Management of Acne in Primary Care

Medscape UK X Guidelines
Primary Care Hacks

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Key Management Principles

1. **Counsel all patients on lifestyle factors that impact acne**
2. **Topical retinoids are a first-line treatment choice in all stages of acne, but must be introduced gradually**
3. **Skin of colour is more prone to scarring and hyperpigmentation so requires early, effective treatment**
4. **Be aware of certain drugs that can worsen acne**
5. **Practise antimicrobial stewardship**
6. **Conduct effective 12-week reviews**
7. **Early and effective referral is essential**
8. **Long-term complications should be considered**

See the table overleaf for a comprehensive overview of acne treatment options that can be prescribed in primary care

1. Lifestyle Factors[1–5]

Advise patients to:

- use a soap-free/'synthetic detergent' facial wash once or twice daily
- when using a moisturiser, choose a water-based, oil-free option
- avoid scrubs, astringents, and fragranced products that may irritate the skin
- avoid comedogenic/oil-based make-up and sunscreens
- avoid letting hair-styling products (oils, creams, mousses, gels) touch their face
- try to resist picking or squeezing spots, as this increases risk of scarring
- follow a healthy diet, as per the Eatwell guide.

Education is empowering. Signpost to the BAD's Acne Support website and acne PIL.

2. Initiating Topical Retinoids[2,3,6]

- **Topical retinoids are a first-line treatment choice in all stages of acne**
- **Start with a short-contact regimen** to ameliorate the irritant reaction:
  - e.g. apply a small amount to skin every 2nd or 3rd day and leave it on for 30–60 minutes before washing off
  - gradually build up frequency and then duration of application, to a target dose of once daily application overnight
- Concomitant daily use of a noncomedogenic moisturiser can lessen dryness and irritation.

3. Skin of Colour[2,4,7,8]

- **Skin of colour is more prone to scarring and hyperpigmentation**. Therefore, more aggressive, earlier treatment is warranted, with a lower threshold for referral to secondary care for consideration of isotretinoin therapy
- Topical agents, such as retinoids, benzoyl peroxide, and azelaic acid, may worsen hyperpigmentation due to their irritant effects on the skin. Conversely, when they are introduced gradually (see *2. Initiating Topical Retinoids*), these topical agents have the potential to improve hyperpigmentation
- Azelaic acid has a beneficial effect on post-inflammatory hyperpigmentation, so may be particularly beneficial for patients with skin of colour; NICE suggests preferentially using azelaic acid in addition to an oral antibiotic for the treatment of moderate-to-severe acne in those with skin of colour
- Sun avoidance and sun protection are important lifestyle factors that help to reduce the risk of hyperpigmentation.

4. Drugs That Can Worsen Acne[2,4,6,9,10]

- Progestogen-only contraception, including LARC
- Topical and oral corticosteroids, as well as anabolic steroids
- Testosterone therapy, e.g. for gender affirmation
- Lithium
- Ciclosporin
- Vitamins B6 and B12
- Herbal remedies containing oral iodine, e.g. sea kelp products.

5. Antimicrobial Stewardship[3,6]

DO NOT prescribe:

- a topical or oral antibiotic as sole treatment
- a combination of a topical antibiotic and an oral antibiotic
- any antibiotics continuously for more than 6 months, unless in exceptional circumstances.

6. The 12-Week Review[2,3,6]

- **Review all patients 12 weeks after a treatment regimen has been changed** (i.e. stepped up or down)
- For those whose acne has not responded to a course of topical treatment:
  - step up to a regimen that contains an oral antibiotic if acne is moderate to severe
  - offer a different topical treatment if acne is still mild to moderate
- After a 3-month course of treatment containing an oral antibiotic:
  - for those who are not responding to treatment, change to an alternative antibiotic and consider referral to secondary care (see *7. When to Refer*)
  - for those whose acne has improved but not cleared, consider an additional 3 months of this treatment regimen
  - for those who have achieved a good response, step down to maintenance therapy of a topical treatment and stop the antibiotic.

7. When to Refer

Indications for Referral to Secondary Care[2–4,6,8]

- Acne that is leading to scarring or pigmentary change (risk is higher in people with skin of colour[2,4,8])
- Nodulocystic acne
- Acne fulminans (nodulocystic acne with associated systemic symptoms)—warrants urgent referral to the on-call hospital dermatology team, to be assessed within 24 hours
- Moderate-to-severe acne that has not responded to a completed course of treatment (12 weeks of an oral antibiotic plus topical therapy)
- Mild-to-moderate acne that has not responded to two completed courses of treatment (2 x 12 weeks of different oral antibiotics plus topical therapy)
- Severe psychological distress due to acne of any severity (also consider referral to mental health services).

Isotretinoin

Most patients referred to secondary care will be considered for **isotretinoin therapy**. Therefore, at the time of referral:[2,3,11]

- check LFTs, U&E, and fasting lipids
- prescribe contraception for female patients
- provide information on isotretinoin's risks and benefits, e.g. in a PIL.

Refer to the MHRA's regulatory guidance on isotretinoin referral and prescribing for further information.[11]

8. Long-Term Complications

Complication	Treatment Options
Hypertrophic scars	In primary care:[2,12,13] • Silicone gel/sheets • Potent topical steroids (cream, ointment, or fludroxycortide tape) or intradermal triamcinolone injections, for a trial of 2–3 months o monitor carefully for skin thinning and telangiectasia. In secondary care, NICE recommends glycolic acid peel and CO_2 laser treatment for acne-related scarring.[3] Pulsed dye laser is also available privately, within a specialised hospital department.[2]
Atrophic scars	Privately available:[2,12] • Ablative lasers combined with surgical techniques • Intradermal collagen or collagen-stimulating compounds • Other options for treating acne scars include skin needling, dermabrasion, chemical peels, scar revision, punch excision, and cryotherapy.
Hyperpigmentation	• Azelaic acid may be helpful in active acne and post-inflammatory hyperpigmentation[4,6,8] • Eucerin DermoPurifyer® creams and ointments for post-acne marks (non-NHS) may be of some benefit[2] • Chemical peels and laser therapy (only available privately).[4,14]

BAD=British Association of Dermatologists; **bd**=twice daily; **BNF**=British National Formulary; **COCP**=combined oral contraceptive pill; **eGFR**=estimated glomerular filtration rate; **FBC**=full blood count; **GPwSI**=GP With Special Interest; **HCP**=healthcare professional; **LARC**=long-acting reversible contraception; **LFT**=liver function test; **LNG**=levonorgestrel; **MHRA**=Medicines and Healthcare products Regulatory Agency; **od**=once daily; **PCDS**=Primary Care Dermatology Society; **PCOS**=polycystic ovary syndrome; **PIL**=patient information leaflet; **U&E**=urea and electrolytes; **VTE**=venous thromboembolism

Therapeutic Options for Acne in Primary Care[2–4,6,8,15–19]

- **Advise patients that any therapeutic option will take 6–8 weeks to work**
- **Arrange a review appointment at 3 months**
- **NB: topical retinoids, benzoyl peroxide, and oral antibiotics can all cause photosensitivity; benzoyl peroxide also bleaches hair and fabrics**
- **This table does not reflect management in patients aged <12 years, for whom requirements for investigation and treatment may differ.**

Therapeutic Option(s)		Prescribing Notes	Contraindications
Mild, Comedonal Acne			
Topical retinoid	Adapalene **or** trifarotene **or** fixed combination of topical adapalene and topical benzoyl peroxide	• Start with short-contact regimen.	• Pregnancy • Use with caution during breastfeeding.
Topical retinoid and topical antibiotic	Fixed combination of topical tretinoin and topical clindamycin	• Apply od in the evening • Start with short-contact regimen.	• Pregnancy • Breastfeeding • Perioral dermatitis, personal or family history of skin cancer, or rosacea.
Mild-to-Moderate Acne			
First line	Fixed combination of topical adapalene and topical benzoyl peroxide	• Apply od in the evening • Start with short-contact regimen.	• Pregnancy • Use with caution during breastfeeding.
Second line	Fixed combination of topical benzoyl peroxide and topical clindamycin	• Apply od in the evening • Start with short-contact regimen.	• Use with caution during pregnancy and breastfeeding.
	Fixed combination of topical tretinoin and topical erythromycin	• Apply od in the evening • Start with short-contact regimen.	• Pregnancy • Breastfeeding • Perioral dermatitis, personal or family history of skin cancer, or rosacea.
Third line (if combination products are not tolerated)	Adapalene **or** trifarotene	• Apply od in the evening • Start with short-contact regimen.	• Pregnancy • Use with caution during breastfeeding.
	Benzoyl peroxide	• Apply od in the evening • Start with short-contact regimen.	—
Moderate-to-Severe Acne			
First line	Fixed combination of topical adapalene and topical benzoyl peroxide **AND** doxycycline 100 mg od **or** lymecycline 408 mg od	• Apply topical component od in the evening • Start with short-contact regimen • Dose of oral tetracycline may be doubled to bd if there is partial response after 12 weeks.	• Pregnancy • Breastfeeding • Not for use in children aged <12 years.
	Topical azelaic acid **AND** doxycycline 100 mg od **or** lymecycline 408 mg od	• This option may be preferable in people with skin of colour to reduce hyperpigmentation secondary to inflammation[4,8] • Apply azelaic acid bd • Dose of oral tetracycline may be doubled to bd if there is partial response after 12 weeks.	• Pregnancy • Breastfeeding • Not for use in children aged <12 years.
Second line (if combination products are not tolerated)	Benzoyl peroxide **or** adapalene **or** trifarotene **AND** doxycycline 100 mg od **or** lymecycline 408 mg od	• Apply topical component od in the evening • Start with short-contact regimen • Dose of oral tetracycline may be doubled to bd if there is partial response after 12 weeks.	• Pregnancy • Breastfeeding • Not for use in children aged <12 years.
Third line (if the above tetracyclines are not tolerated or contraindicated)	Fixed combination of topical adapalene and topical benzoyl peroxide **or** benzoyl peroxide **or** adapalene **or** trifarotene **AND** clarithromycin 250–500 mg bd	• Apply topical component od in the evening • Start with short-contact regimen • Bacterial resistance to clarithromycin is high, but not as common as resistance to erythromycin.	• Topical retinoids should not be used in pregnancy, and used with caution during breastfeeding • The manufacturer advises avoiding use of clarithromycin in pregnancy and breastfeeding.
	Fixed combination of topical adapalene and topical benzoyl peroxide **or** benzoyl peroxide **or** adapalene **or** trifarotene **AND** trimethoprim 300 mg bd	• Start with short-contact regimen. For trimethoprim: • small risk of agranulocytosis or adverse cutaneous events • counsel patients and carers to seek medical help if they develop e.g. fever, sore throat, rash, purpura, bruising, bleeding, mouth ulcers • the BNF recommends monitoring FBC in long-term trimethoprim use.	• For trimethoprim: blood dyscrasias • Topical retinoids should not be used in pregnancy, and used with caution during breastfeeding • The manufacturer advises avoiding use of trimethoprim in pregnancy.
Alternative Options for Women With Acne			
COCP	Any 2nd-, 3rd-, or 4th-generation COCP	• Prescribe with reference to the UK Medical Eligibility Criteria.	
Licensed for treatment of refractory acne in PCOS	Co-cyprindiol (cyproterone acetate with ethinylestradiol)	• Prescribe with reference to the UK Medical Eligibility Criteria • 1.5–2x greater risk of VTE than LNG-containing contraception • Risk of VTE is greater when stopped and restarted • Small associated risk of meningioma.	
Unlicensed in UK, but prescribed by dermatologists and GPwSI in dermatology	Spironolactone—50 mg od, increased to 200 mg od depending on response and tolerability	• May be prescribed with a topical therapy and instead of, or in addition to, antibiotics and hormonal therapy • Effective contraception essential • Check U&E prior to initiating therapy o for women aged <45 years with normal renal function, no further monitoring is necessary o if >45 years, impaired eGFR, or in another at-risk population, monitor 1 week after initiation, monthly for 3 months, every 3 months for 1 year, then 6-monthly.	• Pregnancy • Addison's disease • Anuria • Hyperkalaemia.
Acne in Pregnancy			
Benzoyl peroxide od **or** fixed combination of topical benzoyl peroxide and topical clindamycin od **or** topical erythromycin 2% **or** azelaic acid bd		• Topical therapies are preferred during pregnancy • Erythromycin 500 mg bd may be considered if the benefits outweigh the risks, e.g. in scarring acne • Start topical retinoids and benzoyl peroxide formulations with short-contact regimen.	—

Table based on authors' interpretation of relevant guidance, BNF entries, and summaries of product characteristics. As always, take an individualised and holistic approach to the care of people living with acne.