Toxic shock syndrome

- Staphylococcal, type A and B
- Streptococcal

Staphylococcal TSS

Type A (Menstrual)
- Associated with tampon use

Type B (Non-menstrual)
- Surgical wound
- Post partum (peripartum endometritis)
- Post influenza A
- Associated with staphylococcal infection in AIDS
- Associated with dermatological pathology

Pathogenesis
Toxin production by staph aureus -> TSST-1, Enterotoxin -> forms superantigen -> activates T-cell immunity -> cytokine activation (IL-1,2,10, TNFa)

Assessment
- History for features (malaise, fevers, sweats, sore throat, pain out of proportion to findings at source site) and risk factors (Type A & B plus DM)
- Examination for high fever, initial maculopapular rash on trunk followed by desquamation of palms and soles 2 weeks later, septic shock
- Investigations for organism, source, risk factors and complications

Treatment
- Resuscitation
- Antibiotics: flucloxacillin, clindamycin (may reduce toxin production)
- Source control -> tampon removal, tissue debridement, abscess drainage
- Sepsis management interventions
- Consider IVIG for severe sepsis or significant multiorgan impairment

Streptococcal TSS

As for staphylococcal TSS. Associated with group A streptococcal infection (Strep pyogenes)

Proposed diagnostic criteria published in JAMA by the Workgroup for Severe Streptococcal Infection:

Group A strep isolated from usually sterile site (blood, pleural effusion, CSF, joint fluid – definite) or non-sterile (oral, vaginal – probable), with sBP < 90mmHg plus 2 or more organ impairments (ARDS, renal impairment, DIC, abnormal LFTs) or generalised erythema.
References

- Intensive Care Medicine - Irwin & Rippe 6th Ed
- Current medical diagnosis and treatment

Matthew Mac Partlin, 2009