SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

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

ANTERIOR EPISTAXIS ADULT & PEDIATRIC

DEFINITION

Anterior epistaxis is bleeding from the nostril. It is very common in childhood and is often associated with acute upper respiratory tract infection and allergic rhinitis.

- Anterior: 90-95% of the epistaxis from Little's area from anterior nasal septum
- Posterior: 5-10% profuse bleeding from posterior ethmoidal artery
- Epistaxis before 2 years of age is unusual and may be associated with injury or serious illness.
- Epistaxis in children has no recognizable cause 90% of the time.

IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

- Shock
- Aspiration
- Profuse bleeding
- Systemic illness that cause bleeding
- Unstable vital signs
- Compromised Airway Breathing Circulation (ABC)
- Posterior epistaxis

CAUSES

- Trauma and irritation
- Drying of nasal mucosa due to lack of humidity in environment
- Foreign body irritation
- Nasal tumour (rare)

PREDISPOSING AND RISK FACTORS

- Allergic rhinitis
- Deviated nasal septum
- Infection of the upper respiratory tract
- Local vascular lesions
- Nasal polyps
- Cocaine use (e.g., sniffing, huffing)
- Alcoholism
- Nasal spray use
- Systemic coagulopathies
- Drugs (warfarin, nonsteroidal anti-inflammatory drugs [NSAIDs])

- Hematological malignancies
- Hypertension
- Liver failure
- Uremia
- Blood dyscrasias (hemophilia, von Willebrand's disease)

HISTORY

Enquire about the following:

- Exposure to one or more of the predisposing factors
- Is bleeding usually unilateral
- Profuse bleeding or blood-streaked nasal discharge
- Determine duration, amount and frequency of bleeding
- Use of anticoagulants, aspirin (ASA) products, or other medications such as topical nasal steroid sprays
- History of easy bruising or bleeding elsewhere (e.g., melena, heavy menstrual periods)
- Family history of bleeding disorders

PHYSICAL FINDINGS

- Examine client sitting up and leaning forward so that blood will flow forward
- Assess ABCs and vital signs
  - Blood pressure is usually normal unless bleeding is severe enough to cause loss of volume
  - Heart rate may be elevated because of fear or if bleeding is severe enough to cause loss of volume
- Inspect Little's area (Kiesselbach's plexus)
- If no bleeding, check posterior end of inferior turbinate
- Septal deformity or displacement may be present
- Bleeding from anterior portion of septum
- Inspect throat for posterior bleeding
- Sinuses may feel tender
- Examine for polyp, tumour, or foreign body
- Skin for petechiae, purpura, or pallor
- Abdomen for hepatosplenomegaly

- Lymphadenopathy

DIFFERENTIAL DIAGNOSIS

- Mild infection of nasal mucosa
- Dryness and irritation of nasal mucosa
- Nasal fracture
- Foreign body
- Tumour
- Tuberculosis
- Blood dyscrasias

COMPLICATIONS

Conditions

- Maxillary sinusitis
- Serous otitis media
- Conductive hearing loss
- In severe cases:
  - Shock
  - Aspiration
- Re-bleeding and need for transfusion
- Migraine
- Bleeding diathesis
- Clotting factor deficiencies
- Thrombocytopenia
- Polyps
- Topical steroid use
- Vascular malformation

INVESTIGATIONS AND DIAGNOSTIC TESTS

- Consider CBC, platelet count, PT/PTT in recurrent epistaxis where the suspected cause is other than mucosal drying
- INR if on warfarin

ANTERIOR EPISTAXIS ADULT & PEDIATRIC

MAKING THE DIAGNOSIS

- Diagnosis is made clinically

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- Stop bleeding
- Prevent further episodes

Appropriate Consultation

- Refer to a physician/RN(NP) to rule out other pathologies if the problem is recurrent.
- If there has been trauma (e.g., a fist fight), it is important to rule out septal hematoma. Management of hematoma of the nasal septum is surgical and transport is necessary.
- Unable to stop bleeding
- Recurrent epistaxis

Non-Pharmacological Interventions

- Initial control by pinching the nose
- Pinch lower part of the nose (below nasal bone) to apply direct pressure to Little's area
- Tilt head forward to facilitate clot formation and avoid post-nasal drainage

Pharmacological Interventions

If direct pressure alone is insufficient to stop the bleeding:

- Gently suction clotted blood from nose
- Use a vasoconstricting nose drop: Xylometazoline 0.1% drops (Otrivin). Soak a cotton ball with the solution; place the medicated cotton ball in the anterior portion of the nose; and press firmly against the bleeding nasal septum for 10-20 minutes.

If the above measure fails to control bleeding, nasal packing should be performed.

Nasal Packing:
Be aware of the complications of nasal packing:

- Toxic shock
- Septal hematomas
- Septal abscess
- Sinusitis
- Pressure necrosis
- Neurogenic syncope during packing

Anesthesia and vasoconstriction:

- Soak a cotton ball in a solution of 1% lidocaine with EPINEPHrine (1:1000)
- Put 1-2 cotton balls into the bleeding nostril (if bleeding is not clearly unilateral, put cotton balls into both nostrils)
- Put a dry cotton ball at the external nares to prevent leakage and dripping
- Leave cotton balls in place for 10 minutes
- Remove cotton balls and then pack the nasal cavity with one-half inch ribbon gauze soaked in Vaseline, layered anteriorly to as far posteriorly as possible, starting at the nasal floor and going toward the nasal roof.
- Leave in place for 2-3 days
- Nasal tampons or Gelform, if available, are alternatives to ribbon gauze
- Provide appropriate analgesia for pain (e.g., acetaminophen)

Prevention of recurrent epistaxis

- Identify and correct causes that predispose to epistaxis
- Recommend non-prescription nasal lubricant (e.g., Secaris)
- Cauterization - refer to physician/RN(NP)/ENT

Client and Caregiver Education

- Recommend increasing room humidity with a humidifier.
- Recommend trying humidification of the nasal mucosa with saline drops applied bid-qid.
- Counsel client/caregiver about appropriate use of medication (dose, side effects, avoidance of overuse, etc.).
- Recommend avoidance of known irritants and local trauma (e.g., nose-picking, forceful nose-blowing).

- Instruct client/caregiver about first-aid control of recurrent epistaxis. The client should sit up and lean forward, applying firm, direct pressure to nasal cartilage (not bones) for at least 5 minutes before checking if bleeding has stopped.
- Avoid nose-blowing or sneezing, or do so gently to avoid disrupting the clot.
- Avoid physical exercise or sports for at least 2 weeks.
- Avoid use of NSAIDs, hot dry climates, hot spicy foods or strenuous activity for few days.
- Advise client/caregiver to keep the child's fingernails trimmed to avoid trauma from nose-picking.

Monitoring and Follow-Up

- Monitor ABCs if significant bleeding has occurred or is still occurring.
- Follow-up as necessary if current bleeding resolves with first-line treatment.

Referral

- See section Appropriate Consultation

DOCUMENTATION

- As per employer policy

REFERENCES

Areaux, D. (2014). Epistaxis: common and uncommon nosebleed. *Clinical Advisor*, *17*(7), 28–43.

Epistaxis. (2012, April 12). Retrieved from http://www.mdconsult.com

Epistaxis. (2012, May 07). Retrieved from http://www.pemsoft.com

Epistaxis and nose bleeds. (2013, March 11). Retrieved from http://www.essentialevidenceplus.com

Glynn, F., Amin, M., Sheahan, P., & McShane, D. (2011). Prospective double blind randomized clinical trial comparing 75% versus 95% silver nitrate cauterization in

the management of idiopathic childhood epistaxis. *International Journal of Pediatric Otorhinolaryngology, 75*(1), 81-84. doi: 10.1016/j.ijporl.2010.10.014

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

McGarry, G. W. (2011, January 13). Nosebleeds in children. *Clinical Evidence (Online).* Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3275310/

Messner, A. H. (2012, November 13). *Management of epistaxis in children*. Retrieved from http://www.uptodate.com

Nosebleeds. (2013, January 15). Retrieved from https://dynamed.ebscohost.com/

Qureishi, A., & Burton, M. J. (2012, September 12). Interventions for recurrent idiopathic epistaxis (nosebleeds) in children. *Cochrane Database of Systematic Reviews*. doi: 10.1002/14651858.CD004461.pub3