

**Restylane-®**  
**Injectable Gel with 0.3% Lidocaine**

**Caution:** Federal Law restricts this device to sale by or the order of a physician or licensed practitioner.

**Description**  
 Restylane-L is a gel of hyaluronic acid generated by *Streptococcus* species of bacteria, chemically crosslinked with BDDE, stabilized and suspended in phosphate buffered saline at pH=7 and concentration of 20 mg/mL with 0.3% lidocaine.

**Indication**  
 Restylane-L is indicated for mid-to-deep dermal implantation for the correction of moderate to severe facial wrinkles and folds, such as nasolabial folds. Restylane-L is indicated for subnasal implantation for lip augmentation in patients over the age of 21.

- Contraindications**
- Restylane-L is contraindicated for patients with severe allergies manifested by a history of anaphylaxis or history or presence of multiple severe allergies.
  - Restylane-L contains trace amounts of gram positive bacterial proteins, and is contraindicated for patients with a history of allergies to such material.
  - Restylane-L is contraindicated for patients with bleeding disorders.
  - Restylane-L is contraindicated for implantation in anatomical spaces other than the dermis or subnasal implantation for lip augmentation.
  - Restylane-L should not be used in patients with previous hypersensitivity to local anesthetics of the amide type, such as lidocaine.

**Warnings**

- Defers use of Restylane-L at specific sites in which an active inflammatory process (skin eruptions such as cysts, pimples, rashes, or hives) or infection is present until the process has been controlled.
- Injection site reactions (e.g., swelling, redness, tenderness, or pain) to Restylane-L have been observed as consisting mainly of short-term minor or moderate inflammatory symptoms starting after treatment and with less than 7 days duration in the nasolabial folds and less than 14 days duration in the lips. Rare post-market reports of immediate post-injection reactions included extreme swelling of lips, the whole face and symptoms of hypersensitivity such as anaphylactic shock.
- Restylane-L must not be implanted into blood vessels. Localized superficial necrosis and scarring may occur after injection in or near dermal vessels, such as in the lips, nose, or glabellar area. It is thought to result from the injury, obstruction, or compromise of blood vessels.
- Delayed onset inflammatory papules have been reported following the use of dermal fillers. Inflammatory papules that may occur rarely should be considered and treated as a soft tissue infection.

- Injectations of greater than 1.5 mL per lip (upper or lower) per treatment session significantly increases the occurrence of the total of moderate and severe injection site reactions. If a volume of more than 3 mL is needed to achieve optimal correction, a follow-up treatment session is recommended.
  - In a meta-analysis of all Restylane Pre-market Approval Studies that included 42 patients under the age of 36 and 820 over the age of 35), the incidence of swelling was higher in younger patients (28%) compared to older patients (18%) and incidence of contusion was higher in older patients (28%) compared to younger patients (14%). The majority of these events were mild in severity.
- Precautions**
- Restylane-L is packaged for single patient use. Do not resterilize. Do not use if package is opened or damaged.
  - Based on U.S. clinical studies, patients should be limited to 6.0 mL per patient per treatment in wrinkles and folds such as nasolabial folds and to 1.5 mL per lip per treatment. The safety of injecting greater amounts has not been established.

- The safety or effectiveness of Restylane-L and Restylane-L for the treatment of anatomic regions other than nasolabial folds or lips has not been established in controlled clinical studies. Refer to the clinical studies section for more information on implantation sites that have been studied.
- The safety and efficacy of Restylane-L for lip augmentation has not been established in patients under the age of 22 years.
- As with all transcutaneous procedures, Restylane-L implantation carries a risk of infection. Standard precautions associated with injectable materials should be followed.
- The safety of Restylane-L for use during pregnancy, in breastfeeding females or in patients under 18 years has not been established.
- Formation of keloids may occur after dermal filler injections including Restylane. Keloid formation was not observed in studies involving 430 patients (including 151 African-Americans and 37 other patients of Fitzpatrick Skin Types IV, V and VI). For additional information please refer to Studies MA-1400-02, MA-1400-01, and 31GE0003 in the Clinical Trials Section. In study MA-1100-001 with Restylane and Restylane-L, there were 53.3% (32/60) of patients with Fitzpatrick Skin Types IV, V, and VI and no reports of keloid formation.
- Restylane injection may cause hyperpigmentation at the injection site. In a clinical study of 150 patients with pigmented skin of African-American heritage and Fitzpatrick Skin Types IV, V, and VI, the incidence of post-inflammatory hyperpigmentation was 9% (14/150), 50% of these lesions lasted up to six weeks after initial implantation. In study MA-1100-001 with Restylane and Restylane-L, there were 53.3% (32/60) of patients with Fitzpatrick Skin Types IV, V, and VI and no reports of hyperpigmentation.
- The safety profile for Restylane lip augmentation in persons of color is based upon information from 38 and 3 subjects with Fitzpatrick Skin Types IV and V, respectively. Within this population, the incidence of adverse events was similar to the overall study population, with the exception that swelling occurred more frequently in persons of color.
- Restylane-L should be used with caution in patients on immunosuppressive therapy.
- Bruising or bleeding may occur at Restylane-L injection sites. Restylane-L should be used with caution in patients who have undergone therapy with thrombolytics, anticoagulants, or inhibitors of platelet aggregation in the preceding 3 weeks.
- After use, syringes and needles should be handled as potential biohazards. Disposal should be in accordance with accepted medical practice and applicable local, state and federal regulations.
- The safety of Restylane-L with concomitant dermal therapies such as epilation, UV irradiation, or laser, mechanical or chemical peeling procedures has not been evaluated in controlled clinical trials.
- Patients should minimize exposure of the treated area to excessive sun, UV lamp exposure and extreme cold weather at least until any initial swelling and redness has resolved.
- If laser treatment, chemical peeling or any other procedure based on active dermal response is considered after treatment with Restylane-L, there is a possible risk of eliciting an inflammatory reaction at the implant site. This also applies if Restylane-L is administered before the skin has healed completely after such a procedure.
- Injection of Restylane-L into patients with a history of previous herpetic eruption may be associated with reactivation of the herpes.
- Restylane-L is a clear, colorless gel without particulates. In the event that the content of a syringe shows signs of separation and/or appears cloudy, do not use the syringe and notify Medicis Aesthetics Inc. at 1-866-222-1480. Glass is subject to breakage under a variety of unavoidable conditions. Care should be taken with the handling of the glass syringe and with disposing of broken glass to avoid laceration or other injury.

Two subjects had adverse events that were severe, one subject with bilateral facial bruising and one subject with infection at the injection site. These events were considered probably or possibly related and both subjects had their events resolve in approximately 3 weeks.

Table 12 shows the number of adverse events identified by investigators during Day 1 through Day 14 after injection in Study MA-1100-001.

Some patients had multiple adverse events or had the same adverse events at bilateral injection sites. Most adverse events were of severe intensity. Patients were queried on adverse events on the day of injection and at the Day 14 visit.

Study MA-1100-001, included 52 subjects who had no prior cosmetic treatment and those with no prior treatment.

**Studies conducted in moderate to severe facial wrinkles and folds, such as nasolabial folds.**

Three U.S. studies (i.e., Study 31GE0003, MA-1400-01, and Study MA-1400-02) involved 430 patients at 33 centers. In study 31GE0003, 138 patients at 6 centers received Restylane injections in 1 side of the face and a bovine collagen dermal filler (Zyplasty®) in the other side of the face. In Study MA-1400-01, 150 patients were injected with Restylane on one side of the face and Perlane® on the other side of the face. In study MA-1400-02, 283 patients were randomized to receive either Restylane or Perlane injection on both sides of the face. The adverse outcomes reported in patient diaries during 14 days after the treatment in these studies are presented in Tables 1–6. The physician diagnosed adverse events identified in studies MA-1400-01 and MA-1400-02 at 72 hours after injection are presented in Table 7. Table 8 presents all investigator-identified adverse experiences recorded at study visits 2 weeks or more after injection in studies MA-1400-01, MA-1400-02, and 31GE0003.

In the fourth U.S. study (MA-004-03) involving 75 patients at 3 centers, adverse events reported by Restylane patients are presented in Table 11. Patients in the study received Restylane injections in both nasolabial folds at 4.5 months and in the contralateral nasolabial fold at 9 months.

In a fifth U.S. study (MA-1100-001) 60 patients at three centers randomly received Restylane-L injections on one side of the face and Restylane injections on the other side of the face. The adverse events reported in patient diaries during 14 days after treatment are presented in Tables 7 and 8. The physician recorded adverse events identified in study MA-1100-001 at 14 days after injection are presented in Table 12.

Table 9 shows the number of adverse experiences identified by investigators at 72 hours after injection for Studies MA-1400-01 and MA-1400-02. Some patients had multiple adverse experiences or had the same adverse experience at multiple injection sites. No adverse experiences were of severe intensity.

Table 10 presents the number of patients and per patient incidence of all adverse experiences identified by investigators at visits occurring two or more weeks after injection.

In a clinical study (31GE0003) in which safety was followed for 12 months with repeat administration of Restylane at six to nine months following the initial correction, the incidence and severity of adverse events were similar in nature and duration to those recorded during the initial treatment sessions.

In all three studies, investigators reported the following local and systemic events that were judged unrelated to treatment and occurred at an overall incidence of less than 2%, i.e., acute, arthralgia; tooth disorders (e.g., pain, infection, abscess, fracture); dermatitis (e.g., rosacea, unspecified, contact, impetigo, herpes); unrelated injection site reactions (e.g., desquamation, rash, anesthesia); facial palsy with co-ordination of bulbarium tongue; headache/migraine; nausea (with or without vomiting); syncope; gastroenteritis; upper respiratory or influenza-like illness; bronchitis; sinusitis; pharyngitis; vitreal; oral infection; cysticities; diverticulitis; injuries; lacerations; back pain; rheumatoid arthritis; and various medical conditions such as chest pain, depression, pneumonia, renal stones, urinary incontinence, and uterine fibroids.

Table 11 presents the number of patients and per patient incidence and severity of injection site adverse events identified by the investigator.

All other lip safety assessments showed no remarkable findings.

In the pilot study MA-1300-13K, 20 subjects were enrolled at 1 center and received Restylane for lip augmentation. Subjects were followed up through 24 weeks. Seven adverse events were reported. Two of the seven events, which were mild bruising, were related to injection procedure. The adverse outcomes reported in subject diaries are presented in Table 17.

Some patients had multiple adverse events or had the same adverse events at bilateral injection sites. Most adverse events were of severe intensity. Patients were queried on adverse events on the day of injection and at the Day 14 visit.

Study MA-1100-001, included 52 subjects who had no prior cosmetic treatment and those with no prior treatment.

**Studies conducted for subnasal implantation for lip augmentation**

In the U.S. pivotal study (MA-1300-15) involving 180 subjects at 12 centers, the adverse outcomes reported in subject diaries are presented in Tables 14 and 15. Physician reported treatment emergent adverse events are presented in Table 16. At baseline, subjects were randomized to receive Restylane injections in lips or no treatment (control group). At 6 months, all subjects were eligible to receive treatment or no-treatment in the lips with Restylane.

Of the 180 subjects enrolled in the study, 172 subjects received their first treatment with Restylane at either baseline/Day 0 or at 6 months, and 93 subjects received a second treatment at 6 months. There were 8 subjects enrolled in the study that were never treated. The number of events and subjects reporting TEAEs decreased between the first and second treatments. 87% of subjects receiving their first treatment reported a total of 735 TEAEs while 65% of subjects that received a second treatment reported a total of 267 TEAEs. Furthermore, an overwhelming majority of these TEAEs were mild in intensity (672/735, 85%; and 264/267, 99%; first and second treatment respectively), and were transient in nature, resolving in approximately 15 days or less.

The study results showed injection of greater than 1.5 mL per lip (upper or lower), per treatment session increased the occurrence of the total of moderate and severe injection site reactions. The incidence was 43% (23/79) for subjects receiving more than 3.0 mL of Restylane and 21% (20/96) for subjects receiving less than 3.0 mL of Restylane in a single treatment session. When optimal correction requires greater than 1.5 mL per upper or lower lip, subsequent treatment using additional product is recommended.

97% of the subjects reported at least one event of swelling, redness, tenderness, or pain in their diaries. These were mainly short-term events, which occurred immediately after treatment and resolved within 14 days. 15% of the subjects reported adverse events (typically swelling and tenderness) that lasted longer than 15 days in their diary. 46% of subjects reported at least one event as "affecting their daily activity" or "disabling."

Additional safety assessments in the study included lip texture, firmness, symmetry, movement, function, sensation, mass formation, and product palpability, which were evaluated as appropriate at the screening visits and at follow-up visits.

The majority of texture and firmness assessments showed mild abnormalities and lasted for less than 4 weeks. Sixteen subjects reported severe asymmetry (difference > 2 mm) post-treatment, which all resolved within 4 weeks. GAIS assessments by these 16 subjects were rated as at least improved during these visits.

Assessments made by the trained health care provider showed 92% of subjects had product palpability at week 8, and 61% at week 24. The majority of palpations were rated as "expected feel." 3% of the majority of palpations reported "unexpected feel" during the study, all of which were resolved with massaging.

One subject reported one mass formation (mucocele) during the study. The mucocele was drained and resolved by the next visit.

Table 16 presents commonly reported (> 5%) treatment emergent adverse events (TEAEs) by treatment group.

For study MA-1300-13K, seven treatment emergent adverse events were experienced by four subjects. Two of these events, mild bruising, were considered related to treatment.

**Post-Marketing Surveillance:**  
 The following adverse events were received from post-marketing surveillance for Restylane and Perlane in the U.S. and other countries: presumptive bacterial infections, inflammatory adverse events, necrosis, injection site numbness/tingling, and vasovagal reactions. Reported treatment events included systemic steroids, systemic antibiotics, and intravenous administration of medications. Additionally, delayed inflammatory reaction to Restylane has been observed with swelling, redness, tenderness, induration and rarely acneiform papules at the injection site with onset as long as several weeks after the initial treatment. Average duration of these effects is two weeks.

Implant and injection site reactions, mostly non-serious events, have also been reported. These include: discoloration, bruising, swelling, mass formation, erythema, pain, scarring and ischemia. Most instances of discoloration including hyperpigmentation, sometimes described as a blue or brown color and ranging from mild to severe, have occurred within the same day as treatment but have also occurred up to 6 months post-treatment. These events typically resolve within a few days but with some infrequent instances lasting up to 18 months. Implant and/or injection site bruising, swelling, erythema and pain generally occurred on the same day as treatment usually resolving within 1 to 4 weeks. Some occurrences have persisted for up to 6 months. Severity for these events is generally mild to moderate although some cases have been severe. Mild to moderate mass formations (typically described as lumps or bumps) have also been seen ranging in onset from 1 day to 6 months post-implantation. Rarely, events of this type have been observed for up to 13 months. These events usually resolved within 1 to 5 months. Mild to moderate scarring was rarely observed. Onset of symptoms ranged from immediate post-treatment to up to 1 year following implantation. Symptom resolution was approximately 3 weeks with 1 instance lasting up to 3 years. Most ischemic events have occurred immediately following implantation and ranged in severity from moderate to severe. Events were resolving as early as 2 days and up to 9 weeks post-treatment.

Symptoms associated with herpetic eruptions which included swelling, pain, whiteheads, vesicles and erythema have been reported and commonly occurred within 2 days to 1 month following implantation. Severity ranged from mild to moderate and resolution of symptoms ranged from 1 to 15 weeks.

Telangiectasias and capillary disorders, commonly characterized as dilated facial capillaries, have been reported and occurred with an onset of 1 day to 7 weeks. Most events ranged in severity from mild to moderate with a few severe instances. Duration of events ranged from 2 weeks up to 13 months.

Vary rarely, instances of moderate to severe biopsy confirmed granules were observed. Onset ranged from 3 weeks to 4 months with resolution between 6 weeks to 11 months.

Events of mild to moderate hypoesthesia have occurred ranging in onset from 1 day to 1 week. Duration and resolution occurred between 1 day and 10 weeks.

Serious adverse events have been rarely reported. The most commonly reported serious adverse events (by MedDRA Preferred Term) were hypersensitivity, and implant and/or injection site swelling, ischemia and discoloration. Of these infrequently reported serious events, only the following occurred in a frequency of 5 or greater:

- Hypersensitivity reactions ranging from moderate to severe mostly occurred within 1 to 2 days of implantation and up to 3 weeks. Reported symptoms included swelling, itching on chest and back; purfy, burning, watery, and itchy eyes; and shortness of breath. Treatments included steroids, diphenhydramine, unspecified intravenous medication, oxygen and various creams. An evaluation of patients who reported potential hypersensitivity reactions did not demonstrate any evidence of IgE or cell mediated immunologic reactions specifically directed at hyaluronic acid. Most hypersensitivity events resolved within 1 to 14 days with or without treatment.
- Allergic reaction and anaphylactic shock: Eight patients experienced immediate post-injection reactions which included extreme swelling of lips and the whole face. Two of these patients had symptoms of hypersensitivity and one patient experienced anaphylactic shock and presented with shortness of breath, headache, nausea and vomiting. These patients had to be admitted to the emergency room or were hospitalized for immediate medical interventions. Delayed hypersensitivity: Two patients developed symptoms of hypersensitivity 7–10 days after injection. One patient experienced severe erythema and swelling in the lips and all over her face to the point that her eyes were shut and the other had swelling of the lips accompanied by dyspnea, hypoxemia/poxygen, peripheral and laryngeal edema.
- Vascular occlusion and necrosis: In 5 patients, skin discoloration, bruising, and blanching was seen immediately post-injection due to vascular accidents. The lesions later turned into necrosis and in some cases remained as scarring or dark spots. One example was a patient who had a "mustache-like" mark above her lips, even after receiving treatments. Later, one patient in this group developed hard bumps in her upper lips that looked like "granulomas."
- Infection/Abscess: Serious abscess formations ranging from moderate to severe occurred in eleven patients. Onset ranged from 3 days to one week with an average duration of approximately one month to resolution. Symptoms included swelling, redness, pain and nodules. Five patients required hospitalization for incision and drainage (I&D) and intravenous (IV) antibiotic therapy. Cultures for all patients ranged from gram positive staphylococcal, gram negative cellulitis, apophony streptococci, gram positive cocci infection, polymorphonuclear neutrophils (PMN) with no bacteria and positive propionibacterium mallesia. The remaining cultures were either negative or not reported. Treatment included various antibiotics and steroids in some cases.

The following non-serious events, extrusion of device, ischemia/necrosis, and device dislocation, were also reported in a frequency of 5 or more. These events were considered non-serious as they did not meet seriousness criteria.

Adverse reactions should be reported to Medicis Aesthetics Inc. at 1-800-900-6389.

**Clinical Trials**  
 The safety and effectiveness of Restylane in the treatment of facial folds and wrinkles (nasolabial folds and oral commissures) were evaluated in three prospective randomized controlled clinical studies involving 430 Restylane-treated patients.

Restylane was shown to be effective when compared to crosslinked collagen and crosslinked hyaluronic acid dermal fillers with respect to the correction of moderate to severe facial folds and wrinkles, such as nasolabial folds.

The safety and pain reduction effect of Restylane-L in the treatment of facial folds and wrinkles (nasolabial folds) was evaluated in a prospective randomized controlled clinical study involving 60 patients. The addition of lidocaine to Restylane resulted in a statistically significant reduction in the pain experienced by the patients. The study also showed that the safety profile of Restylane-L was consistent with Restylane.



**Table 1. Maximum Intensity of Symptoms after Initial Treatment for the Nasolabial Fold Indication Patient Diary (Study 31GE0003)**

Restylane side reporting symptoms n (%)	Zyplast side reporting symptoms n (%)	Restylane side						Zyplast side			
		Total patients reporting symptoms n (%)	None n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	None n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	
Bruising	72 (62.2%)	67 (48.6%)	63 (45.6%)	32 (23.2%)	35 (25.4%)	5 (3.6%)	68 (49.3%)	43 (31.2%)	23 (16.7%)	1 (0.7%)	
Redness	117 (84.8%)	117 (84.8%)	17 (12.3%)	56 (40.6%)	54 (39.1%)	7 (5.1%)	17 (12.3%)	72 (52.2%)	37 (26.8%)	6 (5.6%)	
Swelling	120 (87.0%)	102 (73.9%)	14 (10.1%)	54 (39.1%)	61 (44.2%)	5 (3.6%)	32 (23.2%)	66 (47.1%)	35 (25.4%)	2 (1.4%)	
Pain	79 (57.2%)	58 (42.0%)	55 (39.9%)	40 (29.0%)	34 (24.6%)	5 (3.6%)	76 (55.1%)	46 (33.3%)	10 (7.2%)	2 (1.4%)	
Tenderness	107 (77.5%)	89 (64.5%)	27 (19.6%)	60 (43.5%)	43 (31.2%)	4 (2.9%)	45 (32.6%)	70 (50.7%)	17 (12.3%)	2 (1.4%)	
Itching	42 (30.4%)	33 (23.9%)	31 (22.5%)	31 (22.5%)	31 (22.5%)	0 (0.0%)	27 (19.6%)	27 (19.6%)	6 (4.4%)	0 (0.0%)	
Other	34 (24.6%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	33 (23.9%)	

**Table 2. Duration of Adverse Events after Initial Treatment for the Nasolabial Fold Indication Patient Diary (Study 31GE0003)**

Restylane side reporting symptoms n (%)	Zyplast side reporting symptoms n (%)	Restylane side				Zyplast side				
		Number of days	1 n (%)	2-7 n (%)	8-13 n (%)	14 n (%)	Number of days	1 n (%)	2-7 n (%)	8-13 n (%)
Bruising	72 (62.2%)	67 (48.6%)	7 (5.1%)	58 (40.6%)	6 (4.4%)	3 (2.2%)	7 (5.1%)	53 (38.4%)	5 (3.6%)	2 (1.4%)
Redness	117 (84.8%)	117 (84.8%)	19 (13.8%)	68 (49.3%)	18 (13.0%)	12 (8.7%)	19 (13.8%)	15 (10.9%)	10 (7.3%)	12 (8.7%)
Swelling	120 (87.0%)	102 (73.9%)	16 (11.6%)	84 (60.9%)	16 (11.6%)	4 (2.9%)	14 (10.1%)	70 (50.7%)	16 (11.6%)	2 (1.4%)
Pain	79 (57.2%)	58 (42.0%)	29 (21.0%)	48 (34.8%)	2 (1.4%)	0 (0.0%)	31 (22.5%)	25 (18.1%)	1 (0.7%)	1 (0.7%)
Tenderness	107 (77.5%)	89 (64.5%)	21 (15.2%)	78 (56.5%)	6 (4.4%)	2 (1.4%)	27 (19.6%)	54 (39.1%)	6 (4.4%)	2 (1.4%)
Itching	42 (30.4%)	33 (23.9%)	11 (8.0%)	25 (18.1%)	1 (0.7%)	0 (0.0%)	8 (5.8%)	22 (15.9%)	3 (2.2%)	0 (0.0%)
Other	34 (24.6%)	33 (23.9%)	7 (5.1%)	23 (16.7%)	3 (2.2%)	1 (0.7%)	10 (7.2%)	15 (10.9%)	6 (4.4%)	2 (1.4%)

**Table 3. Maximum Intensity of Symptoms after Initial Treatment for the Nasolabial Fold Indication Patient Diary (Study MA-1400-02)**

Restylane reporting symptoms n (%)	Perlane reporting symptoms n (%)	Restylane Patients				Perlane Patients			
		None n (%)	Tolerable <sup>1</sup> n (%)	Affected Daily Activity <sup>2</sup> n (%)	Disabling <sup>2</sup> n (%)	None n (%)	Tolerable <sup>1</sup> n (%)	Affected Daily Activity <sup>2</sup> n (%)	Disabling <sup>2</sup> n (%)
Bruising	111 (78.2%)	122 (86.5%)	28 (20.1%)	82 (59.9%)	28 (20.1%)	1 (0.7%)	17 (12.2%)	97 (69.8%)	24 (17.2%)
Redness	114 (80.3%)	118 (83.7%)	25 (18%)	86 (61.5%)	17 (12.2%)	1 (0.7%)	21 (15.1%)	105 (75.5%)	12 (8.6%)
Swelling	127 (89.4%)	128 (90.8%)	12 (8.6%)	102 (73.4%)	23 (16.5%)	2 (1.4%)	11 (7.9%)	107 (77%)	19 (13.7%)
Pain	108 (76.1%)	114 (80.9%)	31 (22.3%)	83 (59.6%)	13 (9.4%)	1 (0.7%)	25 (18%)	96 (69.1%)	18 (12.9%)
Tenderness	123 (86.6%)	130 (92.2%)	16 (11.5%)	109 (78.4%)	12 (8.6%)	2 (1.4%)	9 (6.5%)	112 (80.6%)	18 (12.9%)
Itching	67 (47.2%)	45 (31.9%)	72 (51.8%)	66 (47.5%)	1 (0.7%)	0 (0%)	94 (67.6%)	40 (28.8%)	3 (2.2%)
Other	3 (2.1%)	1 (0.7%)	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup> Missing values are not reported.  
<sup>2</sup> Prospective definitions for: tolerable, affected daily activity and disabling were not provided in the diary or protocol.  
<sup>3</sup> Two patients reported pimples (one Perlane/one Restylane); one Restylane patient reported a sore throat; one Restylane patient reported a runny nose; degree of disability was not reported for any of the four events.

**Table 4. Duration of Adverse Events after Initial Treatment for the Nasolabial Fold Indication Patient Diary (Study MA-1400-02)**

Restylane reporting symptoms n (%)	Perlane reporting symptoms n (%)	Restylane Patients				Perlane Patients				
		Number of days <sup>3</sup>	1 n (%)	2-7 n (%)	8-13 n (%)	14 n (%)	Number of days <sup>3</sup>	1 n (%)	2-7 n (%)	8-13 n (%)
Bruising	111 (78.2%)	122 (86.5%)	12 (8.6%)	69 (49.2%)	30 (21.7%)	3 (2.2%)	6 (4.3%)	81 (58.4%)	28 (20.1%)	7 (5.1%)
Redness	114 (80.3%)	118 (83.7%)	12 (8.6%)	83 (59.6%)	17 (12.2%)	1 (0.7%)	21 (15.1%)	105 (75.5%)	12 (8.6%)	4 (2.9%)
Swelling	127 (89.4%)	128 (90.8%)	12 (8.6%)	93 (66.9%)	23 (16.5%)	2 (1.4%)	11 (7.9%)	107 (77%)	19 (13.7%)	2 (1.4%)
Pain	108 (76.1%)	114 (80.9%)	31 (22.3%)	83 (59.6%)	13 (9.4%)	1 (0.7%)	25 (18%)	96 (69.1%)	18 (12.9%)	0 (0.0%)
Tenderness	123 (86.6%)	130 (92.2%)	21 (17.1%)	92 (74.8%)	9 (7.3%)	1 (0.8%)	8 (6.2%)	89 (64.5%)	24 (17.2%)	1 (0.8%)
Itching	67 (47.2%)	45 (31.9%)	22 (22.8%)	38 (56.7%)	6 (6.0%)	1 (1.0%)	19 (28.2%)	23 (51.1%)	3 (3.7%)	0 (0.0%)
Other	3 (2.1%)	1 (0.7%)	3 (100%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)	0 (0%)

<sup>1</sup> Missing values are not reported.  
<sup>2</sup> Events are reported as local events; because of the design (split-face) of the study, causality of the systemic adverse events cannot be assigned.  
<sup>3</sup> Data are culminated from up to four injection sites per patient with earliest and latest time point for any reaction provided.  
<sup>4</sup> Two patients reported pimples (one Perlane/one Restylane); one Restylane patient reported a sore throat; one Restylane patient reported a runny nose; degree of disability was not reported for any of the four events.

**Table 5. Maximum Intensity of Symptoms after Initial Treatment for the Nasolabial Fold Indication Patient Diary (Study MA-1400-01)<sup>2</sup>**

Restylane reporting symptoms n (%)	Perlane reporting symptoms n (%)	Restylane Patients				Perlane Patients			
		None n (%)	Tolerable <sup>1</sup> n (%)	Affected Daily Activity <sup>2</sup> n (%)	Disabling <sup>2</sup> n (%)	None n (%)	Tolerable <sup>1</sup> n (%)	Affected Daily Activity <sup>2</sup> n (%)	Disabling <sup>2</sup> n (%)
Bruising	70 (46.7%)	74 (49.3%)	79 (53%)	68 (44.3%)	4 (2.7%)	0 (0%)	75 (50.3%)	67 (45%)	7 (4.7%)
Redness	87 (58%)	92 (61.3%)	82 (41.6%)	61 (34.4%)	6 (4%)	0 (0%)	57 (28.3%)	85 (57%)	7 (4.7%)
Swelling	125 (83.3%)	121 (80.7%)	24 (16.1%)	109 (73.2%)	14 (9.4%)	2 (1.3%)	28 (18.8%)	108 (72.5%)	11 (7.4%)
Pain	96 (64%)	103 (68.7%)							



**316E0003: Prospective, Randomized, Blinded, Controlled Clinical Study**

**Design**  
1:1 randomized, prospective study at 6 U.S. centers, which compared the safety and effectiveness of *Restylane* and Zylplast in a "within-patient" control model of augmentation correction of bilateral nasal folds, using *Restylane* on the randomized nasal labial fold and the control treatment on the opposite nasal labial fold. Patients were partially masked; evaluating physicians were independent and masked; treating physicians were unmasked.

**Effectiveness** was studied with 6-month follow-up. Safety was studied with 12-month follow-up.

**Effectiveness Primary:** The difference in effect of *Restylane* and Zylplast on the visual severity of the nasolabial folds, as assessed by an Evaluating Investigator at 6 months after baseline.

**Secondary:** Wrinkle Severity Rating Scale (WSRS) score assessed at other follow-up points by the evaluating investigator and by the patient.

**Global Aesthetic Improvement (GAI):** Very much improved / much improved / improved / no change / worse, assessed at 2, 4, and 6 months by the evaluating investigator and by the patient.

**Number of treatment sessions to achieve optimal cosmesis.**

**The primary evaluation parameter was the 5-point WSRS score.** A change in WSRS=1 was considered to be clinically significant during follow-up. Baseline was defined to begin at the follow-up demonstrating that optimal correction had been sustained for 2 weeks.

**Optimal correction** was defined to be the best cosmetic result obtainable, as determined by the evaluating physician. A specific, objective score or goal for correction was not defined; 2 injectable implant sessions were expected.

**Demographics:** The study enrolled a population of predominantly healthy, female, Caucasian non-smokers with history of prior facial aesthetic procedures and minimal sun exposure. There were few men or other racial/ethnic groups; few smokers or patients with extensive sun exposure.

**Gender**  

Gender	9 (6.6%)	Non-smokers	118 (86.1%)
Male:	138 (93.4%)	Smokers:	19 (13.9%)

**Ethnicity**  

Caucasian:	122 (89.0%)	None:	83 (60.6%)
Black:	2 (1.5%)	Natural Sun:	52 (38.0%)
Asian:	2 (1.5%)	Artificial:	2 (1.5%)
Hispanic:	11 (8.0%)		

**Effectiveness Primary:** Based on the per patient evaluation, the WSRS scores at 6 months by the evaluating investigator demonstrated that WSRS for *Restylane* was lower (better) than Control: in 78 patients

*Restylane* was equal to Control: in 46 patients

*Restylane* was higher (worse) than Control: in 13 patients

For the entire cohort, however, the Mean of the WSRS Score by evaluating investigator demonstrated that while there was essentially no difference between *Restylane* and Control-treated cohort sides at pre-treatment (0.02 units WSRS) and baseline (0.01 units WSRS), for the cohort of 134 patients, there was a difference of 0.58 units of WSRS at 6 months.

**Table 18. Blinded Evaluator Mean Wrinkle Severity Scores**

	N	Restylane	Control	Absolute Difference
Pre-treatment	138	3.29	3.31	0.02
Baseline	138	1.80	1.79	0.01
6 months	134	2.36	2.94	0.58

**MA-1400-02: Prospective, Randomized, Blinded, Controlled Clinical Study**

**Design**  
1:1 randomized, prospective study at 17 U.S. centers, which compared the safety and effectiveness of *Restylane* and Perlane following treatment to baseline condition. Patients were randomized to either *Restylane* or Perlane treatment. A touch-up was allowed 2 weeks after initial treatment. Patients were partially masked; evaluating physicians were independent and masked; treating physicians were unmasked.

**Effectiveness** was studied with 6 months follow-up. Safety was studied with 6 months follow-up.

**Effectiveness Primary:** The difference in effect of *Restylane* at week 12 versus baseline condition on the visual severity of the nasolabial folds, as assessed by the Blinded Evaluator.

**Secondary:** Wrinkle Severity Rating Scale (WSRS) assessed at other follow-up points (2, 6, and 24 weeks after optimal correction) by the Blinded Evaluator, the investigator and the patient and compared to baseline score by the same evaluator. Duration of effect was defined as 6 months or time point, if earlier, at which less than 50% of patients had at least a 1-grade response remaining in both nasolabial folds (NLFs).

**Safety assessments included:** collection of patient symptoms in a 14-day diary; investigator evaluation of adverse events at 72 hours, and at 2, 6, 12, and 24 weeks; development of humoral or cell-mediated immunity; and the relationship of adverse events to injection technique.

**Demographics:** The study enrolled 283 (i.e., 142 *Restylane* and 141 Perlane) patients with moderate to severe NLF wrinkles. The patients were predominantly healthy ethnically diverse females. Bilateral NLFs and oral commissures were corrected with 2.1 mL to 5.2 mL of *Restylane*. The greatest amount used in any patient was 8.8 mL.

**Gender** – Female: 266 (94%); Male: 17 (6%)

**Ethnicity** – White: 226 (80%); Hispanic or Latino: 31 (11%); African American: 23 (8%); Asian: 3 (1%)

**Efficacy:** The results of the blinded evaluator assessment of NLF wrinkle severity for *Restylane* and control (*Perlane*) are presented in Table 19. In the primary effectiveness assessment at 12 weeks, 77% of the *Restylane* and 87% of the control patients had maintained at least a 1 point improvement over baseline.

**Table 19. Blinded Evaluator Wrinkle Severity Response Scores**

Time point	No. of Restylane Patients	No. of Restylane Pts. maintaining ≥ 1 Unit Improvement on WSRS	No. of Perlane Patients	No. of Perlane Pts. maintaining ≥ 1 Unit Improvement on WSRS
6 weeks	136	113 (83%) <sup>1</sup>	136	121 (89%) <sup>1</sup>
12 weeks	140	108 (77%) <sup>1</sup>	141	122 (87%) <sup>1</sup>
24 weeks	140	103 (74%) <sup>1</sup>	138	87 (63%) <sup>1</sup>

<sup>1</sup>All p-values < 0.0001 based on t-test compared to baseline condition

**Antibody Testing:** 15/142 (10.6%) patients displayed a pre-treatment antibody response against *Restylane* (which was believed to be related to co-purifying *Streptococcus* capsule antigens). One patient also developed measurable increase in antibody titer after *Restylane* injection. 7/21 (33.3%) patients with antibodies against *Restylane* had adverse events at the injection site, which was similar to the local adverse event rate observed in the entire *Restylane* population (i.e., 53/142 (37%)). No severe events were noted and the patient who developed an antibody response after *Restylane* injection did not experience any adverse event at the injection site. Immediate type skin testing demonstrated that no patient developed IgE to *Restylane* Post-exposure histopathology of skin biopsies of an implant site on each patient demonstrated that no patient developed cell-mediated immunity to *Restylane*.

**HOW SUPPLIED**  
*Restylane-L* is supplied in a disposable glass syringe with a Luer-Lok® fitting. *Restylane-L* is co-packed with sterilized needles(s) as indicated on the carton (29 G ½ x 1 ½").

A patient record label is a part of the syringe label. Remove it by pulling the flap marked with three small arrows. This label is to be attached to patient records to ensure traceability of the product.

The contents of the syringe are sterile.

The volume in each syringe and needle gauge is as stated on the syringe label and on the carton.

**SHELF LIFE AND STORAGE**  
*Restylane-L* must be used prior to the expiration date printed on the package.

Store at a temperature of up to 25° C (77° F). Do not freeze. Protect from sunlight. Refrigeration is not required.

Do not resterilize *Restylane-L* as this may damage or alter the product.

Do not use if the package is damaged. Immediately return the damaged product to Medicis Aesthetics Inc.

**only**  
**U.S. PATENT 5,827,937**  
**Manufactured for**  
Medicis Aesthetics Inc.  
7720 N. Dobson Road  
Scottsdale, AZ 85256  
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Phone: 1-866-222-1480

**Manufactured by**  
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SE-752 28 Uppsala  
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**MA-1400-01: Prospective, Randomized, Blinded, Controlled Clinical Study**

**Design**  
1:1 randomized, prospective study at 10 U.S. centers, which compared the safety and effectiveness of *Restylane* and Perlane following treatment to baseline condition in 150 patients with pigmented skin and predominantly African-American ethnicity. Patients were randomized to *Restylane* or Perlane treatment in a "within-patient" model of augmentation correction of bilateral nasolabial folds (NLFs) and oral commissures with one treatment assigned to one side and the other treatment to the other side. A touch-up was allowed 2 weeks after initial treatment. Patients and treating physicians were partially masked. Evaluations were performed by live investigator assessment for the primary analysis.

**Effectiveness** was studied with 6 months follow-up. Safety was studied with 6 months follow-up.

**Effectiveness Primary:** The difference in effect of *Restylane* at week 12 versus baseline condition on the visual severity of the NLFs.

**Secondary:** The primary study endpoint was wrinkle severity 12 weeks after optimal correction was achieved. Wrinkle severity was evaluated with a five-step validated Wrinkle Severity Rating Scale (WSRS) (i.e., none, mild, moderate, severe, extreme) by an on-site blinded evaluator. Patient success was defined as maintaining at least a one point improvement on the WSRS at 12 weeks after optimal correction was achieved. The percent of patient successes was calculated for each group. Each treatment group was compared to its own baseline, with no comparison of *Restylane* to Perlane.

**Wrinkle Severity Rating Scale (WSRS)** was assessed at other follow-up points (2, 6, and 24 weeks after optimal correction) by the investigator and the patient and compared to baseline score by the same evaluator. A photographic assessment of patient outcomes was also performed. Duration of effect was defined as 6 months or time point, if earlier, at which less than 50% of patients had at least a 1-grade response at both nasolabial folds.

**Safety assessments included:** collection of patient symptoms in a 14-day diary; investigator evaluation of adverse events at 72 hours, and at 2, 6, 12, and 24 weeks; development of humoral or cell-mediated immunity; and the relationship of adverse events to injection technique.

**Demographics:** The study enrolled 150 patients with moderate to severe NLF wrinkles. The patients were predominantly healthy African-American females.

**Gender** – Female: 140/150 (93%); Male 10/150 (7%)

**Ethnicity** – White: 2 (1.3%); Hispanic or Latino: 9 (6%); African-American: 137 (91%); American Indian: 2 (1.3%)

Fitzpatrick Skin Type – I to III: 0 (0%); IV: 44 (29%); V: 68 (45%); VI: 38 (25%)

**Efficacy:** The results of the live blinded evaluator assessment of wrinkle severity for *Restylane* and control (*Perlane*) are presented in Table 20 and are based on the Intent-to-Treat analysis. In the primary effectiveness assessment at 12 weeks, 93% of the *Restylane*-treated and 92% of the *Perlane*-treated NLF maintained at least a 1 point improvement over baseline.

**Table 20. Live Evaluator Wrinkle Severity Response Scores**

Time point	No. of Patients	No. of Restylane Pts. maintaining 1 Unit Improvement on WSRS	95% Restylane Confidence Interval	No. of Perlane Pts. maintaining 1 Unit Improvement on WSRS	95% Perlane Confidence Interval
6 weeks	148	142 (96%) <sup>1</sup>	92-99%	140 (95%) <sup>1</sup>	90-99%
12 weeks	149	139 (93%) <sup>1</sup>	89-98%	137 (92%) <sup>1</sup>	87-97%
24 weeks	147	108 (73%) <sup>1</sup>	66-81%	104 (71%) <sup>1</sup>	63-77%

<sup>1</sup>All p-values < 0.0001 based on t-test compared to baseline condition

**Antibody Testing:** 9/150 (6%) patients displayed a pre-treatment antibody response against *Restylane* (which was believed to be related to co-purifying *Streptococcus* capsule antigens). No patients developed a measurable increase in antibody titer after *Restylane* injection. 1/6 (17%) patients with antibodies against *Restylane* had adverse events at the injection site as compared to the local adverse event rate observed in the entire *Restylane* population (i.e., 28/150 (18.7%)). All the adverse events in the patients with a humoral response against *Restylane* were mild in severity. Immediate type skin testing demonstrated that no patient developed IgE to *Restylane* Post-exposure histopathology of skin biopsies of an implant site on each patient demonstrated that no patient developed cell-mediated immunity to *Restylane*.

**MA-04-003**

The duration of effectiveness of *Restylane* for correction of nasolabial folds (NLF) was evaluated in a randomized, evaluator-blinded, multi-center study. *Restylane* was shown to have an overall duration of effectiveness of 18 months from baseline following re-treatment at 4.5 or 9 months.

**MA-04-003: Randomized Clinical Study**

Randomized, evaluator-blinded study at 3 U.S. centers, which compared the safety and effectiveness of *Restylane* using two re-treatment schedules. Initially *Restylane* was injected in both nasolabial folds (NLF). Subsequently, one NLF was re-treated at 4.5 months after the initial treatment. The contralateral NLF was treated with *Restylane* and re-treated at 9 months (± 1 week). The Blinded Evaluators were blinded to the re-treatment schedule while patients and treating physicians were not.

**Effectiveness** was studied at 18 months after the initial injection (i.e., either 9 or 13.5 months after the second treatment).

**Effectiveness Primary:** The difference in effect of *Restylane* injected 4.5 or 9 months after the initial treatment on the visual severity of the nasolabial folds was assessed by an Evaluating Investigator at 18 months after the baseline treatment. The primary study endpoint was the proportion of patients with at least one grade improvement in the Wrinkle Severity Rating Scale (WSRS) from baseline as assessed by the Blinded Evaluator at the 18 month visit.

**Secondary:** The Wrinkle Severity Rating Scale (WSRS) score was assessed by the evaluating investigator at all follow-up visits prior to the 18 month visit and at all visits by patients and independent photographic reviews.

**Global Aesthetic Improvement Scale (GAIS)** comparing the pre-treatment appearance at all follow-up visits up to 18 months, was determined by the treating investigator and patient. The GAIS is a 5-point scale for assessing global aesthetic improvement: "very much improved / much improved / improved / no change / worse."

**Safety** and duration of injection site reactions and adverse events were recorded.

**Demographics:** The study enrolled an adult population of predominantly Caucasian, healthy, non-smoking females.

**Table 21. Patient Characteristics**

Number of Patients	Age	Gender	Race	Prior Augmentation to NLF	History of Tobacco Use	History of Sun Exposure
75	Mean ± SD: 53.8 ± 8.4	Female: 5 (6.7%)	White: 50 (66.7%)	Yes: 6 (8.0%)	No: 55 (73.3%)	No: 63 (84.0%)
	Median: 54	Female: 70 (93.3%)	Black: 3 (4.0%)	No: 69 (92.0%)	Yes: 20 (26.7%)	Yes: 12 (16.0%)
	Minimum: 26		Hispanic: 22 (29.3%)			
	Maximum: 73					

**Table 22. Number of Patients enrolled and observed at 4.5, 9, 12, 15 and 18 months**

	SCR/IRT	Touch-up	Wk2	MA.5	M9	M12	M15	M18
Enrolled	75	-	75	75	75	75	75	75
Withdraw Consent (total)	0	-	1	5	6	6	6	7
Lost to Follow-up	0	-	0	2	4	4	4	4
Missed Visit	0	-	2	1	0	1	1	1
Actual	75	44	72	67	65	64	64	64

**Volume (mL) of Restylane Treatment Used by Visit**

Visit	Side Assigned to Re-treatment at 4.5 Months	Side Assigned to Re-treatment at 9 Months
Baseline		
N	75	75
Mean ± SD	1.1 ± 0.61	1.1 ± 0.56
Median	1.0	1.0
Minimum	0.1	0.2
Maximum	2.5	2.5
Touch-up Visit		
N	44	44
Mean ± SD	0.5 ± 0.22	0.5 ± 0.21
Median	0.5	0.5
Minimum	0.2	0.2
Maximum	1.0	1.0
Re-treatment Visit (4.5 Months/9 months)		
N	67	63
Mean ± SD	0.7 ± 0.33	0.7 ± 0.36
Median	0.8	0.6
Minimum	0.2	0.1
Maximum	1.8	2.0

**Effectiveness**

The results of the blinded evaluator assessment of NLF wrinkle severity for patients treated at baseline, 4.5 or 9 months is presented in the Figure below for patient outcomes at 4.5, 9, 12, 15 and 18 months after initial treatment.

**Blinded Evaluator WSRS**

**Table 23. Blinded Evaluator WSRS**

Visit	Side Re-treated at 4.5 Months (%)	Side Re-treated at 9 Months (%)
Month 4.5	~85	~85
Month 9	~85	~85
Month 12	~85	~85
Month 15	~85	~85
Month 18	~85	~85

At 18 months after the initial treatment, the blinded evaluator determined that 97% of the NLFs re-treated at 4.5 months displayed at least 1 WSRS grade improvement over baseline, with a mean change in wrinkle severity score of 1.7 units. At 18 months after the initial treatment, the blinded evaluator determined that 95% of the NLFs re-treated at 9 months displayed at least 1 WSRS grade improvement over baseline, with a mean change in wrinkle severity score of 1.6 units.

**Blinded Evaluator WSRS**

**Table 24. Blinded Evaluator WSRS**

Visit	Side Re-treated at 4.5 Months	Side Re-treated at 9 Months
Month 4.5	~1.1	~1.1
Month 9	~1.1	~1.1
Month 12	~1.1	~1.1
Month 15	~1.1	~1.1
Month 18	~1.1	~1.1

**MA-1400-01: Prospective, Randomized, Blinded, Controlled Clinical Study**

**Design**  
1:1 randomized, prospective study at 3 U.S. centers, which compared the safety and effectiveness of *Restylane* and Perlane following treatment to baseline condition in 150 patients with pigmented skin and predominantly African-American ethnicity. Patients were randomized to *Restylane* or Perlane treatment in a "within-patient" model of augmentation correction of bilateral nasolabial folds (NLFs) and oral commissures with one treatment assigned to one side and the other treatment to the other side. A touch-up was allowed 2 weeks after initial treatment. Patients and treating physicians were partially masked. Evaluations were performed by live investigator assessment for the primary analysis.

**Effectiveness** was studied with 6 months follow-up. Safety was studied with 6 months follow-up.

**Effectiveness Primary:** The difference in effect of *Restylane* at week 12 versus baseline condition on the visual severity of the NLFs.

**Secondary:** The primary study endpoint was wrinkle severity 12 weeks after optimal correction was achieved. Wrinkle severity was evaluated with a five-step validated Wrinkle Severity Rating Scale (WSRS) (i.e., none, mild, moderate, severe, extreme) by an on-site blinded evaluator. Patient success was defined as maintaining at least a one point improvement on the WSRS at 12 weeks after optimal correction was achieved. The percent of patient successes was calculated for each group. Each treatment group was compared to its own baseline, with no comparison of *Restylane* to Perlane.

**Wrinkle Severity Rating Scale (WSRS)** was assessed at other follow-up points (2, 6, and 24 weeks after optimal correction) by the investigator and the patient and compared to baseline score by the same evaluator. A photographic assessment of patient outcomes was also performed. Duration of effect was defined as 6 months or time point, if earlier, at which less than 50% of patients had at least a 1-grade response at both nasolabial folds.

**Safety assessments included:** collection of patient symptoms in a 14-day diary; investigator evaluation of adverse events at 72 hours, and at 2, 6, 12, and 24 weeks; development of humoral or cell-mediated immunity; and the relationship of adverse events to injection technique.

**Demographics:** The study enrolled 150 patients with moderate to severe NLF wrinkles. The patients were predominantly healthy African-American females.

**Gender** – Female: 140/150 (93%); Male 10/150 (7%)

**Ethnicity** – White: 2 (1.3%); Hispanic or Latino: 9 (6%); African-American: 137 (91%); American Indian: 2 (1.3%)

Fitzpatrick Skin Type – I to III: 0 (0%); IV: 44 (29%); V: 68 (45%); VI: 38 (25%)

**Efficacy:** The results of the live blinded evaluator assessment of wrinkle severity for *Restylane* and control (*Perlane*) are presented in Table 20 and are based on the Intent-to-Treat analysis. In the primary effectiveness assessment at 12 weeks, 93% of the *Restylane*-treated and 92% of the *Perlane*-treated NLF maintained at least a 1 point improvement over baseline.

**Table 20. Live Evaluator Wrinkle Severity Response Scores**

Time point	No. of Patients	No. of Restylane Pts. maintaining 1 Unit Improvement on WSRS	95% Restylane Confidence Interval	No. of Perlane Pts. maintaining 1 Unit Improvement on WSRS	95% Perlane Confidence Interval
6 weeks	148	142 (96%) <sup>1</sup>	92-99%	140 (95%) <sup>1</sup>	90-99%
12 weeks	149	139 (93%) <sup>1</sup>	89-98%	137 (92%) <sup>1</sup>	87-97%
24 weeks	147	108 (73%) <sup>1</sup>	66-81%	104 (71%) <sup>1</sup>	63-77%

<sup>1</sup>All p-values < 0.0001 based on t-test compared to baseline condition

**Antibody Testing:** 9/150 (6%) patients displayed a pre-treatment antibody response against *Restylane* (which was believed to be related to co-purifying *Streptococcus* capsule antigens). No patients developed a measurable increase in antibody titer after *Restylane* injection. 1/6 (17%) patients with antibodies against *Restylane* had adverse events at the injection site as compared to the local adverse event rate observed in the entire *Restylane* population (i.e., 28/150 (18.7%)). All the adverse events in the patients with a humoral response against *Restylane* were mild in severity. Immediate type skin testing demonstrated that no patient developed IgE to *Restylane* Post-exposure histopathology of skin biopsies of an implant site on each patient demonstrated that no patient developed cell-mediated immunity to *Restylane*.

**MA-1400-01: Prospective, Randomized, Blinded, Controlled Clinical Study**

**Design**  
1:1 randomized, prospective study at 10 U.S. centers, which compared the safety and effectiveness of *Restylane* and Perlane following treatment to baseline condition in 150 patients with pigmented skin and predominantly African-American ethnicity. Patients were randomized to *Restylane* or Perlane treatment in a "within-patient" model of augmentation correction of bilateral nasolabial folds (NLFs) and oral commissures with one treatment assigned to one side and the other treatment to the other side. A touch-up was allowed 2 weeks after initial treatment. Patients and treating physicians were partially masked. Evaluations were performed by live investigator assessment for the primary analysis.

**Effectiveness** was studied with 6 months follow-up. Safety was studied with 6 months follow-up.

**Effectiveness Primary:** The difference in effect of *Restylane* at week 12 versus baseline condition on the visual severity of the NLFs.

**Secondary:** The primary study endpoint was wrinkle severity 12 weeks after optimal correction was achieved. Wrinkle severity was evaluated with a five-step validated Wrinkle Severity Rating Scale (WSRS) (i.e., none, mild, moderate, severe, extreme) by an on-site blinded evaluator. Patient success was defined as maintaining at least a one point improvement on the WSRS at 12 weeks after optimal correction was achieved. The percent of patient successes was calculated for each group. Each treatment group was compared to its own baseline, with no comparison of *Restylane* to Perlane.

**Wrinkle Severity Rating Scale (WSRS)** was assessed at other follow-up points (2, 6, and 24 weeks after optimal correction) by the investigator and the patient and compared to baseline score by the same evaluator. A photographic assessment of patient outcomes was also performed. Duration of effect was defined as 6 months or time point, if earlier, at which less than 50% of patients had at least a 1-grade response at both nasolabial folds.

**Safety assessments included:** collection of patient symptoms in a 14-day diary; investigator evaluation of adverse events at 72 hours, and at 2, 6, 12, and 24 weeks; development of humoral or cell-mediated immunity; and the relationship of adverse events to injection technique.

**Demographics:** The study enrolled 150 patients with moderate to severe NLF wrinkles. The patients were predominantly healthy African-American females.

**Gender** – Female: 140/150 (93%); Male 10/150 (7%)

**Ethnicity** – White: 2 (1.3%); Hispanic or Latino: 9 (6%); African-American: 137 (91%); American Indian: 2 (1.3%)

Fitzpatrick Skin Type – I to III: 0 (0%); IV: 44 (29%); V: 68 (45%); VI: 38 (25%)

**Efficacy:** The results of the live blinded evaluator assessment of wrinkle severity for *Restylane* and control (*Perlane*) are presented in Table 20 and are based on the Intent-to-Treat analysis. In the primary effectiveness assessment at 12 weeks, 93% of the *Restylane*-treated and 92% of the *Perlane*-treated NLF maintained at least a 1 point improvement over baseline.

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6 weeks	148	142 (96%) <sup>1</sup>	92-99%	140 (95%) <sup>1</sup>	90-99%
12 weeks	149	139 (93%) <sup>1</sup>	89-98%	137 (92%) <sup>1</sup>	87-97%
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<sup>1</sup>All p-values < 0.0001 based on t-test compared to baseline condition

**Antibody Testing:** 9/150 (6%) patients displayed a pre-treatment antibody response against *Restylane* (which was believed to be related to co-purifying *Streptococcus* capsule antigens). No patients developed a measurable increase in antibody titer after *Restylane* injection. 1/6 (17%) patients with antibodies against *Restylane* had adverse events at the injection site as compared to the local adverse event rate observed in the entire *Restylane* population (i.e., 28/150 (18.7%)). All the adverse events in the patients with a humoral response against *Restylane* were mild in severity. Immediate type skin testing demonstrated that no patient developed IgE to *Restylane* Post-exposure histopathology of skin biopsies of an implant site on each patient demonstrated that no patient developed cell-mediated immunity to *Restylane*.

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**Effectiveness** was studied with 6 months follow-up. Safety was studied with 6 months follow-up.

**Effectiveness Primary:** The difference in effect of *Restylane* at week 12 versus baseline condition on the visual severity of the NLFs.

**Secondary:** The primary study endpoint was wrinkle severity 12 weeks after optimal correction was achieved. Wrinkle severity was evaluated with a five-step validated Wrinkle Severity Rating Scale (WSRS) (i.e., none, mild, moderate, severe, extreme) by an on-site blinded evaluator. Patient success was defined as maintaining at least a one point improvement on the WSRS at 12 weeks after optimal correction was achieved. The percent of patient successes was calculated for each group. Each treatment group was compared to its own baseline, with no comparison of *Restylane* to Perlane.

**Wrinkle Severity Rating Scale (WSRS)** was assessed at other follow-up points (2, 6, and 24 weeks after optimal correction) by the investigator and the patient and compared to baseline score by the same evaluator. A photographic assessment of patient outcomes was also performed. Duration of effect was defined as 6 months or time point, if earlier, at which less than 50% of patients had at least a 1-grade response at both nasolabial folds.

**Safety assessments included:** collection of patient symptoms in a 14-day diary; investigator evaluation of adverse events at 72 hours, and at 2, 6, 12, and 24 weeks; development of humoral or cell-mediated immunity; and the relationship of adverse events to injection technique.

**Demographics:** The study enrolled 150 patients with moderate to severe NLF wrinkles. The patients were predominantly healthy African-American females.

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12 weeks	149	139 (93%) <sup>1</sup>	8		