BlueCross BlueShield of Alabama

Name of Blue Advantage Policy:

Nonpharmacologic Treatment of Rosacea

Policy #: 166
Latest Review Date: January 2024
Category: Surgery

BACKGROUND:

Blue Advantage *medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:*

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*
   - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
   - *Furnished in a setting appropriate to the patient's medical needs and condition;*
   - *Ordered and furnished by qualified personnel;*
   - *One that meets, but does not exceed, the patient's medical need; and*
   - *At least as beneficial as an existing and available medically appropriate alternative.*

In accordance with Title XVIII of the Social Security Act, Section 1862 (a)(10) cosmetic surgery or expenses incurred in connection with such surgery is not covered except as required for the prompt repair of accidental injury or for improvement of the functioning of a malformed body member.

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill* ***Original Medicare* *for covered services that are related to* ***clinical trials*** *that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Blue Advantage will treat **laser/light therapy for the treatment of rosacea-associated telangiectasias** as a **covered** benefit when **ALL** of the following criteria are met:

- Must have clinical documentation of diagnosis of at least Subtype II (which is characterized by persistent central facial flushing, transient papules and/or pustules and telangiectasias). These telangiectasias must be coarse versus fine or a 3 out of 0-3. The primary feature should be ranked as severe telangiectasias per the Primary Features by the National Rosacea Society Clinical Scorecard.
- There must be clinical documentation of prior treatment, such as but not limited to metronidazole, and response to each treatment, to include the length of time treatment was used.
- Photos must document the presence of the disorder and be submitted for review along with the clinical documentation as listed above.

Blue Advantage will treat **laser/light therapy or surgical planing of rosacea associated rhinophyma** as a **covered** benefit when **ALL** of the following criteria are met:

- Must have diagnosis of **advanced** rosacea
- Documentation of treatment, such as but not limited to metronidazole, and response to treatments
- Photographs must document presence of disorder

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Rosacea is a chronic, inflammatory skin condition without a known cure; the goal of treatment is symptom management. Nonpharmacologic treatments, including laser and light therapy as well as dermabrasion, which are the focus of this evidence review, are proposed for individuals who do not want to use or are unresponsive to pharmacologic therapy.

Rosacea

Rosacea is characterized by episodic erythema, edema, papules, pustules, and telangiectasia that occur primarily on the face but also present on the scalp, ears, neck, chest, and back. On occasion, rosacea may affect the eyes. Individuals with rosacea have a tendency to flush or blush easily. Because rosacea causes facial swelling and redness, it is easily confused with other skin conditions such as acne, skin allergy, and sunburn.

Rosacea affects mostly adults with fair skin between the ages of twenty and sixty years and is more common in women, but often most severe in men. Rosacea is not life-threatening, but if not treated, it may lead to persistent erythema, telangiectasias, and rhinophyma (hyperplasia and nodular swelling and congestion of the skin of the nose). The etiology and pathogenesis of rosacea is unknown but may be a result of both genetic and environmental factors. Some of the theories as to the causes of rosacea include blood vessel disorders, chronic Helicobacter pylori infection, demodex folliculorum (mites), and immune system disorders.

While the clinical manifestations of rosacea do not usually impact the physical health status of the individual, there may be psychological consequences from the most visually apparent symptoms (i.e., erythema, papules, pustules, telangiectasias) may impact the quality of life. Rhinophyma, an end-stage form of chronic acne, has been associated with obstruction of nasal passages and basal cell carcinoma in rare, severe cases. The probability of developing nasal obstruction or basal or squamous cell carcinoma with rosacea is not sufficient to warrant the preventive removal of rhinophymatous tissue.

Wilkin, et al, in 2002 published in the Journal of the American Academy of Dermatology the standard classification of rosacea. This classification includes four subtypes:

Subtype 1: Erythematotelangiectatic rosacea- characterized by flushing and persistent central facial erythema with or without telangiectasia.

Subtype 2: Papulopustular rosacea- characterized by persistent central facial erythema with transient, central facial papules, pustules or both, this subtype may be seen after or in combination with subtype 1, including the presence of telangiectases.

Subtype 3: Phymatous rosacea- characterized by thickening skin, irregular surface nodularities and enlargement that may occur on the nose, chin, forehead, cheeks or ears. May also be seen after or in combination with subtypes 1 or 2.

Subtype 4: Ocular rosacea- characterized by foreign body sensation in the eye, burning or stinging, dryness, itching, ocular photosensitivity, blurred vision, telangiectasia of the sclera or other parts of the eye, or periorbital edema. May also be seen with cutaneous signs and symptoms of rosacea.

Granulomatous rosacea is characterized by non-inflammatory; hard; brown, yellow, or red cutaneous papules; or nodules of uniform size and may occur in locations other than those in which the phymas are observed. Each subtype includes the fewest signs sufficient to make a diagnosis of the subtype.

Wilkin, et al, also authored a report supported by the National Rosacea Society in 2004 to develop a standard grading system for rosacea. Primary signs and symptoms may be graded as absent, mild, moderate, or severe (0-3) and most secondary features may be graded as absent or present. Nasal and malar telangiectases should be identified independently, and be qualitatively described as fine and threadlike to coarse.

A Rosacea Clinical Scorecard has been developed by the National Rosacea Society and may be accessed or viewed at www.rosacea.org.

Treatment
Rosacea treatment can be effective in relieving signs and symptoms. Treatment may include oral and topical antibiotics, isotretinoin, ß-blockers, alpha2-adrenergic agonists (e.g., oxymetazoline, clonidine), and anti-inflammatories. Individuals are also instructed on various self-care measures such as avoiding skin irritants and dietary items thought to exacerbate acute flare-ups.

Treatment is encouraged early following diagnosis. Avoidance of trigger factors is the initial therapeutic step. Oral antibiotics, such as tetracycline, doxycycline (Vibramycin), and metronidazole (Flagyl) are used to treat the papulopustular rosacea. Topical metronidazole (MetroCream or MetroGel) is also effective, however, some individuals complain of burning and stinging. Topical clindamycin may be used as an alternative. Oral tetracycline and doxycycline have been shown to effectively control the ocular symptoms of rosacea.

Second-line therapy may be necessary when antibiotics are not completely successful such as oral isotretinoin (Accutane) or topical tretinoin (Retin-A). Other items used as second-line may be trimethoprim-sulfamethoxazole (Bactrim, Septra) methotrexate, dapsone, primaquine, chloroquine (Aralen) and oral prednisone.

Treatment of telangiectasias is one of the most difficult problems associated with rosacea. Use of a pulsed dye laser (PDL) may be effective in advanced cases. Facial telangiectasis is also amenable to pulsed light sources. The PDL was initially developed to treat port-wine stains and has also become the treatment of choice for many acquired vascular lesions including telangiectasias. Pulses must not be overlapped by more than 10% to reduce the risk of scarring and textural changes. PhotoDerm® VL is an intense pulsed light source that emits light at variable pulse durations, intervals and wavelengths. PhotoDerm® PL also is a non-invasive medical system that uses light therapy for skin treatment. The VersaPulse® laser provides four different wavelengths in a single machine and can be used to treat facial telangiectasias and port-wine stains. Rothfleisch et al reported in an article of a study by Lowe et al that twenty-four of twenty-seven individuals had good to excellent results of reduction of telangiectasia, erythema and overall appearance with 1 to 3 treatments with the PDL. Papules and pustules were decreased in 59% of the individuals and no side effects. Many of the individuals with clinical improvement were also able to reduce the dosage of topical or systemic antibiotic therapy. Jasim et al reported on twelve individuals with rosacea-associated telangiectasia and received pulsed dye laser treatment. After 1 treatment, 9 of 12 individuals had at least 25% improvement in their rosacea-associated telangiectasia.

The American Academy of Dermatology in their Academy Guidelines of Care for Laser Surgery lists facial and truncal telangiectases with a source of rosacea to be responsive to continuous and quasi-continuous-wave laser treatment, pulsed lasers and pulsed light sources. Pulsed and scanned carbon-dioxide (CO2) lasers are effective for rhinophyma as well.

Nonpharmacologic therapy has also been tried in individuals who cannot tolerate or do not want to use pharmacologic treatments. To reduce visible blood vessels, treat rhinophyma, reduce

redness, and improve appearance, various techniques have been used such as laser and light therapy, dermabrasion, chemical peels, surgical debulking, and electrosurgery. Various lasers used include low-powered electrical devices and vascular light lasers to remove telangiectasias, carbon dioxide lasers to remove unwanted tissue from rhinophyma and reshape the nose, and intense pulsed lights that generate multiple wavelengths to treat a broader spectrum of tissue.

Summary of Evidence
For individuals who have rosacea who receive nonpharmacologic treatment (e.g., laser therapy, light therapy, dermabrasion), the evidence includes systematic reviews and several small randomized, split-face design trials. Relevant outcomes are symptoms, change in disease status, and treatment-related morbidity. The systematic reviews reported favorable effects on erythema and telangiectasia with several laser types, including IPL, pulsed dye lasers, and Nd:YAG lasers. However, the systematic reviews did not pool results from individual studies and the studies differed in the specific lasers being compared. Overall the systematic review results were insufficient to establish whether any laser type is more effective and safe than others. The RCTs evaluated laser and light therapy. One RCT compared combination laser and pharmacologic therapy with pharmacologic therapy alone and 2 RCTs compared combination laser and pharmacologic therapy with laser therapy alone, but the lack of an arm evaluating laser therapy alone against established pharmacologic therapy does not allow a direct assessment on the efficacy of laser or light treatment compared with alternative treatments. No trials assessing other nonpharmacologic treatments were identified. There is a need for RCTs that compare nonpharmacologic treatments with placebo controls and with pharmacologic treatments. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

KEY POINTS:
The most recent literature review was performed through October 16, 2023.

Practice Guidelines and Position Statements
American Acne and Rosacea Society
In 2014, the American Acne and Rosacea Society issued consensus recommendations on the management of rosacea. They stated that lasers and intense pulsed light (IPL) devices can improve certain clinical manifestations of rosacea that have not responded to medical therapy. The recommendations indicated that these therapies will need to be repeated intermittently to sustain improvement.

In 2016, the American Acne and Rosacea Society issued updated consensus recommendations on the management of rosacea. The update focused on how medical and device therapies are used--whether concurrently or in a staggered fashion--noting that there is a lack of evidence to justify either use. The Society's consensus recommendation on rosacea management correlated with clinical manifestations observed at the time of presentation are summarized in Table 1.

Table 1. Recommendations on Use of Lasers and Intensely Pulse Light Devices for the Management of Rosacea

Condition	Recommendation	Grade [a]
Persistent central facial erythema without papulopustular lesions	IPL, potassium titanyl crystal laser, or pulsed-dye laser	B
Diffuse central facial erythema with papulopustular lesions	"While the data on the use of IPL, potassium titanyl phosphate or pulsed-dye laser are limited for papulopustular lesions, these options are useful to treat erythema"	NR
Granulomatous rosacea	• Intense pulsed-dye laser • "No current standard of treatment; limited data based on case reports"	C
Phymatous Rosacea	• "Surgical therapy for fully developed phymatous changed (carbon dioxide laser, erbium-doped [YAG] laser, electrosurgery, dermabrasion)" • "Treatment selection dependent on stage of development (early or fibrotic) and extent of inflammation (active or burnt out)"	C

IPL: intense pulsed light, YAG: yttrium aluminum garnet; NR: not reported.

[a] Grade A: Criteria not described in recommendation; Grade B: Systematic review/meta-analysis of lower-quality clinical trials or studies with limitations and inconsistent findings; lower-quality clinical trial; Grade C: Consensus guidelines; usual practice, expert opinion, case series—limited trial data

Rosacea Consensus Panel

In 2017, the Rosacea Consensus panel, comprised of international experts including representatives from the United States, published recommendations for rosacea treatment, comprised of international experts including representatives from the United States, published recommendations for rosacea treatment. The panel agreed that treatments should be based on phenotype. IPL and pulsed dye laser were recommended for persistent erythema, but not for transient erythema. Intense pulsed light and lasers were also recommended for telangiectasia rosacea.

In 2019, the panel updated its recommendations on rosacea treatment, agreeing that lasers were recommended for persistent centrofacial erythema. They also noted that the "use of IPL and vascular lasers in darker skin phototypes requires consideration by a healthcare provider with

experience…, as it can result in dyspigmentation." The panel also acknowledged that combining treatments could benefit individuals with more severe rosacea and multiple rosacea features; however "there remains an ongoing need for more studies to support combination treatment use in rosacea."

National Rosacea Society
In 2019, the National Rosacea Society Executive Committee published an expert consensus document on management options for rosacea, This document endorses treatment goals of an Investigator Global Assessment score of 0 and normalization of skin tone and color due to the notable impact of rosacea on patient quality of life. Light devices are discussed as treatment options along with medications, skin care, and lifestyle interventions. Based on weak evidence, IPL, pulsed dye lasers, and potassium titanyl phosphate lasers are listed as moderately effective treatment options for persistent erythema, particularly due to telangiectasia. Both IPL and potassium titanyl phosphate are described as having at least some efficacy for flushing. Nonpharmacologic interventions that are listed as more highly effective treatment options for non-inflamed phymas (based on weak evidence) include carbon dioxide lasers, erbium lasers, cold steel, electrosurgery, and radiofrequency; these same interventions are listed for use in combination with other treatment modalities for inflammatory phymas. Carbon dioxide lasers, erbium lasers, cold steel, electrosurgery, and radiofrequency carry a risk of post-inflammatory hyperpigmentation and should only be provided by appropriately trained individuals.

Us Preventive Services Task Force Recommendations:
Not applicable.

KEY WORDS:
Rosacea, Telangiectasias, rhinophyma, pulse dye laser, PhotoDerm, pulsed light source, intense pulse light source, VersaPulse®, Candela®, Lumenis®, Harmony® XL, UV-300 Pulsed Light Therapy System, CoolTouch PRIMA Pulsed Light Therapy System, Vbeam laser system, Stellar M22™, excel VT®, excel V®, and xeo® laser systems, Cutera, Harmony® XL, Harmony® XL multiapplication platform laser device, Alma Lasers, Israel

APPROVED BY GOVERNING BODIES:
Several laser and light therapy systems have been cleared for marketing by FDA through the 501(k) process for a variety of dermatologic indications, including rosacea. For example, rosacea is among the indications for:

- Vbeam laser system (Candela);
- Stellar M22™ laser system (Lumenis);
- excel VT®, excel V®, and xeo® laser systems (Cutera);
- Harmony® XL multiapplication platform laser device (Alma Lasers, Israel);
- UV-300 Pulsed Light Therapy System (New Star Lasers);
- CoolTouch® PRIMA Pulsed Light Therapy System (New Star Lasers).

BENEFIT APPLICATION:
Coverage is subject to the member's specific benefits. Group-specific policy will supersede this policy when applicable.

CURRENT CODING:
CPT code:

17106	Destruction of cutaneous vascular proliferative lesions (e.g., laser technique); less than 10 sq cm
17107	;10.0 to 50.0 sq cm
17108	;over 50.0 sq cm

REFERENCES:

1. Alam, et al. Comparative effectiveness of nonpurpuragenic 595-nm pulsed dye laser and microsecond 1064-nm neodymium:yttrium-aluminum-garnet laser for treatment of diffuse facial erythema: A double-blind randomized controlled trial. J Am Acad Dermatol 2013; 69(3):438-443.
2. American Academy of Dermatology. Lasers and lights: How well do they treat rosacea? 2023; www.aad.org/rosacea-lasers-lights.
3. American Academy of Dermatology. Photodynamic therapy sheds light on treatment of acne, rosacea and sun damage. www.aad.org/pressreleases/photodynamic_therapy_nester.html.
4. Barbarino, et al. Integrative skincare trial of intense pulsed light followed by the phyto-corrective mask, phyto-corrective gel, and resveratrol BE for decreasing post-procedure downtime and improving procedure outcomes in patients with rosacea. J Cosmet Dermatol. Sep 2022; 21(9): 3759-3767.
5. Campos, et al. Comparative effectiveness of purpuragenic 595 nm pulsed dye laser versus sequentialemission of 595 nm pulsed dye laser and 1,064 nm Nd:YAG laser: a double-blind randomized controlled study. ActaDermatovenerol Alp Pannonica Adriat. Mar 2019; 28(1): 1-5.
6. Chang HC, Chang YS. Pulsed dye laser versus intense pulsed light for facial erythema of rosacea: a systematic review and meta-analysis. J Dermatolog Treat. Jun 2022; 33(4): 2394-2396.
7. Del Rosso, et al. Update on the Management of Rosacea from the American Acne & Rosacea Society (AARS). J Clin Aesthet Dermatol. 2019;12(6):17-24.
8. Fabi S, Peterson J, Goldman M. Combination 15% azelaic acid gel and intense pulse light therapy for mild to moderate rosacea. Lasers Surg Med 2011;43:9689.

9. Friedmann, et al. The effect of multiple sequential light sources to activate aminolevulinic Acid in the treatment of actinic keratoses: a retrospective study. J Clin Aesthet Dermatol. Sep 2014; 7(9): 20-5.
10. Handler MZ, Bloom BS, Goldberg DJ. IPL vs PDL in treatment of facial erythema: A split-face study. J Cosmet Dermatol. Dec 2017; 16(4): 450-453.
11. Huang YE, Li XL, Li TJ. [Clinical research of topical tacrolimus ointment combined with 585 nm pulsed dye laser in the treatment of rosacea]. J Clinical Dermatol 2012; 41:3089.
12. Husein-ElAhmed H, Steinhoff M. Light-based therapies in the management of rosacea: a systematic review with meta-analysis. Int J Dermatol. Feb 2022; 61(2): 216-225.
13. IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.
14. Karsai S, Roos S, Raulin C. Treatment of facial telangiectasia using a dual-wavelength laser system (595 and 1,064 nm): a randomized controlled trial with blinded response evaluation. Dermatol Surg. May 2008; 34(5): 702-8.
15. Kim, et al. Comparative Efficacy of Radiofrequency and Pulsed Dye Laser in the Treatment of Rosacea. Dermatol Surg. Feb 2017; 43(2): 204-209.
16. Kim, et al. Enhancing effect of pretreatment with topical niacin in the treatment of rosacea-associated erythema by 585-nm pulsed dye laser in Koreans: a randomized, prospective, split-face trial. Br J Dermatol. Mar 2011; 164(3): 573-579.
17. Kwon, et al. Comparison of efficacy between long-pulsed Nd:YAG laser and pulsed dye laser to treat rosacea-associated nasal telangiectasia. J Cosmet Laser Ther. Oct 2018; 20(5): 260-264.
18. Lane JE, Khachemoune A. Use of intense pulsed light to treat refractory granulomatous rosacea. Dermatol Surg. Apr 2010; 36(4): 571-573.
19. Mark KA, Sparacio RM, Voigt A, et al. Objective and quantitative improvement of rosacea-associated erythema after intense pulsed light treatment. Dermatol Surg. Jun 2003; 29(6): 600-604. Maxwell E, Ellis DA, Manis H. Acne rosacea: effectiveness of 532 nm laser on the cosmetic appearance of the skin. J Otolaryngol Head Neck Surg 2010; 39(3):292-296.
20. Maxwell EL, Ellis DA, Manis H. Acne rosacea: effectiveness of 532 nm laser on the cosmetic appearance of the skin. J Otolaryngol Head Neck Surg Jun 2010; 39(3):292-296.
21. National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS). Rosacea. 2021;www.niams.nih.gov/Health_Info/Rosacea/default.asp.
22. Neuhaus IM, Zane LT, Tope WD. Comparative efficacy of nonpurpuragenic pulsed dye laser and intense pulsed light for erythematotelangiectatic rosacea. Dermatol Surg. Jun 2009; 35(6): 920-8.
23. Nymann P, Hedelund L, Haedersdal M. Long-pulsed dye laser vs. intense pulsed light for the treatment of facial telangiectasias: a randomized controlled trial. J Eur Acad Dermatol Venereol. Feb 2010; 24(2): 143-6.
24. Papageorgiou, et al. Treatment of rosacea with intense pulsed light: significant improvement and long-lasting results. Br J Dermatol. Sep 2008; 159(3): 628-632.

25. Osman, et al. Pulsed dye laser alone versus its combination with topical ivermectin 1% in treatment of Rosacea: a randomized comparative study. J Dermatolog Treat. Feb 2022; 33(1): 184-190.
26. Park, et al. A randomized split-face comparative study of long-pulsed alexandrite plus low-fluence Nd:YAG laser versus pulsed-dye laser in the treatment of rosacea. Lasers Surg Med. Nov 2022; 54(9): 1217-1225.
27. Salem, et al. Neodymium-yttrium aluminum garnet laser versus pulsed dye laser in erythemato-telangiectatic rosacea: comparison of clinical efficacy and effect on cutaneous substance (P) expression. J Cosmet Dermatol Sept 2013; 12(3):187-194.
28. Schaller, et al. Recommendations for rosacea diagnosis, classification and management: updatefrom the global Rosacea Consensus 2019 panel. Br J Dermatol. May 2020; 182(5): 1269-1276
29. Schaller, et al. Rosacea treatment update: recommendations from the global ROSacea COnsensus (ROSCO) panel. Br J Dermatol. Feb 2017;176(2):465-471.
30. Schroeter CA, Haaf-von Below S, Neumann HA. Effective treatment of rosacea using intense pulsed light systems. Dermatol Surg. Oct 2005; 31(10): 1285-1289.
31. Seo, et al. Prospective Comparison of Dual Wavelength Long-Pulsed 755-nm Alexandrite/1,064-nm Neodymium:Yttrium-Aluminum-Garnet Laser versus 585-nm Pulsed Dye Laser Treatment for Rosacea. Ann Dermatol. Oct 2016; 28(5): 607-614.
32. Sodha, et al. A Randomized Controlled Pilot Study: Combined 595-nm Pulsed Dye Laser Treatment and Oxymetazoline Hydrochloride Topical Cream Superior to Oxymetazoline Hydrochloride Cream for Erythematotelangiectatic Rosacea. Lasers Surg Med. Dec 2021; 53(10): 1307-1315.
33. Tanghetti EA. Split-face randomized treatment of facial telangiectasia comparing pulsed dye laser and an intense pulsed light handpiece. Lasers Surg Med. Feb 2012; 44(2): 97-102.
34. Taub AF. Treatment of rosacea with intense pulsed light. J Drugs Dermatol. Jun 2003; 2(3): 254-259.
35. Thiboutot D, et al. Standard management options for rosacea: The 2019 update by the NationalRosacea Society Expert Committee. J Am Acad Dermatol. Jun 2020; 82(6): 1501-1510.
36. Tirico, et al. Short pulse intense pulsed light versus pulsed dye laser for the treatment of facialredness. J Cosmet Laser Ther. Feb 17 2020; 22(2): 60-64.
37. Tong, et al. A randomized, controlled, split-face study of botulinum toxin and broadband light for the treatment of erythematotelangiectatic rosacea. Dermatol Ther. May 2022; 35(5): e15395.
38. van Zuuren, et al. Interventions for rosacea based on the phenotype approach: an updated systematic review including GRADE assessments. Br J Dermatol. Jul 2019; 181(1): 65-79.
39. van Zuuren, et al. Interventions for rosacea. Cochrane Database Syst Rev 2015 Apr 28;2015(4): CD003262.

40. Wat, et al. Application of intense pulsed light in the treatment of dermatologic disease: a systematic review. Dermatol Surg. Apr 2014; 40(4):359-377.
41. West TB, Alster TS. Comparison of the long-pulse dye (590-595 nm) and KTP (532 nm) lasers in the treatment of facial and leg telangiectasias. Dermatol Surg. Feb 1998; 24(2): 221-226.

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Medical Policy Group, January 2015
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Medical Policy Group, December 2016
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