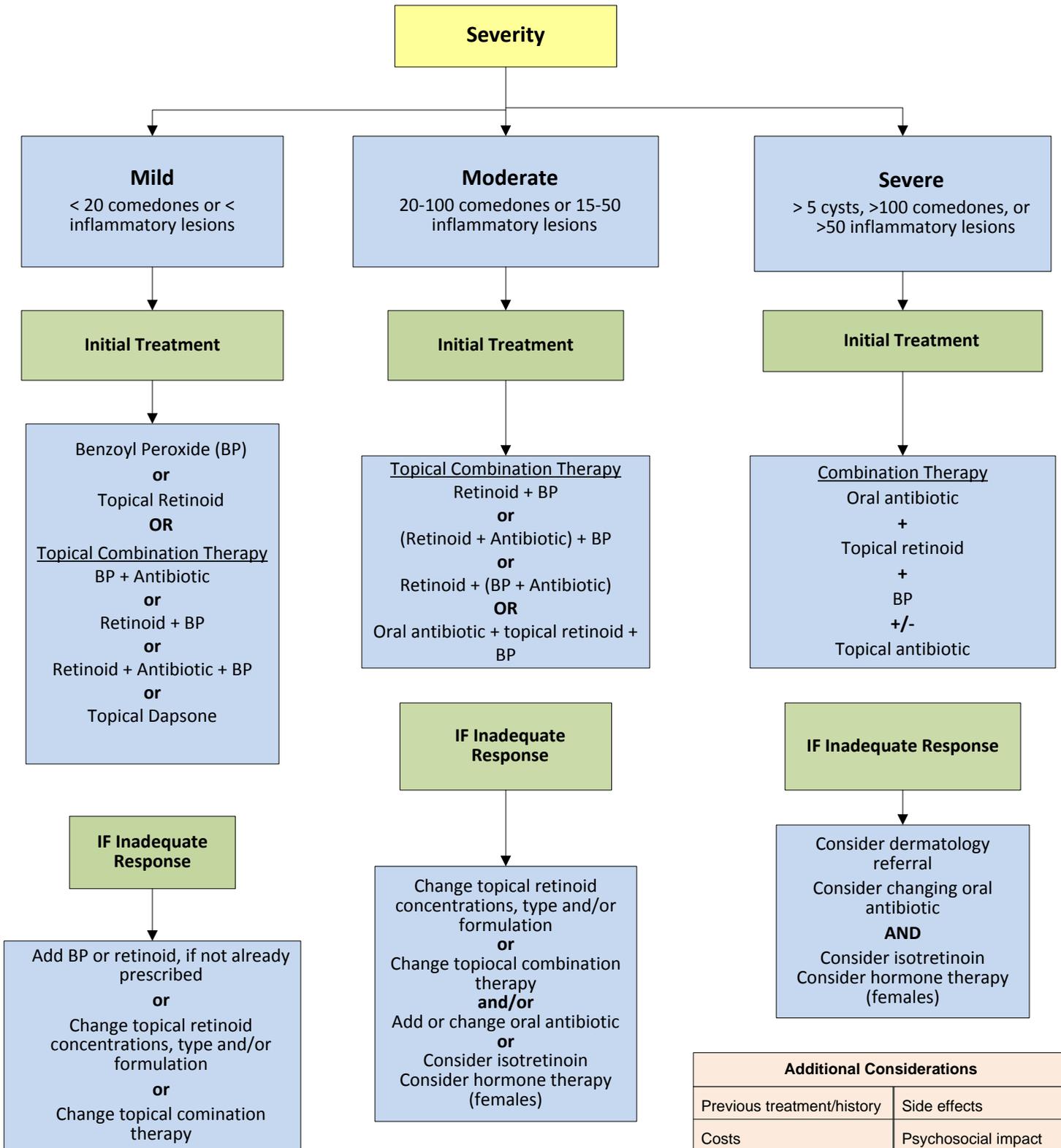


Outpatient Acne Care Guideline



Additional Considerations	
Previous treatment/history	Side effects
Costs	Psychosocial impact
Vehicle selection	Active scarring
Ease of use	Regimen complexity

GOAL: Pediatricians should initiate treatment for cases of “Mild” to “Severe” acne (see algorithms attached). Pediatricians should also counsel patients in order to maximize adherence to acne treatment regimens:

1. Realistic expectations.

Patients should be counseled that topical therapies typically take up to 6-8 weeks to start seeing results. This is an unavoidable fact based on how long it takes “for the skin to grow out” to reveal the effects of the treatment regimen. In addition, some patients may appear to “worsen” initially before improvement is noted; this is most typically experienced with topical retinoids and is evident around 2 weeks after starting treatment.

PEARL: Ask patients how long *they* think it will take to see improvement and then establish reasonable expectations from the start!

2. Proper application of topical therapies.

Topical acne therapies are designed to be used as “field therapy,” meaning the entire face needs to be treated. “Spot-treatment” of individual acne lesions is neither advised nor effective. Instead, patients should be instructed to use a “pea-sized” amount of topical medication for the entire face. To help evenly disperse the medication over the entire face, several small dollops can be applied to each cheek, forehead, chin and nose, and then the medication should be gently massaged into the entire face. In this case, “less is more.” If patients apply their medications and see a film of medication on their faces, then they probably applied too much, putting them at risk for developing excessive side effects without additional treatment gain.

PEARL: Have patients demonstrate in-office how they actually apply their medications; the variation will be an educational experience for both patients and caregivers alike!

3. Anticipation of expected side effects.

Patients should be forewarned that most forms of topical therapy (especially benzoyl peroxide and retinoids) may lead to redness, drying and irritation that may be confused with “worsening” acne; this typically presents within 2 weeks after initiation of therapy and is an expected part of the treatment regimen. Rarely, some sensitive skin patients may not be able to tolerate topical therapies on a daily basis; this is seen especially with benzoyl peroxide. The vast majority of patients, however, will find that they can avoid excessive irritation by starting to apply their topical medications “every other day” or even “every other-other day,” increasing to “daily” as tolerated. To combat irritation, all patients should be encouraged to utilize skin moisturizers and sun protection while on therapy. Moisturizers should, specifically, be “non-comedogenic” (i.e., will not clog pores or worsen acne), and sunscreens should be at least SPF 30.

PEARL: Sunscreen/moisturizer “combination” products – e.g., Neutrogena Daily Defense SPF 50; Cetaphil Daily Facial Moisturizer SPF 50+, and CeraVe AM Facial Moisturizing Lotion SPF 30 – are particularly helpful options for busy teenagers!

CONSIDER REFERRAL TO PEDIATRIC DERMATOLOGY IF:

- Lack of satisfactory response to treatment after 8 to 12 weeks
- Scar-inducing cysts or nodules present or scarring is actively occurring despite treatment
- Isotretinoin is being considered as treatment; **however, the final decision on use of isotretinoin will be left to the dermatologist, and patients should not be sent in expecting to be placed on isotretinoin**
- Special treatment for inflamed tender cysts such as intralesional corticosteroid injection or acne surgery is being contemplated
- Signs of hirsutism (e.g. excessive hair), alopecia, acanthoses nigricans present or menstrual irregularities accompany acne
- Child less than 9 years old

HELPFUL NOTES ON SPECIFIC ACNE THERAPIES

Topical Retinoids	
Adapalene (0.1% cream, lotion or gel or 0.3% gel)	<ul style="list-style-type: none"> • Least irritating of retinoids • Insurance may not cover without first failing tretinoin 0.025% cream
Tretinoin (0.025 ; 0.05; 0.1% cream or gel; or 0.04/0.1% micro)	<ul style="list-style-type: none"> • Most likely to be covered by insurance • Start with lowest concentration and work up as tolerated • Generic tretinoin is photo-inactivated and must be used in the evening • Generic tretinoin may be inactivated by benzoyl peroxide and should be used in the evening
Tazarotene (0.05 or 0.1% cream or gel)	<ul style="list-style-type: none"> • Most potent but also most irritating of the retinoids • Insurance may not cover without first failing tretinoin 0.025% cream • Pregnancy Class X medication
Benzoyl Peroxide	
<ul style="list-style-type: none"> • Benzoyl peroxide is now over-the-counter • Many formulations of benzoyl peroxide are available; if your patients have found one that they love, you should try to continue it. Generally, we recommend a “wash” formulation for ease-of-use. • A variety of strengths exist; initial therapy with BP 5% or less is a reasonable approach. • Neutrogena Clear Pore 3.5% wash is a good starter medication • Warn family about bleaching potential on towels, sheets, clothes. • Since this product is drying, it may decrease tolerance for other medications; be aware of concurrent use of benzoyl peroxide and topical retinoids in your sensitive skin patients. Some patients develop true contact dermatitis to benzoyl peroxide. • Concurrent use of benzoyl peroxide will inactivate generic tretinoin. 	
Topical Dapsone	
<ul style="list-style-type: none"> • May be considered as single therapy or in place of topical antibiotic • Limited use in pediatrics population • Insurance may not cover 	

Oral Medications

<p>Doxycycline (100mg daily or BID)</p>	<p>Doxycycline: Take one pill ONCE or TWICE per day, as instructed by your physician.</p> <p><i>NOTE: Always take these pills with lots of water! A pill stuck in the esophagus can cause significant burning and irritation. Avoid “popping” a pill right before bed & stay upright for at least 5 to 10 minutes after taking a pill.</i></p> <p><i>WARNING: Doxycycline increases your sensitivity to the sun, so practice excellent sun protection! If you notice any of the following, stop using the medication and notify the health care provider: headaches; blurred vision; dizziness; sun sensitivity; heartburn or stomach pain; irritation of the esophagus; darkening of scars, gums, or teeth (more often with minocycline); nail changes; yellowing of the eyes or skin (indicating possible liver disease); joint pains, and flu- like symptoms. Taking oral antibiotics with food may help with symptoms of upset stomach.</i></p>
<p>Minocycline (100mg daily or BID)</p>	<p>Minocycline: Take one pill ONCE or TWICE per day, as instructed by your physician.</p> <p><i>NOTE: Always take these pills with lots of water! A pill stuck in the esophagus can cause significant burning and irritation. Avoid “popping” a pill right before bed & stay upright for at least 5 to 10 minutes after taking a pill.</i></p> <p><i>WARNING: Though less likely than doxycycline, minocycline may increase your sensitivity to the sun, so practice excellent sun protection! If you notice any of the following, stop using the medication and notify the health care provider: headaches; blurred vision; dizziness; sun sensitivity; heartburn or stomach pain; irritation of the esophagus; darkening of scars, gums, or teeth (more often with minocycline); nail changes; yellowing of the eyes or skin (indicating possible liver disease); joint pains, and flu- like symptoms. Taking oral antibiotics with food may help with symptoms of upset stomach.</i></p> <p><i>Minocycline can rarely cause liver disease, joint pains, severe skin rashes, and flu-like symptoms. If you should notice yellowing of the eyes or skin or any of the above, notify your doctor and stop using the medication.</i></p>
<p>Oral Contraceptive Pills</p> <ul style="list-style-type: none">• Orthocyclen• Yaz• Yasmine	<p>Birth Control Pill: Take your birth control pills as directed on the medication packet.</p> <p><i>NOTE: Try to find a regular time in your day to take the pill so that you don’t forget. The</i></p>

	<p><i>best time is about half an hour after a meal or snack or at bedtime. If you do forget to take your daily pill at the regular time, take one as soon as you remember and take the next at your regular scheduled time.</i></p> <p><i>WARNING: Do not take this medication until discussing it with your physician if you smoke, are pregnant (or trying to become pregnant), have a personal history of breast cancer, have a condition called Factor 5 Leiden deficiency, have a family history of clotting problems, have migraine headaches (especially with aura or flashing lights), or have any vaginal bleeding other than that associated with your menstrual cycle.</i></p>
Spironolactone	Refer to Pediatric Dermatology
Isotretinoin	Refer to Pediatric Dermatology
Topical Combination Therapies	
<p>Benzoyl Peroxide + Antibiotic</p> <ul style="list-style-type: none"> • BP + Clindamycin • BP + Erythromycin 	<ul style="list-style-type: none"> • <i>P. acnes</i> bacterial resistance to erythromycin is well-known • No known microbial resistance to benzoyl peroxide • Insurance may not cover • Some formulations require refrigeration
<p>Retinoid + Benzoyl Peroxide</p> <ul style="list-style-type: none"> • Adapalene 0.1% gel + BP 2.5% 	<ul style="list-style-type: none"> • Approved to 9 years of age • No known microbial resistance to benzoyl peroxide • Insurance may not cover
<p>Retinoid + Antibiotic</p> <ul style="list-style-type: none"> • Tretinoin 0.025% gel + Clindamycin phosphate 1.2% 	<ul style="list-style-type: none"> • Insurance may not cover • Requires addition of benzoyl peroxide to prevent microbial resistance

References:

Eichenfield LF, Krakowski AC, et al. Evidence-Based Recommendations for the Diagnosis and Treatment of Pediatric Acne. Pediatrics Vol. 31, Supplement 3, May 2013.