

# The Impact of Frailty on Epistaxis admission, a retrospective cohort study

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## Abstract

**Objectives:** Epistaxis is the second most common referral to the Ear nose and throat (ENT) department. Frailty, a marker for biological vulnerability, has been shown to increase the risk of haemorrhage, but its impact in epistaxis patients is unknown. We aim to establish the impact of Clinical Frailty score, as well as other established risk factors for epistaxis, on the likelihood of admission in patients presenting to secondary care with epistaxis. **Design:** Retrospective cohort study **Setting:** University hospital Otolaryngology department **Participants:** Adult patients presenting to hospital with epistaxis between March 2019 and March 2020. **Main outcome measures:** We compare the clinical frailty score of patients admitted with epistaxis to those patients seen and treated same day. **Results:** 299 epistaxis presentations were identified, of which 122 (30.8%) required admission for further management. Clinical frailty score of [?]4 had an increased odds for admission (OR 3.15 (95% CI:1.94 – 5.16),  $p<0.001$ ). In the majority of presentations (66.2%), patients were taking either an antiplatelet, anticoagulant or a combination of them. Of these presentations, the use of an anticoagulant (OR: 2.00 (95% CI: 1.20-1.92),  $p:0.10$ ) and dual antiplatelet (OR: 2.82 (95% CI: 1.02-7.86),  $p:0.10$ ,  $p:0.07$ ) demonstrated increased odds of admission. **Conclusions:** We have shown that frailty increases the risk of admission in adult patients presenting with epistaxis. Frailty is becoming an increasingly apparent independent cause for haemorrhage in the elderly population. Careful consideration of bleeding risks, particularly in frail patients, needs addressing due to the morbidity associated with epistaxis.

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