SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

RNs WITH ADDITIONAL AUTHORIZED PRACTICE
CLINICAL DECISION TOOL
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# CHALAZION AND HORDEOLUM ADULT & PEDIATRIC

## DEFINITION

Chalazia (plural of chalazion) are the most common inflammatory lesions of the eye lid. These are slowly enlarging eyelid nodules, formed by inflammation and obstruction of sebaceous glands. Chalazia can be categorized as either superficial or deep, depending on the glands that are blocked. Inflammation of a meibomian gland leads to a deeper chalazion, whereas inflammation of a Zeis gland leads to a superficial chalazion.

Chalazia can recur, and those that do should be evaluated for malignancy.

Hordeola (plural of hordeolum) (e.g., stye) is a localized infection or inflammation of the eyelid margin involving hair follicles of the eyelashes (e.g., external hordeolum) or meibomian glands (e.g., internal hordeolum).

Hordeola are usually painful, erythematous, and localized. They may produce edema of the entire lid. Purulent material exudes from the eyelash line in external hordeola, while internal hordeola suppurate on the conjunctival surface of eyelid.

## IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

- Not usually a need for emergent consultation with this condition

## CAUSES

- Chalazia
  - Occur after gland blockage
  - Secondary bacterial infection from *Staphylococcus aureus* may develop
  - Gland blockage can result from poor lid hygiene
- Hordeola
  - External hordeola occur from a blockage and infection of Zeiss or Moll sebaceous glands. Internal hordeola are a secondary infection of meibomian glands in the tarsal plate. Both types can be due to a secondary complication of blepharitis.
  - Secondary bacterial infection from *Staphylococcus aureus* may develop

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## PREDISPOSING AND RISK FACTORS

Chalazia

- Although chalazia occur in all age groups, they are more common in adults presumably because androgenic hormones increase sebum viscosity. Chalazia are uncommon at the extremes of ages but pediatric cases may be encountered.
- Recurrent chalazion, particularly in elderly clients, should prompt the practitioner to consider conditions that may masquerade as chalazion (e.g., carcinoma, tuberculosis).
- Recurrent chalazion in a child or young adult should prompt an evaluation for viral conjunctivitis and hyper IgE syndrome (Job syndrome).

Hordeola

- More common in children and adolescents
- Blepharitis
- Contact lens wearers
- Cosmetics
- Poor lid hygiene
- Diabetes
- Seborrhea

## HISTORY

- Chalazia
  - Lump on the eyelid area
  - Redness, swelling and pain may be symptoms of initial presentation
  - Blurry vision if chalazion is large (pressure on the eye globe may cause astigmatism)
  - Conjunctival infection (if associated with conjunctivitis)
  - Tearing may be present (if conjunctiva irritated)
- Hordeola
  - Lump on the eyelid area
  - Redness, swelling and pain may be symptoms of initial presentation
  - Photophobia
  - Lacrimation

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## PHYSICAL FINDINGS

- Initially chalazia and hordeola may be tender to touch. With time, chalazia may present as non-tender nodules occurring on the middle portion of the tarsus, away from the lid border, and may be pointing to the inner surface of the tarsus causing pressure on the globe.
- Inflammation of the lids and conjunctiva may be seen if secondary infection is present.

## DIFFERENTIAL DIAGNOSIS

- Chalazia
  - Hordeolum (stye)
  - Blepharitis
  - Sebaceous cell carcinoma (very rare)
- Hordeola
  - Chalazia (may develop from chronic hordeolum)
  - Blepharitis
  - Sebaceaous cell carcinoma (very rare)

## COMPLICATIONS

- Secondary infection
- Astigmatism (rare)

## INVESTIGATIONS AND DIAGNOSTIC TESTS

- None

## MAKING THE DIAGNOSIS

The diagnosis of hordeolum and chalazion is usually a clinical one and often does not require further workup. The health care provider should be certain that the eyelid lesion is a sterile inflammation that will resolve with limited intervention. Recurrent symptoms or persistent lesions should prompt further investigation.

## MANAGEMENT AND INTERVENTIONS

### Goals of Treatment

- Prevent infection and visual disturbance

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Hordeola are usually self-limited. Most hordeola eventually point and drain by themselves.

A small asymptomatic chalazion does not require treatment and usually resolves spontaneously in a few months. If the chalazion is affecting vision, or if there is a secondary infection, treatment is needed.

**Appropriate Consultation**

- See Referral section

**Non-Pharmacological Interventions**

- Apply warm, moist compresses qid

**Pharmacological Interventions**

If secondary bacterial infection is suspected:

- Erythromycin ointment 0.5% 1.25 cm qid for 5-7days

**Client and Caregiver Education**

- Stress the importance of not squeezing the hordeolum or chalazion.
- Teach the client/caregiver eyelid hygiene; wash the lid with mild soap and water; use a separate area of washcloth for each eye.
- Stress the importance of washing hands to prevent the spread if infection occurs.
- Recommend avoidance of cosmetics during the acute phase (current eye cosmetics should be discarded because they may harbour bacteria and cause recurrent infection).
- Clients should not wear contact lenses until the infection clears.
- Counsel client/caregiver about the appropriate use of medications (dose, frequency, application, etc.).
- Stress the importance of follow-up if symptoms do not improve with treatment within a week.
- Clients should be advised that acute inflammation and pain should resolve fairly quickly but the cyst may take time to resolve.

**Monitoring and Follow-Up**

- Follow-up in 3-4 weeks if not resolved

**Referral**

- Large hordeola with periorbital cellulitis.
- If the chalazion does not resolve within one month, the client should be referred to a physician/RN(NP) and to an ophthalmologist for definitive examination and treatment.

**DOCUMENTATION**

- As per employer policy

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