# Staphylococcal Scalded Skin Syndrome

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## Introduction

Staphylococcal Scalded Skin Syndrome (SSSS) is a bacterial toxin-mediated erythema that most commonly occurs in children. The bacterium produces an exfoliative toxin that causes blistering and desquamation of the outer layer of skin. The main complication of this disease is dehydration as the desquamation causes a burn-like loss of fluids and possibility for secondary infection.[1,2]

We present a case of Staphylococcal Scalded Skin Syndrome in a pediatric patient.

## Case Presentation

A 5-year-old previously healthy male presented to the Emergency Department (ED) after seeing his pediatrician earlier in the day for diffuse rash and dehydration thought to be due to streptococcal pharyngitis with scarlet fever. With a negative rapid strep test but rash concerning for scarlet fever, he was prescribed amoxicillin/clavulanic acid with a pending strep culture at the doctor's office. The rash continued to progress and he was brought to the ED for evaluation. In the ED, patient was afebrile and appeared clinically dehydrated with a maculopapular rash localized to the neck, axilla, upper back and groin.

- Rapid strep again negative with a culture pending
- Continued on amoxicillin/clavulanic acid for presumed scarlet fever.
- Intravenous fluids initiated and patient admitted for further observation.

Over the next day, patient's illness and rash continued to worsen.

- All throat, urine and blood cultures negative
- Rash began to exhibit small vesicles with areas of desquamation.
- Given lack of improvement with current treatment, management empirically transitioned to cover for Staph Scalded Skin Syndrome, IV cefazolin and clindamycin initiated
- Improvement quickly observed, patient transitioned to oral cephalexin.

## Pictures Representative of SSSS

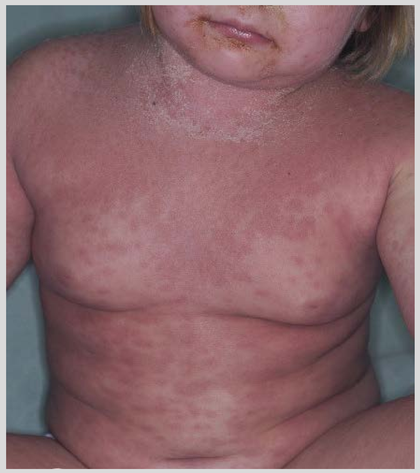


Figure 1 (Right). Initial appearance of rash with the maculopapular appearance and perioral crusting.[3]

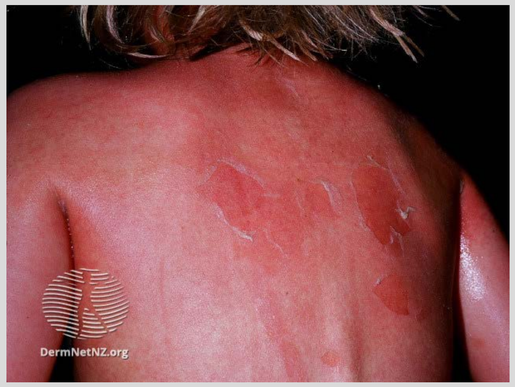
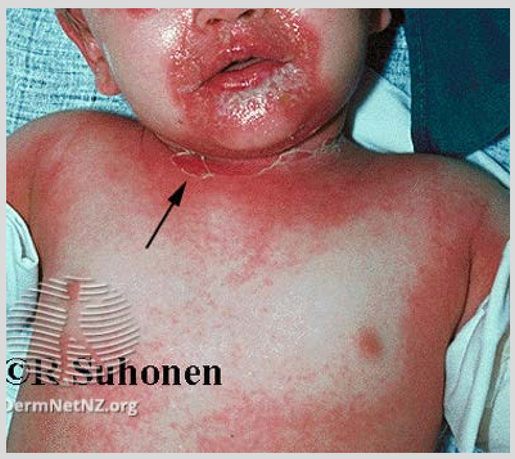



Figure 2 (Left). Progression to vesicular eruption and desquamation.[3]

Figure 3 (Right). Further desquamation and perioral lesions prior to treatment transition.[3]




## Progress and Outcome

Patient was treated supportively along with targeted IV antibiotic therapy and later discharged home with oral antibiotics.

Patient followed up with his pediatrician and found to have full resolution of his skin rash.

## Discussion

The diagnosis of SSSS is primarily made clinically as cultures are generally negative. Treatment is supportive care and antibiotic coverage of *Staphylococcus aureus*. Improvement is usually seen within 24-48 hours after starting targeted treatment, with full resolution occurring within 5-7 days. Though death or other complications are generally uncommon, SSSS is considered a pediatric emergency as prompt treatment decreases the risk for secondary infections and severe dehydration.

## Conclusion

Pediatric rashes are commonly encountered within primary care. Although some are encountered more frequently than others, it is important to keep a broad differential so as to not delay treatment when necessary. This was also an excellent example of bandwagon effect bias which further shows the importance of forming one's own differential instead of assuming the infallibility of previous providers.

## References

1. Alexander, Leung K. C. "Staphylococcal-Scalded Skin Syndrome: Evaluation, Diagnosis, and Management." World Journal of Pediatrics, 5 Mar. 2018, pp. 116–120. doi:https://doi.org/10.1007/s12519-018-0150-x.
2. McMahon P. "Staphylococcal Scalded Skin Syndrome." Up To Date, 2019, www.uptodate.com/contents/ staphylococcal-scalded-skin-syndrome.
3. "Staphylococcal Scalded Skin Syndrome". DermNet, 2018, creativecommons.org/licenses/by-nc-nd/3.0/nz/legalcode.