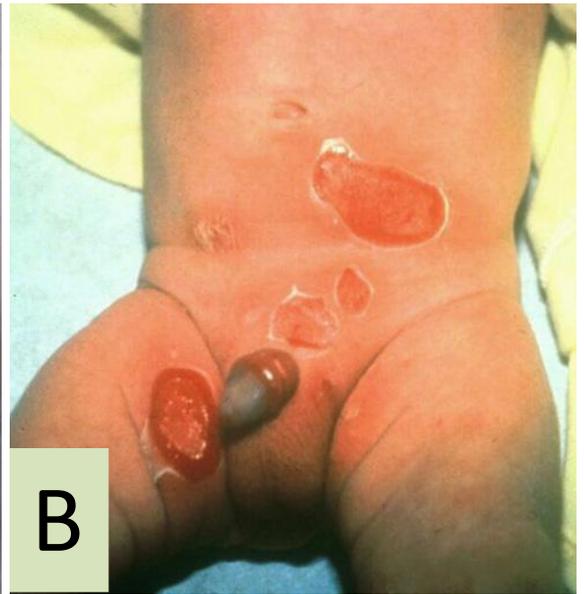


SEPSIS AND INFECTIOUS DISEASES  
WHAT IS THE CAUSE OF EACH RASH?



**A:** young adult, septic. **B:** 7 day old, fragile bullae and fever.



**C:** painful, vesicular rash limited to right upper back. **D:** commenced on oral flucloxacillin 3/7 ago.



**E:** macular and vesicular rash of the palms, soles and mouth. **F:** bitten by insect 2/7 ago.

### **A: Purpuric rash in Meningococcal Sepsis**

The meningococcal rash is haemorrhagic (petechial or purpuric), often palpable and non-blanching. Bear in mind that it may not be as prominent as depicted here.

The differential diagnosis includes autoimmune vasculitis, thrombocytopenia, Henoch-Schonlein purpura, infective endocarditis and disseminated intravascular coagulation.

### **B: Staphylococcal Scalded Skin Syndrome**

SSSS causes widespread blanching erythema followed by flaccid blisters which rupture, desquamate and eventually heal with no scar. Gentle traction with a finger may cause further desquamation. It is caused by the exfoliative toxins of *Staphylococcus aureus* and is a disease of children, usually affecting neonates of 3-7 days of age. Treat with IV flucloxacillin, IV fluids & barrier creams ("scalded" areas are water-permeable).

Toxic epidermal necrolysis and Steven-Johnson syndrome are the main differentials – these usually result from drug reactions and are more likely to occur in older patients.

### **C: Shingles**

Shingles causes a painful dermatomal rash which progresses from erythema to vesicles. The immunocompromised may develop a generalised rash, sepsis or encephalitis.

The differential includes herpes simplex, cellulitis, impetigo and dermatitis herpetiformis.

Oral acyclovir may shorten the duration of symptoms if treatment is commenced early. If systemically unwell or encephalopathic give IV acyclovir.

### **D: Necrotizing Fasciitis**

This is a rapidly progressive soft tissue infection which causes necrosis of fascia and muscle. There will be fever, sepsis syndrome and exquisite tenderness of the affected area. Eventually skin changes progress to bullae and necrosis as can be seen in the picture.

Treat with IV benzylpenicillin, flucloxacillin, gentamicin, clindamycin and metronidazole and seek urgent orthopaedic review. X-ray may show subcutaneous air.

### **E: Hand Foot and Mouth Disease**

This is a viral illness caused by enteroviruses, especially Coxsackievirus A. The rash is painful, maculopapular, vesicular or mixed. Illness is usually mild and treatment is supportive only.

### **F: Lymphangitis**

Lymphangitis is an inflammation of lymph vessels usually due to a soft tissue infection or infected wound. Cellulitis can be seen tracking along the course of the lymphatic vessels. Lymph nodes may also be affected and if so will be tender and enlarged.

Streptococcus and Staphylococcus are the most common causes, though sporotrichosis, *Mycobacterium marinum*, leishmaniasis and malignancy are all rare aetiologies. Treat with IV antibiotics, though occasionally, depending on the cause, surgical debridement is needed.