

The Effectiveness of a Combined ENT-Radiology Clinic in the Management of Oropharyngeal Dysphagia: A Single Centre Study

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- Oropharyngeal dysphagia (OD) is prevalent in almost 40% of elderly patients
- OD is a common presentation in general practice
- Potentially debilitating condition
 - Symptoms ranging from pain, regurgitation and even choking
- Therefore imperative to investigate the root cause of the dysphagia

- Old Pathway:

- ❖ Patients would be referred to the otorhinolaryngology (ENT) services for an initial consultation
- ❖ Followed by an initial consultation from the surgeon
- ❖ Subsequently patients would be referred for a contrast swallow, if indicated
- ❖ The results would be conveyed in a follow up appointment with the ENT surgeon
 - ▶ This would often take a number of months (Figure 1).

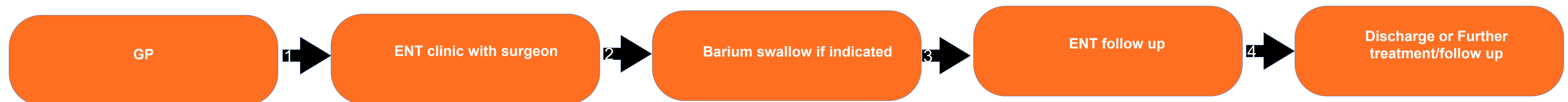


Figure 1: Old Pathway

- To introduce and highlight the benefits of an alternate pathway by offering a combined one-stop ENT-Radiology service for OD patients (Figure 2).
- Specifically looking at reducing waiting times, radiation dose and providing a more cost-effective pathway compared to previous.

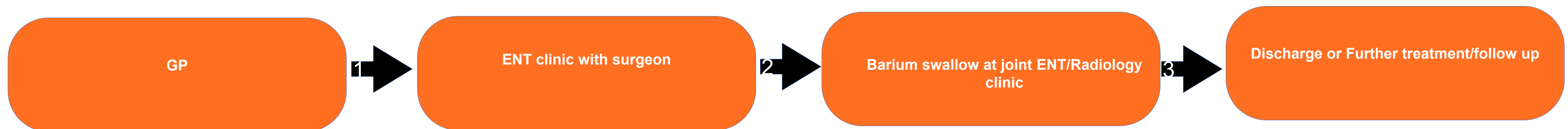


Figure 2: New Pathway

- Quantitative data collected in retrospect for 129 patients from 201-2020
 - (n= 81 in pre-combined ENT-Radiology, n=39 in combined ENT-Radiology cohorts).
- Inclusion criteria included presenting complaint of OD requiring subsequent investigations and imaging.
- Nine patients were excluded due to lack of information available regarding follow up.
- 120 participants were followed through from initial referral to outpatient clinic review/discharge.
- Run chart analysis was utilised to review the effectiveness of the new pathway over the four-year period.
- Additionally, quantitative analysis on radiation dose was done to allow a comparison between the pathways.

- Prior to the combined ENT-Radiology clinic:
 - ❖ Average waiting time for ENT follow up after contrast imaging = 63.2 days
 - ❖ Median waiting time of = 48 days.
 - ❖ 41.9% (34/81) of these patients subsequently required regular ENT follow-up.
- Following combined ENT-Radiology clinic:
 - ❖ Average waiting time for ENT follow up after contrast imaging dropped to = 2.3 days
 - ❖ Median waiting time of = 0 days.
 - ❖ Additionally 94.9% (37/39) of patients were advised regarding their follow-up on the same day as their imaging
 - ❖ 61.5% (24/39) of these patients were discharged the same day without further follow-up.
- Furthermore, radiation dose was reduced by an average of 622.38 cGy/cm² amounting to a 73.6% dose reduction

	Old Pathway	New Pathway
Average waiting time for ENT follow up (days)	63.2	2.3
Median waiting time for ENT follow up (days)	48	0
Average radiation dose to patients (cGy)	845.7	223.3

Table 1: Results

- Table above demonstrating direct comparison of old and new pathways.

- The combined ENT-Radiology clinic provides multifactorial benefit for patients with OD.
- Primarily, the time taken for follow up appointments has reduced significantly allowing patients to receive effective treatment/management plan sooner than previously.
- Additionally, discharging patients from care who do not require further follow-up reduces the patient load, allowing for shorter waiting lists and subsequently improving efficiency.
- The new pathway provides significant reductions in cost and time providing an effective model in the management of OD. Furthermore, the new pathway demonstrates a vast reduction in the radiation dose to the patient, thereby optimising patient safety and avoiding unnecessary radiation exposure.
- This model of quality improvement has proven extremely effective in this centre; however, further analysis and involvement of multiple centres are required to fully understand its benefits and efficacy on a wider scale.

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2. Cabré, M.; Almirall, J.; Clavé, P. Aspiration pneumonia: Management in Spain. *Eur. Geriatr. Med.* 2011, **2**, 180–183.