### Differential Diagnosis of Dengue with Rash

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| **Scarlet Fever (Group A beta-hemolytic streptococcus infection)** | • Occurs most commonly in children, 1–10 years, during the nonsummer months  
• Family gives history of abrupt onset of fever, sore throat, headache, malaise, and vomiting, 2–5 days post exposure  
• Skin rash appears in all areas at same time and desquamates and fades after 4–5 days | • Fever, circumoral pallor, red swollen (strawberry) tongue, pharyngeal erythema with exudate and palatal petechiae, and tender cervical adenopathy  
• Sandpaper-like generalized erythematous rash with discrete skin-colored papules and linear petechial streaks in skin folds, particularly axillary, inguinal, and antecubital fossa | • Rapid strep test (pharyngeal swab): positive  
• Anti-streptolysin O titer: positive |
| **Toxic Shock Syndrome (TSS)** | • Occurs most commonly in children, 5–15 years, during winter and spring  
• If history of exposure to person with cold-like symptoms, patient would have been infected 4–14 days before onset of symptoms.  
• Family gives history of fever, headache, runny nose, and rash  
• Patient might complain of arthralgia | • Fever, hypotension, and a diffuse erythematous rash on trunk, palms, and soles of feet, which desquamates 1–2 days after disease onset  
• Patient can have mucous membrane inflammation (redness of eyes, mouth, and throat), and evidence of central nervous system and multi-organ involvement with renal, liver, or respiratory dysfunction | • Blood cultures: usually negative in staphylococcal infection (S. aureus); might be positive in streptococcal infection (S. pyogenes)  
• Acute and convalescent antibody serology: positive for S. aureus infection  
• Toxin serology: evidence of exotoxins  
• Serum creatinine: elevated > 2 times upper limit of normal for age  
• Platelet count: < 100,000/mm³  
• Liver function test: AST, ALT > 2 times upper limit of normal |