

DEFINITION

Pinworms are a parasitic infestation of the cecum of the large bowel. It is more common in children.

IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

- None

CAUSES

- *Enterobius vermicularis*

PREDISPOSING AND RISK FACTORS

- Infection in household members (crowded housing)
- Institutionalized housing

Transmission

- Direct transfer of eggs from anus to mouth
- Contact with fomites contaminated with eggs (eggs survive up to 3 weeks)

Incubation

- 4-6 weeks (duration of organism's life cycle)

Contagion

- Medium to high

Communicability

- About 2 weeks (as long as eggs are laid on perianal skin and remain intact)

HISTORY

- Anal itching, worse at night
- Irritability
- Restlessness during sleep
- Diffuse, nonspecific abdominal pain may occur

PHYSICAL FINDINGS

- Small white worms visible in perineal area or stool
- Perianal excoriation

DIFFERENTIAL DIAGNOSIS

- Hemorrhoids
- Tapeworms
- Localized streptococcus dermatitis especially in children 3-4 years of age

COMPLICATIONS

- Perianal excoriation from scratching
- Vulvovaginitis
- Insomnia
- Weight loss (rare)
- Urinary tract infection
- Appendicitis

INVESTIGATIONS AND DIAGNOSTIC TESTS

- Cellophane "Scotch" tape test: apply transparent tape to perianal region area and examine microscopically for eggs. If test is inconclusive have client return the next day and repeat the test.
 - Diagnostic yield is improved in the morning and before bathing
 - Specimen may be collected by parent/caregiver if appropriate
 - Repeat up to three mornings if you don't see worms or eggs the first time
- Look for the worms in the perianal region 2-3 hours after the infected person is asleep.
- Pregnancy test in age appropriate females as drug therapy should be avoided in pregnancy.

MAKING THE DIAGNOSIS

- Eggs on cellophane "Scotch" tape test in the morning, observing worms
- Diagnosis is often based on history and clinical findings.

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- Relieve infestation
- Prevent spread to others

Appropriate Consultation

- Pregnancy
- Infants < 12 months of age

Non-Pharmacological Interventions

- Wash bedclothes, towels, and clothing in hot water
- Vacuum house daily for several days

Pharmacological Interventions

- Mebendazole 100 mg orally once; repeat in 2 weeks (contraindicated in children < 2 years of age)
- Pyrantelpamoate (Combantrin) 11 mg/kg orally, single dose (maximum dose 1 g); repeat in 2 weeks (contraindicated in infant < 12 months of age)

Pregnancy

- Drug therapy should be avoided in pregnancy; if treatment is necessary wait until the 3rd trimester.

A single dose results in relatively high cure rates, although a second dose repeated at two weeks achieves a cure rate close to 100% and helps prevent recurrence due to reinfection.

The whole family should be treated concurrently.

Client and Caregiver Education

- Reinfection is common, despite therapy
- Simultaneous treatment of the entire household
- Counsel client/caregiver about the appropriate use of medications (dose, frequency, compliance, etc.).

Control measures:

- Daily showers/bathing
- All bedding and clothes, especially underclothing, should be washed in hot water and dried with high heat in the dryer
- Change underclothing frequently

PINWORMS ADULT & PEDIATRIC

- Frequent handwashing with soap and water especially after using the toilet, after changing diapers, and before handling food
- Keep fingernails short
- Discourage biting fingernails
- Discourage scratching around the anus

Monitoring and Follow-Up

- Symptoms should improve in several days.
- Recurrent infection should be treated same as above with treatment of the whole family.

Prevention

- Handwashing and toilet hygiene should be emphasized
- Keep fingernails short
- Sleeping in the same bedclothes as a pinworm carrier should be avoided

Referral

- Infants < 12 months of age.
- Consult with a physician/RN(NP) if diagnosis is in doubt or if any complicating features exist.

DOCUMENTATION

- As per employer policy

REFERENCES

Pinworms. (2013, February 15). Retrieved from <https://dynamed.ebscohost.com/>

Health Canada. (2011). *First Nations & Inuit health: Clinical practice guidelines for nurses in primary care*. Ottawa, ON: Author. Retrieved from <http://www.hc-sc.gc.ca>

Kostranec, J. M., & Kolin, D. L. (Eds.). (2012). *Toronto notes: Comprehensive medical reference & review for MCCQE I & USMLE II* (28th ed.). Toronto, ON: Toronto Notes for Medical Students.

SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

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

PINWORMS ADULT & PEDIATRIC

- Leder, K., & Weller, P. (2012, November 17). *Enterobiasis and trichuriasis*. Retrieved from <http://www.uptodate.com>
- Papadakis, A., McPhee, S. J., & Rabow, M. W. (2013). *Current medical diagnosis and treatment* (52nd ed.). New York, NY: McGraw Hill Medical.
- Vose, L. (2012). Pinworm in pregnancy. *Journal of Midwifery & Women's Health*, 57(2), 184–187. <http://doi.org/10.1111/j.1542-2011.2011.00150.x>
- Watkins, J. (2015). Common causes of itching in children. *Practice Nursing*, 26(7), 345–359.
- Watkins, J. (2014). Symptoms and treatment of a threadworm infection. *British Journal of School Nursing*, 9(2), 76–77.

NOTICE OF INTENDED USE OF THIS CLINICAL DECISION TOOL

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.

SRNA © This CDT is to be reproduced only with the authorization of the SRNA.