

# A Randomized, Investigator-Blinded, Non-inferiority Study Comparing a Topical Oxytocin-Based Skincare Regimen to Estriol 0.3% Cream in Post-Menopausal Women: Preliminary Results

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## BACKGROUND

Topical estriol has demonstrated efficacy in improving skin quality in post-menopausal women, but interest in non-hormonal alternatives remains high. A common undesired side effect of these topical hormonal agents is hypervascularity, especially in rosacea-prone patients. A novel topical oxytocin-based (OX factor technology) skincare regimen may offer comparable benefits in skin quality and psychosocial outcomes without the risks associated with topical estrogen therapy.

## OBJECTIVE

To evaluate the preliminary efficacy and tolerability of a topical OX factor technology compared to estriol 0.3% cream in post-menopausal women.

## METHODS

**Design:** Randomized, single-blinded study with 2:1 allocation (OX : estriol).

**Timepoints:** Baseline and Day 90.

**Application:** twice daily, full-face, 12 weeks (OX arm = cleanser + serum + moisturizer; estriol arm = placebo cleanser + placebo moisturizer AM, placebo cleanser + estriol 0.3% PM)

**Outcomes:** New Sexual Satisfaction Scale (NSSS), Face-Q Social Function, investigator-assessed skin metrics, attractiveness/trustworthiness ratings, tolerability, and post-treatment satisfaction.

## STUDY POPULATION

Characteristic	OX Factor (n=6)	Estriol (n=4)
Age, mean (range)	55 (48-63)	60 (57-64)
Fitzpatrick I-II	33%	44%
Fitzpatrick III-V	67%	56%
Years since last menstrual cycle (median)	~5	~10

30 enrolled | 10 completed Day 90 analysis (6 OX Factor, 4 estriol).

## KEY RESULTS

### FACE-Q SOCIAL FUNCTION

#### + Improvement

Validated patient-reported outcome scale  
Improvement in OX factor group; non-significant change in estriol  
OX factor:  $p=0.012$   
Estriol:  $p=0.112$

### INVESTIGATOR LIVE SKIN METRICS

#### Both groups ↑

Significant improvement across all metrics (Skin Tone Evenness, Skin Smoothness, Photodamage, Radiance, Dewiness, Global Fine Lines, Redness, Dryness) in OX group  
OX factor:  $p=0.016 - 0.031$   
Estriol:  $p=0.125 - 0.500$

### NSSS (SEXUAL SATISFACTION)

#### Both groups ↑

Within-group improvements seen in both arms

OX factor:  $+6.7$  ( $p=0.028$ )  
Estriol:  $+22.5$  ( $p=0.030$ )

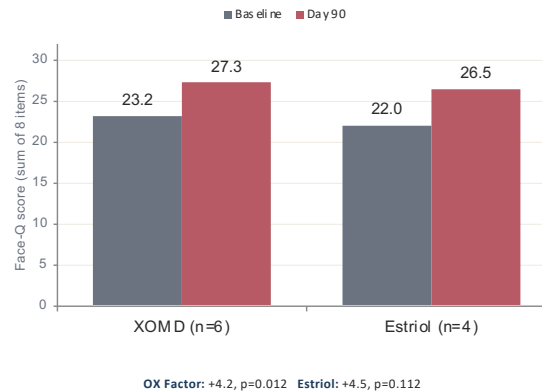
### TOLERABILITY

#### No difference

Adverse-event profile similar between groups

No serious AEs reported

### FACE-Q SOCIAL FUNCTION SCORE: BASELINE vs DAY 90



## REPRESENTATIVE PATIENT (Active)



BEFORE - Day 0



AFTER - Day 90

## CONCLUSIONS

- OX factor demonstrates significant within-group improvements in patient-reported outcomes and investigator-assessed skin quality.
- Tolerability of both arms were comparable
- Estriol showed numerically similar skin improvements; non-significance likely reflects the smaller subgroup (n=4) rather than absence of effect.
- Topical OX may represent a non-prescription option for improving skin quality and psychosocial outcomes in post-menopausal women.

## LIMITATIONS & DISCLOSURES

**Limitations:** Small sample size, preliminary findings, no histology

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