

Nordlys™

The foundational platform
for your practice

eBook



 **CANDELA™**
Science. Results. Trust.





Dear reader,

On behalf of Candela, we would like to thank you for your interest in the Nordlys™ system. The Nordlys system enables you to meet the increasing demand for aesthetic and dermatological procedures with a single multiapplication platform, CE-marked for 20 indications^{1,2,3,4}. Developed over 20 years and using three foundational technologies, Ellipse IPL™, Frax 1550, and Nd:YAG 1064, this device has the promise to become the cornerstone of your practice.

In this eBook, we provide you with the most important information regarding this device, from technology overview to results clinical experts worldwide have achieved with their patients.

Know that when you decide to work with one or more of our devices, we'll do everything we can to provide you with the highest level of customer service possible.

That's our promise to you.

The Candela Marketing Team

1. Nordlys system instructions for use, 2018. Candela, data on file.

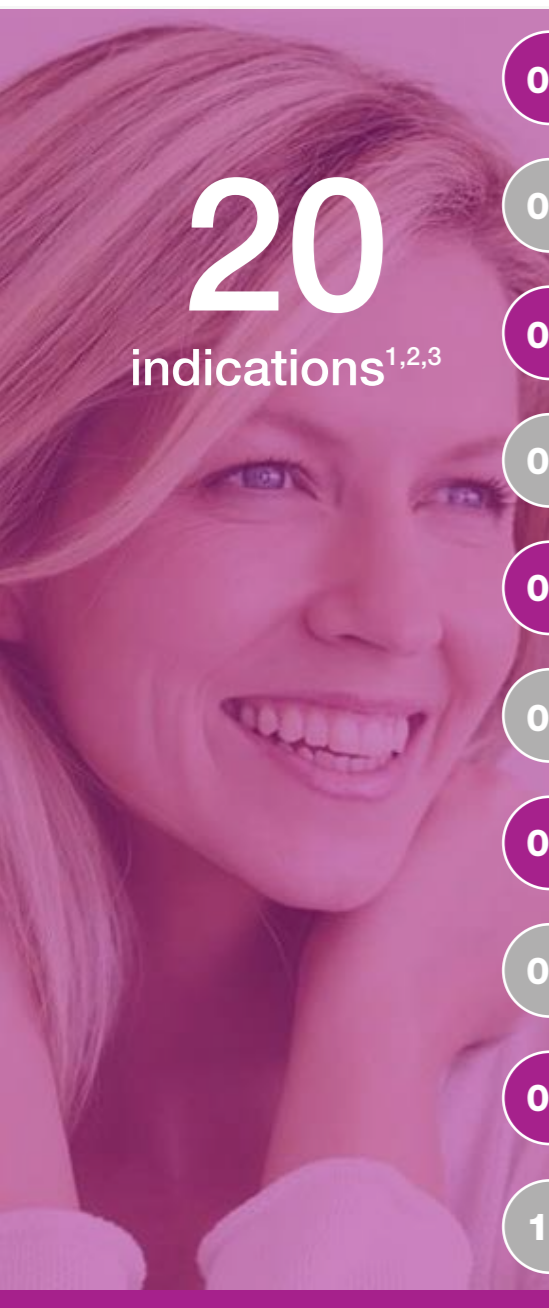
2. Ellipse Nordlys CE Mark clearance.

3. Ellipse Nordlys 510(k) clearance (K161162), September 2016.

4. Wizer. Global market research, July 2017. Candela, data on file.

What can you treat?

One single, multi-application platform, 3 foundational technologies: Ellipse IPL™, Frax 1550 and Nd:YAG 1064.



20
indications^{1,2,3}

- 01 Photorejuvenation^(a)
- 02 Telangiectasias
- 03 Rosacea
- 04 Benign pigmented lesions
- 05 Benign vascular lesions
- 06 Poikiloderma of Civatte
- 07 Port wine stains
- 08 Resistant PWS
- 09 Wrinkles
- 10 Skin texture
- 11 Venous lakes
- 12 Leg veins
- 13 Acne scars
- 14 Surgical scars
- 15 Striae
- 16 Skin resurfacing
- 17 Hair removal
- 18 Acne
- 19 Warts
- 20 Onychomycosis

a. Via vascular and pigmented lesion treatment
 1. Ellipse Nordlys CE Mark.
 2. Ellipse Nordlys 510(k) clearance (K161162), September 2016.
 3. Port Wine Stain (PWS) Found to Be Resistant to Pulse Dye Laser (PDL), Long Pulse Dye Laser (LPDL) or IPL Treatment

Patient advantages:

Give your patients what they want:



The assurance of proven results. With 20 years of clinical experience, the Nordlys system is one of the most proven multi-application systems available in the market today.

Comfort. SoftCool¹ sends a focused stream of cool air for greater comfort during and after the treatment. The device is quiet in operation, providing a relaxed environment for both operator and the person being treated.

More treatment options. The state of the art treatment gives you the option of using either a laser or light-based technology. Some people aren't comfortable with a laser, so this makes things feel more relaxing.

Fewer treatments. The combination of lower fluence and narrowband results in fewer treatments².

All-season treatment. The Nordlys system can be used on skin types I-VI, in any season and any climate.

1. SoftCool is only available with Frax 1550 and Nd:YAG1064
 2. Bjerring P, et al. Lasers Surg Med. 2004;34(2):120-126

Practice advantages:



Meet the demand for the most desired treatments:

The Nordlys system enables you to treat 20 different indications with 3 foundational technologies: Ellipse IPL, Frax 1550, and Nd:YAG 1064^{1,2}.



Designed for ease of use:

Guided mode, Expert mode, and optional Pulse Definition mode³ enable a short learning curve and expansion of versatility as user becomes more adept. The intuitive user interface makes using the device easy.



Scalable to grow with your practice: The system can be upgraded with additional applicators when needed.



Reliability matters: The Nordlys system offers secure, Wi-Fi-enabled remote assistance and you can diagnose and update your device during or after working hours.



Patient database: Available to allow you to build a patient record and review treatment history.



Candela 360 Advantage support program: To help your practice achieve measurable growth and consistent treatment outcomes while attaining unparalleled patient satisfaction.

1. Ellipse Nordlys CE Mark.

2. Ellipse Nordlys 510(k) clearance (K161162), September 2016.

3. ThePulse Definition mode is priced separately.

Mechanism of action | Ellipse IPL™

Patented Ellipse IPL uses exclusive selective wavelength technology with dual filters to deliver narrowband IPL to the target tissue², filtering out any potentially harmful wavelengths.

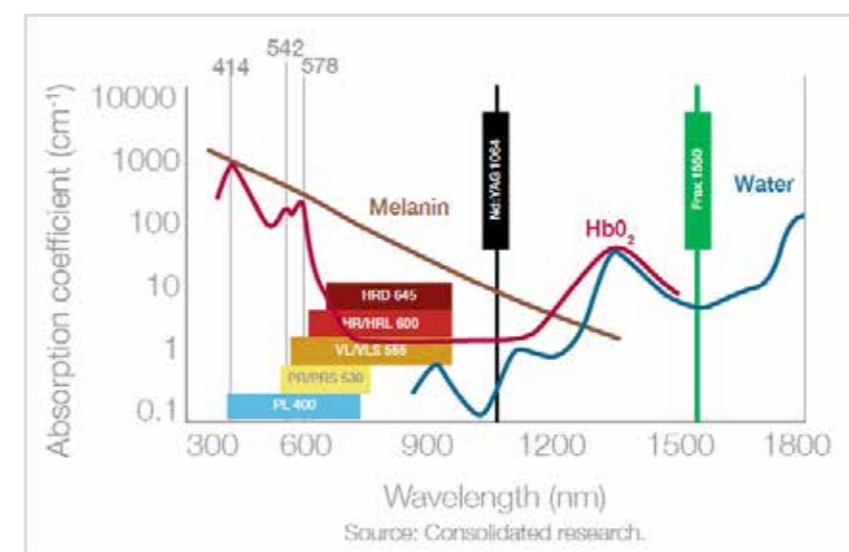
- Uniquely delivers submilli-second IPL pulses to treat small vascular lesions and diffuse redness^{1,2}
- 8 applicators, including PR 530 and VL 555 for vascular lesions and photorejuvenation treatments²

Enables truly customizable treatments: user can control.²

- Energy delivered
- Pulse duration
- Number of pulses in a train
- Time between sub-pulses
- Narrowband wavelengths used for treatment



Ellipse IPL™



Ellipse IPL technology uses narrower wavelength bands, per condition, which enables treatment of photodamaged skin using less than **half the fluence and no active cooling**, and requiring fewer treatments than reported in studies with broadband IPL devices.³

IPL photorejuvenation with Ellipse IPL technology using relatively shorter wavelengths and pulse widths showed significant macroscopic and quantitative improvements, especially in the treatment of epidermal pigmentation and improvement of basic skin tone.⁴

Mechanism of action | Frax 1550

Designed for non-ablative skin resurfacing and treatment of acne scars, scars, and striae.¹

- Unique non-ablative fractional technology uses a software algorithm to set the parameters. It enables the user to set the pulse duration and the energy, independently
- Control the thermal impact
- SoftCool sends a focused stream of cool air for greater comfort during and after the treatment
- No expensive consumables with the Frax 1550 applicator
- Deliver the required density

2 important design features help maintain treatment consistency:

- Move the roller too slowly, and it will not fire a new row
- Move the roller too quickly, and a warning light will be displayed

The magnetically coupled roller detaches for easy cleaning.



Frax 1550

Mechanism of action | Nd:YAG 1064

Designed to treat benign vascular lesions such as¹:

- Leg veins
- Venous lakes
- Resistant port wine stains
- Onychomycosis
- Warts

Patented, integrated SoftCool technology enables treatment without the constriction of underlying vessels, which can occur with contact cooling.

Software-controlled zoom enables easy change in spot sizes from 1.5-5.0 mm for treatment flexibility.

Handpiece has 3 tips:

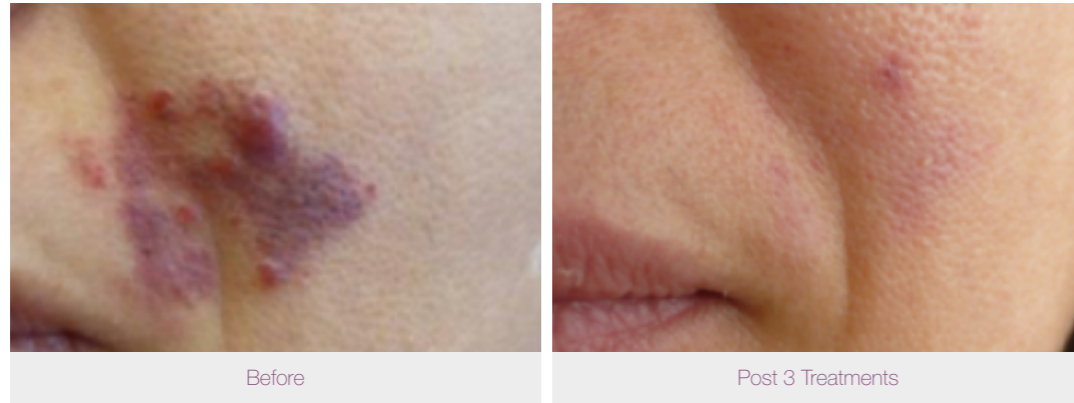
- Circular² for use when treating telangiectasia, reticular vessels, hemangiomas, and more
- Semi-circular² for use when treating difficult-to-reach vessels near the eye and onychomycosis treatments
- Circular sapphire² for use when light pressure is needed to isolate the vessel



Nd:YAG 1064

1. Ellipse Nordlys CE Mark clearance. 2. Nordlys system instructions for use, 2018. Candela, data on file. 3. Bjerring P, Christiansen K, Troilius A, Dierickx C. Facial photo rejuvenation using two different intense pulsed light (IPL) wavelength bands. Lasers Surg Med. 2004;34(2):120-126. 4. Negishi K, Kushikata N, Takeuchi K, Tezuka Y, Wakamatsu S. Photorejuvenation by intense pulsed light with objective measurement of skin color in Japanese patients. Dermatol Surg. 2006;32(11):1380-1387.

Port Wine Stains | Ellipse IPL™



Courtesy of Tomás Zamora, M.D., Spain



Courtesy of Prof. Michael Drosner, M.D., Germany



Courtesy of Plong Panh Chak Ritha, M.D., Thailand

Photos are unretouched. Individual results may vary.

Telangiectasias | Ellipse IPL™



Courtesy of Prof. Peter Bjerring, M.D., Denmark



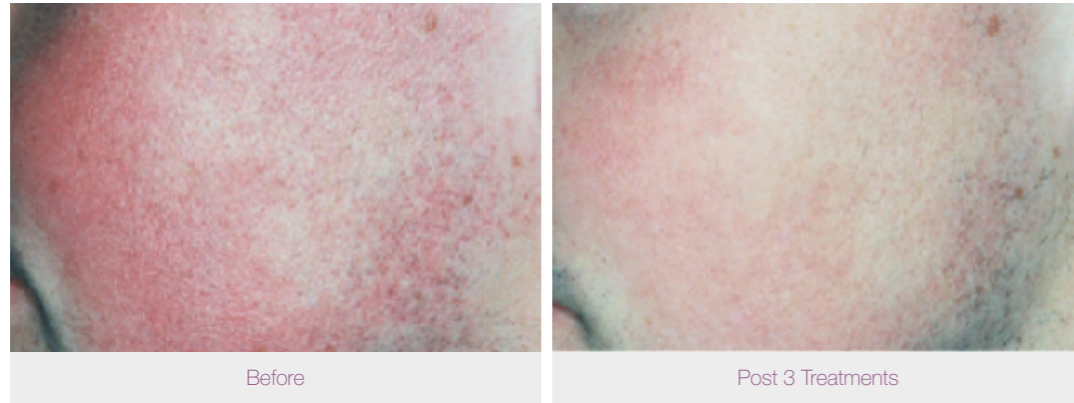
Courtesy of Guillermo Simón, M.D., Spain



Courtesy of Prof. Peter Bjerring, M.D., Denmark

Photos are unretouched. Individual results may vary.

Diffuse Redness | Ellipse IPL™



Courtesy of Prof. Peter Bjerring, M.D., Denmark

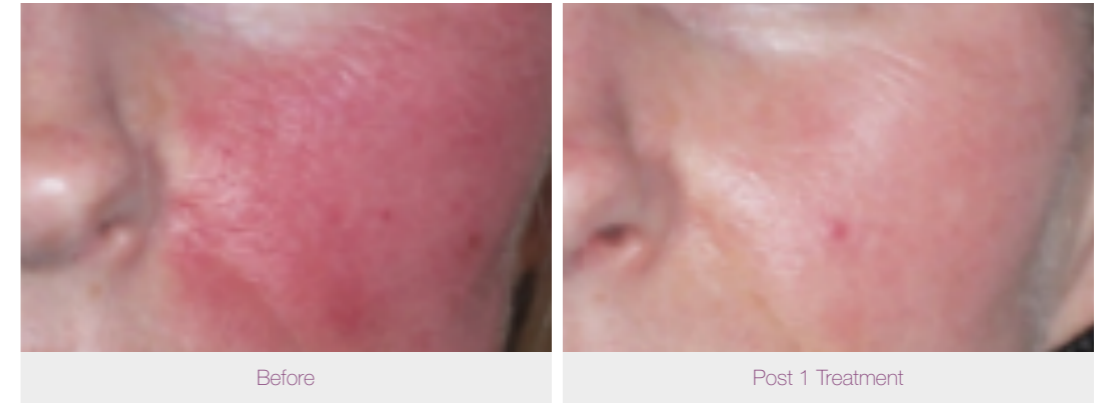


Courtesy of Harue Suzuki, M.D., Japan



Courtesy of Prof. Peter Bjerring, M.D., Denmark

Rosacea | Ellipse IPL™



Courtesy of Prof. Michael Drosner, M.D., Germany



Courtesy of Guillermo Simón, M.D., Spain



Courtesy of Prof. Agneta Troilius Rubin, M.D., Sweden

Photorejuvenation | Ellipse IPL™



Courtesy of Guillermo Simón, M.D., Spain



Courtesy of Prof. Michael Drosner, M.D., Germany



Courtesy of Prof. Agneta Troilius Rubin, M.D., Sweden

Photos are unretouched. Individual results may vary.

Hair Removal | Ellipse IPL™



Courtesy of Prof. Agneta Troilius Rubin, M.D., Sweden



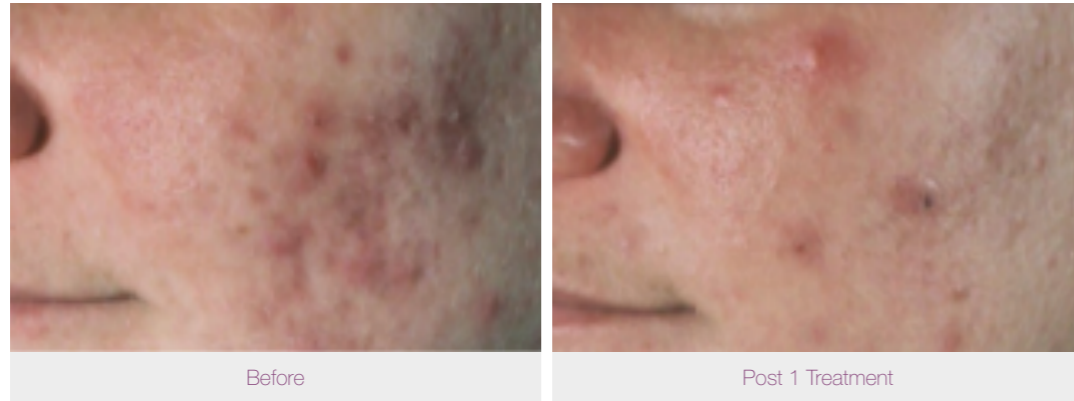
Courtesy of Prof. Peter Bjerring, M.D., Denmark



Courtesy of Jochmann Wolfgang, M.D., Austria

Photos are unretouched. Individual results may vary.

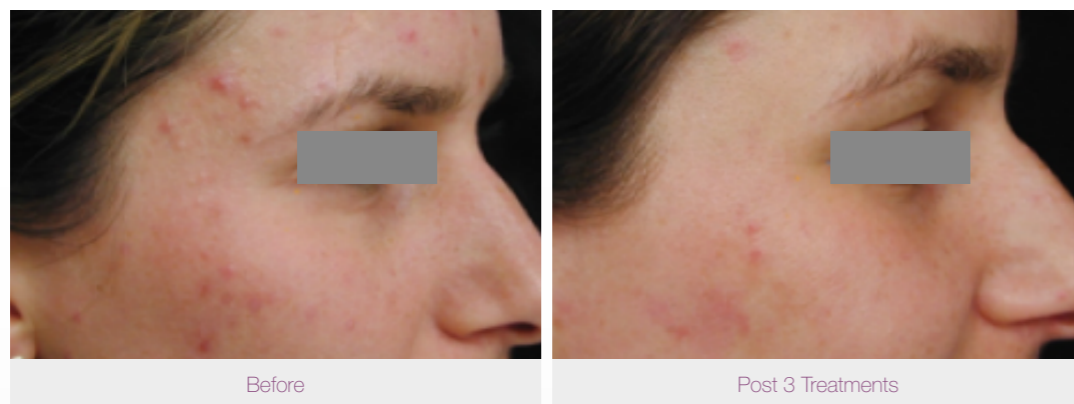
Acne | Ellipse IPL™



Before

Post 1 Treatment

Courtesy of Prof. Agneta Troilius Rubin, M.D., Sweden



Before

Post 3 Treatments

Courtesy of Prof. Michael Drosner, M.D., Germany



Before

Post 5 Treatments

Courtesy of Yuichi Sai, M.D., Japan

Photos are unretouched. Individual results may vary.

Venous Lake | Nd:YAG 1064

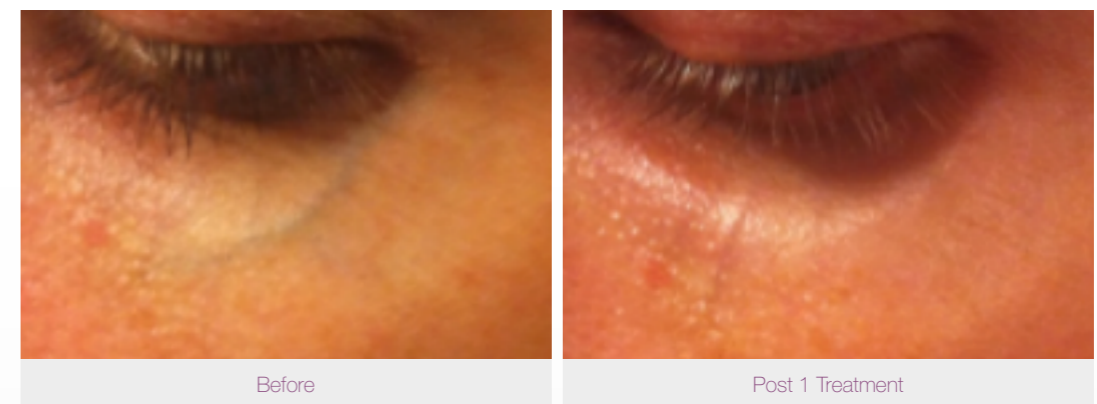


Before

Post 1 Treatment

Courtesy of Ellipse Denmark

Periorbital Telangiectasia | Nd:YAG 1064



Before

Post 1 Treatment

Courtesy of Ellipse Denmark

Leg Veins | Nd:YAG 1064



Before

Post 1 Treatment

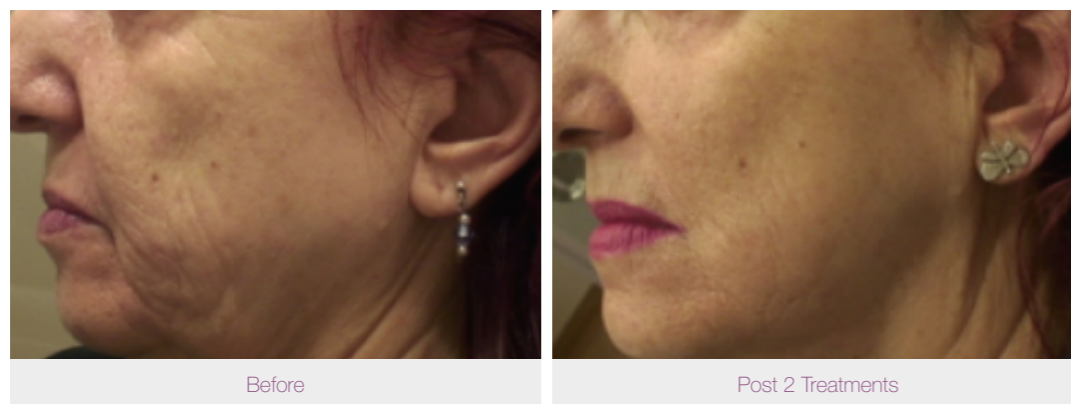
Courtesy of Prof. Michael Drosner, M.D., Germany

Photos are unretouched. Individual results may vary.

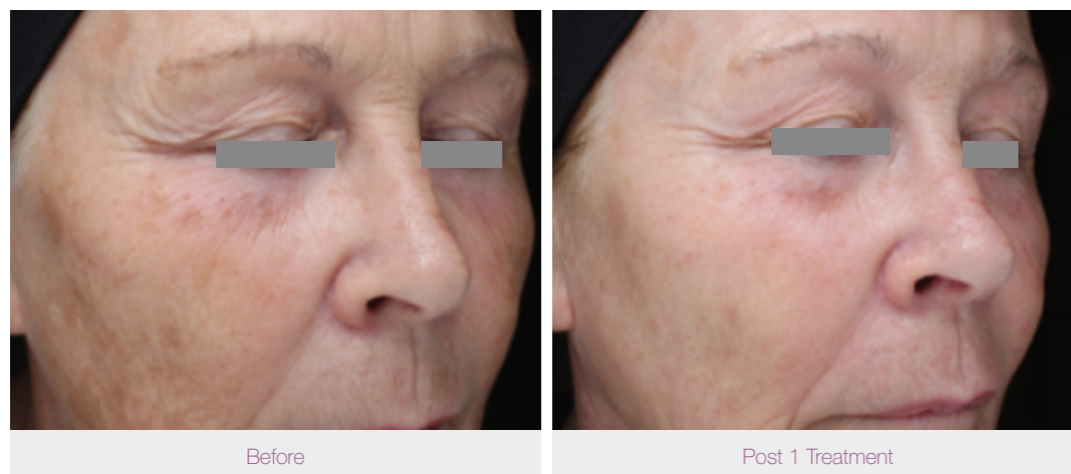
Skin Resurfacing | Frax 1550



Courtesy of E. Victor Ross, M.D., USA



Courtesy of Ioanna Panoutsopoulou, M.D., Greece



Courtesy of Vicent Alonso, M.D., Spain

Photos are unretouched. Individual results may vary.

Summary of peer-reviewed articles | Ellipse IPL™

Facial Photo Rejuvenation Using Two Different Intense Pulsed Light (IPL) Wavelength Bands

Peter Bjerring, MD, PhD,^{1*} Kåre Christiansen, MSc,² Agneta Troilius, MD, PhD,³ and Christine Dierckx, MD⁴
¹Department of Dermatology, University Hospital, Aarhus, Denmark
²Mølholm Research, The Private Hospital Mølholm, Vejle, Denmark
³Department of Dermatology, University Hospital, Malmö, Sweden
⁴Private Laser Clinic, Boom, Belgium

Background and Objectives: Intense pulsed light (IPL) systems are increasingly used for treatment of photo damaged skin. In the present study, we investigated the clinical efficacy and safety of two different wavelength bands generated by the same IPL device.

Study Design/ Materials and Methods: An IPL device was equipped with either a 555–950 nm filter (VL), or a 530–750 nm filter (PR).

Results: Fair, good or excellent clearance of visible telangiectasias was obtained in 81.8% of the patients (PR) and in 58.8% (VL). In the treatment of diffuse erythema, fair, good or excellent clearance was obtained in 72.7% (PR) and in 36.0% (VL). The PR filter was more efficient ($P = 0.025$) in reduction of diffuse erythema. The average number of treatments was 1.75 (PR) and 1.82 (VL). For the treatment of irregular pigmentation, fair, good or excellent clearance was obtained in 54.5% (PR) and in 61.9% (VL). Multiple treatments of irregular pigmentation were also evaluated. Using the VL filter more than two treatments did not induce further clinical improvement. The patients also scored their over-all satisfaction. Either fair, good or excellent results were reported by 66.7% (PR) and by 76.2% (VL). No skin atrophy, scarring or pigment disturbances were noted after the treatments. Swelling and erythema were registered by 2/3 (PR) and 1/3 (VL) of the patients. **Conclusions:** The two IPL wavelength bands were both found to be effective in the treatment of photo damaged facial skin. The clinical efficacy and safety of the two different treatment procedures were comparable to those reported in earlier studies, and finally treatment with these filter combinations required less than half the fluence, no active cooling and fewer treatments. *Lasers Surg. Med.* 34:120–126, 2004. © 2004 Wiley-Liss, Inc.

Key words: photo rejuvenation; skin rejuvenation; treatment; pigment; vascular lesions; telangiectasia; diffuse erythema; IPL; intense pulsed light

INTRODUCTION

Non-invasive techniques for skin rejuvenation have now been established as a new standard in the treatment of rhytids and skin toning. Different treatment modalities using lasers and intense pulsed light (IPL) have resulted in varying degrees of clinical effects. The devices used include

lasers emitting light at 632, 578, 585, 810, 900, and 1,064 nm wavelengths as well as filtered white light generated by IPL systems equipped with different cut-off filters.

Treatment of photo damaged skin has been divided into: Type I photo rejuvenation, which includes treatment of pigmented disorders, reduction of telangiectasias and erythema, and Type II photo rejuvenation, which concerns treatment of dermal structures such as rhytids and skin pore size [1]. Finally, ablative resurfacing methods, resulting in long recovery times and associated with substantial risks of severe side effects have during more than 10 years been performed with the CO₂ laser [2,3] and later also with the Er:Yag laser [4]. The effect of these treatments includes both Type I and Type II photo rejuvenation.

A continually increasing demand for treatment of photo damaged skin without down-time has led to the development of new non ablative techniques [5]. New lasers emitting 1,320 [6], 1,450 [7], and 1,540 [8] nm using interstitial and intracellular water as target chromophores and pulsed dye lasers [9] using oxyhemoglobin as the primary chromophore are now employed for Type II photo rejuvenation only. The clinical efficacy of these non-ablative modalities are less than for the ablative methods, however, in one study up to 90% of the patients showed clinically observable improvement in wrinkles [10]. Other studies showed clinical effect in only 40% of the treated subjects [11].

Recently, different IPL systems have been introduced for photo rejuvenation [12–18]. Until now, reduction of facial wrinkles (Type II) obtained with IPL devices has shown to be inferior to laser treatments [15], but for Type I photo rejuvenation (treatment of vessels), IPL systems have in general shown considerably better results than laser systems operating at subpurpuric energy levels [19,20].

Bitter [14] reported that after 4–6 full-face IPL treatments, 90% of Caucasian subjects obtained visible

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 P.J. AT, and CD have disclosed potential financial conflicts of interest with this study.
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 DOI 10.1002/lsm.20000

Facial photo rejuvenation using two different intense pulsed light (IPL) wavelength bands.

Study design

35 subjects (33 females, 2 males) with mean age 46.6±9.5 years (range 33–72), Fitzpatrick Skin Types I–III, and substantial photodamaged skin (10 subjects with irregular pigmentation, 13 with vascular lesions, 12 with both).

Results at 3-month follow-up after last treatment:

- 82% of subjects showed fair to excellent (25–100%) clearance of telangiectasias with the PR applicator
- 73% of subjects showed fair to excellent clearance of diffuse erythema with the PR applicator
- Combined VL and PR treatments required less than 1/2 the fluence, no active cooling, and fewer treatments than conventional treatment with a single set of treatment parameters

Summary of peer-reviewed articles | Ellipse IPL™

Photorejuvenation by Intense Pulsed Light with Objective Measurement of Skin Color in Japanese Patients

KEI NEGISHI, MD,*† NORIHARU KUSHIKATA, MD,*† KAORI TAKEUCHI, MD,† YUKIKO TEZUKA, MD,*† AND SHENGO WAKAMATSU, MD*†

BACKGROUND AND OBJECTIVES This study had two objectives: subjective evaluation of overall skin rejuvenation effects of relatively short-wavelength intense pulsed light (IPL) and objective changes in basic skin tone as measured by a spectrophotometer.

STUDY DESIGN/MATERIALS AND METHODS Twenty-five women selected at random received a series of three IPL treatments. Efficacy was evaluated over a 3-month follow-up period. Concurrently, a spectrophotometer was used to measure "lightness" (L*) to quantify the lightening effect changes to pretreatment and posttreatment basic skin tone.

RESULTS Subjective improvement of 50% or more was seen in 18 of 25 patients for pigmentation. One patient showed exacerbation of latent epidermal melasma as a complication. In the spectrophotometric analysis, the mean value of L* increased from a baseline value of 60.86 to 63.22, at 3-month follow-up period, with statistical significance.

CONCLUSION IPL skin rejuvenation using relatively shorter wavelengths and pulse widths brought about significant macroscopic and quantitative improvements, especially in the treatment of epidermal pigmentation and improvement of basic skin tone.

The equipment used in the study was provided by Danish Dermatologic Development.

It is widely known that skin rejuvenation by intense pulsed light (IPL) improves various symptoms of photodamage. In our department's facility, the improvement of pigmented lesions and irregular pigmentation is the most frequent and primary request of patients seeking IPL treatment. Methods for obtaining satisfactory results with high efficacy include increasing fluence or using relatively short wavelengths for enhanced melanin absorption. It is also possible to use shorter pulse widths to more aggressively affect the melanin-saturated epi-

dermis. In Japanese patients with darker skin types, however, careful attention must be paid to balance fluence and other parameters to prevent complications such as thermal burns. In contrast, if fluence is set too low, results may be unsatisfactory.

In the current study, the authors investigated the efficacy of using relatively short wavelengths when the main objective was the improvement of pigmentation. Patients and physicians provided subjective evaluations, and a spectrophotometer was also used

to quantify changes to what is called "baseline skin tone lightening effect." By way of background, there is tremendous demand among Japanese females for a "lightening improvement" of basic skin tone (concurrently referred to as "whitening"). This demand has been clearly demonstrated by the large variety of retail cosmetics offered for sale for whitening improvement.

Japanese basic skin tone varies from fair to dark due to geography and ethnicity, and it is suspected that prolonged exposure to

Photorejuvenation by intense pulsed light with objective measurement of skin color in Japanese patients.

Study design

25 Japanese women with a mean age of 50±9 years (range 31-68), Fitzpatrick Skin Types III-IV, and mild (n=16), moderate (n=6) or severe (n=3) photodamage.

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Results at 3-month follow-up after last treatment:

- 96% of subjects showed Grade B or greater (50-100%) improvement of skin texture
- 64% of subjects showed Grade B or greater (50-100%) improvement of pigmentation
- High patient satisfaction (all patients reported "satisfied" to "extreme satisfaction")

Summary of peer-reviewed articles | Ellipse IPL™

Treatment of Facial Acne Papules and Pustules in Korean Patients Using an Intense Pulsed Light Device Equipped with a 530- to 750-nm Filter

SUNG-EUN CHANG, MD,* SOO-JIN AHN, MD,* DO-YOUNG RHEE, MD,* JEE-HO CHOI, MD,* KEE-CHAN MOON, MD,* HO-SEOK SUH, MD,† AND SOYUN-CHO, MD‡

BACKGROUND A rising number of laser- or light-based therapies are addressing the need for effective acne treatments with minimal downtime.

OBJECTIVE The purpose of this study is to evaluate an intense pulsed light (IPL) equipped with a 530- to 750-nm filter for inflammatory acne treatment.

PATIENTS AND METHODS Thirty female patients (mean age, 25.7 years) with mild-to-moderate acne were enrolled. While using benzoyl peroxide (BP) gel, one side of the face was treated with the PR filter (acne filter) of the IPL.

RESULTS All patients experienced the reduction of inflammatory lesion counts in both sides of face. There was no significant difference between IPL-treated and untreated sides of the face for mean papule plus pustule counts, 3 weeks after three sessions. As to red macules, 63% were good or excellent on the laser-treated side compared to 33% on the untreated side. Improvement of irregular pigmentation and skin tone was detected on the laser-treated side than the untreated side.

CONCLUSION This new wavelength band of IPL system was safe and effective in improving acne red macules, irregular pigmentation, and skin tone but did not affect inflammatory acne lesion counts on the skin of Asian persons.

The authors have indicated no significant interest with commercial supporters.

At our dermatology outpatient clinic, one of the biggest hospitals in Korea, the most common complaint from 1994 to 2005 was acne.^{1,2} Most of the acne patients who sought cosmetic procedures were socially active women often with significant psychological and physical morbidity associated with acne.^{1,2} Acne has been conventionally treated with various topical and oral therapies; however, these might induce significant side effects. Furthermore, Korean patients traditionally refuse oral therapies and want to avoid irritating antiacne topicals.^{1,2} A rising number of laser- or light-based therapies are addressing the need for effective and safe acne treatments with minimal downtime.³⁻⁵ Many patients in our clinic today seek the least invasive treatments possible for improving inflam-

matory acne and the sequelae of acne.² It has been controversial, however, whether dye laser therapy, the most commonly used device for acne treatment, can reduce the number of inflammatory acne lesions.^{6,7} The purpose of this study was to evaluate an intense pulsed light (IPL) system equipped with a 530- to 750-nm filter (IPL, Ellipse Flex, DDD, Horsholm, Denmark)⁸ for treatment of inflammatory acne.

Patients and Methods

Thirty female patients (mean age, 25.7 years; range, 23-32 years) with acne of Grade 2 according to Korean acne grading system⁹ (Table 1) were enrolled. Exclusion criterion was previous oral

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Treatment of facial acne papules and pustules in Korean patients using an intense pulsed light device equipped with a 530- to 750-nm filter.

Study design

30 females (mean age 25.7 years, range 23-32; skin types III-IV) with mild to moderate acne, Grade 2 (Papules 11-30), according to Korean acne grading system.

Results at 3-week follow-up after last treatment:

- All subjects were satisfied with treatment
- 63% of red macules showed good (50-75%) to excellent (>75%) improvement
- 63% of irregular pigmentation and skin tone evaluations showed good (50-75%) to excellent (>75%) improvement

Summary of peer-reviewed articles

| Frax 1550

JOURNAL OF COSMETIC AND LASER THERAPY
2018, VOL. 20, NO. 6, 360-363
https://doi.org/10.1080/14241723.2018.1511915

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Clinical evaluation and in-vivo analysis of the performance of a fractional infrared 1550 nm laser system for skin rejuvenation

W. James Tidwell, Courtney Green, Daniel Jensen, and E. Victor Ross
Department of Dermatology, Scripps Clinic, La Jolla, CA, USA

ABSTRACT
Background: This study was done to demonstrate the safety and efficacy of a novel fractional 1550 nm laser device with a rolling mechanism (FRAX1550 Ellipse Medical, Horsholm, Denmark).
Objectives: To evaluate the effectiveness of the 1550 nm device for improvement in wrinkles, pigmentation, and texture on a six-point (-1 to 4) global improvement scale.
Methods: Five female subjects between the ages of 44 and 71 years, with visible wrinkles and/or dyspigmentation were enrolled in the study. Two full face treatments were performed four weeks apart. Follow-up visits at 1 and 3 months posttreatment were scheduled for photographic assessments. Assessment of improvement were performed by the investigators and two blinded evaluators through use of a six-point scale.
Results: All subjects demonstrated improvement in all monitored parameters. The mean improvement scores were: wrinkles 1.6, skin texture 1.8, and pigmentation 1.7. All score improvements were statistically significant. Biopsy was performed on one patient immediately post-treatment and showed 800 µ penetration depth at a treatment level of 88 mJ and 400 µ at 44 mJ.
Conclusions: The new rolling fractional 1550 nm laser device from this study offers improvement of aging facial skin with short downtime and minimal side effects.

ARTICLE HISTORY
Received 10 April 2018
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KEYWORDS
Fractional laser;
Nonablative laser;
photorejuvenation

Introduction
Human skin aging is characterized by skin laxity, photodamage, appearance of visible lines, and an overall decline in skin texture (1). Skin resurfacing refers to removal and regeneration of the skin resulting in a better organized and "younger" dermal matrix and epidermal normalization. Facial enhancement with minimal risk and rapid recovery has been enhanced by nonsurgical skin rejuvenation. Over the past two decades, laser resurfacing was considered the "gold standard" for the treatment of rhytides and photodamaged facial skin (2). Laser assisted skin resurfacing achieves skin rejuvenation by precise ablation of the skin with subsequent new collagen formation and reepithelialization. High-energy pulsed and/or scanned CO₂ or Er:YAG lasers, which remove skin in a precisely controlled manner, are the established choices (3-5). However, their use, whether fractional or non-fractional, can be associated with a prolonged postoperative recovery period and a significant risk of side effects.
In fractional resurfacing, thermally coagulated microscopic zones of epidermis and dermis, referred to as "micro thermal zones," are spaced in a grid over the skin surface in a controlled, geometric pattern. The uninjured surrounding tissue serves as a reservoir of cells that accelerate and promote safe and rapid healing. These affected zones comprise approximately 15-70% of the skin surface area per treatment session. Fractional non-ablative skin rejuvenation create very little to no disruption of the superficial epidermal later integrity

and therefore are related to a more rapid recovery and lower risk. Although these techniques are associated with minimal down time, their associated degree of improvement appears can be comparable to some fractional ablative lasers or very superficial non-fractional ablative interventions (6).
The Food and Drug Administration (FDA) has cleared several lasers systems with non-ablative fractional resurfacing including the near-infrared fractional laser types at wavelengths of 1320 nm, 1410 nm, 1440 nm, 1540 nm, 1550 nm, and 1927 nm from a variety of laser companies. These devices create microscopic columns of thermal damage between 70 and 430 µ in diameter and induce vertical thermal injuries up to 1.4 mm depth.
This study evaluated a novel 1550 nm fractional laser device (FRAX1550 Ellipse Medical, Horsholm, Denmark) for the treatment of photodamage. Specifically, wrinkle, pigmentation, and texture were evaluated.

Methods
In this open label prospective clinical trial, a fractional 1550 nm laser device was used to evaluate the improvement of facial skin with a fractional hand piece for wrinkles, pigment, and skin texture.
This study was approved by the Scripps Clinic Institutional Review Board. Subjects received two treatments a month apart then were followed up for 3 months. Five subjects were enrolled at the investigational site.

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Clinical evaluation and in-vivo analysis of the performance of a Fractional Infrared 1550 nm Laser System for skin rejuvenation.

Study design

5 female subjects between the ages of 44 and 71 years, with visible wrinkles and/or dyspigmentation.

Results at the 3-month follow-up after last treatment:

- Mean improvement scores were: 1.6 for wrinkles, 1.8 for skin texture, and 1.7 for pigmentation (all statistically significant)
- Treatments were well tolerated (mean pain score of 4.2 on a pain scale from 0 (no pain) to 10 (worst pain possible), and patients noted very little downtime

Don't take our word. Take it from our customers.

"The Nordlys system has been a great breakthrough in laser and light technology. Treatment with submillisecond pulses allows us to make more effective treatments in vascular and pigmentary pathology. Along with the new applicator Frax 1550, this makes a complete platform in solving medical and aesthetic dermatological problems. All this confirms the commitment of the development team to implement technological solutions always with the advice of dermatologists."

- Vicent Alonso, M.D. Cosmetic Dermatologist,
Godelia, Spain

"Nordlys is one of the best engineered systems on the market. Nordlys has further advanced their innovative Ellipse IPL with selective waveband technology and Nd:YAG platform to treat even more conditions effectively, quickly, and efficiently. The novel Frax 1550 laser device offers important improvements of aging facial skin with short downtime and minimal side effects."

- E. Victor Ross, M.D. Director of the Scripps Clinic Laser and Cosmetic Dermatology Center
San Diego, USA

Product Specification

3 foundational technologies for your practice

“Nordlys is the first IPL system to deliver a pulse as short as 0.5 ms. Using the Ellipse IPL selective waveband technology, only wavelengths that are beneficial to treatment of the target chromophores are used. Since wavelengths that mainly heat up tissue water are excluded, there is normally no need to protect the epidermis by surface cooling.”

- Prof. Peter Bjerring, Dermatologist, Vejle, Denmark

“As a physician who utilizes the Ellipse IPL platform and considers it a foundational technology for all dermatology practices, I am pleased that Candela can now offer the full spectrum of light, laser and energy-based solutions to physicians and patients worldwide.”

- Jill Waibel, M.D, Board-Certified Dermatologist and Medical Director/Founder of Miami Dermatology and Laser Institute in Miami Florida, USA

“The combination of IPL and Nd YAG 1064nm laser covers most of the dermatologic disorders that a general dermatologist would treat in day-to-day practice. This is why we selected the Nordlys and we are extremely happy with its performance, speed of operation and reliability.”

- Brian De'Ambrosis, M.D. Dermatologist, Canna Heights Australia

NORDLYS APPLICATOR SPECIFICATIONS		
ELLIPSE IPL		
Type/Wavelength Band	HRD 645 (645-950 nm) HR/HRL 600 (600-950 nm) VL/VLS 555 (555-950 nm)	PR/PRS 530 (530-750 nm) PL 400 (400-720 nm)
Fluence Range	2-26 J/cm ²	
Pulse Time	0.5-99.5 ms (depending on applicator)	
Pulse Delay	1.5-99.55 ms	
Number of Pulses	1-4	
Duration of Pulse Train	0.5-700 ms	
Spot Size	HR 600, HRD 645, VL 555, PR 530, PL 400 10 mm x 48 mm	HRL 600 18 mm x 48 mm VLS 555, PRS 530 Hexagonal: 90 mm ²
	FRAX 1550	ND:YAG 1064
Laser Wavelength	1550 nm	1064 nm
Fluence Range/Energy	5-100 mJ	20-500 J/cm ² 6-40 J/cm ² (onychomycosis)
Pulse Duration	1-20 ms	2.5-90 ms 0.3-0.9 ms (onychomycosis)
Scan Width/Spot Sizes	4-12 mm	1.5-5.0 mm
Skin Cooling	SoftCool Integrated Air Cooling	
Aiming Beam	650 nm	
Cable	3.2 m with flexible joint for user comfort	

NORDLYS PRODUCT SPECIFICATIONS	
FEATURES	
Technologies	Ellipse IPL, Frax 1550, Nd:YAG 1064
Connectors	2
Touch Screen	10"
Remote Assistance	Yes
Accessories Tray	Yes
Patient Database	Yes
Guided Treatment	Yes: select treatment, skin type, suntan, hair thickness, vessel size
User Modes	Guided, Expert, and optional Pulse Definition modes
CONSOLE SPECIFICATIONS	
Dimensions (D x W x H)	20" x 25.6" x 45" (51 cm x 65 cm x 115 cm)
Weight	128 lbs (58 kg)
Electrical Input	Version I: 100-120 VAC Version II: 200-240 VAC
Frequency	50/60 Hz
Maximum Power Consumption	Version I: 1300 VA Version II: 2000 VA





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