

Post-tonsillectomy bleeding – Emergency Department

This best practice algorithm provides guidance on diagnosis and medical management for pediatric patients with post-tonsillectomy bleeding.

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Post-tonsillectomy patient presenting with concerns for active or recent bleeding

Consult ENT and proceed with treatment below while awaiting consult recommendations
If no immediate ENT OR capabilities at center, consider contacting Transfer Center ASAP

Does the patient have active bleeding?

Yes

No

Does the patient have **high volume bleeding** and/or is **hemodynamically unstable**?

Yes

No

High volume bleeding and/or unstable:

- **Contact Transfer Center ASAP during/after stabilization**
- Stabilize patient:
 - Two large IVs
 - IV fluids and/or blood products (consider MTP, if needed)
 - IV tranexamic acid
 - Intubate and pack mouth, if needed*
- Temporizing measures:
 - Suction
 - Ice packs to forehead and wrists
 - Pressure on ipsilateral carotid artery
 - TXA, oxymetazoline or epinephrine soaked gauze w/ McGill forceps
 - Nebulized tranexamic acid plus racemic epinephrine if awaiting IV access
- Emergent ENT consult – inform of critical patient condition
- Consider STAT CTA

Low volume bleeding/ooze and stable:

- **Contact Transfer Center**
- Obtain IV access
- Give nebulized tranexamic acid plus racemic epinephrine if not already given
- Consider IV tranexamic acid

Continued bleeding?

Yes

No

Consider interventions in high volume bleeding. Contact ENT and Transfer Center for definitive management

Avoid NSAIDs (ibuprofen or ketorolac)

Does the patient have a visible clot?

Yes

No

- **Contact Transfer Center**
- Nebulized tranexamic acid plus racemic epinephrine

- Observation
- Discuss observation plan and disposition with ENT

Discuss with ENT: OR vs admit for observation

Medication	Dose	Additional Considerations
Nebulized tranexamic acid (TXA)	< 25 kg: 250 mg (2.5 mL) ≥ 25 kg: 500 mg (5 mL)	Works best if nebulized racemic epinephrine is given prior to TXA Can utilize IV tranexamic acid 100 mg/mL IV formulation, draw up appropriate volume and administer with nebulizer
IV tranexamic acid (TXA)	10 mg/kg (maximum: 1,000 mg/dose) IV every 8 hours	Contraindicated in patients on oral hormonal contraceptives (risk of thromboembolism) Administer each dose over 10 minutes
Topical agents (oxymetazoline, TXA, epinephrine)	Soak gauze	Maintain count and control of all packing material with forceps and/or strings externally Caution epinephrine use in smaller patients due to risk of systemic absorption

*If at IU Health facility, can utilize "ED Post T&A Bleed Treatment" orderset

REFERENCES

1. Tesema N, Hasnie S, Earley M, April M. The use of tranexamic acid for post-tonsillectomy hemorrhage: A scoping review protocol. PLoS One. 2025 Feb 28;20(2):e0319284. doi: 10.1371/journal.pone.0319284. PMID: 40019903; PMCID: PMC11870335.
2. Zahed R, Mousavi Jazayeri MH, Naderi A, Naderpour Z, Saeedi M. Topical Tranexamic Acid Compared With Anterior Nasal Packing for Treatment of Epistaxis in Patients Taking Antiplatelet Drugs: Randomized Controlled Trial. Acad Emerg Med. 2018 Mar;25(3):261-266. doi: 10.1111/acem.13345. Epub 2017 Dec 9. PMID: 29125679.
3. Shin TJ, Hasnain F, Shay EO, Ye MJ, Matt BH, Elghouchi AN. Treatment of post-tonsillectomy hemorrhage with nebulized tranexamic acid: A retrospective study. Int J Pediatr Otorhinolaryngol. 2023 Aug;171:111644. doi: 10.1016/j.ijporl.2023.111644. Epub 2023 Jul 6. PMID: 37423163.
4. Petrauskas LA, Sethurathnam J, Kunath AJ, Sharma RK, Ceremak J, Belcher RH, Phillips JD, Werkhaven JA, Whigham AS, Wilcox LJ, Wooten CT, Virgin FW, Park JS. Reducing Surgery for Pediatric Posttonsillectomy Hemorrhage Using Tranexamic Acid: A Quality Improvement Initiative. Otolaryngol Head Neck Surg. 2025 May 21. doi: 10.1002/ohn.1300. Epub ahead of print. PMID: 40396477.

5. Spencer R, Newby M, Hickman W, Williams N, Kellermeyer B. Efficacy of tranexamic acid (TXA) for post-tonsillectomy hemorrhage. Am J Otolaryngol. 2022 Sep-Oct;43(5):103582. doi: 10.1016/j.amjoto.2022.103582. Epub 2022 Aug 6. PMID: 35988367.
6. Erwin DZ, Heichel PD, Wright LM BS, Goldstein NA, McEvoy TP, Earley MA, Meyer AD. Post-tonsillectomy hemorrhage control with nebulized tranexamic acid: A retrospective cohort study. Int J Pediatr Otorhinolaryngol. 2021 Aug;147:110802. doi: 10.1016/j.ijporl.2021.110802. Epub 2021 Jun 12.
7. Mitchell RB, Archer SM, Ishman SL, Rosenfeld RM, Coles S, Finestone SA, Friedman NR, Giordano T, Hildrew DM, Kim TW, Lloyd RM, Parikh SR, Shulman ST, Walner DL, Walsh SA, Nwacheta LC. Clinical Practice Guideline: Tonsillectomy in Children (Update)-Executive Summary. Otolaryngol Head Neck Surg. 2019 Feb;160(2):187-205. doi: 10.1177/0194599818807917. PMID: 30921525.
8. Jiang Z. Bleeding after tonsillectomy. Operative Techniques in Otolaryngology-Head and Neck Surgery. 2017; 28, 258-264



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Calling from an ED or inpatient setting? **Call the IU Health Transfer Center for transfer or consult at 877.247.1177.**

Calling from an outpatient setting? **Call MyRiley at 1.844.697.4539.**

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