

Routes to diagnosis of Hypopharyngeal cancer: A Single Centre Experience

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INTRODUCTION

In the United Kingdom, hypopharyngeal cancer accounts for 3% of head and neck cancers, with an age standardised reported incidence of 0.63 per 10,000. (1). Cancer of the hypopharynx often presents late. Cardinal symptoms of hypopharyngeal cancer include evidence of a neck mass, sore throat, dysphagia, hoarseness and referred otalgia. Referral pathways in patients with suspected head and neck cancer vary (1). They include but are not limited to referral from a primary care setting, acute presentation to secondary care and inter-departmental referral.

In 2015, the National Institute for Clinical Excellence (NICE) established guideline NG12; Suspected Cancer, Recognition and Referral Guidelines, which defined the symptoms indicating a possible head and neck (H&N) cancer that warrant further investigation (2). The two symptoms pertinent to timely referral of hypopharyngeal cancer are persistent hoarseness and neck lump. The Northern Cancer Alliance (NCA) has used the NICE guideline to refine its 2 Week Wait (2WW) proforma to be used by healthcare practitioners when cases of H&N cancer are suspected (3). Symptoms that were originally included on the 2WW proforma, and pertinent to hypopharyngeal cancer, included dysphagia, sore throat and referred otalgia. The NCA proforma does not include these symptoms and only includes those recommended by NICE NG12 guidance. At the request of general practitioners (GPs), 'unexplained, persistent, unilateral enlargement or ulceration of the tonsil or adjacent soft palate' were included. The proforma does include a free text box encouraging primary care clinicians to describe concerning symptoms that do not fit with the NICE NG12 symptoms. The other symptoms/signs included on the NCA 2WW proforma relate to oral cavity cancer detection. 2WW proformas vary across regional Cancer Alliances in England, with many including dysphagia, sore throat and otalgia. This study aimed to evaluate routes to diagnosis of hypopharyngeal cancer in a large teaching hospital to establish if the current NCA 2WW proforma is appropriate to capture suspected cases of hypopharyngeal cancer.

METHODS

Basic settings and patient selection

This was an observational case review study of all patients with a diagnosis of hypopharyngeal cancer at a large teaching hospital in England between December 2019- July 2022. The audit was registered and approved by the local hospital trust governance department prior to data collection. A total of 68 patients

were identified from a prospective H&N audit database. The patient's NHS number was used to search the hospitals electronic patient record system.

Collected data

The following parameters were extracted for each case: patient demographics, referral route, time from initial referral to first appointment, Tumour (T), Node (N), Metastases (M) stage, first treatment modality and socio-economic factors; smoking status and index of multiple deprivation decile which was calculated based on the patient's postcode. A number from one to ten was generated; 1- most deprived lower-layer super output areas (LSOAs) nationally, 10- least deprived 10% of LSOAs nationally. Information regarding referral criteria was recorded from the NCA 2WW proforma. Practitioners could select one or more of the following categories to instigate the 2WW referral pathway:

1. A persistent, unexplained lump in the neck or parotid region of recent onset.
2. Persistent (not intermittent or fluctuating), unexplained hoarseness (over the age of 45 years).
3. Unexplained, persistent, unilateral enlargement or ulceration of the tonsil or adjacent soft palate.
4. **Analysis**

Descriptive data was collated on a spreadsheet and analysed. Analysis adhered to STROBE guidelines.

RESULTS

Of the 68 patients, 34 (50%) presented via a 2WW pathway, all from GP referrals. 23 (34%) were referred on non-2WW pathways: eight patients were referred by their GP on a routine basis, eight same site inter-departmental referrals and seven referrals were from another hospital site (no 2WW proforma). Three referrals were identified through routine departmental follow-up (FU) within ENT. Eight patients presented to the ENT service via an emergency route and were not previously known to the service (Figure 1). Characteristics of the patient group are shown in Table 1.

Data on the time from initial referral to first appointment date was available for 50 of the 68 patients. 97% (n=33) of patients referred on the 2WW pathway were seen within 14 days of initial referral date. One patient waited 23 days, having rescheduled their appointment. The median time from initial 2WW referral to first appointment date was nine days (range 2-23 days). Of the 50 patients in total, median time from initial referral to first appointment was 10 days (range 2-117 days).

18 patients were lacking data detailing initial referral to first appointment. Eight patients presented via an emergency route and were reviewed by ENT services at the time of presentation. Three patients were identified by routine departmental follow-up, and were lacking an initial referral date. Six patients were referred from other hospital sites with a previous diagnosis of hypopharyngeal cancer and one patient referred on a routine basis from GP was lacking referral documentation.

Of the 16 patients referred into ENT services on non-2WW pathways, seven patients presented with dysphagia (44%), five patients presented with odynophagia (31%), two patients presented with a sore throat (13%), one patient presented with globus (6%). One patient was referred after incidental findings on previous imaging (6%). Of those 16 patients, median time from initial referral to initial appointment was 14 days (range 6-117 days). Of those presenting with dysphagia specifically, the mean time from referral to initial appointment was 11 days (range 6-14 days).

Of the 34 2WW referrals from general practice, 23 patients were referred with a neck lump, 13 patients with persistent hoarseness and two patients with tonsillar ulceration. For all 2WW referrals, practitioners provided additional clinical information in the 'reason for referral' box. 44% of patients presenting via the 2WW pathway with a pre-treatment T category of T4. Analysis of pre-treatment category shown in table 2.

26 patients (38%) received palliative radiotherapy as their first treatment modality. Of those referred by the 2WW pathway, 13 (38%) received palliative radiotherapy and four (12%) received radical radiotherapy. Analysis of primary treatment modality categorised via referral route is shown in table 3.

DISCUSSION

The NCA adopted the NICE NG12 symptom to refine their 2WW suspected cancer referral proforma. Our data suggests that choosing to not include those symptoms that may be suggestive of hypopharyngeal cancer; dysphagia, sore throat and otalgia, does not seem to have negatively impacted on the referral of patients with hypopharyngeal cancer. The majority of patients were seen in a timely manner. McKie et al. (8) evaluated referral patterns and diagnostic efficacy of the UK 2WW pathway, and demonstrated 21.4% of H&N cancers were diagnosed via 2WW pathway. The results from our study showed that half of patients diagnosed with hypopharyngeal cancer were referred on the 2WW pathways. Round et al. (9) demonstrated that over the past decade 2WW referrals for all types of suspected cancer have increased significantly.

The ‘reason for referral’ box was populated in 100% of cases. This suggests that if the patient’s general practitioner was sufficiently concerned to detail the patients presenting symptoms, they would do so. Pooled data from previous studies of patients referred with suspected H&N cancer presenting with dysphagia indicated that head and neck cancer was diagnosed in only 5.6% of cases (4,7,8,10). In our study, the patients referred from primary care, via a non-2WW pathway, presenting with dysphagia had a median time from referral to first appointment was 11 days. Even in the absence of a 2WW proforma, this implies that referrals in to our centre were likely marked as urgent by the triaging ENT clinician reviewing these, based on the appropriate information provided by the referring practitioner. Together, these suggest that the 2WW proforma and written communication between primary and secondary care is an effective approach.

The 2WW system is a balance of promoting earlier diagnosis with the capacity to investigate patients within 14 days (7). Dysphagia, sore throat and otalgia are clearly concerning symptoms when they occur together and are observed in patients who smoke and/or drink alcohol to excess (1). As individual symptoms, they can be vague and common in nature, overlapping with many of the benign persistent throat symptoms that are commonly assessed in ENT clinics. Patients with these symptoms can overload the capacity of the 2WW referral system thereby potentially delaying the system’s ability to assess higher risk symptoms in a more timely manner (7).

Early cancer detection correlates with improved survival rates (5). Previous studies suggest that patients presenting via an emergency route are more likely to present with more advanced disease (5,10). Therefore, emergency presentations with advanced disease remains an area of concern to clinicians. This study highlights the link that patients presenting at a late stage, more commonly present via an emergency route, typically go on to have palliative treatment.

CONCLUSION

This study suggests that removal of non-NICE guidance H&N symptoms from the NCA 2WW proforma, when combined with an appropriate secondary care triaging system, has not negatively impacted on time from initial referral to diagnosis of hypopharyngeal cancer.

KEYWORDS

Hypopharyngeal cancer, referral route, diagnosis, 2WW pathway, non-urgent pathway

KEY POINTS

- In the UK, hypopharyngeal cancer accounts for approximately 3% of head and neck cancers.
- In our centre, 50% of all cases of hypopharyngeal cancer in our study period were referred via a 2WW pathway.
- An effective secondary care triaging service aids in the recognition of hypopharyngeal referred via a non-2WW route.
- Patients presenting via an emergency route, typically go on to have poorer outcomes.
- The current NCA 2WW proforma when utilised by primary care clinicians has not negatively impacted on route to diagnosis of patients with hypopharyngeal cancer.

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