PATIENT INFORMATION LEAFLET

STAPHYLOCOCCAL SCALDED SKIN SYNDROME

WHAT ARE THE AIMS OF THIS LEAFLET?

This leaflet has been written to help you understand more about staphylococcal scalded skin syndrome. It explains what it is, what causes it, what treatment is available, and where you can find more information about it.

WHAT IS STAPHYLOCOCCAL SCALDED SKIN SYNDROME?

Staphylococcal scalded skin syndrome is a rare painful, blistering skin condition which may cover a wide area of skin. It is caused by bacteria called *Staphylococcus aureus.* This bacterium produces a toxin that damages the outer layer of the skin causing it to blister and peel. The affected skin initially looks like a scald or burn, and is very red and tender to touch, which is why the condition is called Staphylococcal scalded skin syndrome.

WHAT CAUSES THE STAPHYLOCOCCAL SCALDED SKIN SYNDROME?

Staphylococcus aureus is the most common bacteria to infect the skin, eyes and nose. For example, it is the usual cause of:

- impetigo
- boils and abscesses
- styes and conjunctivitis
- infections in grazes and wounds
- infections in skin conditions such as eczema

Only 5% of *Staphylococcus aureus* produces proteins that are toxic to the skin causing it to blister, then peel and form a crust.

The condition is more common in neonates (babies up to one month old) and children younger than 5 years. This is because they may not have developed the protective antibodies against these toxins which older children and adults have.

Staphylococcal scalded skin syndrome is very rare in adults, but it can affect some people. This includes:

- people who have chronic kidney disease
- people who have immunodeficiency
- people on immunosuppressant drugs
- people undergoing chemotherapy.

Staphylococcus bacteria is carried naturally in the nose (up to 80%), throat or mouth without causing illness. As such, it can get passed from person to person on hands, towels, and in droplets from either coughing or sneezing.

WHAT ARE THE FEATURES OF THE STAPHYLOCOCCAL SCALDED SKIN SYNDROME?

The original source of infection may be relatively minor, for example an infected graze, nappy rash, infected umbilical stump in new-borns, or a red sticky eye. Initially, children develop non-specific symptoms such as irritability, lack of energy and fever. A widespread painful red rash and tenderness develops. This is followed by fragile blisters which easily burst. These typically first appear around the centre of the face, the neck, under the arms, in the groin and quickly move to other parts of the body. Affected children

may not want to be touched or held. Gentle pressure on the skin can cause the top layer to peel away leaving painful raw areas of skin that look like a burn. If large areas of skin peel, body fluids and salts can be lost causing dehydration. It may be more difficult to control the body's temperature. There is also increased risk of further infection, which may enter into the bloodstream, called sepsis.

Although crusting can frequently occur around the eyes and mouth, there is usually no involvement of the mucous membranes. This means that the lips, mouth, eyes and genital skin are not affected.

HOW IS STAPHYLOCOCCAL SCALDED SKIN SYNDROME DIAGNOSED?

Diagnosis is usually made from the typical appearance of the skin and the symptoms. Skin swabs are taken from any obvious source of infection and from additional areas such as the nose, around the eyes, and the throat to confirm the presence of the Staphylococcus bacteria. Blood tests will also be carried out to test for infection. Very rarely, a skin biopsy may be necessary. Skin biopsy is when a small piece of skin is sent for examination under a microscope. This may be necessary to exclude other causes for the blisters or red skin.

CAN STAPHYLOCOCCAL SCALDED SKIN SYNDROME BE CURED?

Yes. The earlier treatment with antibiotics is started the higher the chance of a cure, which will reduce the risk of widespread infection. Most patients respond quickly to antibiotics. With treatment, less than 5% of those affected develop severe complications. Skin peeling usually occurs within 5 days and resolves within two weeks. Once cured, there is usually no visible difference (scarring) or lasting effects to the skin. Sometimes the skin may look slightly darker or lighter than its original tone. This is normal part of healing which usually resolves within a few months.

HOW CAN STAPHYLOCOCCAL SCALDED SKIN SYNDROME BE TREATED?

In most cases, staphylococcal scalded skin syndrome needs hospital treatment. Antibiotics will need to be given intravenously (through a drip or a small tube(cannula) inserted into a vein) for a day or two.

- Children or adults with widespread areas of affected skin may need care in the intensive care unit (ICU). A drip may also be used to replenish lost fluids in the body if there has been a lot of blistering and skin loss.
- Once recovery has started and the patient is able to eat and drink, treatment may be changed to an oral antibiotic to complete a treatment course of approximately 10 days.
- If the infection is caught early, it can sometimes be treated with oral antibiotics only. While taking antibiotics, the skin must be gently cleansed at least once a day with a soap substitute, which may contain an antiseptic.
- Greasy moisturisers (e.g. Vaseline®) are recommended as they can soothe the skin, aid healing and stop the healing skin from sticking to clothing or bedding. In some cases, it may be necessary to treat the area with burns dressings.
- Regular pain relief with paracetamol, ibuprofen can help control the pain while the skin heals. Occasionally, stronger painkillers such as oral morphine may be needed.

CAN STAPHYLOCOCCAL SCALDED SKIN SYNDROME RECUR?

In almost all cases, staphylococcus scalded skin syndrome does not occur more than once.

CAUTION:

This leaflet mentions 'emollients' (moisturisers). Emollients, creams, lotions, and ointments contain oils. When emollient products get in contact with dressings, clothing, bed linen or hair, there is a danger that they could catch fire more easily, even if the emollient products have dried. To reduce the fire risk, patients using skincare or haircare products are advised to be very careful near naked flames or lit cigarettes to reduce the risk of clothing, hair or bedding catching fire. It is advisable to wash clothing daily and bedlinen frequently, if they are in contact with emollients; however, this may not remove the risk completely, even if washed at high temperatures, so caution is still needed. More information may be obtained at *https://www.gov.uk/guidance/safe-use-of-emollient-skin-creams-to-treat-dry-skin-conditions*.

WHERE CAN I FIND OUT MORE ABOUT THE STAPHYLOCOCCAL SCALDED SKIN SYNDROME?

Web links to detailed leaflets:

www.pcds.org.uk/clinical-guidance/staphylococcal-scalded-skin-syndrome

www.nottinghameczema.org.uk/documents/staphylococcal-scalded-skin-syndrome.pdf

http://dermnetnz.org/bacterial/scalded-skin-syndrome.html

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

BRITISH ASSOCIATION OF DERMATOLOGISTS

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