Randall Children's Hospital

Co-Management and Referral Guidelines
Skin and Soft Tissue Infections (SSTI)
Randall Children's Infectious Diseases

To refer, contact **Randall Children's Hospital Emergency Department**
Phone: **503-276-9191**

Introduction

Skin and soft tissue infections are very common in children and include impetigo, cellulitis, erysipelas, abscess, lymphangitis and others. The most common pathogens are *Staph aureus* — both methicillin-sensitive (MSSA) and methicillin-resistant (MRSA) — and group A strep.

In 2015, among pediatric SA isolates tested at Legacy Health, 65 percent were **susceptible** to methicillin/cephalexin (methicillin-sensitive *Staph aureus* or MSSA) and and 16 percent were resistant to clindamycin (some of these are MRSA, some MSSA and some have only inducible clindamycin resistance).

Evaluation and Management

- *Staph aureus* causes almost all **impetigo** now, but group A strep can also be involved. MSSA causes more impetigo than MRSA. Empiric treatment for localized impetigo without systemic symptoms is **topical mupirocin** three times daily or retapamulin twice daily for five days. More extensive impetigo or associated with systemic symptoms should be treated with systemic antibiotics (generally cephalexin 50–75 mg/kg/day div tid for 5–7 days).
- **Group A strep** is the most common cause of cellulitis without purulence. Empiric outpatient treatment for cellulitis without purulent drainage or abscess includes **cephalexin** (50–75 mg/kg/day PO div tid) for five days for mild disease without systemic symptoms or for 7–10 days in more extensive disease, unless there is a personal or family history of MRSA infections.
- Empiric treatment for a simple abscess in a **well-appearing child without** surrounding cellulitis is incision and drainage alone without antibiotic therapy. Localized abscesses are more likely than other SSTI to be caused by MRSA. If the child also has surrounding cellulitis and/or systemic symptoms, add antimicrobial therapy after incision and drainage (culture the pus).
- If outpatient antimicrobial therapy for suspected MRSA is required, **clindamycin** (30 mg/kg/day div tid) or TMP-SMX (15 mg/kg/day as the TMP component div tid) can be considered. Linezolid is an alternative drug for outpatient MRSA treatment in consultation with pediatric infectious diseases.
- Recurrent MRSA infections are common in children as their nares (sometimes other skin or mucosal sites) may remain colonized for a prolonged period of time. Unfortunately, studies of decolonization efforts have been disappointing, though one study showed that treating all household members was more effective than treating the child alone. Decolonization may be **attempted** if the child has recurrent MRSA SSTI or if there is household transmission despite optimal wound management and hygiene.

See MRSA prevention/decolonization appendix for details of these unproven strategies.

When to refer

- Refer to the Emergency Department for consideration of admission or incision and drainage if the patient is ill-appearing/has failed outpatient management or your office practice is not suited for incision and drainage.
- Refer to the pediatric infectious diseases clinic if patient has recurrent MRSA, despite decolonization efforts for child and family, or if concerns for immunodeficiency (chronic granulomatous disease, hyper IgE (Job's), antibody deficiencies, HIV and others). Blood testing for immunodeficiencies is most accurate when the child is not having an active infection.

Referral process

Contact Randall Children's Hospital Emergency Department: 503-276-9191

Alert the staff regarding a patient being sent to the ED for stabilization and/or consideration of admission for a skin or soft tissue infection.

Advise the emergency department staff if it is your strong preference for admission after stabilization.

To refer a patient to **Randall Children's Pediatric Infectious Diseases clinic, call 503-413-3506** to speak with the on-call ID provider. You and the ID provider will make a plan regarding any testing and/or treatment that might precede the visit, as well as timing of the office visit, if needed. If a clinic visit is appropriate, the family may call the same number during business hours to schedule an appointment. The ID provider will alert the staff to schedule the child.

Randall Children's Infectious Diseases

Phone: **503-413-3506**
Fax: **503-413-3621**

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Additional Resources

Infectious Diseases Society of America (IDSA) Practice Guidelines for the Treatment of MRSA Infections: **http://cid.oxfordjournals.org/content/52/3/285.long**

CDC MRSA website: **http://www.cdc.gov/mrsa/index.html**

Miller L.G., et al. Clindamycin versus Trimethoprim-Sulfamethoxazole for Uncomplicated Skin Infections. *New England Journal of Medicine* 2015; 372:1093–103. **http://www.nejm.org/doi/pdf/10.1056/NEJMoa1403789**

Infectious Diseases Society of America (IDSA) 2014 Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: **http://cid.oxfordjournals.org/content/early/2014/06/14/cid.ciu296.full.pdf**

Kimberlin D.W., et al. Staphylococcal Infections. *Red Book: 2015*; page 724.

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Find this and other co-management/referral guidelines online at: **www.legacyhealth.org/randallguidelines**

RANDALL CHILDREN'S HOSPITAL
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