

Study Guide for Epistaxis Control: 2020



THE UNIVERSITY OF ARIZONA

College of Nursing

1. Overview

- a. Onset of intranasal hemorrhage caused by physical trauma, nasal mucosa irritation, or disease pathology.
- b. Special considerations for adults older than 40 years of age with a positive history of cardiovascular, pulmonary, hepatic or renal disorder. Apply anterior packing and refer immediately to emergency department.

2. Goal of the procedure

- a. Control nasal hemorrhage
- b. Prevent hypovolemia

3. References

- a. Alter, H. (2019). Approach to the adult with epistaxis. In J. Grayzel (Ed.), *UpToDate*. Retrieved October 29, 2019 from https://www.uptodate.com/contents/approach-to-the-adult-with-epistaxis?search=epistaxis%20management&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1#H14
- b. Colyar, M.R. (2015). *Advanced practice nursing procedures*. Philadelphia, PA: F.A. Davis.
 - i. Textbook available online through the University of Arizona Health Sciences Library.

4. Required Reading and Video

- a. Book
 - i. Advanced Practice Nursing Procedures by Colyar (2015), chapter 81, pages 370-379.
- b. UpToDate.
 - i. UpToDate. (2019). Approach to the adult with epistaxis.
 - ii. [UpToDate. \(2019\). Algorithm: Flow diagram for management of epistaxis in adults.](#)
- c. YouTube
 - i. Epistaxis management video: <https://www.youtube.com/watch?v=4EaEYx2iHqM>

5. Required Procedure Competencies

- Identify contraindications warranting referral:
 - History of clotting disorder
 - History of COPD
 - Suspected trauma
 - Suspected FB
 - Positive cardiovascular history
 - Informed consent required
- Gather equipment for epistaxis control procedure:

Drapes or towels	Pulse oximeter	Topical lidocaine (2% without epinephrine)	Ribbon gauze
Head lamp with magnifying lens, or good light source	Triple antibiotic ointment	0.9% sodium chloride – sterile	10, 20, and 30- mL syringe- sterile

Gloves- nonsterile	No. 14 Fr catheter (with 10-30 mL bulb)- sterile	Nasal balloon catheters (i.e., RapidRhino)	Nasal tampons (i.e., Merocel)
Nasal speculums (small, medium, large)	Topical vasoconstrictor agent (i.e., silver nitrate, oxymetazoline)	Tongue depressors	Emesis basin
Cotton applicators- sterile	Bayonet forceps- sterile	Suction with No. 5 Fraser tip	Sterile gauze

- Procedure:
- Apply drape or towel to protect clothing.
 - Position patient leaning forward bending at waist (ideal), or sitting upright.
 - Put on gloves.
 - Administer 2 sprays of oxymetazoline, have patient squeeze alae and bend at waist while gathering equipment. This is considered conservative treatment.
 - After procedure set-up is complete, and if bleeding persists, locate the source of the bleed by using a nasal speculum to expand the nare(s).
 - Gently suction the site clean.
 - Dry the site with a cotton-tipped applicator.
 - Place silver nitrate stick on the bleeding site for 5 minutes. Do not apply to surrounding tissue.
 - Keep the patient upright for 5 minutes.
- If bleeding persists, the next step of anterior epistaxis is nasal packing. Pretreat each of these techniques with topical anesthetic:
 - Nasal tampon: Coat tampon with antibiotic ointment. Insert tampon by sliding directly along the floor of the nasal cavity until almost the entire tampon lies within the nasal cavity. Expand the tampon by infusion approximately 10 ml of saline.
 - Gauze packing: Grasp impregnated ribbon gauze with bayonet forceps, leaving about a 4-inch tail. Gently advance gauze as far as possible into the nasal cavity, carefully avoiding the walls of the nasopharynx. Then, grasp another 8 to 10 cm of gauze and advance it on top of the previous layer. Repeat this process until the nose is tightly packed.
 - RapidRhino: Soak the catheter in sterile water for 30 seconds. DO NOT use saline and DO NOT apply lubricants or topical antibiotics. Insert catheter by sliding it along the floor of the nasal cavity until the plastic proximal fabric ring rests in the nare(s). Inflate the catheter with air using a 20 mL syringe; stop inflating when the pilot cuff is round and firm. After 10-15 minutes, reassess the pilot cuff. Add air if it is no longer round and firm. Tape the pilot cuff to the patient's cheek.

6. During CSI Skills Lab

- a. Prior to arriving, you are expected to have read and watched the above. The skills lab is intended to build upon the above information and allow you to engage in a more patient-centered way.
- b. You will spend fifteen minutes at each skills station. This will be divided in the following manner:
 - i. 5 minutes: Short introduction to the skill and focused HPI
 - ii. 5 Minutes: Procedure
 - iii. 5 Minutes: Final Report and Preceptor Presentation
- c. Please see the Case Study Worksheet on the next page

Case Study Worksheet: Instructor's Guide

CC: Josh Deer is a 35 year-old male presenting with a right-sided nose bleed.

O	Onset	
L	Location/radiation	
D	Duration	
C	Character	
A	Aggravating factors	
R	Relieving factors	
T	Timing	

- Considering these answers, are there any follow up questions you would ask that would not be asked below in the ROS?

ROS: Given the above, which systems will you focus on?

General	
HEENT	
Respiratory	
Cardiovascular	
Musculoskeletal	
Endocrine	
GI/GU	
Genital	
GYN (if applicable)	
Neuro/Psych	
Other	

Exam:

- How would you document the exam?

Differential Diagnoses:

- List three differentials in their order of likelihood
 1. Probable:
 2. Possible:
 3. Unlikely:

Preceptor Report:

Documentation Example:

CC:

S:

Case Study Worksheet: Instructor's Guide

CC: Josh Deer is a 35 year-old male presenting with a right-sided nose bleed.

O	Onset	Spontaneously while hiking
L	Location/radiation	Right nare, non-radiating
D	Duration	2 hours
C	Character	Non-painful
A	Aggravating factors	Blowing nose
R	Relieving factors	Applying pressure
T	Timing	Constant since onset

- Considering these answers, are there any follow up questions you would ask that would not be asked below in the ROS?
 - Have you experienced any difficulty breathing?
 - Were there any injury or trauma that caused the nosebleed?
 - Are you taking any blood thinners?
 - Can you tell me your most recent ASA or NSAID use?
 - How often do you get nose bleeds?
 - Ask about pertinent medical history.

ROS: Given the above, which systems will you focus on?

General	Denies fever, chills, night sweats, weight gain, weight loss.
HEENT	Positive for epistaxis, two weeks of mild rhinorrhea; denies ear pain, ST, congestion
Respiratory	Denies SOB, cough
Cardiovascular	Denies chest pain/pressure, palpitations, edema
Musculoskeletal	
Endocrine	
GI/GU	
Genital	
GYN (if applicable)	
Neuro/Psych	Denies dizziness, HAs
Other	Denies easy bruising/bleeding

Exam:

- How would you document the exam?

Differential Diagnoses:

- List three differentials in their order of likelihood
 1. Probable: Epistaxis secondary to allergic rhinitis
 2. Possible: Epistaxis secondary to cocaine use
 3. Unlikely: Epistaxis secondary to von Willebrand disease

Preceptor Report:

Josh is a 35 y.o. male with PMH of allergic rhinitis who presents today for a right sided nose bleed that started two hours ago. The patient reports that the nosebleed started spontaneously when he was hiking. He denies any pain associated with the bleed, but reports that he is having constant BRB. The output is worsened when he attempts to blow his nose. He feels like the flow slowed somewhat when he was applying pressure to the bridge of his nose. His ROS was negative except for recent history of increased allergic rhinitis symptoms (including rhinorrhea and congestion). He denies any recent injury or trauma. He denies any NSAID, ASA, or blood thinner use. This is his first nosebleed in 6 months, but he will sometimes get these during allergy season. He denies any known personal or family history of bleeding disorders. His PE was negative except for slow right nosebleed. The patient is thought to have epistaxis related to allergic rhinitis and elevation change. Two sprays of oxymetazoline were administered with resolution of symptoms. Patient is instructed to being Claritin daily for the remainder of allergy season. He is to use a cool mist humidifier at night.

Documentation Example:

CC: Right sided nose bleed that started two hours ago

S: Josh is a 35 y.o. male with PMH of allergic rhinitis who presents today for a right sided nose bleed that started two hours ago. The patient reports that the nosebleed started spontaneously when he was hiking. He denies any pain associated with the bleed, but reports that he is having constant BRB. The output is worsened when he attempts to blow his nose. He feels like the flow slowed somewhat when he was applying pressure to the bridge of his nose. His ROS was negative except for recent history of increased allergic rhinitis symptoms (including rhinorrhea and congestion). He denies any recent injury or trauma. He denies any NSAID, ASA, or blood thinner use. This is his first nosebleed in 6 months, but he will sometimes get these during allergy season. He denies any known personal or family history of bleeding disorders.

O: VS: Temperature: 98.2 Pulse: 69, regular. Respirations: 14, easy and unlabored. Blood Pressure: 100/84. Height: 74 in. Weight: 158 pounds. Crusted, dry blood noted to right nare. No trauma to external nose noted. Patient able to clear clot by blowing his nose. Nasal mucosa mostly pale and boggy with one area of hypervascularity noted to anterior septum.

A:

1. Probable: Epistaxis secondary to allergic rhinitis
2. Possible: Epistaxis secondary to cocaine use
3. Unlikely: Epistaxis secondary to von Willebrand disease

P:

- As patient was able to clear clot by blowing his nose, two sprays of oxymetazoline were administered. Patient was monitored for 15 minutes and symptoms seem to be resolved. VS were stable and patient appears in no acute distress. Patient to be discharged.
- Patient instructed to start and continue Claritin throughout the remainder of allergy season.
- Discussed the importance of oral hydration. Patient should also use cool mist humidifier in his bedroom at night.
- Patient instructed to RTC if symptoms begin again, persist, or worsen.