SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

RNs WITH ADDITIONAL AUTHORIZED PRACTICE
CLINICAL DECISION TOOL
DECEMBER 1, 2016

IMPETIGO ADULT

DEFINITION

Impetigo vulgarus is a highly contagious, superficial bacterial infection of the skin.

Nonbullous impetigo

- Formation of vesiculopustules that rupture, leading to crusting with a characteristic golden appearance; local lymphadenopathy may occur.

Bullous impetigo

- Staphylococcal impetigo that progresses rapidly from small to large flaccid bullae caused by epidermolytic toxin release. More prevalent in children.

IMMEDIATE CONSULTATION IS REQUIRED IN THE FOLLOWING SITUATIONS

- Wide spread lesions
- Immunocompromised client

CAUSES

- Staphylococci bacteria are usually present during the early stages of the lesions, whereas streptococci bacteria tend to predominate in the later stages.

PREDISPOSING AND RISK FACTORS

- Impetigo is more prevalent in hot, humid weather when biting insects are present. The trauma caused from the bites favours bacterial growth on moist skin.
- There is increased incidence in lower socioeconomic groups because of several factors:
  - Overcrowding
  - Lack of ability to maintain good personal hygiene
  - A higher incidence of anemia and malnutrition
- Any pre-existing skin condition (e.g., atopic dermatitis) can become infected.

HISTORY

- More common on face, scalp, and hands, but may occur anywhere
- Involved area is usually exposed
- Usually occurs during summer
- New lesions usually due to auto-inoculation
- Rash begins as red spots which may be itchy
- Lesions become small blisters and pustules which rupture and drain

- Discharge dries to form characteristic golden yellow crusts
- Lesions painless
- Fever and systemic symptoms rare
- Mild fever may be present in more generalized infections
- Other infected family member or contacts

PHYSICAL FINDINGS

- Thick, golden yellow, crusted lesion on a red base
- Numerous skin lesions at various stages present (vesicles, pustules, crusts, serous or pustular drainage, healing lesions)
- Bullae may be present
- Lesions and surrounding skin may feel warm to touch
- Regional lymph nodes may be enlarged, tender
- Fever (rare)

DIFFERENTIAL DIAGNOSIS

- Infection associated with eczema, contact dermatitis
- Herpes simplex infection with blisters or crusts
- Pemphigus foliaceus (erythema, scaling, crusting occasional vesicles)
- Shingles (herpes zoster) with blisters or crusts

COMPLICATIONS

- Localized or widespread cellulitis
- Post-streptococcal glomerulonephritis (uncommon in adults)
- Invasive group A streptococcal disease (invasive GAS)

INVESTIGATIONS AND DIAGNOSTIC TESTS

- None
- Consider swabbing if methicillin-resistant *Staphylococcus aureus* (*S. aureus*) (MRSA) is known in community or if there is no response to initial treatment.

MAKING THE DIAGNOSIS

Clinical appearance

- Nonbullous impetigo: honey-coloured crust
- Bullous impetigo: erythematous base with "collarette" of scale

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- Control infection
- Prevent auto-inoculation
- Prevent spread to other household members

Appropriate Consultation

- Treatment failure

Non-Pharmacological Interventions

- Apply warm saline compresses to soften and soak away crusts qid and prn.
- Cleanse with an antiseptic antimicrobial agent to decrease bacterial growth.

Pharmacological Interventions

- Apply topical antibiotic preparation:
  - Mupirocin 2% cream (Bactroban) tid for 7-10 days
  - Fucidic Acid 2% cream bid for 7-10 days
  - Polysporin Triple Therapy (polymixin b-bacitracin zinc-gramicidin) ointment tid for 7 days.
    - To be used for presumed or confirmed MRSA which is not improving with the other topical antibiotics.
- Oral antibiotics may be necessary if there are multiple lesions that appear infected:
  - Cloxacillin 250-500 mg orally q6h for 7-10 days
  - Cephalexin (Keflex) 500 mg orally q6h for 7-10 days

For clients with allergy to penicillin:

- Erythromycin 1 g/day orally divided q12h, q8h, or q6h for 7-10 days
- Clindamycin 300 mg orally q8h for 7-10 days
- Topical antibiotics such as mupirocin (Bactroban) may be used alone for small areas or in conjunction with oral antibiotics for larger areas.

MRSA

- Sulfamethoxazole/Trimethoprim (SMX/TMP) 400/80 2 tabs orally q12h or 800/160

(DS) 1 tab orally q12h for 7 days

Selection of empiric oral therapy should be guided by local *S. aureus* susceptibility and modified base on results of culture and susceptibility testing. Refer to *Northern Saskatchewan guidelines (2014) for skin and soft tissue infections including suspect MRSA in the community setting.* (Population Health Unit, Northern Saskatchewan, 2014) (Appendix attached)

Note: Be aware of patterns of resistance to macrolides, penicillin, and fluorquinalones in the community.

Client and Caregiver Education

- Counsel about the appropriate use of medications (including dose, frequency compliance, etc.).
- Offer recommendations about proper hygiene, including single use of towels and washing clothes while acute infection is present.
- Counsel client about prevention of future episodes.
- Client and family should be educated about the contagious nature of impetigo. Suggest strategies to prevent spread to other household members (e.g., proper handwashing, use of separate towels and other personal items such as razors, robes, etc.).

Prevention

- Exclusion from work until 24 hours after treatment has been applied
- Cover open lesions until healed
- Handwashing with soap by all household residents

Monitoring and Follow-Up

- Instruct client to return for reassessment if fever develops or infection spreads despite therapy.

DOCUMENTATION

- As per employer policy

REFERENCES

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This SRNA Clinical Decision Tool (CDT) exists solely for use in Saskatchewan by an RN with additional authorized practice as granted by the SRNA. The CDT is current as of the date of its publication and updated every three years or as needed. A member must notify the SRNA if there has been a change in best practice regarding the CDT. This CDT does not relieve the RN with additional practice qualifications from exercising sound professional RN judgment and responsibility to deliver safe, competent, ethical and culturally appropriate RN services. The RN must consult a physician/RN(NP) when clients' needs necessitate deviation from the CDT. While the SRNA has made every effort to ensure the CDT provides accurate and expert information and guidance, it is impossible to predict the circumstances in which it may be used. Accordingly, to the extent permitted by law, the SRNA shall not be held liable to any person or entity with respect to any loss or damage caused by what is contained or left out of this CDT.

Appendix

MRSA Guidelines 2014