

Treatment of acne vulgaris

Treatment should be based on the severity of the acne and the types of lesions which predominate:

Mild Acne

(open and close comedones with some papules and pustules)

Treat with topical benzoyl peroxide (benzoyl peroxide 5 % gel).

If there is an inadequate response after 2 months then treat with topical antibiotics for at least 6 months (Zineryt[®] – erythromycin 40 mg, zinc acetate 12mg/ml).

Mild Acne

(with comedonal lesions)

Treat with topical retinoids (isotretinoin 0.05%) or benzoyl peroxide 5% gel)

Moderate Acne

(more frequent papules with some mild scarring)

Treat with oral antibiotics.

First choice – oxytetracycline 500mg BD for 6 months. Important to counsel patients to avoid food and drink for an hour afterwards as absorption is reduced otherwise.

Second choice – lymecycline 408mg daily; unaffected by food and drink.

Response to oral antibiotics after 3 months and max response after 4-6 months. If oral antibiotics are used for prolonged periods, they should only be continued where further clinical benefit is likely. Compliance should be checked in patients who do not respond well to therapy.

Combination use with topical benzoyl peroxide and/or topical retinoids may also be useful.

Severe Acne

(nodular abscesses leading to extensive scarring)

Prompt treatment by a dermatologist.

MEASURES TO MINIMISE ANTIBIOTIC RESISTANCE

- **Stress to patients the importance of good compliance**
- **Use adequate doses of antibiotics**
- **Oral antibiotics should not normally be combined with topical antibiotics (this may increase the risk of P. acnes resistance and provides no additive benefit).**
- **Oral antibiotics should only be continued where benefit is apparent.**
- **If acne returns, reuse the same drug if the previous response was satisfactory with that agent**

Benzoyl peroxide

A clinical response may not be seen for six to eight weeks. Benzoyl peroxide may counteract the emergence of bacterial resistance when used with topical or oral antibiotics¹. The main adverse effects are skin irritation, erythema and dry skin. Benzoyl peroxide bleaches hair and clothing.

Topical retinoids

The topical retinoids- tretinoin, isotretinoic acid and adapalene all cause superficial peeling, which unblocks follicles, making them particularly suitable for comedonal acne. Studies have shown adapalene² and isotretinoin³ to be as effective as tretinoin. However they may cause less skin irritation than tretinoin. Topical retinoids should not be used in pregnancy, and women of childbearing age must use adequate contraceptive precautions while using a retinoid.

Topical antibiotics

Topical antibiotics are useful in mild-to-moderate inflammatory acne but have little effect on non-inflammatory comedones.¹ The three topical antibiotics available are erythromycin, clindamycin and tetracycline which all appear to have similar efficacy,⁴ with choice of treatment largely determined by the development of resistance and patient acceptability.

Oral antibiotics

Oral antibiotics improve inflammatory acne by inhibiting the growth of *Propionibacterium acnes* and by having an intrinsic anti-inflammatory effect. They do not work for purely comedonal acne.¹ Oxytetracycline is first-line as it is effective and inexpensive. Lymecycline is an alternative antibiotic and has the advantage of being a once daily dose and is unaffected by food.

Minocycline /doxycycline are more expensive and not shown to be more effective. Serious but rare ADR's have been reported with minocycline.⁵

Cyproterone acetate 2mg, ethinylestradiol 35 mcg (Dianette®)

It is indicated for women with severe acne, refractory to oral antibacterial therapy. It may take 2-6 months to produce an improvement.⁴ It may also be useful in women who wish to receive oral contraception, although it is not to be used for the sole purpose of oral contraception and should be discontinued 3-4 menstrual cycles after acne has resolved.

For women with mild to moderate acne requiring an oral contraception, choose one with fewer androgenic effects.

References:

1. NHS Clinical Knowledge Summary- Acne Vulgaris. Rev February 2006
2. Cunliffe WJ et al. A comparison of the efficacy and tolerability of adapalene 0.1% gel versus 0.025% gel in patients with acne vulgaris: A meta-analysis of five RCT's. *Br J Dermatol* 1998; 139(suppl 52): 48-56.
3. Dominguez J et al. Topical isotretinoin vs topical retinoic acid in the treatment of acne vulgaris. *Int J Dermatol* 1998;37:54-55.
4. National Prescribing Centre. 2005. Acne vulgaris and rosacea reference sheet.
5. MeReC (1999). The treatment of acne vulgaris: an update. *MereC Bulletin* 10 98), 29-32.