

E11: Epistaxis

Richard Armour

Updated: December 01, 2021

Reviewed:

Introduction

Approximately 60% of the population will experience at least one or more episodes of nosebleeding, or epistaxis, during their lifetime. Whilst the majority of episodes of epistaxis will be managed by the patient without seeking medical care, the knowledge of appropriate first aid measures to arrest nasal bleeding is low in the general population and so paramedics may be called to assist. Although epistaxis is normally without clear cause, or secondary to digital trauma, some may be related to more severe systemic disease and require careful follow-up by the patient's general practitioner.

Essentials

- The overwhelming majority of patients with epistaxis will respond well to simple first aid measures and these should be optimized before escalation to additional therapies.
- Approximately 95% of patients with epistaxis will have an anterior source of bleeding, if unable to promptly arrest epistaxis consider expeditious transfer for more invasive management in hospital for posterior epistaxis.
- A systematic assessment must be performed to evaluate whether epistaxis is secondary to a worsening of an underlying chronic condition.

Additional Treatment Information

- Appropriate initial first aid measures include:
 - Sitting the patient upright and leaning slightly forward to prevent blood running into the pharynx.
 - Compression of the nose bilaterally just distal to the bridge of the nose for **at least** 15 minutes.
 - A cool cloth or ice pack may be applied to the back of the neck, although the value of this is questionable and should not be prioritized.
- If inserted incorrectly, nasal packing may not address the source of the bleeding, mask ongoing hemorrhage, and may worsen re-bleeding on removal. Paramedics should not generally attempt to pack the nares of patients with epistaxis with gauze, and should convey patients requiring packing to hospital.
- The use of nebulized tranexamic acid remains controversial, and will be re-assessed following the publication of a number of ongoing randomized trials.

Referral Information

- In patients with minor epistaxis without significant risk factors, consider the use of the Epistaxis Assess, See, Treat, and Refer (ASTaR) Pathway.
- Patients who have ongoing bleeding, who are currently receiving oral anticoagulation or antiplatelet therapy, who have experienced recent head trauma, or who have an inherited coagulopathy are at high risk for serious bleeding and conveyance to an emergency department should be recommended.

General Information

- Examples of common antiplatelet and anticoagulation medications which may preclude paramedics from achieving suitable hemostasis include:
 - Warfarin (Coumadin)
 - Factor Xa Inhibitors: Rivaroxaban (Xarelto), Apixaban (Eliquis), Fondaparinux (Arixtra)
 - Anti-Platelet: Clopidogrel (Plavix), Aspirin (ASA), Prasugrel (Effient), Ticagrelor (Brilinta)
- Examples of coagulopathies which may pre-dispose the patient to significant bleeding include:
 - Hemophilia A and B
 - von Willebrand Disease

- Advanced liver disease (hepatitis, alcoholic hepatitis)
- Epistaxis may be a presentation of worsening underlying co-morbidities, conduct a thorough review of systems and physical exam to support decision-making around conveyance and to provide patient with sufficient information to make an informed decision should they refuse conveyance against advice.

Interventions

First Responder

- Position upright, leaning slightly forward to prevent blood running into the pharynx
- Apply direct pressure (manually or with nose clip) to the anterior aspect of the nose, just distal to the bridge of the nose for at least 15 minutes
- Consider a cool cloth or ice pack on the posterior neck as an adjunctive measure

Primary Care Paramedic – All FR and EMR interventions, plus:

- Normal saline to correct hypoperfusion and/or hypotension (systolic BP < 90 mmHg)
 - If no evidence of pulmonary edema, 500 mL bolus up to 2 liters -- reassess BP and lungs every 500 mL
 - Target BP of 90 mmHg systolic
- Consider use of ASTaR pathway for appropriate patients

