

# Tips on Acne

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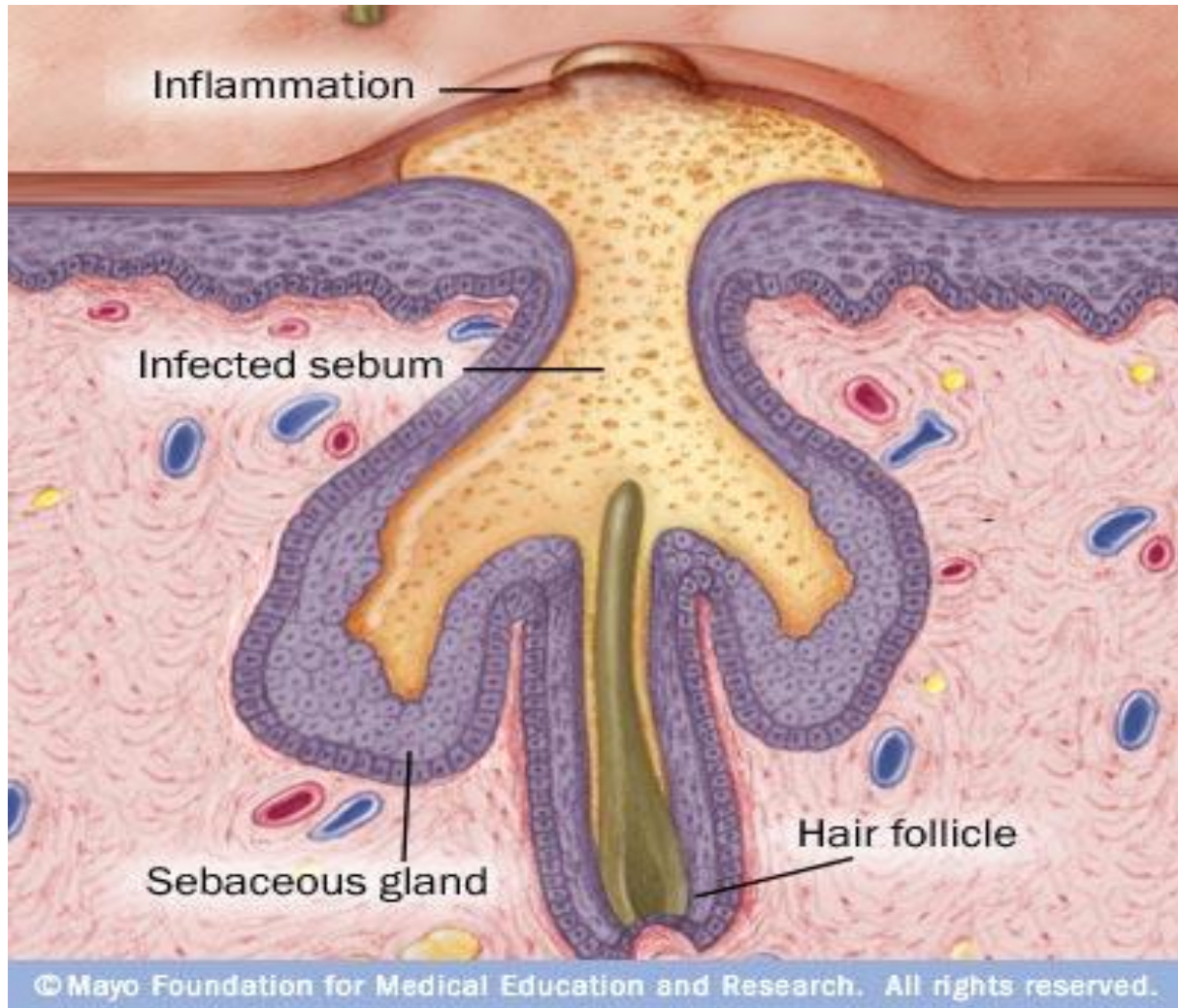
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# Acne

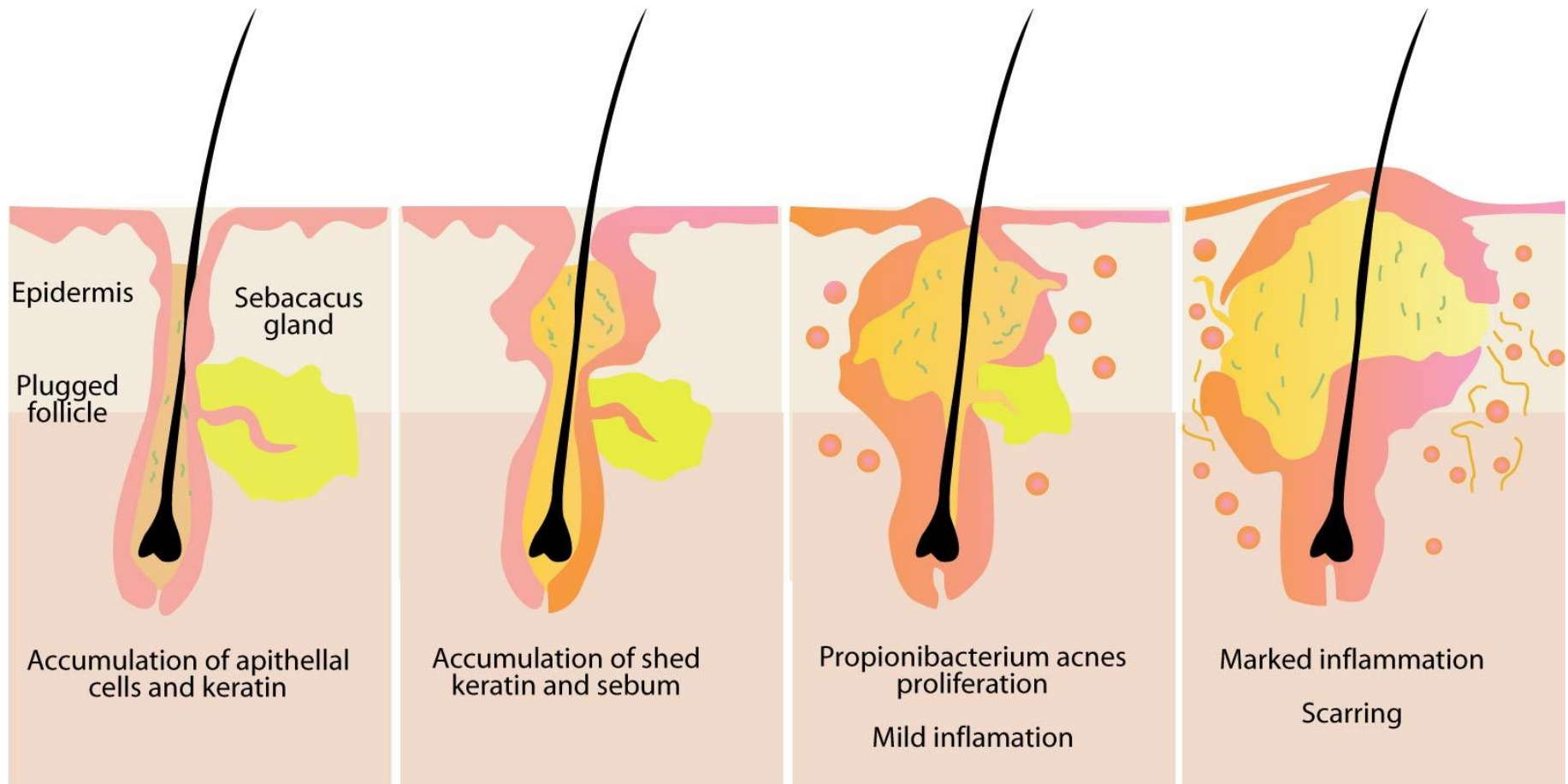
- Is the most common skin disease
- It affects all races and ages
- Most common in teenagers and young adults
- About 85% of 12 to 25 year olds have acne outbreaks
- 15% of women and 5% of men in 30s, 40s and 50s continue to get acne
- It has a significant impact of quality of life
- Is associated with mental health issues and suicide

- 26.6% were prescribed no ARM
- 25.2% were given an oral antibiotic
- 23.5% were given a topical antibiotic
- 2.8% were given oral plus topical antibiotic
- 59.9% of patients prescribed an ARM received no further ARM prescription in the following 90 days and 38.5% in the following year
- They concluded that acne management in primary care was sub optimal with overuse of antibiotic especially oral and underuse of other options

# Acne Pustule



# Formation of Acne Lesions



# History

- When started
- Sites involved
- Current treatment
- Previous treatments including over the counter
- Medical history
- Smoking
- For women – period cycle, contraceptive history
- Family history of acne
- Other information – job, studying etc
- Psychological impact

# Types of Acne

1. Comedonal acne
2. Mild - moderate papulopustular acne
3. Severe papulopustular acne, moderate nodular acne
4. Severe nodular acne, conglobate acne

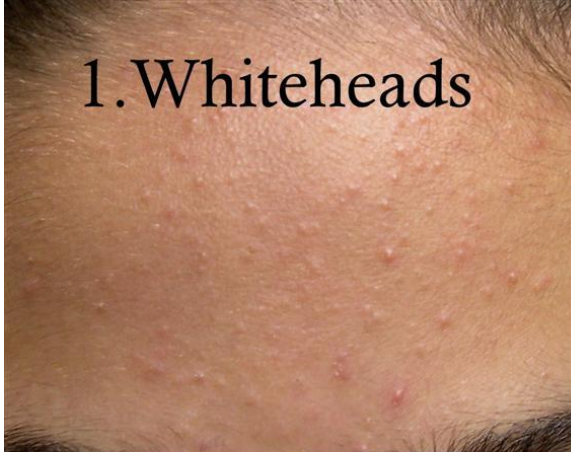
# Examination

- Look at the face
- Look at the neck
- Look at the back
- Look for blackheads and whiteheads
- Look for papules and pustules
- Look for nodules and cysts
- Look for scarring
- Look for signs of picking and scratching



# Acne Lesions

1. Whiteheads



2. Blackheads



3. Papules



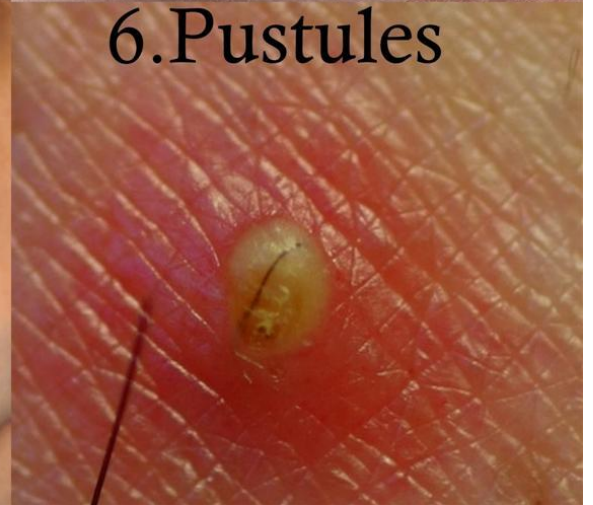
4. Cysts



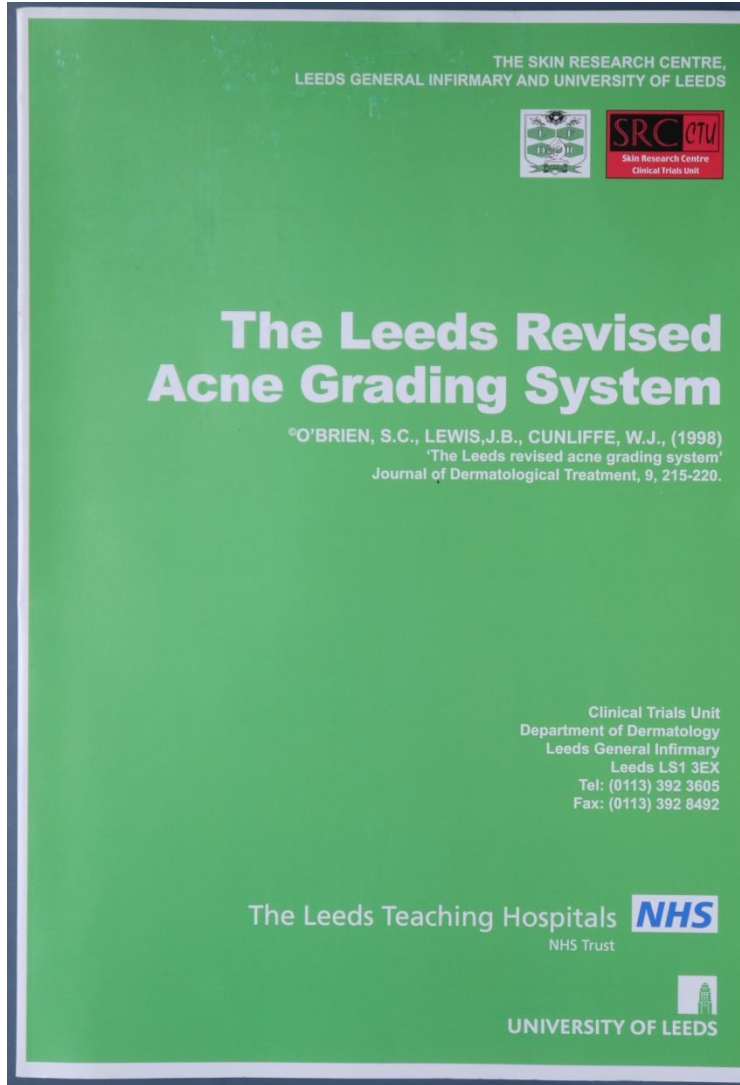
5. Nodular



6. Pustules



# Acne Grading



# Examining the Skin



# Comedonal acne

- Non-inflamed lesions
- Open (blackheads) and closed comedones (whiteheads)
- Mid-facial distribution
- If very prominent early – pre teens - is indicative of poor prognosis

# Papulopustular acne

- Mixture of inflammatory and non inflammatory lesions
- Papules and pustules
- May evolve into deep pustules or nodules in more severe disease
- Inflammatory macules represent regressing lesions that can persist

# Late Onset Acne

- A US study has shown that late onset acne in women is increasing
- 45% of women aged 21-30 had clinical acne
- 26 % aged 31- 40 had clinical acne
- 12% of women aged 41-50 had clinical acne
- Another study has shown that Comedonal post-adolescent acne (CPAA) is the most prevalent form of acne in adult women
- Also CPAA was frequently of late-onset and closely correlated with **cigarette smoking**.

# Differential Diagnosis

- Seborrhoeic Dermatitis – look for scale in hair. Rash on body, scale in ears and eyebrows
- Perioral Dermatitis – mostly women - papules around mouth and use of topical steroids
- Rosacea – redness in the central face, fair skin – no blackheads
- Contact or Irritant Dermatitis

# Other Variants of Acne

- Acne fulminans
- Gram-negative folliculitis
- Rosacea fulminans
- Vasculitic Acne
- Mechanical acne
- Oil/ tar acne
- Chloracne
- Acne in neonates and infants
- Late onset and/or Persistent acne, sometimes associated with genetic or iatrogenic endocrine problems



**DERMATOLOGY LIFE QUALITY INDEX****DLQI**

Hospital No:  
Name:  
Address:

Date:  
Diagnosis:

Score:

**The aim of this questionnaire is to measure how much your skin problem has affected your life OVER THE LAST WEEK. Please tick ☒ one box for each question.**

- |     |   |  |                                       |
|-----|---|--|---------------------------------------|
| 1.  | Over the last week, how <b>itchy, sore, painful or stinging</b> has your skin been?   | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> |                                       |
| 2.  | Over the last week, how <b>embarrassed</b> or <b>self conscious</b> have you been because of your skin?   | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> |                                       |
| 3.  | Over the last week, how much has your skin interfered with you going <b>shopping</b> or looking after your <b>home or garden</b> ?                  | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |
| 4.  | Over the last week, how much has your skin influenced the <b>clothes</b> you wear?  | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |
| 5.  | Over the last week, how much has your skin affected any <b>social</b> or <b>leisure</b> activities?   | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |
| 6.  | Over the last week, how much has your skin made it difficult for you to do any <b>sport</b> ?   | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |
| 7.  | Over the last week, has your skin prevented you from <b>working</b> or <b>studying</b> ?  | Yes <input type="checkbox"/><br>No <input type="checkbox"/>  | Not relevant <input type="checkbox"/> |
|     | If "No", over the last week how much has your skin been a problem at <b>work</b> or <b>studying</b> ?   | A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/>                                       |                                       |
| 8.  | Over the last week, how much has your skin created problems with your <b>partner</b> or any of your <b>close friends</b> or <b>relatives</b> ?      | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |
| 9.  | Over the last week, how much has your skin caused any <b>sexual difficulties</b> ?  | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |
| 10. | Over the last week, how much of a problem has the <b>treatment</b> for your skin been, for example by making your home messy, or by taking up time? | Very much <input type="checkbox"/><br>A lot <input type="checkbox"/><br>A little <input type="checkbox"/><br>Not at all <input type="checkbox"/> | Not relevant <input type="checkbox"/> |

**Please check you have answered EVERY question. Thank you.**

The Cardiff Acne Disability Index

1. As a result of having acne, during the last month have you been aggressive, frustrated or embarrassed?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(a) Very much indeed (b) A lot (c) A little (d) Not at all
2. Do you think that having acne during the last month interfered with your daily social life, social events or relationships with members of the opposite sex?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(a) Severely, affecting all activities (b) Moderately, in most activities (c) Occasionally or in only some activities (d) Not at all
3. During the last month have you avoided public changing facilities or wearing swimming costumes because of your acne?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(a) All of the time (b) Most of the time (c) Occasionally (d) Not at all
4. How would you describe your feelings about the appearance of your skin over the last month?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(a) Very depressed and miserable (b) Usually concerned (c) Occasionally concerned (d) Not bothered
5. Please indicate how bad you think your acne is now:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(a) The worst it could possibly be (b) A major problem (c) A minor problem (d) Not a problem

# Acne and overuse of antibiotics

- Oral and Topical Antibiotics should not be the main prescription for acne
- In the USA about 5 million prescriptions for oral antibiotics are written each year for the treatment of acne
- Antibiotic resistance is increasing
- A European study found 63% resistance of *P.acnes* to both topical erythromycin and clindamycin
- There needs to be more sensible prescribing of antibiotics in acne – both oral and topical

# Antibiotics

- The use of topical and systemic antibiotics needs to be limited to prevent resistance
- Milder forms of acne do not need antibiotics
- Topical monotherapy with antibiotics should be avoided
- The use of systemic antibiotics should be limited in indication and duration to prevent resistance
- The use of benzoyl peroxide can reduce antibiotic resistance

- Our data suggest that the management of acne in primary care is sub-optimal and that consultation rates are relatively low for such a common condition.
- Management is over-reliant on antibiotic treatment (especially oral antibiotics) and under-utilises non-antibiotic treatments;
- Oral antibiotics are frequently prescribed and in most cases they are prescribed without co-prescribing topical non-antibiotic treatments (increasing the risk of resistance and in contravention to guidelines)

# Conclusions of the study

- Treatment courses are too short
- Follow-up is less than optimal
- Interventions to improve the management of acne in primary care need to be urgently developed and evaluated.

# Topical Retinoids

- Are underused in acne treatment – **should be first line**
- Adapalene to be preferred over topical tretinoin or isotretinoin - the best tolerability/safety profile
- Patient preference favoured adapalene over tretinoin
- They will help to unblock the pores and reduce grease secretion
- They are not a spot treatment – need to apply to all greasy, spot prone areas

# Acne Treatment - Comedonal Acne

- Blackheads, whiteheads, no cysts or scars
- OTC products and topical retinoid gels/creams
- **Retinoids gels/creams** will help blocked pores
- Reassess and watch for progression of acne
- Does not require oral or topical antibiotics
- Will take at least 2-3 months to see improvement



# Topical Retinoids

- No evidence for Teratogenicity of TOPICAL retinoids
- Not recommended in pregnancy
- Stop if pregnant
- A woman doesn't have to be in pregnancy prevention programme as for ORAL retinoids

# Benzoyl Peroxide – how it works

- As an antiseptic - it reduces the number of skin surface bacteria
- It does not cause bacterial resistance
- Reduces bacterial resistance from antibiotic therapy
- Reduces the number of yeasts on the skin
- Oxidizing agent - this makes it keratolytic and comedolytic so it reduces the number of comedones.
- Has an anti-inflammatory action.

# Papular Pustular Acne

- Will have papules and pustules
- Back might be involved
- **Adapalene + BPO or BPO + Clindamycin - first line**
- **Then Azelaic acid or BPO or Topical retinoid**
- If more severe **systemic antibiotic + Adapalene**
- Oral antibiotics – Lymecycline less problematic than using Minocycline
- Erythromycin for those under 12 or pregnant
- **Need 3 months**
- **Avoid mixing antibiotics groups in oral/topical Rx**

# Nodulocystic Acne

- Isotretinoin orally is the main recommendation
- If giving an antibiotic it should not be monotherapy – need to give along with a topical retinoid, azeliac acid or retinoid with benzoyl peroxide
- Lymecycline or Doxyxcycline
- Refer promptly

# Recommendations for the Treatment of Severe Acne

- Isotretinoin orally is the main recommendation

# Severe Acne

- If scarring - urgent referral for consideration of Isotretinoin
- Mention scarring in the referral letter
- Whilst waiting for referral start on higher dose oral antibiotics along with topical retinoid
- Check contraception in females as that will make the prescribing of Isotretinoin easier
- Check their Rx regime and other topicals
- Check continuance

# Oral Isotretinoin

- Very little convincing evidence about Isotretinoin causing depression
- There is evidence that acne causes depression – not always related to the severity
- Main side effect is dryness of the skin especially the lips and occasional nose bleeds

# Prognostic factors of severe disease that should influence treatment choice

- Family history
- Course of inflammation
- Persistent or late-onset disease
- Hyperseborrhoea
- Androgenic triggers
- Truncal acne
- Psychological sequelae.
- Previous infantile acne may also correlate with resurgence of acne at puberty
- Early age of onset with mid-facial comedones
- Early and more severe seborrhoea
- Earlier presentation relative to the menarche



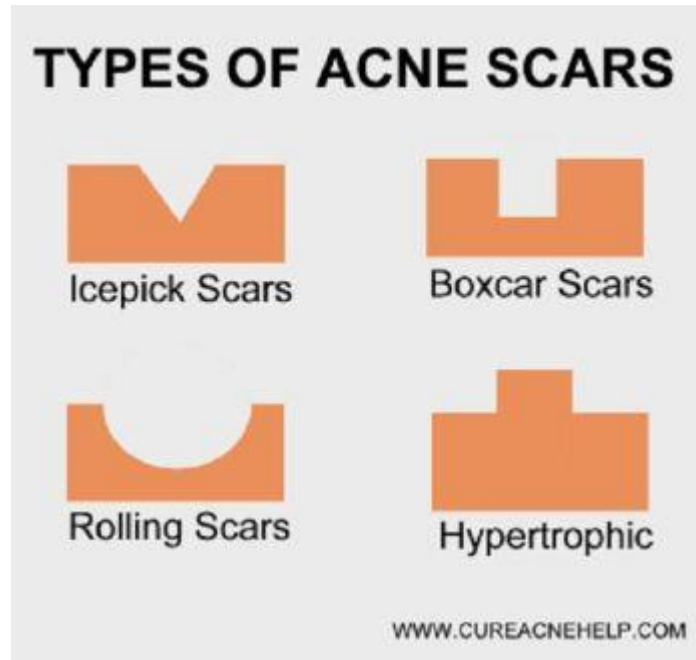
# When to refer for oral Isotretinoin

- Treatment failure - 2 courses of oral ABs plus topical treatment (3 months each)
- Severe psychological morbidity
- Severe nodulocystic acne (refer early)
- Scarring
- Diagnostic doubt

# Avoid using two different antibiotic groups



# Acne Scarring



Urgent referral if acne scarring or  
Family History of Scarring Acne

# Who will scar?

- Scarring usually follows deep seated inflammatory lesions
- But can occur in more superficial inflamed lesions in scar prone patients
- In dermatology clinics acne scarring is seen in up to 90% of patients – (some very mild)
- The presence of scarring should support more aggressive management and treatment early in the disease process

# Things to Help

- Ask what they are using on their skin
- Ask about make up, concealers etc
- Washing with soap and water is good
- For women think about the combined pill - it will help their acne esp. if they run the packets on to reduce pill free intervals

# Things NOT to do

- Continue antibiotics on repeat without review
- Continue same antibiotic for more than 6 months
- Mix topical and oral antibiotic groups
- Stop treatment whilst waiting for dermatology appointment

# Factors which make Acne worse

- Cosmetic agents and hair pomades
- Medications - steroids, lithium, some antiepileptics and iodides.
- Polycystic Ovary Disease, Congenital Adrenal Hyperplasia – causing androgen increase/ sensitivity
- Pregnancy may cause a flare-up.
- Mechanical occlusion with headbands, shoulder pads, back packs, or under-wire bras can be aggravating factors
- Excessive sunlight may either improve or flare acne

# Food

- Parents often tell teens to avoid pizza, chocolate, greasy, fried foods, and junk food.
- While these foods may not be good for overall health, they don't cause acne or make it worse
- **BUT** there is concern about **excessive** intake of milk especially skimmed milk
- Good advice about diet may help acne - eating more low glycaemic index foods and more foods rich in omega 3 - whole grains, fresh fruits and vegetables, fish, olive oil and garlic



# Combined Oral Contraceptives

- A US survey showed that COC contraceptives were used infrequently for women with acne - 3.3% on initial consultation
- Non enzyme inducing antibiotics – no additional contraceptive precautions needed now
- Any COC can make acne better but co-cyprindiol and drospirenone are the two best progestogens (least androgenic)
- Less frequent pill free intervals helps as well

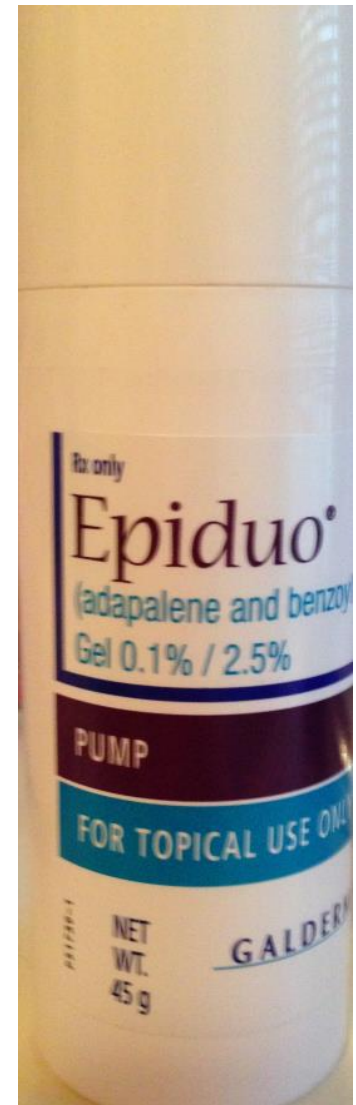
# Acne – When to Refer

- \*\*\*Have a very severe variant –such as acne fulminans
- \*\*Have severe nodulocystic acne who could benefit from oral isotretinoin
- \*\*Have severe social or psychological problems, including a morbid fear of deformity (dysmorphophobia)
- \*Are at risk of, or are developing, scarring despite primary care therapies
- \*Have moderate acne that has failed to respond to treatment – defined as several courses of both topical and systemic treatment over a period of at least 6 months.  
**Failure is probably best based upon a subjective assessment by the patient**
- \*Are suspected of having an underlying endocrine cause for the acne such as polycystic ovary syndrome that needs assessment

# When referring

- If referring for consideration of Isotretinoin
  - Do bloods – LFTs, FBC and fasting lipids
  - Talk to female patients re contraception
  - Don't stop all treatment
  - Double antibiotic dose whilst waiting for appointments
  - Make sure they have a topical retinoid AND are using it correctly
- On referral letter list treatments to date
- Other relevant information – family history etc

# A Topical Retinoid – first choice in acne treatment



# Picking is a compulsive habit

- Look for spots with the top missing
- Ask about picking
- Can be a form of self harm

# Blackhead Extractor



Dermaroller® good for closed comedones



# Tips

- Soap and water are good on acne prone skin
- Check what is going on their skin esp thick concealers, ointments etc
- Are they taking antibiotics/using topicals correctly
- Remember blackhead extractor/dermaroller
- Combined pill is a useful additional treatment for women – esp. with less breaks



# Acne

## Acne

### Acne – Primary Care Treatment Pathway

#### Contributors

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Dr Stephen Kownacki, GP  
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#### What is Acne?

Acne, an inflammatory disorder of the sebaceous glands, is one of the most common dermatological disorders and is considered a chronic disease. Treatment may be required to improve both the physical appearance and prevent physical and psychological scarring. Whilst it is primarily a skin disorder of the young, often clearing up spontaneously, it can affect up to 12% of women and 3% of men over the age of 25. Treatment options for all age groups and both sexes are largely the same, apart from Hormonal therapy

#### Important Information About Treatments



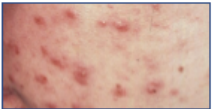

Treatments are effective but take time to work (typically up to eight weeks) and may irritate the skin, especially at the start of treatment. Topical and systemic antibiotics should not be prescribed together, or used as sole treatment as bacterial resistance is a growing concern. All treatments should be routinely reviewed at 12 weeks. In the event of pregnancy, topical retinoids and oral tetracyclines should be discontinued

#### At Review

If treatment goals are reached at the 12 week review:  
Maintenance therapy should be considered  
Discontinue topical/systemic antibiotics

If treatment goals are NOT reached at the 12 week review:  
Review adherence to treatment(s)  
Consider alternative treatments

#### Grading acne based on lesion type can help guide treatment

Treatment graded by the predominant present				
	Comedones	Papules	Pustules	Nodules/Cysts*
Topical Retinoid <i>Tretinoin, Isotretinoin &amp; Adapalene</i>	+++	++	+	+
Benzoyl Peroxide (BPO)		+++	+++	+
Azelaic Acid 20% – <i>Skinoren</i>	+	++	++	+
Topical Antibiotics		++	+++	
Topical Retinoid/BPO – <i>Epiduo</i>	+	++	+++	+
Topical Retinoid/Antibiotic Combination <i>Treclin</i>	+	++	+++	
Topical Antibiotic/BPO Combination <i>Duac</i>		++	+++	
Oral Antibiotics		++	+++	+++
Combined Oral Contraceptives (for females only)		++	++	++
<b>Legend</b>	+++ Strong recommendation    ++ Moderate recommendation    + Low recommendation			

#### Red Flag

- Refer immediately if:
- Severe psychological distress
  - Uncontrolled acne developing scarring
  - Nodulo-cystic acne\*
  - Diagnostic uncertainty
  - Patients failing to respond to multiple therapeutic interventions

\* Nodules/Cysts  
Treatment can be initiated, but patients should be referred