



## **PANTON VALENTINE LEUKOCIDIN STAPHYLOCOCCUS AUREUS (PVL-SA) SKIN INFECTION**

### **What are the aims of this leaflet?**

This information leaflet has been written to help you understand more about Panton Valentine Leukocidin Staphylococcus Aureus (PVL-SA) skin infection. It tells you what it is, what causes it, the symptoms, what can be done about it and where you can find more information.

### **What is Staphylococcus aureus?**

Staphylococcus aureus ('SA') is a bacterium (germ) that commonly lives on healthy skin. About one third of healthy people carry it quite harmlessly, usually on moist surfaces such as the nostrils, armpits and groin.

### **What is PVL-SA?**

PVL is a toxin produced by certain types of Staphylococcus aureus. The toxin can kill white blood cells and cause damage to skin and deeper tissues.

### **What causes PVL-SA infections?**

The risk of acquiring the infection is increased with the five C's:

- *Close Contact* – playing contact sports such as rugby or skin-to-skin contact with an infected family member or friend.
- *Contaminated items* – touching something which is contaminated with the bacteria, e.g. gym equipment, towels or razors.

- *Crowding* – living in crowded conditions increases the chance of passing on the infection, e.g. military accommodation, prisons and boarding schools.
- *Cleanliness* – an unclean environment will encourage the bacteria to spread.
- *Cuts and grazes* – having a cut or graze will allow the bacteria to enter the body.

### **What are the symptoms of PVL-SA?**

PVL-SA infection mainly occurs in young, healthy individuals. If PVL-SA enters the body through a graze or wound it can attack the skin and may rarely enter the blood stream, causing more serious problems. The symptoms include recurrent and painful boils/red areas on the skin, often in more than one place, which don't get better despite antibiotic treatment. The affected area is often more painful than the size of the lesion would suggest. PVL-SA can also cause infection of the bones or internal organs such as the lungs. Most people infected by PVL-SA are previously healthy young adults, but it can affect other patient groups including children.

### **What does PVL-SA look like?**

PVL-SA infected skin is generally red and inflamed with pus. It can have different appearances which may include cellulitis (infection of the deeper layers of the skin), abscesses, boils, folliculitis (inflammation of the hair follicle) or an infected wound.

### **How will it be diagnosed?**

A microbiology swab is taken from the infected site, nose and sometimes the underarm area. This swab is then sent to a special laboratory in London and tested for the presence of PVL-SA. A doctor may suspect PVL-SA if a skin infection is recurrent or severe, or if it occurs in several members of a household.

### **Can PVL-SA be cured?**

Yes PVL-SA can be effectively treated and cured. It can sometimes recur but can be treated again.

### **How can PVL-SA be treated?**

*Minor skin infections*

- Abscesses need to be incised and drained – this involves making a small cut in the skin with a sterile instrument and allowing the pus to drain from the abscess.
- Prevent spread by decontamination as outlined below.

#### *Moderate skin and soft tissue infections*

- Incision and drainage of abscesses.
- Oral antibiotic treatment – antibiotics will be given by mouth depending on the susceptibility of the bacteria.

#### *Severe skin and soft tissue infections*

- Intravenous antibiotics will be administered in hospital via a drip for 10-14 days.

### **How do I stop the bacteria from spreading?**

Once the infection has resolved, your body must be cleared of any PVL-SA. Your doctor will prescribe a topical treatment, e.g. chlorhexidine, to wash yourself with and an antibacterial nasal ointment both to be used for 5-7 days. Your family members may also have to follow this system.

To help stop the PVL-SA spreading you should also:

- Change towels every day and do not share them.
- Change bed sheets daily.
- Keep the house very clean especially the sink and bath.
- Not visit a gym or swimming pool until the infections have healed.
- Cover infected areas with dressings.
- Wash your hands frequently with liquid soap.

### **What can I do?**

It is important to take the medicines prescribed by the doctor and follow the clearance system once all your infections have healed. If the infections return or a new infection appears on yourself or a family member you must visit your doctor straight away.

### **Where can I get more information about PVL-SA?**

Health Protection agency:

<https://www.gov.uk/government/collections/panton-valentine-leukocidin-pvl-guidance-data-and-analysis>

For details of source materials use please contact the Clinical Standards Unit ([clinicalstandards@bad.org.uk](mailto:clinicalstandards@bad.org.uk)).

**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*

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