ANTIBIOTIC GUARDIAN

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NHS Vale of York Clinical Commissioning Group

Referral Support Service

Dermatology

D01
Acne Vulgaris

General Points

- If more than 1 treatment is required:
  - Use agents with different properties
  - Don't use topical and oral antibiotics together.
  - Benzoyl peroxide is a good agent for preventing resistance to antibiotics, a frequent problem with long term use, so add this to regimes wherever tolerated (see below).

- Warn that treatment will be slow:
  - About 3 months for a 50% improvement (although not all patients recognise improvement at this stage).
  - Improvement is recognised by fewer new lesions but the inflammation from previous lesions can takes several months to settle.
  - Improvement can continue for 9-12months after starting regimes

Management

- Encourage smoking cessation
- Encourage weight loss (if appropriate)
- Topical therapy alone is usually effective-most will cause a drying effect which is part of the way that they work, use a light moisturiser if required at a different time of day.
- Advise patient to cover all the acne prone areas, not to treat individual spots. They work by preventing new spots from forming, hence the delay in improvement. Regular use is required, and perseverance-reinforce this.

Management of Mild Acne - comedones, small superficial papules and pustules

1. **Benzoyl peroxide (BPO)** - 5% strength is only strength required/commissioned. If 5% not tolerated at the usual once a night dose experiment with 2-3 x/week initially, or for 2-4 hours then wash off and increase exposure time gradually. Fair skins less tolerant than dark. Major benefit of reducing resistant bacteria on the skin. This benefit is specific to benzoyl peroxide. Also works to reduce comedones and inflammation.
   Warn patient regarding bleaching effect.
   BPO washes, 2.5% and 10% are not commissioned
   BPO 5% cream as **Panoxyl® 5% cream** = £1.89 per 40g
   BPO 5% gel as **Panoxyl® 5% Aquagel** = £1.92 per 40g

2. **Topical retinoids** - keratolytic (especially useful if comedones are a marked feature).
   First line = isotretinoin 0.05% gel (**Isotrex®** is £5.94 per 30g)

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Second line = **adapalene** 0.1% cream or gel (**Differin®** is £16.43 per 45g) (cream less irritant)
Build up tolerance as per benzoyl peroxide if required.
Warn teratogenicity and can increase sun sensitivity.

3. **Combination treatment** –

Either:

BPO + retinoid	**OR**	**Drying agent/keratolytic + topical antibiotic**
First line – BPO 5% and isotretinoin 0.05% gel as separate agents (if tolerated as single agents) – retinoid am and BPO pm or use on alternate days. (BPO £1.89 + isotretinoin £5.94 = £7.83) Second line – BPO plus adapalene in combination – as Epiduo® (£15.92 per 25g) - Apply once a day		First line = zinc plus erythromycin in combination as **Zineryt®** (£10.28 per 30ml) Apply twice daily Second line = BPO plus clindamycin gel in combination as **Duac®** (£13.14 per 30g) Apply at night Topical antibiotics should not be used alone – the zinc or BPO help to prevent antibiotic resistance. Do not use retinoid plus topical antibiotic combination – not commissioned

Management of Moderate Acne - larger papules/pustules, or milder acne not responding to above

1. Add oral antibiotic in addition to topical treatment above.

- **Oral oxytetracycline 500mg bd** (£4 per 28 days); **doxycycline 100mg od** (£3.40 per 28 days); or **lymecycline 408mg od** (£8.16 per 28 days) - good absorption even with food/milk and well tolerated; **tetracycline 500mg bd** (£8.88 per 28 days) are first-line options.

- Tetracyclines not in pregnancy, breast feeding mothers or children under 12, warn teratogenicity. All can cause sun sensitivity.

- Minocycline is not recommended/not commissioned – expensive AND has increased risk of significant side effects and needs blood monitoring with long term use.

- **Erythromycin** is an alternative if tetracyclines are poorly tolerated or contraindicated (such as in pregnancy) 500mg bd

- **Trimethoprim** 200-300mg bd (unlicensed use). 6monthly FBC.

- Do not prescribe an oral antibiotic alone.

- Do not combine a topical and an oral antibiotic.

- Oral antibiotics should be limited to the shortest possible period, and discontinued when further improvement of acne is unlikely.

- **Switching antibiotics**-if no response after 3months. Use BPO daily for 2 weeks to clear resistant bacteria before starting another antibiotic, and continue during antibiotic use if tolerated.

2. Hormonal

Combined oral contraceptives - particularly if contraception required also
NOT progesterone only contraceptives, any progesterone containing Rx may exacerbate acne including IUS, implant, depomedrone**,** POPs

Co-cyprindiol - MHRA, 2013 has recommended that co-cyprindiol should only be prescribed when topical therapy or systemic therapy has failed. Co-cyprindiol has a 1.5–2 times statistically significant increase in venous thromboembolism (VTE) risk compared with levonorgestrel-containing pills. It is thought that this risk is similar to that of contraceptives that contain desogestrel, gestodene, or drospirenone.

Step-down to alternative combined oral contraceptive – as per the York and Scarborough joint formulary – e.g. **ethinylestradiol 30micrograms/ levonorgestrel 150micrograms (Rigevidon®** - £2.82 per 63); **ethinylestradiol 30micrograms/ desogestrel 150micrograms (Gedarel®** 30/150 - £4.19 per 63)
There is no evidence that Yasmin® - ethinylestradiol 30micrograms and drospirenone 3mg is superior in acne and it is considerably more expensive (£14.70 per 63). It is not routinely commissioned.

Management of Severe Acne

- **Severe acne-nodules**, cysts, significant scarring
- Start on treatment as above, use higher doses antibiotics and early referral.
- Referral for consideration of a repeat course of oral isotretinoin (Roaccutane®)
- Inform patient that acne is more responsive to primary care treatment options after a course of oral isotretinoin than it was previously. Patients may believe they need another course of oral isotretinoin when primary care treatment may suffice. Organise another series of blood tests and contraception for females (see above for details).
- **Stopping Rx**-Step down treatment once control is good for 6months-stop oral first, continuing topical treatment alone for another 6 months at least

Referral Information

Referral Criteria

- Minimum of 6 months treatment with topical Rx and oral antibiotics (2 types for 3 months each) or co-cyprindiol. Refer if inadequate response to above treatments at adequate

dosages over adequate periods of time with good compliance to oral and topical treatments.
- Earlier referral for those with nodulocystic acne or evidence of scarring (textural changes, not just erythema) or if extreme psychological reaction to their acne.
- Refer acne cysts.
- Refer if needing longer-term treatment e.g. patients in their mid-twenties or older.

Information to include in referral letter
- Include treatment – current and past, include duration and dosages.
- Details of contraception in females, or detail sexual history.
- Relevant past medical/surgical history
- Current regular medication
- BMI/smoking status

Investigations prior to referral
- FBC, U/E, LFT, fasting cholesterol and triglycerides.
- Organise contraception in all sexually active females (or those likely to become so shortly) before referral if oral isotretinoin may be considered. Can be combined with any oral contraceptive.

Patient information leaflets/ PDAs

- Patient Decision Aid- shared decision aid for patients about acne treatment.
- PILS- general information about acne treatment
- http://www.patient.co.uk/medicine/isotretinoin-capsules-for-acne-roaccutane
- NHS Choices - http://www.nhs.uk/conditions/Acne/Pages/Introduction.aspx
- (For clinicians: further information)

Reference:

- NICE CKS Guidelines
- Prices from February 2016 Drug Tariff: http://www.drugtariff.nhsbsa.nhs.uk/#/00299312-DD/DD00299308/Home
- BNF – February 2016 https://www.medicinescomplete.com/mc/bnf/current/