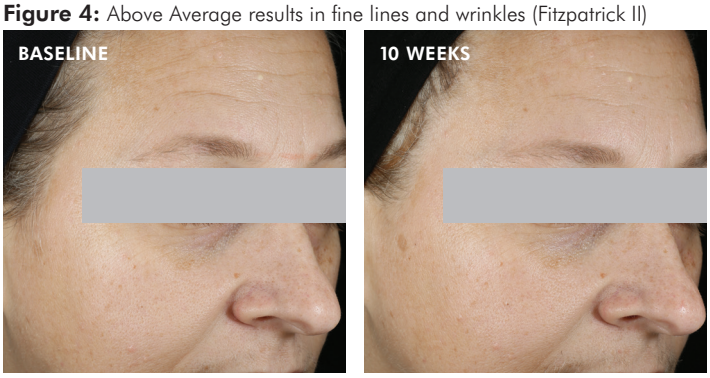
In addition, Figures 1-4 illustrate subjects where average and above average improvement was seen in the clinical parameters tested.

**Figure 1:** Average results in fine lines and wrinkles, facial radiance, skin tone clarity (Fitzpatrick III)


**Figure 2:** Average results in fine lines and wrinkles, skin tone evenness, skin tone clarity (Fitzpatrick I)


**Figure 3:** Average results in fine lines and wrinkles, facial radiance, and skin tone (Fitzpatrick VI)


**Figure 4:** Above Average results in fine lines and wrinkles (Fitzpatrick II)




## CONCLUSION

Glycolic 10 Renew Overnight when used with Glycolic Renewal Cleanser pre- and in between chemical peels is shown to optimize and maintain results.

### Studies demonstrated:

- significant improvement in clinical skin attributes, including skin radiance, skin tone evenness, and fine lines and wrinkles
- significant improvement in quantitatively-assessed skin radiance
- the integrated combination of treatment pre- and post-procedure was well tolerated

References
1. Chaudhary S, Dayal S. Efficacy of combination of glycolic acid peeling with topical regimen in treatment of melasma. J Drugs Dermatol. 2013 Oct;12(10):1149-53.
2. Effron C. Enhancing cosmetic outcomes by combining superficial glycolic acid (alpha-hydroxy acid) peels with nonablative lasers, intense pulsed light, and trichloroacetic acid peels. Cutis. 2007 Jan;79(1 Suppl Combining):4-8.