



Patient-specific predictors of triage outcomes in ENT written referrals for dysphonia from primary care

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KEY MESSAGE

Gender and smoking history predicted triage decisions, but referral symptoms did not. One in four referrals omitted smoking and alcohol information that may be critical to accurate prioritisation.

BACKGROUND

Referral letters to specialist hospital ENT services guide decisions about how quickly adults with vocal symptoms need assessment and whether they should see a speech pathologist or an ear, nose, and throat surgeon first.



RESEARCH QUESTION

What information in written referrals to ENT predicted triage decisions for 1) assessment pathway and 2) assessment priority?

METHODS

150

adult referrals

≥18

years of age

- Retrospective case note review in a tertiary hospital ENT department
- Predictor variables: demographics, voice symptoms, lifestyle/risk factors and medical history
- Triage outcomes: SLP versus ENT pathway and priority category
- Analysis: logistic regression modelling

WHY LOGISTIC REGRESSION?

Logistic regression modelling was used to identify independent predictors of the outcome by estimating the association between the predictor variables (referral data) and the likelihood of the event (triage outcome) occurring.

RESULTS

Symptoms documented in the written referral

n=80 documented hoarseness only

n=8 documented ≥3 symptoms

PREDICTORS OF ASSESSMENT PATHWAY

Significant predictors of triage allocation to initial assessment by ENT rather than SLP

Female gender $p = .004$, OR = 4.786

Previous smoking $p = <.001$, OR 7.398

Current smoking $P = .007$, OR 9.712

Throat Symptoms were not predictive

No documented voice symptoms were significantly associated with assignment to the SLP or ENT assessment pathway.

PREDICTORS OF HIGH PRIORITY

Significant predictors of triage allocation to high-priority assessment

Female gender $P = <.001$, OR = 6.630

Previous smoking $P = <.001$, OR = 8.419

Current smoking $P = .002$, OR = 13.930

Previous thyroid surgery $P = .043$, OR = 10.774

CRITICAL INFORMATION GAP

25%

of referrals omitted information about smoking and alcohol consumption
≈ 1 in 4 referral letters

WHY THIS MATTERS

- Smoking history significantly influenced both pathway and priority decisions.
- Its omission may limit clinicians' ability to identify patients requiring ENT or expedited assessment.

CONCLUSION

- Gender and smoking history were significant predictors of triage outcomes.
- Documented symptoms were not significantly associated with pathway or priority.
- More complete, voice-specific referrals may support safer and more accurate prioritisation.

REFERRAL QUALITY MESSAGE

Triage depends not only on what is reported, but also on whether essential risk-factor information is consistently documented.

PRACTICE IMPLICATION

GP education and structured referral prompts should emphasise smoking, alcohol use, previous thyroid surgery and other relevant voice-disorder risk factors.

RECOMMENDATIONS FOR PRACTICE

1 Standardise essential fields

Use structured prompts for smoking status, alcohol consumption, relevant surgery, symptom onset and other recognised risk factors.

2 Educate referrers

Explain which details influence pathway and urgency decisions, and why apparently routine dysphonia may still warrant accelerated assessment.

3 Evaluate the redesigned referral

Measure completeness, triage agreement, safety, waiting times and the proportion of referrals redirected for missing information.

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