1. Acne

DIAGNOSIS

- Acne presents with variable skin lesions:
  Non-inflammatory comedones, inflammatory papules or pustules, or mixture of both:
  - whiteheads (closed comedones) - small raised white bumps on the skin
  - blackheads (open comedones) - small raised bumps with a dark centre
  - papules - small, round or oval, inflamed (red) raised elevations of the skin
  - pustules - resemble papules, but have a central pocket of pus
  - nodules - poorly defined swellings that are usually red and tender –
  - Scarring and/or hyperpigmentation may occur after acne resolved

MANAGEMENT

- **Treatment aims**: reduce the number of lesions; improve quality of life; prevent scarring.
- Reassure that acne is treatable. Advice need for compliance and requirement of long term treatment
- Debunk myths about acne:
  1. Advise that dietary manipulation is unlikely to be the most important component of management (there is a possible link with high dairy intake from epidemiological data and this may become clearer in time)
  2. Acne is not due to personal hygiene. Use light and non-greasy cosmetic preparations. Note that medicated make-up has little therapeutic benefit
  3. Sunbeds not likely to help and have risk of skin cancer.
- **Treatment duration**: at least three months is needed for topical agents,3- 6 months for oral antibiotics. Response to oral antibiotics is often seen after 3 months, 4-6 months may be needed before maximum response.
- Explain the realistic timescale for improvement – weeks rather than days. Review topical therapy at 2-3 months and if no improvement at all, then change to second line, but if improving advise that full improvement may take up to 6 months
- Offer a good information leaflet, such as this http://www.patient.co.uk/health/acne
- There are several useful online resources eg healthtalk.org.uk
- Assess the psychological impact of the acne. You can use a standardised questionnaire for this if you wish http://www.dermatology.org.uk/quality/dlqi/quality-dlqi-questionnaire.html

- Treatment should be based on the severity of the acne and the predominant type of lesion:
  - **Mild acne** (open and close comedones with some inflammatory lesions papules and pustules) –
  - Inflammatory papulopustular acne plus comedones:
  - **C**ombination topical treatments
    Benzoyl peroxide (BPO) plus retinoids (Epiduo),
    BPO plus antibiotics (Duac)
    Retinoid plus antibiotics (Treclin).
  - Non-inflammatory lesions ('Comedones= whiteheads and blackheads'**):** Topical Retinoids (e.g. 0.025% Retin A, Isotrex,)
    Note: All topical treatments should be used to all spot-prone skin at night and may take some time to have an effect as the main mechanism of action is preventing new spots. They may cause irritation so contact time can be increased gradually. Patients should be advised that BPO products can bleach fabrics

  - **Moderate to severe acne** (more numerous papules and pustules) - Oral antibiotics
  - 1st line Tetracyclines: lymecycline 408 mg od, or oxytetracycline 500 mg bd (3 – 6 months maximum)
  - 2nd line Erythromycin 500 mg bd (3 – 6 months) but resistance is an issue, therefore, reserve for use where other agents cannot be used.
  - Minocycline is more expensive, has more side effects including photosensitivity and hyperpigmentation and is not shown to be more effective.
  - Avoid tetracyclines in children < 12 yrs old.
  - Combine oral antibiotics with topical BPO products to reduce incidence of antibiotic resistance. Do not combine with topical antibiotics.
  - *If scarring is significant make referral for consideration of Isotretinoin.*

	▪ Severe cysts: Cysts Intra-lesional Triamcinolone acetonide (Adcortyl intradermal 10mg/ml), use 1ml insulin syringe: Inject 0.01ml to 0.05ml (i.e. not very much) onto the middle of the lesion causing slight distension, risk of atrophy if injected into dermis so wait until cyst is obvious ▪ Scars – shallow scars will become less obvious with time. Refer for cosmetic camouflage (www.changingfaces.org.uk); Keloid scars: Apply potent steroid (Dermovate) under Granuflex (changed weekly) or 0.1ml of Intra-lesional Triamcinolone 40mg/ml, Haelan tape (cut to size, apply to keloid scar and leave in place for 24 hrs). Use trained personnel to teach technique and provide advice. Only use these when acne has been adequately treated. ▪ Prevent bacterial resistance by: o Continue treatment for no longer than necessary o Reuse same antibiotic (not different antibiotics prescribed in rotation) if there is recurrence following a period of effective treatment o Use short intervening courses of topical keratolytics rather than antibiotic e.g. benzoyl peroxide (to eliminate resistant bacteria). o Avoid concomitant oral and topical treatment. ▪ Treatment with a combined oral contraceptive should be considered for all women with acne who require contraception or in whom there is a suspected hormonal basis of the acne. Usually takes six months to take effect. ▪ For most women, a 'standard' combined oral contraceptive is suitable. A monophasic preparation containing 30 micrograms of ethinylestradiol (standard strength) with norethisterone or levonorgestrel (first-line progestogens) is recommended. ▪ Yasmin, containing the progestogen drospirenone, has been previously promoted for use in women with acne. However, it is not specifically licensed for this indication, and is not recommended for first-line treatment. ▪ Co-cyprindiol (Dianette®) is licensed for severe acne, refractory to prolonged oral antibiotic therapy [ABPI Medicines Compendium, 2012]. The EMA found evidence from observational studies suggesting that co-cyprindiol has a 1.5–2 times statistically significant increase in venous thromboembolism risk compared with levonorgestrel-containing pills. It is thought that this risk is similar to that of contraceptives that contain desogestrel, gestodene, or drospirenone.
REFER **Email Advice**	▪ Acne unresponsive to 3-6 months of oral tetracycline e.g. lymecycline **OR** rapid relapse after more than 6 months antibiotics ▪ Severe acne e.g. nodulocystic, scarring/keloids ▪ For advice on referral for treatment of isotretinoin oxon.dermatologyadvice@nhs.net
REFER ONLY	▪ Consultant direction from email advice ▪ Acne unresponsive to other treatments or antibiotic dependent ▪ Sudden onset severe acne affecting multiple body sites +/- associated systemic symptoms ▪ Severe nodulocystic acne leading to scarring - prompt treatment by a dermatologist is required, oral isotretinoin is often highly effective. ▪ Patient considering Isotretinoin (Roaccutane) and has been counselled about side effects and the semi-permanent changes skin may undergo ▪ Prior to Referral for Isotretinoin: check fasting lipids and LFTs in all patients and start all females of childbearing age on reliable contraception (isotretinoin is highly teratogenic)
Referral Letter	▪ Reason for referral ▪ Previous therapy and length of treatment ▪ Results of LFTs and fasting triglycerides ▪ Contraception in females.
ADDITIONAL	▪ Lavender statements: **http://www.oxfordshire.nhs.uk/lavender.asp 6d** ▪ Prescribing traffic lights: **http://nww.oxfordshirepct.nhs.uk/GeneralPractice/Pages/Default.aspx** ▪ Clinical Knowledge Summaries: **http://www.cks.library.nhs.uk/acne_vulgaris**