**Title**: Epistaxis

**Skills and drills:**

* Review common equipment used

**Participants**: x2 Tier 1 doctors, x1 Nurse, x1 ENT Registrar

**Estimated running time:** 45-60 mins

**Intended Learning Outcomes (ILO):**

1. Discuss the essential factors in assessing an acute epistaxis.
2. Formulate the initial management steps of an acute epistaxis on an ENT ward.
3. Discuss the management options for a patient with ongoing bleeding despite packing

**Case summary/ Story line:**

A 78-year-old man presented to A&E with persistent epistaxis. He reports waking up in the morning with bleeding from the right side which has continued on and off during the day. He has a background of hypertension, previous stroke and atrial fibrillation for which she takes apixaban. He has not had any previous history of epistaxis. She lives alone but has family nearby.

Initial observations: BP: 170/88, HR: 90, RR: 22, Sats: 98% (on air), T: 37.6.

Examination: Alert but anxious. Shirt stained with blood. Dabbing at nose with bloody tissue. Persistent drip from right side.

Management:

* Basic first aid measures (Hippocratic method)
* A – E assessment
* IVA and bloods including FBC / U&E / G+S
* Attempt direct therapy with nasal cautery à unable to identify bleeding point
* Merocell to right nostril à ongoing bleeding
* Suction oropharynx à large blood clot seen
* Merocell to left nostril to apply contralateral pressure à bleeding settles
* Discuss with haematology regarding apixaban given previous history of stroke
* Handover to ENT SpR

**Briefing for participant:**

You are both covering ENT at St. Johns Hospital. You get bleeped by the triage nurse in the Emergency Department downstairs about a 78-year-old man who has come in with epistaxis. The department is absolutely slammed and they have asked if you would be able to see the patient directly down in ED.

**Orientation:**

11:00 in the morning

Currently on Ward 19A finishing off some jobs

ENT registrar and consultant is in theatre with a neck stabbing

Patient does not have any COVID symptoms and is in the green zone

A&E nurse with the patient

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| **SITUATION** |
| 78-year-old man presenting to ED with persistent epistaxis |
| **BACKGROUND** |
| Hypertension, previous stroke and atrial fibrillation (on apixaban) |
| **ASSESSMENT** |
| BP: 170/88, HR: 90, RR: 22, Sats: 98% (on air), T: 37.6.  Persistent bleeding from right nostril  Dabbing at nose with blood tissue |
| **RECOMMENDATION** |
| Help with patient actively bleeding |

| Scenario Storyboard | | | | |
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| EVENTS | STATE | DESIRED PARTICIPANT BEHAVIOUR &TRIGGERS TO MOVE TO NEXT STATE | | |
| PARTICIPANT EXPECTED BEHAVIOUR | TRANSITION/ notes | PROMPT IF REQUIRED |
| State 1  LO:  Basic first aid  A – E assessment   1. Discuss the essential factors in assessing an acute epistaxis. | Patient Response  BP: 170/88, HR: 90, RR: 22, Sats: 98% (on air), T: 37.6.  Persistent bleeding from right nostril  Dabbing at nose with blood tissue. Chatty & anxious | Learner Actions  A-E assessment and patient interview/history  Hippocratic method: sit forwards over bowl, pinching soft part of nose firmly, holding for 20 minutes without releasing pressure  Ongoing bleeding, patient describes blood going down back of throat, occasionally coughing blood | Transition Trigger  A – E assessment, with IV access and relevant bloods | **Additional Teaching Points**  Nurse: “What do you think is causing this?”  “Shall I get some obs as part of your assessment?”  “I’m not sure he has a cannula” |
| State 2A  LO:  Perform nasal examination and attempt cautery   1. Formulate the initial management steps of an acute epistaxis on an ENT ward. | Patient Response  Still actively bleeding any time the patient stops pinching nose.  Need to move to the part task trainer for any intervention (cautery or packing). This will be in the bed space next to the patient. | Learner Actions  Examine nose with PPE, headlight and nasal thudicums to visualize Little’s area.  Check oropharynx for blood clots / active bleeding.  Apply topical anaesthetic spray +/- adrenaline (e.g. co-phenylcaine)  Silver nitrate stick around bleeding point, then over bleeding site (approx. 3 seconds)psential | Transition Trigger  Cautery attempted. | **Additional Teaching Points**  Nurse: “Can you see where the bleeding is coming from?”  Patient: Continues to bleed regardless of cautery. |
| State 2B  LO:  Nasal packing as ongoing bleeding and unable to identify obvious bleeding point | Patient Response  As above. No change.  Other Events  All interventions taking place on part task trainer. Patient in bed responding in character voice throughout and controlling blood flow.  Ongoing trickling from right side. Large blood clot seen in oropharynx. Frequent coughing | Learner Actions  Insert merocell into right nostril  Check oropharynx for blood clots/active bleeding – to suction blood clot  Can insert additional merocell into other side to apply contralateral pressure | Transition Trigger  Attempts merocell packing. | **Additional Teaching Points**  Nurse: “The cautery didn’t seem to work – what else should we try here?”  “There seems to still be a bit of a trickle. Anything else we can do?”  “Why is he coughing so much?”  Patient: Bleeding moves to trickle once pack is in the trainer. Bleeding temporarily stops when/if a second pack in inserted into other side. |
| State 3  LO:  Ongoing management of packed patient   1. Discuss the management options for a patient with ongoing bleeding despite packing   Effective SBAR handover | Patient Response  No more bleeding anteriorly, but ongoing bleeding down back of throat. Coughing up blood clots.  BP: 100/64, HR: 120, RR: 28, Sats: 96% (on air), T: 37.6. | Learner Actions  Escalate to ENT SpR  Keep patient NBM  Consider IV tranexamic acid  Consider BIPP pack + Foley  Inform CEPOD anaesthetist and theatre co-ordinator | Patient escalated to senior. | **Additional Teaching Points**  Patient: “I can still feel something down my throat”  Nurse: “He’s not looking very well”  Senior: “Do you need me to come and review this patient now?” |

| Equipment required |  |
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| Equipment: | **Where to acquire:** |
| PPE |  |
| Sick bowl |  |
| Ice pack |  |
| Headlight | Ward 19A/A&E |
| Nasal thudicum | Ward 19A/A&E (ENT box in A&E) |
| Topical anaesthetic spray +/- adrenalin (e.g. co-phenylcaine) | Ward 19A |
| Tilley’s nasal forceps and pledgets/cotton wool | Ward 19A |
| Silver nitrate cautery stick | Ward 19A/A&E |
| Lubrication (for merocell tip) - optional |  |
| Merocell | Ward 19A/A&E |
| (Yankauer suction) |  |
| (Tongue depressor) |  |
| (Flexible nasal endoscope) | Ward 19A |

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| **QI Activities** | | |
| Peer Review | Yes No | Changes made: |
| Evaluation | Yes No | Changes made: |

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| **Contributor(s)** | Michael Hopkins (ENT SpR) |

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| **Version** | **Effective From** | **Effective To** | **Change Summary** |
| 1.0 | 06 May 2020 | 12 July 2022 | Updated scenario & equipment location |
| 1.1 | 13 July 2022 |  |  |