Management of Impetigo (A Bacterial Infection of the Epidermis)

What is impetigo?
1. Causative organisms: *Staphylococcus aureus* - or Group A streptococci (especially in tropical countries).
2. Secondary infection of pre-existing conditions, such as eczema or scabies, by either bacteria leads to impetiginised lesions.
3. It is possible for healthy individuals to carry *Staphylococcus aureus* (especially in the anterior nares) or streptococci without any clinical symptoms.

Which population is at risk?
1. Impetigo is highly contagious therefore people living in crowded conditions in hot climates are particularly at risk.
2. It is a common infection amongst children but can affect any age group.
3. Clinical conditions which predispose an individual to impetigo, include: eczema, scabies and HIV.

What are the clinical symptoms?
1. Frequently lesions occur on the head and neck. However in tropical climates lesions are also seen on the legs (especially knees and ankles) and they can appear anywhere.
2. Onset is sudden and not associated with pain or discomfort.
3. Lesions start as round or oval pustules which may change into blisters, (this is mainly seen with staphylococci).
4. Alternatively lesions may produce a honey coloured serous fluid which forms a crust. When the crusts are removed an eroded red area is seen underneath.

How is diagnosis confirmed?
1. Skin swabs for bacteriology may be taken but generally clinical diagnosis is sufficient to commence treatment
2. Ideally if more than one person in a household is affected nasal swabs should be taken to ascertain whether anyone is a Staphylococcus aureus carrier.

What might it be confused with?
- Herpes simplex produces vesicles and may become impetiginized in tropical climates.
**What preventive measures should be taken?**

1. The skin should be kept clean and any wounds cleansed and covered with a clean dressing.

2. Scratching of itchy skin conditions should be minimised by treating the condition where possible (e.g. scabies) or minimising the itchy symptoms by use of emollients (for dry skin conditions) or using oral anti-pruritics when appropriate.

**Which treatments are most effective?**

1. One or two localised lesions may be treated with topical fusidic acid 3 times a day for 5 days. Mupirocin should be held in reserve as second line treatment for resistant bacteria. Although there is little clinical trial data to support it, using an antiseptic such as potassium permanganate or cyclohexidine is also an effective and cheaper approach.

2. More extensive impetigo should be treated with a course of oral antibiotics. Either cloxacillin, flucloxacillin for 7 days or erythromycin for 7 days.

**How should the treatments be used**

1. People should be reminded that impetigo is highly contagious.

2. Hand washing must be observed whenever the impetigo has been touched and towels and cloths/sponges used for washing must not be shared.

3. Children should be kept off school until the crusting has stopped.

4. If the impetigo is secondary to scabies or eczema the skin is likely to be very itchy, this should be treated and if necessary itching reduced with an antihistamine or calamine.

5. If topical therapy is being used whoever applies the treatment should be advised to:
   - Wash hands;
   - Gently remove crusts from the lesions using gauze soaked in warm water or antiseptic solution;
   - Apply topical antibiotic to the lesions and gently rub in;
   - Wash hands.

**What are the common concurrent problems?**

- Scabies and eczema, if the lesions do not respond to treatment it is worth considering whether the impetigo is secondary to one of these underlying conditions.

**What are the uncommon concurrent problems?**

- Streptococcal impetigo is associated with the risk of developing nephritis. The frequency is not known although there is some evidence that chronic proteinuria can result.