



Kansas City

An Independent Licensee of the Blue Cross and Blue Shield Association

## Chemical Peels

**Policy Number:** 8.01.16  
**Origination:** 11/2015

**Last Review:** 11/2023  
**Next Review:** 11/2024

Blue KC has developed medical policies that serve as one of the sets of guidelines for coverage decisions. Benefit plans vary in coverage and some plans may not provide coverage for certain services discussed in the medical policies. Coverage decisions are subject to all terms and conditions of the applicable benefit plan, including specific exclusions and limitations, and to applicable state and/or federal law. Medical policy does not constitute plan authorization, nor is it an explanation of benefits.

When reviewing for a Medicare beneficiary, guidance from National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) supersede the Medical Policies of Blue KC. Blue KC Medical Policies are used in the absence of guidance from an NCD or LCD.

NCDs

<https://www.cms.gov/medicare-coverage-database/search-results.aspx?keyword=&keywordType=starts&areaId=s29&docType=NCD&contractOption=all>

LCDs

<https://www.cms.gov/medicare-coverage-database/search-results.aspx?keyword=&keywordType=starts&areaId=s29&docType=F,P&contractOption=all>

### **Policy**

Blue Cross and Blue Shield of Kansas City (Blue KC) will provide coverage for Chemical Peels when it is determined to be medically necessary because the criteria shown below are met.

Note: This is a procedure that may be excluded in some contracts. Verify benefits prior to review for Medical Necessity.

### **When Policy Topic is covered**

Dermal chemical peels used to treat patients with numerous (>10) actinic keratoses or other premalignant skin lesions, such that treatment of the individual lesions becomes impractical, may be considered **medically necessary**.

Epidermal chemical peels used to treat patients with active acne that has failed a trial of topical and/or oral antibiotic acne therapy are considered **medically necessary**. In this setting, superficial chemical peels with 40% to 70% alpha hydroxy acids are used as a comedolytic therapy. (Alpha hydroxy acids can also be used in lower concentrations [8%] without the supervision of a physician.)

### **When Policy Topic is not covered**

Epidermal chemical peels used to treat photoaged skin, wrinkles, or acne scarring or dermal peels used to treat end-state acne scarring are considered **cosmetic**.

### **Considerations**

Requests for all chemical peels should be carefully evaluated to determine whether the rationale is primarily cosmetic. Epidermal peels would be considered medically necessary in patients with active acne who have failed other therapy because active severe acne may lead to acne scarring and may be psychologically painful leading to low self-esteem, depression, and anxiety. Dermal peels would be considered medically necessary in patients with multiple actinic keratoses because these premalignant lesions may warrant destruction or removal as an alternative to watchful waiting. Other applications of chemical peels, including treatment of photoaged skin, wrinkles, and acne scarring, are considered cosmetic.

### **Description of Procedure or Service**

| <b>Populations</b>   | <b>Interventions</b>  | <b>Comparators</b>  | <b>Outcomes</b>  |
|--|---|---|--|
| Individuals: <ul style="list-style-type: none"> <li>▪ With actinic keratoses</li> </ul>              | Interventions of interest are: <ul style="list-style-type: none"> <li>▪ Dermal chemical peels</li> </ul>    | Comparators of interest are: <ul style="list-style-type: none"> <li>▪ Watchful waiting</li> <li>▪ Topical or oral medications</li> <li>▪ Photodynamic therapy</li> <li>▪ Cryosurgery</li> <li>▪ Surgical resection</li> </ul> | Relevant outcomes include: <ul style="list-style-type: none"> <li>▪ Symptoms</li> <li>▪ Morbid events</li> <li>▪ Quality of life</li> <li>▪ Treatment-related morbidity</li> </ul> |
| Individuals: <ul style="list-style-type: none"> <li>▪ With moderate-to-severe active acne</li> </ul> | Interventions of interest are: <ul style="list-style-type: none"> <li>▪ Epidermal chemical peels</li> </ul> | Comparators of interest are: <ul style="list-style-type: none"> <li>▪ Topical or oral medications</li> </ul>  | Relevant outcomes include: <ul style="list-style-type: none"> <li>▪ Symptoms</li> <li>▪ Morbid events</li> <li>▪ Quality of life</li> <li>▪ Treatment-related morbidity</li> </ul> |

A chemical peel is a controlled removal of various layers of the skin with the use of a chemical agent. The most common use for chemical peeling is the treatment of photoaged skin. Chemical peeling has also been used for other conditions, including actinic keratoses, active acne, and acne scarring.

For individuals who have actinic keratoses who receive dermal chemical peels, the evidence consists of a systematic review involving 8 studies - 4 randomized controlled trials (RCTs), 2 non-randomized controlled trials, and 2 single-arm studies. Relevant outcomes are symptoms, morbid events, quality of life, and

treatment-related morbidity. Data analysis and interpretation of results were challenged by the high risk of bias of the primary studies, their imprecision, the variability of their peeling application protocols, and their focus on short-term clearance rates. Additional controlled studies, preferably randomized, are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcomes.

For individuals who have moderate-to-severe active acne who receive epidermal chemical peels, the evidence includes an RCT. Relevant outcomes are symptoms, morbid events, quality of life, and treatment-related morbidity. Results from the single, small, randomized, placebo-controlled, split-faced trial found greater efficacy with active treatment than with placebo. However, no studies were identified comparing chemical peel agents with conventional acne treatment. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### **Additional Information**

Clinical input obtained in 2010 supported the use of chemical peels for treating multiple actinic keratoses.

Clinical input obtained in 2010 supported the use of chemical peels as second-line treatment of active moderate-to-severe acne.

## **Background**

### **Chemical Peels**

Chemical peels involve a controlled partial-thickness removal of the epidermis and the outer dermis. When skin is regenerated, a 2- to 3-mm band of dense, compact collagen is formed between the epidermis and the damaged layers of the dermis, resulting in the ablation of fine wrinkles and a reduction in pigmentation. These changes can be long-term, lasting 15 to 20 years and may be permanent in some individuals. Potential local complications include scarring, infection, hypopigmentation, hyperpigmentation, activation of herpes simplex, and toxic shock syndrome.<sup>1</sup>

### **Types of Peels**

Chemical peels are often categorized by the depth of the peel: categories include superficial, medium-depth, and deep chemical peels. The precise depth of the peel depends on the concentration of the agent used, the duration of the application, and the number of applications. Possible indications for each type of peel and common chemicals used, as described by Cummings et al (2005)<sup>2</sup>, and others, is as follows.

### **Superficial Peels**

Superficial peels (epidermal peels) affect the epidermis and the interface of the dermis-epidermis. This depth is considered appropriate for treating mild photoaging, melasma, comedonal acne, and postinflammatory erythema. Common chemical agents used for superficial peels include low concentrations of glycolic acid, 10% to 20% trichloroacetic acid (TCA), Jessner solution (a mixture of

resorcinol, salicylic acid, lactic acid, and ethanol), tretinoin, and salicylic acid. As part of the treatment process, superficial peels generally cause mild erythema and desquamation, and healing time ranges from 1 to 4 days, depending on the strength of the chemical agent. With superficial peels, patients often undergo multiple sessions, generally, 6 to 8 peels performed weekly or biweekly.

### **Medium-Depth Peels**

Medium-depth peels (dermal peels) extend into the epidermis to the papillary dermis. They are used for moderate photoaging, actinic keratoses, pigmentary dyschromias, and mild acne scarring. In the past, 50% TCA was a common chemical agent for medium-depth peels, but its use has decreased due to high rates of complications (eg, pigmentary changes, scarring). Currently, the most frequently used agent is a combination of 35% TCA with Jessner solution or 70% glycolic acid. Phenol 88% alone is also used for medium-depth peels. The healing process involves mild-to-moderate edema, followed by the appearance of new, erythematous epithelium. Individuals are advised to wait at least 3 months before resuming skincare services (eg, superficial chemical peels) and repeat medium-depth chemical peels should not be performed for at least 1 year.

### **Deep Peels**

Deep chemical peels (another type of dermal peel) penetrate the mid-reticular dermis and have been used for patients with severe photodamage, premalignant skin neoplasms, acne scars, and dyschromias. The most common chemical agent used is Baker solution (which consists of 3 mL of 88% phenol, 8 drops of hexachlorophene [Septisol], 3 drops of croton oil, 2 mL of distilled water). The same depth can be achieved using 50% or greater TCA peel; however, the latter has a higher risk of scarring and pigmentation problems. Phenol is cardiotoxic, and patients must be screened for cardiac arrhythmias or medications that could potentially precipitate an arrhythmia. Phenol can also have renal and hepatic toxicities.

The likelihood and potential severity of adverse events increase as the strength of the chemicals and the depth of peels increases. With deep chemical peels, there is the potential for long-term pigmentary disturbances (ie, areas of hypopigmentation), and selection of individuals willing to always wear makeup is advised. Moreover, chemical peels reduce melanin protection, so patients must use protective sunscreen for 9 to 12 months after a medium- to deep-facial peel.

### **Applications**

Chemical peels are a potential treatment option for actinic keratoses and moderate-to-severe acne. Actinic keratoses are common skin lesions associated with extended exposure to the sun, with an estimated prevalence in the U.S. of 11% to 26%.<sup>3</sup> These lesions are generally considered to be a precursor of squamous cell carcinoma.<sup>4</sup> The risk of progression to invasive squamous cell carcinoma is unclear, but estimates vary from 0.1% to 20%.<sup>3</sup> For patients with multiple actinic keratoses, the risk of developing invasive squamous cell carcinoma is estimated as being between 0.15% and 80%. Treatment options include watchful waiting, medication treatment, cryosurgery, and surgical resection.

Acne vulgaris is the most common skin condition among adolescents, affecting an estimated 80% of teenagers aged 13 to 18 years old.<sup>5</sup> Acne, particularly moderate-to-severe manifestations, can cause psychologic distress including low self-esteem, depression, and anxiety. There are a variety of oral and topical treatments for acne.

### **Regulatory Status**

U.S. Food and Drug Administration (FDA) clearance or approval of chemical agents used in peeling may not be relevant because these agents are prepared in-office, may have predated FDA approval, and/or may be considered cosmetic ingredients.

### **Rationale**

---

The evidence review was created in April 1998. It has been updated regularly with searches of the PubMed database. The most recent literature update was performed through September 19, 2022.

Evidence reviews assess the clinical evidence to determine whether the use of technology improves the net health outcome. Broadly defined, health outcomes are the length of life, quality of life (QOL), and ability to function, including benefits and harms. Every clinical condition has specific outcomes that are important to patients and managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of technology, 2 domains are examined: the relevance, and quality and credibility. To be relevant, studies must represent 1 or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. RCTs are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

### **Actinic Keratoses**

#### **Clinical Context and Therapy Purpose**

The purpose of dermal chemical peels for individuals who have actinic keratosis is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The question addressed in this evidence review is: Does the use of dermal chemical peels improve the net health outcome in patients with actinic keratosis?

The following PICO was used to select literature to inform this review.

### ***Populations***

The relevant population of interest is individuals with actinic keratosis.

### ***Interventions***

The therapy being considered is dermal chemical peels.

### ***Comparators***

The following therapies are currently being used to treat actinic keratosis: watchful waiting, medication treatment, cryosurgery, surgical resection, and photodynamic therapy.

### ***Outcomes***

The general outcomes of interest are destroying actinic keratosis, the durability of this effect, the development of cancerous lesions, QOL, and the harms of associated treatment-related morbidities.

The relevant follow-up is within weeks for the efficacy of treatment and years for the occurrence of cancerous lesions.

### **Study Selection Criteria**

Methodologically credible studies for the indications within this review were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

### **Review of Evidence**

#### **Systematic Reviews**

Steeb et al (2020) conducted a systematic review and meta-analysis assessing the efficacy and safety of chemical peels for the treatment of actinic keratosis.<sup>6</sup> A summary of the 8 trials included in the systematic review is shown in Table 1. This includes 4 RCTs, 2 non-randomized controlled trials, and 2 single-arm studies. Characteristics and results of the systematic review are summarized in Tables 2 and 3. Data analysis and interpretation of results were challenged by the presence of multiple study designs and the investigation of multiple distinct comparisons. The studies included in the review were at a high risk for selection bias as only 1 study clearly described the generation of a random sequence and performed

allocation concealment. None of the patients in the studies were blinded; blinding of the outcome assessor was described in 1 study. Additionally, the chosen efficacy outcomes refer to short-term clearance rates but may not reflect long-term results. Overall, the authors concluded that additional high-quality studies and a standardization of peeling protocols were warranted in order to appropriately determine the value of chemical peeling as a treatment for actinic keratoses.

**Table 1. Trials Included in a Systematic Review and Meta-Analysis of Chemical Peels for Actinic Keratosis**

| Trials                                      | Systematic Review                 |
|---|-----------------------------------|
|   | Steeb et al (2020) <sup>6</sup> , |
| Alfaro et al (2012) <sup>7</sup> ,          | •                                 |
| Di Nuzzo et al (2015) <sup>8</sup> ,        | •                                 |
| Holzer et al (2017) <sup>9</sup> ,          | •                                 |
| Kaminaka et al (2009) <sup>10</sup> ,       | •                                 |
| Lawrence et al (1995) <sup>11</sup> ,       | •                                 |
| Marrero et al (1998) <sup>12</sup> ,        | •                                 |
| Sandoval Osses et al (2010) <sup>13</sup> , | •                                 |
| Sumita et al (2018) <sup>14</sup> ,         | •                                 |

**Table 2. Summary of a Systematic Review and Meta-Analysis of Chemical Peels for Actinic Keratosis**

| Study                             | Dates             | Trials | Participants   | N (Range)      | Design   |    |
|-----------------------------------|-------------------|--------|--|----------------|--|----|
| Steeb et al (2020) <sup>6</sup> , | Until August 2019 | 8      | Adults with a clinical or histopathological diagnosis of actinic keratosis | 170 (13 to 32) | 4 RCTs<br>2 non-randomized controlled trials<br>2 single-arm studies | NR |

NR: not reported; RCT: randomized controlled trial.

**Table 3. Results of a Systematic Review and Meta-Analysis of Chemical Peels for Actinic Keratosis**

| Study                              | Clearance Rate                          | Lesion-Specific Clearance          | Mean Lesion Reduction Rate per Patient       | Treatment-Related Pain (VAS)                     |
|------------------------------------|---|------------------------------------|--|--|
| Steeb et al (2020) <sup>6</sup> ,  |   |                                    |  |  |
| <b>TCA vs. PDT (n = 2 studies)</b> |   |                                    |  |  |
| Crude rate                         | 0% (0/13) vs. 15.4% (2/13) <sup>a</sup> | 66.1% (80/121) vs. 82.1% (101/123) | 65.9 ± 12.6 vs. 81.9 ± 12<br>51.1 ± 28.7 vs. | 7.31 ± 1.55 vs. 8.38 ± 1.56<br>5.1 ± 2.6 vs. 7.5 |

|  |   |   |   |  |
|--|---|---|---|--|
|  |   | 60.5%<br>(214/354) vs.<br>82.6%<br>(317/384)      | 78.7 ± 26.2                                       | ± 2.3                                    |
| Effect estimate  | RR 0.20 (95%<br>CI, 0.01 to<br>3.80) <sup>a</sup>                   | RR 0.75 (95%<br>CI, 0.69 to 0.82)                 | MD -20.48 (95%<br>CI, -31.55 to -<br>9.41)        | MD -1.71 (95%<br>CI, -3.02 to -<br>0.41) |
| <b>TCA + Jessner's solution vs. 5-FU (n = 2 studies)</b> |   |   |   |  |
| Crude rate   | 15% (3/20) vs.<br>35% (7/20)<br>13.3% (2/15)<br>vs. 46.7%<br>(7/15) | 81.7%<br>(201/246) vs.<br>89% (202/227)           | 79.2 ± 19.5 vs.<br>89.6 ± 17.4                    | NR                                       |
| Effect estimate  | RR 0.36 (95%<br>CI, 0.14 to<br>0.90)                                | RR 0.92 (95%<br>CI, 0.85 to<br>0.99) <sup>a</sup> | MD -10.4 (95% CI,<br>-23.63 to 2.83) <sup>a</sup> | NR                                       |
| <b>GA + 5-FU vs. GA (n = 1 study)</b>                    |   |   |   |  |
| Crude rate   | 22.2% (4/18)<br>vs. 0% (0/18)                                       | 92.7%<br>(217/234) vs.<br>15.8% (39/247)          | 92.1 ± 5.5 vs.<br>17.4 ± 8.7                      | NR                                       |
| Effect estimate  | RR 9.0 (95%<br>CI, 0.52 to<br>155.86)                               | RR 5.87 (95%<br>CI, 4.39 to 7.85)                 | MD 74.7 (95% CI,<br>69.95 to 79.45)               | NR                                       |
| <b>Phenol peeling (n = 1 study)</b>                      |   |   |   |  |
| Crude rate   | 90.62%<br>(29/32)   | NR  | NR  | NR                                       |
| <b>5-FU + GA (n = 1 study)</b>                           |   |   |   |  |
| Crude rate   | 30% (6/20)  | 92% (322/350)                                     | NR  | NR                                       |

<sup>a</sup> Only 1 study reported data for this outcome.

5-FU: 5-fluorouracil; CI: confidence interval; GA: glycolic acid; MD: mean difference; NR: not reported; PDT: photodynamic therapy; RR: risk ratio; TCA: trichloroacetic acid; VAS: visual analogue scale.

### Section Summary: Actinic Keratoses

The evidence consists of a systematic review involving 8 studies - 4 RCTs, 2 non-randomized controlled trials, and 2 single-arm studies. Data analysis and interpretation of results were challenged by the high risk of bias of the primary studies, their imprecision, the variability of their peeling application protocols, and their focus on short-term clearance rates. Additional controlled studies, preferably randomized, are needed to determine the effect of chemical peels on the net health outcome in patients with actinic keratoses.

### Moderate-to-Severe Active Acne

## **Clinical Context and Therapy Purpose**

The purpose of epidermal chemical peels for individuals who have moderate-to-severe active acne is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The question addressed in this evidence review is: Do epidermal chemical peels improve the net health outcome in patients with moderate-to-severe active acne?

The following PICO was used to select literature to inform this review.

### ***Populations***

The relevant population of interest is individuals with moderate-to-severe active acne.

### ***Interventions***

The therapy being considered is epidermal chemical peels.

### ***Comparators***

The following therapies are currently being used to treat active acne: topical or oral medications.

### ***Outcomes***

The general outcomes of interest are the resolution of severe acne and the harms of treatment-related morbidities.

The relevant follow-up is within weeks for the efficacy of treatment.

## **Study Selection Criteria**

Methodologically credible studies for the indications within this review were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

## **Review of Evidence**

### **Randomized Controlled Trials**

RCTs comparing chemical peels to topical or oral medications for moderate-to-severe acne were not identified; the majority of studies evaluating the use of chemical peels for acne were in patients with mild-to-moderate disease. Of note, Kaminaka et al (2014) conducted a double-blind, placebo-controlled randomized trial using a split-face design in Japan that evaluated 26 patients with moderate-

to-severe facial acne.<sup>15</sup> Patients with moderate acne had 6 to 20 inflammatory lesions and up to 20 noninflammatory lesions; patients with severe acne had 21 to 50 inflammatory lesions. Failure of previous treatments was not an explicit inclusion criterion. Patients had to undergo a washout period of 2 months before study participation during which they could not use topical or oral antibiotics, retinoids, or corticosteroids. Participants then received a chemical peel treatment on a randomly selected side of the face, and a placebo peel on the other side of their face. Both treatments used the same pH acid gel vehicle (pH, 2.0) and the active treatment was a glycolic acid 40% peel. Treatments were given every 2 weeks for a total of 5 applications, and follow-up occurred 2 weeks after the last session (ie, at 10-week follow-up). The overall therapeutic effect was judged by a blinded dermatologist as excellent or good for 23 (92%) of the chemical peel sides and 10 (40%) of the placebo sides; the difference between groups was statistically significant ( $p < 0.01$ ). Moreover, there were statistically significant reductions in inflammatory lesions, and total lesion counts at each 2-week assessment and at the final 10-week assessment. No serious side effects or systemic adverse events were reported.

### **Section Summary: Moderate-to-Severe Active Acne**

No RCTs comparing chemical peels to topical or oral medications in patients with moderate-to-severe acne were found. One placebo-controlled randomized trial was identified using a split-faced design with 26 patients who had moderate-to-severe acne. Outcomes (eg, overall therapeutic effect) were significantly better in the chemical peel group. However, this trial testing a single chemical peel protocol in a relatively small number of patients provides insufficient evidence from which to draw conclusions about the safety and efficacy of chemical peels for treating active moderate-to-severe acne.

### **SUPPLEMENTAL INFORMATION**

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the evidence review conclusions.

### **Clinical Input From Physician Specialty Societies and Academic Medical Centers**

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

In response to requests, input was received from 3 physician specialty societies and 4 academic medical centers while this policy was under review in 2010. Input was consistently in agreement with the medically necessary indications for dermal and epidermal chemical peels. Several reviewers supported the use of chemical peels for post-acne scarring.

### **Practice Guidelines and Position Statements**

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

### **American Academy of Dermatology**

In 2016, the American Academy of Dermatology published guidelines on the management of acne vulgaris, which give a B recommendation based on level II and III evidence for the use of chemical peels for acne, with the following statement on chemical peels<sup>16</sup>:

“Studies exist suggesting that chemical peels may improve acne. However, large, multicenter, double-blinded control trials comparing peels to placebo and comparing different peels are lacking. Glycolic acid and salicylic acid chemical peels may be helpful for noninflammatory (comedonal) lesions. However, multiple treatments are needed and the results are not long-lasting. In the opinion of the work group, chemical peels may result in mild improvement in comedonal acne.”

### **American Society for Dermatologic Surgery**

In 2017, the American Society for Dermatologic Surgery published recommendations on the use of several skin treatments following a course of isotretinoin, a treatment for severe cystic acne.<sup>17</sup> Previously, a number of cosmetic skin treatments, including chemical peels, were discouraged for 6 months after the use of isotretinoin. These 2017 guidelines evaluated various treatments in the context of scarring and found that superficial chemical peels were safe as a treatment either concurrent with isotretinoin or within 6 months of its discontinuation. The lack of data on medium or deep chemical peels did not permit the Society to make a recommendation on those treatments.

### **U.S. Preventive Services Task Force Recommendations**

Not applicable.

### **Medicare National Coverage**

There is no national coverage determination. In the absence of a national coverage determination, coverage decisions are left to the discretion of local Medicare carriers.

### **Ongoing and Unpublished Clinical Trials**

A search of [ClinicalTrials.gov](https://clinicaltrials.gov) in November 2022 did not identify any ongoing or unpublished trials that would likely influence this review.

#### REFERENCES

1. Habif TP. Clinical Dermatology 5th Edition. Philadelphia, PA: Mosby/Elsevier; 2010.
2. Cummings CW, Haughey BH, Thomas JR, et al. Otolaryngology: Head and Neck Surgery, 4th edition. St Louis, MO: Mosby; 2005.

3. Costa C, Scalvenzi M, Ayala F, et al. How to treat actinic keratosis? An update. *J Dermatol Case Rep.* Jun 30 2015; 9(2): 29-35. PMID 26236409
4. Padilla RS, Sebastian S, Jiang Z, et al. Gene expression patterns of normal human skin, actinic keratosis, and squamous cell carcinoma: a spectrum of disease progression. *Arch Dermatol.* Mar 2010; 146(3): 288-93. PMID 20231500
5. Purdy S, de Berker D. Acne vulgaris. *BMJ Clin Evid.* Jan 05 2011; 2011. PMID 21477388
6. Steeb T, Koch EAT, Wessely A, et al. Chemical peelings for the treatment of actinic keratosis: a systematic review and meta-analysis. *J Eur Acad Dermatol Venereol.* Mar 2021; 35(3): 641-649. PMID 32745330
7. Alfaro OL, Alcalá PD, Navarrete FG, et al. Effectiveness of Jessner's solution plus 35% trichloroacetic acid versus 5% 5-fluorouracil on multiple facial actinic keratosis. *Dermatol Rev Mex.* 2012;56:38-46.
8. Di Nuzzo S, Cortelazzi C, Boccaletti V, et al. Comparative study of trichloroacetic acid vs. photodynamic therapy with topical 5-aminolevulinic acid for actinic keratosis of the scalp. *Photodermatol Photoimmunol Photomed.* Sep 2015; 31(5): 233-8. PMID 25660106
9. Holzer G, Pinkowicz A, Radakovic S, et al. Randomized controlled trial comparing 35% trichloroacetic acid peel and 5-aminolaevulinic acid photodynamic therapy for treating multiple actinic keratosis. *Br J Dermatol.* May 2017; 176(5): 1155-1161. PMID 28012181
10. Kaminaka C, Yamamoto Y, Yonei N, et al. Phenol peels as a novel therapeutic approach for actinic keratosis and Bowen disease: prospective pilot trial with assessment of clinical, histologic, and immunohistochemical correlations. *J Am Acad Dermatol.* Apr 2009; 60(4): 615-25. PMID 19293009
11. Lawrence N, Cox SE, Cockerell CJ, et al. A comparison of the efficacy and safety of Jessner's solution and 35% trichloroacetic acid vs 5% fluorouracil in the treatment of widespread facial actinic keratoses. *Arch Dermatol.* Feb 1995; 131(2): 176-81. PMID 7857114
12. Marrero GM, Katz BE. The new fluor-hydroxy pulse peel. A combination of 5-fluorouracil and glycolic acid. *Dermatol Surg.* Sep 1998; 24(9): 973-8. PMID 9754085
13. Sandoval Osses M, Garcia-Huidobro Ramirez I, Molgo Novell M. Safety and effectiveness of the association of 5-fluorouracil and glycolic acid peeling for the treatment of multiple actinic keratoses. *Piel.* 2010;25:4-8.
14. Sumita JM, Miot HA, Soares JLM, et al. Tretinoin (0.05% cream vs. 5% peel) for photoaging and field cancerization of the forearms: randomized, evaluator-blinded, clinical trial. *J Eur Acad Dermatol Venereol.* Oct 2018; 32(10): 1819-1826. PMID 29704456
15. Kaminaka C, Uede M, Matsunaka H, et al. Clinical evaluation of glycolic acid chemical peeling in patients with acne vulgaris: a randomized, double-blind, placebo-controlled, split-face comparative study. *Dermatol Surg.* Mar 2014; 40(3): 314-22. PMID 24447110
16. Zaenglein AL, Pathy AL, Schlosser BJ, et al. Guidelines of care for the management of acne vulgaris. *J Am Acad Dermatol.* May 2016; 74(5): 945-73.e33. PMID 26897386
17. Waldman A, Bolotin D, Arndt KA, et al. ASDS Guidelines Task Force: Consensus Recommendations Regarding the Safety of Lasers, Dermabrasion, Chemical Peels, Energy Devices, and Skin Surgery During and After Isotretinoin Use. *Dermatol Surg.* Oct 2017; 43(10): 1249-1262. PMID 28498204

## **Billing Coding/Physician Documentation Information**

---

- 15788** Chemical peel, facial; epidermal
- 15789** Chemical peel, facial; dermal
- 15792** Chemical peel, nonfacial; epidermal
- 15793** Chemical peel, nonfacial; dermal
- 17360** Chemical exfoliation for acne (eg, acne paste, acid)

### **ICD-10 Codes**

- D48.5** Neoplasm of uncertain behavior of skin
- L57.0** Actinic keratosis
- L70.0** Acne vulgaris

- L70.1** Acne conglobata
- L70.9** Acne, unspecified

### **Additional Policy Key Words**

---

N/A

### **Policy Implementation/Update Information**

---

- 11/1/15 New Policy, considered medically necessary except for cosmetic reasons.
- 11/1/16 No policy statement changes.
- 11/1/17 No policy statement changes.
- 11/1/18 No policy statement changes.
- 11/1/19 No policy statement changes.
- 11/1/20 No policy statement changes.
- 11/1/21 No policy statement changes.
- 11/1/22 No policy statement changes.
- 11/1/23 No policy statement changes.

---

State and Federal mandates and health plan contract language, including specific provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage. The medical policies contained herein are for informational purposes. The medical policies do not constitute medical advice or medical care. Treating health care providers are independent contractors and are neither employees nor agents Blue KC and are solely responsible for diagnosis, treatment and medical advice. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, photocopying, or otherwise, without permission from Blue KC.