

INCLUSION CRITERIA

- Patients with post-operative tonsillectomy and adenoidectomy bleeds, pain and/or dehydration within 14 days of surgery.

EXCLUSION CRITERIA

- Bleeding disorder
- Second bleeding episode from single procedure

MEASURES

- Outcome Measure**
- Return to OR
- Process Measure**
- Time to ENT Consult
 - Time to TXA administration

CONSIDERATIONS

- Avoid unnecessary suctioning
- Avoid NSAIDs (ketorolac/ibuprofen) in bleeding patients, only use acetaminophen for pain.

INDICATIONS FOR TRANSFUSION¹

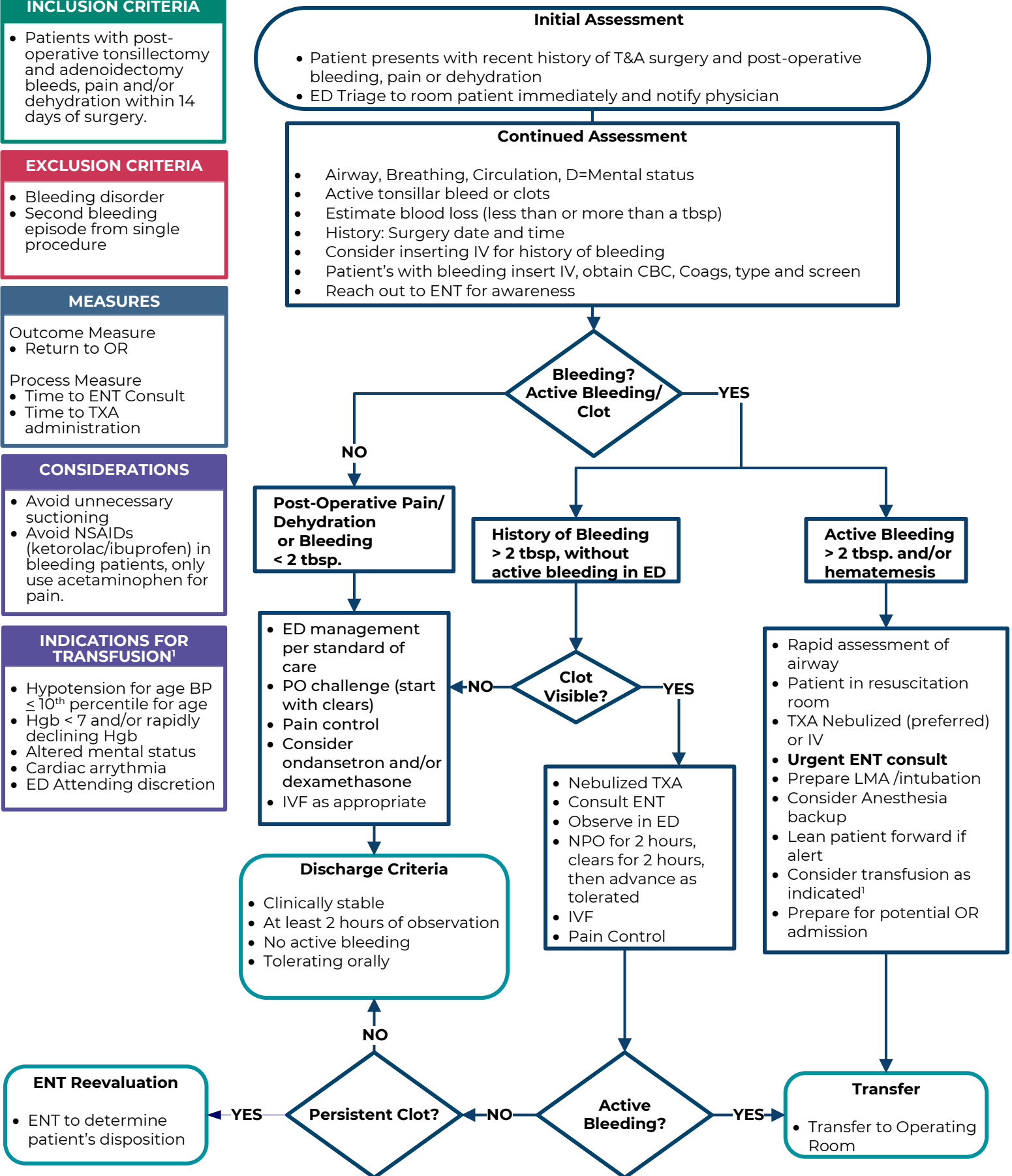
- Hypotension for age BP $\leq 10^{\text{th}}$ percentile for age
- Hgb < 7 and/or rapidly declining Hgb
- Altered mental status
- Cardiac arrhythmia
- ED Attending discretion

Initial Assessment

- Patient presents with recent history of T&A surgery and post-operative bleeding, pain or dehydration
- ED Triage to room patient immediately and notify physician

Continued Assessment

- Airway, Breathing, Circulation, D=Mental status
- Active tonsillar bleed or clots
- Estimate blood loss (less than or more than a tbsp)
- History: Surgery date and time
- Consider inserting IV for history of bleeding
- Patient's with bleeding insert IV, obtain CBC, Coags, type and screen
- Reach out to ENT for awareness



Medications			
Medication	Route	Dose	Max per dose
Acetaminophen	PO/IV	15mg/kg *will dose standardize for NCH-DE	1,000 mg
Dexamethasone	PO/IV	0.5 mg/kg/dose	10 mg
Ibuprofen	PO	10 mg/kg *will dose standardize for NCH-DE	800 mg
Ondansetron	PO/IV	0.1 mg/kg/dose	4 mg
Tranexamic Acid	Nebulized	<25 kg: 250 mg ≥ 25 kg: 500 mg	<25 kg: 250 mg ≥ 25 kg: 500 mg
	IV	10 mg/kg x 1 dose	1,000 mg

Disclaimer: The clinical pathways are based upon publicly available medical evidence and/or a consensus of medical practitioners at Nemours Children's Health ("Nemours") and are current at the time of publication. These clinical pathways are intended to be a guide for practitioners and may need to be adapted for each specific patient based on the practitioner's professional judgment, consideration of any unique circumstances, the needs of each patient and their family, and/or the availability of various resources at the health care institution where the patient is located.

VERSION MANAGEMENT

- Version 1.0 (6/30/2026): Go Live.

Questions about this pathway should be directed to clinicalpathways@nemours.org.

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- Alghamdi AS, Hazzazi GS, Shaheen MH, et al. Nebulized tranexamic acid for treatment of post-tonsillectomy bleeding: a systematic review and meta-analysis. *Eur Arch Otorhinolaryngol*. 2024;281(6):2373-2383. doi:10.1007/s00405-024-08995-1
- Cheung PKF, Walton J, Hobson ML, et al. Management of recurrent and delayed post-tonsillectomy and adenoidectomy hemorrhage in children. *Ear Nose Throat J*. 2023;102(4):244-250. doi:10.1177/0145561321999594
- Dermendjieva M, Gopalsami A, Glennon N, Torbati S. Nebulized tranexamic acid in secondary post-tonsillectomy hemorrhage: case series and review of the literature. *Clin Pract Cases Emerg Med*. 2021;5(3):278-284. doi:10.5811/cpcem.2021.5.52549
- Erwin DZ, Meyer AD, Liu MY, et al. Pediatric post-tonsillectomy hemorrhage management: a cross-sectional otolaryngology and emergency medicine survey. *Laryngoscope Invest Otolaryngol*. 2026;11:e70364. doi:10.1002/liv.70364
- Hession-Laband E, Melvin P, Shermon H, et al. Reducing readmissions post-tonsillectomy: a quality improvement study on intravenous hydration. *J Healthc Qual*. 2018;40(4):217-227. doi:10.1097/JHQ.000000000000143
- Kelly LE, Sommer DD, Ramakrishna J, et al. Morphine or ibuprofen for post-tonsillectomy analgesia: a randomized trial. *Pediatrics*. 2015;135(2):307-313. doi:10.1542/peds.2014-1906
- Leff R, Homme JJ. Horrific hemorrhage: posttonsillectomy bleeding management. *Emerg Med Clin North Am*. 2025;43(4):785-799. doi:10.1016/j.emc.2025.06.006
- Mitchell RB, Archer SM, Ishman SL, et al. Clinical practice guideline: tonsillectomy in children (update). *Otolaryngol Head Neck Surg*. 2019;160(1 suppl):S1-S42. doi:10.1177/0194599818801757
- Pereira KD, Gocal WA, Borodianski AV, et al. Steroids for pediatric adenotonsillectomy pain: a prospective multicenter randomized trial. *Otolaryngol Head Neck Surg*. 2025;173(3):636-644. doi:10.1002/ohn.1318
- Petrauskas LA, Sethurathnam J, Kunnath AJ, et al. Reducing surgery for pediatric posttonsillectomy hemorrhage using tranexamic acid: a quality improvement initiative. *Otolaryngol Head Neck Surg*. 2025;173(3):745-753. doi:10.1002/ohn.1300
- Riggin L, Ramakrishna J, Sommer DD, et al. A 2013 updated systematic review and meta-analysis of 36 randomized controlled trials: no apparent effects of nonsteroidal anti-inflammatory agents on the risk of bleeding after tonsillectomy. *Clin Otolaryngol*. 2013;38(2):115-129. doi:10.1111/coa.12106
- Verhagen J, Nuttall E, Floren S, et al. Analysis of an observational versus surgical approach for pediatric post-tonsillectomy hemorrhage. *Laryngoscope*. 2025;136(3):1507-1515. doi:10.1002/lary.70140
- Yao J, Liao Z, Mi J, Yang L. Application of enhanced recovery after surgery in tonsillectomy and adenoidectomy. *Minerva Surg*. 2025;80(5):385-392. doi:10.23736/S2724-5691.25.10930-1