

Enhancing compliance with sudden sensorineural hearing guidelines through targeted education: A quality improvement project in a UK- ENT department

Haider Merchant, Amelia Alleyne, Henry Iheuwa and Aileen Lambert

Royal Cornwall Hospital Trust, UK

Statement of the problem: Sudden Sensorineural Hearing Loss (SSNHL) is an Otolological emergency requiring urgent corticosteroid treatment to optimise hearing recovery¹⁻³. Despite established guidelines⁴, inconsistent adherence was observed within our department. We conducted a quality improvement project to enhance compliance with local SSNHL management protocols. **Methodology:** Adult patients referred with suspected SSNHL to the Royal Cornwall Hospital were retrospectively identified from ENT emergency clinic records over a four-month period (cycle-one). Electronic patient records were reviewed to assess the following outcomes:

- Number of days from symptom onset and referral to first clinic review.
- Initiation of oral corticosteroids at referral.
- Number of days from symptom onset and referral to first clinic review).
- Management of confirmed SSNHL (discussion around intratympanic steroids, MRI requests, referral to a consultant-led otology clinic).

An educational intervention was implemented through targeted teaching sessions during departmental inductions for incoming junior doctors. A second four-month audit cycle (cycle-two) was subsequently conducted. **Findings:** Cycle-one included 48 patients and cycle-two included 46. Confirmed SSNHL was present in 30 patients (63%) for cycle-one and 19 (41%) for cycle-two. Significant reductions in mean time from referral to clinic review (6.6 5.2 vs 3.7 3.2, $p=0.003$) and referral to first audiogram (7.3 5.4 vs 4.1 3.1, $p=0.001$) were observed between cycles one and two. Increases in the proportion of patients with confirmed SSNHL who had documented discussions around intratympanic steroids (40% vs 74%, $p=0.0046$) and who were referred to a consultant-led otology clinic (34% vs 53%, $p=0.048$), were also seen between cycles one and two. The other outcomes improved but did not reach statistical significance ($p>0.05$). **Conclusion and significance:** This simple, low-cost educational intervention significantly improved timely assessment and aspects of specialist management of SSNHL. Embedding guideline-based teaching in junior doctor inductions can enhance evidence-based care and promote safer, more consistent practice in acute Otolological emergencies.

Recent Publications

1. Stachler RJ, Chandrasekhar SS, Archer SM, et al. Clinical practice guideline – sudden hearing loss. *Otolaryngol Head Neck Surg* 2012;146(S3):S1–S35.

2. Chau JK, Lin JRJ, Atashband S, et al. Systematic review of the evidence for the etiology of adult sudden sensorineural hearing loss. *Laryngoscope* 2010; 120(5):1011-21.
3. Lawrence R, Thevasagayam R. Controversies in the management of sudden sensorineural hearing loss: an evidence-based review. *Clin Otolaryngol* 2015;40:176–182.
4. Twigg V, Lawrence R, ThevasagayamR, Fergie N, Daniel M. Management of suspected unilateral idiopathic sudden sensorineural hearing loss in adults – ENT UK

Biography

Haider Merchant is an ENT-themed Core Surgical Trainee, currently working in South-West England (Peninsula Deanery). In addition to his interest in ENT as a surgical specialty, he has a passion for medical education. As such he has completed a Master's degree in Medical Education, followed by working as an academic foundation doctor in medical education at the Royal Cornwall Hospital, and subsequently a surgical teaching fellow. He is particularly interested in improving medical student preparedness for clinical practice and has recently started working on improving interest in ENT as a specialty.

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