PAEDIATRIC ACUTE CARE GUIDELINE	
Epistaxis	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

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http://kidshealthwa.com/about/disclaimer/

Epistaxis

Background

- Epistaxis in children is usually a minor self limiting condition which responds to simple first aid measures
- Rarely, a child with an underlying coagulation disorder may present with serious or even life threatening epistaxis
- Children who present with a significant epistaxis that requires nasal packing should be discussed with an ENT specialist

Anatomy

- The nasal cavity has a rich vascular supply from several terminal branches of the internal and external carotid arteries
- The mucosal surfaces of the anterior septum (Little's area or Kiesselbach's plexus) has a high concentration of vascular anastomoses
- 95% of epistaxis in children occurs from Little's area

Aetiology

Often, no cause is apparent. The most common causes of epistaxis in children include:

Local

- Trauma – e.g. nose picking, nasal fracture, forceful nose blowing, foreign body
- Inflammation (e.g. URTI, allergic rhinitis)

- Dry nasal mucosa (hot, dry climates)

Systemic

- Coagulation disorder (e.g. haemophilia, von Willebrand's disease, thrombocytopenia)

Assessment

Investigations

- Most cases need no investigation
- Patients in whom epistaxis is recurrent, difficult to control or who have other features of coagulopathy (e.g. easy bruising) may warrant investigation for an underlying coagulation disorder.
    - FBC and Coagulation profile should be done to identify or exclude conditions such as haemophilia, von Willebrand's disease or thrombocytopaenia

Management

Resuscitation
Rarely a child will present with life threatening haemorrhage. If haemodynamically unstable or shocked general principles of resuscitation apply (see Serious Illness) • Position the patient upright if possible (i.e. not shocked) and apply pressure to nasal ala • If unconscious, lie on their side in Trendelenburg position • Instruct the patient to breathe through the mouth, and clear the upper airway by suctioning blood from the oropharynx using a Yankauer sucker. • Prompt venous access and volume resuscitation with crystalloid or blood • Prompt nasal packing with nasal balloon or nasal tampon • Urgent ENT consultation • After adequate resuscitation, formal haemostatic control in the operating theatre may be necessary if bleeding persists

First Aid
• Sit up and lean forward • Pinch nasal ala (soft anterior part of the nose) to exert pressure on the Little's area. ◦ Pressure should be applied for a full 10 minutes • Application of a vasoconstrictor such as Co-phenylcaine may be used as an adjunct to pressure • This technique will control the majority of epistaxis in the ED • If simple nose pressure of reasonable duration does not achieve haemostasis, then anterior nasal packing or cautery may be needed

Anterior Nasal Packing

The most basic emergency procedure that can be performed with good control of epistaxis is anterior nasal packing. This is generally poorly tolerated in children and most children will require both topical anaesthetic spray and carefully titrated intravenous opiate such as morphine to allow packing.
Technique
• Material: packing forceps, nasal tampon or balloon, topical vasoconstrictor/anaesthetic spray (e.g. co-phenylcaine)
• Position patient sitting upright
• Spray a topical vasoconstrictor / anaesthetic into each nostril
• Titrate IV morphine to provide anxiolysis and decrease the distress of the packing procedure

Nasal Tampon

With patient sitting up
• Choose appropriate size
• Larger tampons may be trimmed to size
• Coat the leading end of tampon with chloramphenicol
• Grasp with forceps and insert along nasal floor
• Tape strings to cheeks
• Apply 5-10mLs of 0.9% saline to tampons via syringe
• Discuss patient disposition with ENT

Nasal Balloons

• A range of commercial devices exist to control either posterior bleeds, anterior bleeds or both
• Alternatively a size 8 french foley catheter, inserted deep into the nasopharynx, inflated with air and then pulled anterior to sit against the nasal cavity can control posterior bleeds
• Additional methods may be employed if anterior bleeds are coexistent

Nasal Cauterisation

• Haemostasis and patient co-operation is required before cauterisation
• Silver Nitrate sticks are used for chemical cautery
• Mostly used to control bleeding vessels on the anterior part of the nasal septum (Little’s area)
• Additional equipment; torch or head light, nasal speculum, suction
• Spray area with Co-phenylcaine spray, for anaesthetic effect
• Apply the silver nitrate stick to the edge of the bleeding area
• Aim to cauterise the feeding vessels first before moving to the central bleeding focus
• Apply the stick a maximum 10 seconds at a time
• Cauterise minimal part of septum to avoid ulceration
• Never cauterise both sides of the septum as the same time

Discharge Advice

- Avoid nose picking or rubbing
- First aid advice for future episodes
- Petroleum jelly (Vaseline) or antibiotic ointment (Bactroban or Chloramphenicol ointment) bd for 4-5 days
- Referral to ENT clinic if epistaxis is a recurrent problem

References

1. Messner AH (2013) Epidemiology and aetiology of epistaxis in children. UpToDate. Accessed at www.uptodate.com
2. Messner AH (2014) Management of Epistaxis in Children. UpToDate. Accessed at www.uptodate.com

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