Audiology-led approach to ENT referrals and detection of vestibular schwannomas: a retrospective observational study.

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Aim

The definitive investigation for vestibular schwannoma (VS) is Magnetic Resonance Imaging (MRI) Internal Acoustic Meatus (IAM) in people with asymmetrical sensorineural loss and unilateral tinnitus. ENT input is warranted to exclude retrocochlear pathology in those presenting with audiovestibular symptoms such as conductive and mixed loss. Since 2018, our audiologists can triage patients, arrange MRIs without specialist assessment, and directly contact ENT using online referral forms on their system. This pathway negates the need for onward referral through primary care.

Method

Retrospective study analysing referrals predating the current pathway from January to April 2015. Sample consisted of those with detected abnormalities on audiometry or unilateral tinnitus. Case notes reviewed for demographics, audiometry, record of tinnitus, MRI and ENT referrals, and documentation sent to GPs. Exclusion criteria were patients previously investigated or needing repeat testing.

Results

Of 304 patients attending audiology, 119 had referable conditions. 44 were compliant with the British Audiology Association (BAA) MRI criteria. 3 went on to receive these. 88% did not have tinnitus documented. 7% had unclear advice, 29% had no results/audiological findings on GP letters which leaves room for ambiguity.

Conclusion

This system potentially streamlines diagnostic pathways, particularly for VS whereby specialist review is sought based on MRI results. ENT outpatient and primary care referral burdens can be reduced, improving cost-efficiency and care. Further data is to be collected to analyse larger datasets and quantitatively assess pathway compliance and outcomes. Local education can improve documentation of audiological findings to GPs and maximise pathway uptake.

Results analysis

- x amount unclear (add to results). It is imperative for audiology findings to be relayed clearly in letters to allow GPs to arrange MRI IAMs if needed.

- Referrable on audiometry - 124, Unilateral tinnitus - 3
- Number of referable conditions in total - 127

Exclusions - previously investigated:

- Prev. MRI IAMs - 8 (complete), Prev ENT - x
- Prev. MRI IAMs - x (incomplete)

TOTAL sample size with exclusions - 127 - 8 -x = 119 for now

Analysis -

- Unilateral tinnitus - 3 , 2 had MRI prev.
  +
- Asymmetrical SNHL BAA - 39 (complete test) + 13 (incomplete) = 52 - 4 had MRI prev. (doesn't add up to 8??)

In total:

- 55 - 8 (MRI prev) = 47 should have had MRI IAMs in 2015 and were not previously Ix (asymmetrical SNHL 52 + unilateral tinnitus 3)

a. 3 received MRI IAMs at the point of referral (0.05%)

- Asymmetrical SNHL NICE - 61 (complete) + 13 (incomplete), 74 total (abstract 1 only)
- Additional patients with asymmetrical SNHL who would have had MRI IAMs as per NICE - 22 (61-39) (abstract 1 only)

(x subsequently went onto have MRI scans — and ENT referrals.)

Total of BAA patients 52
NICE guidelines patients 22

Results needed - abstract 1

1. How many out of the BAA have had previous investigations/known cause (MRIs, ENT known cause) 5
2. How many of the BAA have had MRIs 7
3. How many out of the BAA (-previous/known BAA-1) had MRIs
4. How many of the 74 had MRIs at a later date?

Results needed - abstract 2 (retrospective study)

1. How many had no/unclear description of tinnitus on journal? 270
2. How many had unclear/no advice/no results on GP letter? 21 - unclear, 88 - no results/advice
3. How many were referred to ENT via audiology (a) and how many via GP (b)? 8 altogether, dunno individually