

## **Scottish Referral Guidelines for Suspected Cancer Update – Evidence Review (Head and Neck)**

The purpose of this document is to synthesise and critique evidence and insight related to referral guidelines for suspected head and neck cancer. Key themes have been determined from the literature. For each key theme e.g., individual symptoms, the papers are summarised separately with some high-level synthesis to provide steer on how this may impact referral guidelines. At the end of the document, a table comparing NICE NG12 and Scottish Referral Guidelines (SRG) can be found for reference.

This document includes evidence on the following topics:

- Individual symptoms from primary and secondary care data
- Symptom combinations
- Safety netting those with signs and symptoms of head and neck cancer
- Other topics where the evidence base is emerging

### **Background**

Head and neck cancer is an umbrella term encompassing multiple types<sup>1</sup> of cancer. Data availability for some types is poor across the UK, but data from Wales and Northern Ireland indicates that late-stage diagnosis (at stage 3 and 4) is relatively common for head and neck cancer<sup>2</sup>. Each cancer type presents slightly differently, and many head and neck cancers have relatively low incidence<sup>3</sup>, making guideline development challenging. Other challenges in the diagnosis of head and neck cancer include guideline concordance (whether health professionals follow recommended guidelines)<sup>4</sup> and significant inequalities. Groups with worse outcomes and higher rates of emergency presentation include people from more deprived areas, those from ethnic minority groups, older people, and those with multiple

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<sup>1</sup>Including pharynx (oropharynx, hypopharynx, nasopharynx), larynx, oral cavity, nasal, paranasal, salivary gland

<sup>2</sup>Cancer Research UK (2022). Early Diagnosis. [online] [crukcanerintelligence.shinyapps.io/EarlyDiagnosis/](https://crukcanerintelligence.shinyapps.io/EarlyDiagnosis/).

<sup>3</sup>Cancer Research UK (2017). Head and neck cancers incidence statistics. [online] Cancer Research UK. Available at: <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/head-and-neck-cancers/incidence#heading-Zero>.

<sup>4</sup>Douglas, C.M., Middleton, C., Sim, P., Wight, M., Young, D., MacKenzie, K. and Montgomery, J. (2021). Patterns of urgent hoarseness referrals to ENT—When should we be suspicious of cancer? *Clinical Otolaryngology*, 46(3), pp.562–569. doi:<https://doi.org/10.1111/coa.13712>.

comorbidities. Men are also more likely to be diagnosed via emergency presentation<sup>5,6,7,8,9,10</sup>. Dentists can play an important role in the early detection of head and neck cancers, but for these health professionals to be utilised, clear pathways and guidelines must be available for referral or further investigation of suspicious signs and symptoms to secondary care settings. Additionally, access to dentistry is especially challenging for those who need the service most; 'dental deserts' exist in areas of greater deprivation, which may reduce opportunities for earlier recognition of head and neck cancers<sup>9</sup>. Improving referral guidelines and their use will support timelier diagnosis, helping to ensure more patients are diagnosed via a managed route and to reduce inequalities in head and neck cancer diagnosis.

### Search Strategy

**Search terms:** PubMed search for combinations of the following terms: head, neck, cancer, symptom, prevalence, laryngeal, oropharyngeal, risk, investigation, primary care, oral, thyroid, recognition, referral, emergency presentation, routine, safety netting, dentist.

**Date:** 2015 – present. In the table summaries, the only studies included from pre-2015 are those that are relevant for explaining differences in SRG and NICE NG12 guidelines. These have been gathered from [NICE NG12 Evidence Review document](#).

### Peer-reviewed literature

**Note:** grey rows in the table represent studies that have already been summarised earlier in the document.

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<sup>5</sup> Ravaghi, V., Durkan, C., Jones, K., Girdler, R., Mair Jenkins, J., Davies, G., Wilcox, D., Dermont, M., White, S., Dailey, Y. and Morris, A.J. (2020). Area level deprivation and oral cancer in England 2012-2016. *Cancer Epidemiology*, 69, p.101840. doi:<https://doi.org/10.1016/j.canep>.

<sup>6</sup> Ingarfield, K., McMahon, A.D., Douglas, C.M., Savage, A., MacKenzie, K. and Conway, D.I. (2018). Inequality in the Survival of Patients With Head and Neck Cancer in Scotland. *Frontiers in Oncology*, [online] 8, p.673. doi:<https://doi.org/10.3389/fonc>.

<sup>7</sup> Ingarfield, K., McMahon, A.D., Douglas, C.M., Savage, S., Conway, D.I. and MacKenzie, K. (2019). Determinants of long-term survival in a population-based cohort study of patients with head and neck cancer from Scotland. *Head & Neck*, 41(6), pp.1908-1917. doi:<https://doi.org/10.1002/hed>.

<sup>8</sup> Ingarfield, K., McMahon, A.D., Hurley, K., Toms, S., Pring, M., Thomas, S.J., Waylen, A., Pawlita, M., Waterboer, T., Ness, A.R. and Conway, D.I. (2021). Inequality in survival of people with head and neck cancer: Head and Neck 5000 cohort study. *Head & Neck*, 43(4), pp.1252-1270. doi:<https://doi.org/10.1002/hed>.

<sup>9</sup> Deane, J., Norris, R., O'Hara, J., Patterson, J. and Sharp, L. (2022). Who Presents Where? A Population Based Analysis of Socio Demographic Inequalities in Head and Neck Cancer Patients' Referral Routes. *International Journal of Environmental Research and Public Health*, [online] 19(24), p. 16723. doi:<https://doi.org/10.3390/>

<sup>10</sup> Abel, G.A., Shelton, J., Johnson, S., Elliss Brookes, L. and Lyratzopoulos, G. (2015). Cancer specific variation in emergency presentation by sex, age and deprivation across 27 common and rarer cancers. *British Journal of Cancer*, 112(S1), pp.S129-S136. doi:<https://doi.org/10.1038/bjc>.

**Topic: Individual Symptoms**

**Summary:** the evidence base below largely supports the inclusion of symptoms currently in the guidelines. Estimates of PPV using primary care data are only available for laryngeal cancer and sinonasal cancer symptoms. Hoarseness is the only symptom that has a relatively high PPV for laryngeal cancer. For rarer cancers (sinonasal), symptoms are very unlikely to reach a threshold for urgent referral and consideration may be required to determine how to support professionals to recognise potential cancer in people presenting with these symptoms.

The commonality of presenting features differs by cancer site. Hoarseness appears to be the most commonly presenting symptom for laryngeal cancer, oral lump for oral cavity cancer and neck lump for oropharyngeal cancer. Hoarseness is the only symptom noted where survival is higher when the symptom is present compared to when it is not, compared to weight loss, neck lump and dysphagia where survival was lower when the symptom is present. The reasons for this are likely to be multifactorial. It is also worth considering why neck lump is consistently associated with later stage disease, where other head and neck cancer symptoms are not.

SRG includes persistent (>3 weeks) pain in the throat or on swallowing as a symptom that warrants urgent referral for suspected head and neck cancer, which differs from NICE NG12 guidelines. Paper 1 below states PPVs for sore throat detecting laryngeal cancer are <1%, but there a lack of high-quality evidence using primary care cohorts to determine whether the PPV is higher for other types of common head and neck cancers e.g. oral or oropharyngeal. The evidence outlined below does demonstrate that sore throat is prevalent in people diagnosed with head and neck cancer and has relatively high PPVs in secondary care.

| <b>Paper number</b> | <b>Study</b>   | <b>Cancer</b> | <b>Summary</b>  | <b>Notes</b>   |
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| 1                   | Shephard, E.A., Parkinson, M.A. and Hamilton, W.T. (2019). <a href="#">Recognising laryngeal cancer in primary care: a large case-control study using electronic records</a> . British Journal of General Practice, [online] 69(679), pp.e127-e133. doi:10.3399/bjgp19X700997. | Laryngeal     | <p>This study aimed to identify and quantify the primary care features of <b>laryngeal cancer</b>.</p> <p>The reported PPV for individual symptoms of laryngeal cancer in patients aged ≥60 years was:</p> <ul style="list-style-type: none"> <li>• Hoarseness: 2.7%</li> </ul> | <p>Matched case-control study Clinical Practice Research Datalink (CPRD) data from over 600 UK practices between 2000-2009</p> <p>Ratio of cases:controls = 1:5<br/>                     n = 3559 (controls)<br/>                     n= 806 (cases)</p> |

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|   |   |           | <ul style="list-style-type: none"> <li>All other symptoms (includes sore throat, first attendance, sore throat second attendance, chest infection second attendance, dysphagia, otalgia, dyspnoea second attendance, insomnia, mouth symptoms): &lt;1%</li> <li>Neck lump was not associated with laryngeal cancer in this study.</li> </ul>  | <p><b>Limitation:</b> this study analyses data coded in primary care only, so some symptoms included in free text only may have been missed in the analysis</p>  |
| 2 | <p>Moore SF, Price SJ, Bostock J, Neal RD, Hamilton W. <a href="#">Incidence of "Low-Risk but Not No-Risk" Features of Cancer Prior to High-Risk Feature Occurrence: An Observational Cohort Study in Primary Care.</a> Cancers [Internet]. 2023 Aug 2;15(15):3936.</p> | Laryngeal | <p>This study aimed to investigate the number and percentage of patients with a PPV <math>\geq 3\%</math> feature who also presented with a 2–2.99% or 1–1.99% feature in the preceding year.</p> <p>9% of laryngeal cancer patients with a <math>&gt;3\%</math> risk symptom also had a 2–2.99% risk symptom in the preceding year. There were 0 cases of 1–1.99% symptoms in the preceding year.</p> <p>The median time between presenting with a 2–2.99% symptom and <math>&gt;3\%</math> symptom was 138.5 days (IQR 17–279) for laryngeal cancer.</p> <p>Hoarseness in those <math>\Rightarrow &gt;60</math> years old was the only 2–2.99% feature present in this study cohort (n=51).</p> | <p>Cross-sectional study<br/>English primary care data<br/>Data from January 2015 - December 2016<br/>N= 150,921 for all cancers combined<br/>N=7,108 patients with <math>&gt;3\%</math> risk symptom<br/>N= <b>155 laryngeal cancer</b> patients with <math>&gt;3\%</math> risk symptom</p> <p><b>Note:</b> PPVs derived from a list of features of cancer from the systematic reviews published in NG12 2015 update for each of the cancer sites.</p> <p><b>Limitation:</b> only coded data was used for this analysis, so there may be underestimation of</p> |

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|   |   |   |   | threshold for symptoms, due to missing data in free text.  |
| 3 | <p>Khan, T., El-Sockary, Y., Hamilton, W.T. and Shephard, E.A. (2021). <a href="#">Recognizing sinonasal cancer in primary care: a matched case-control study using electronic records.</a> Family Practice. doi:<a href="https://doi.org/10.1093/fampra/cmab153">https://doi.org/10.1093/fampra/cmab153</a>.</p> | Sinonasal   | <p>This study aimed to identify and quantify clinical features of <b>sinonasal cancer</b> in UK primary care patients.</p> <p>PPV was estimated for individual symptoms. For all symptoms alone, list below, the PPV was reported to be &lt;0.1% in patients aged ≥50 years</p> <p>Symptoms included: head and neck lumps, nasal polyps, visual disturbance, epistaxis, rhinorrhoea, otalgia, sinusitis, headache, sore throat and raised white cell count.</p>             | <p>Matched case-control study UK Clinical Practice Research Datalink (CPRD) data between 2000-2009<br/>N=155 cases and 697 controls</p> <p><b>Limitation:</b> this study has a relatively small sample of people diagnosed with sinonasal cancer, which may reduce representativeness of results</p>   |
| 4 | <p>Douglas, C.M., Ingarfield, K., McMahon, A.D., Savage, S.A., Conway, D.I. and MacKenzie, K. (2018) <a href="#">Presenting symptoms and long term survival in head and neck cancer.</a> Clinical Otolaryngology, 43(3), pp. 795-804.</p>   | Laryngeal, oral cavity, oropharyngeal, hypopharyngeal | <p>This study aimed to assess how type and number of symptoms are related to survival in <b>head and neck cancer</b> patients.</p> <p>The most common presenting symptoms were for hoarseness (82%), ulceration (location not specified)(51.5%), pain (60.9%) and weight loss (23.8%) in people diagnosed with laryngeal, oral cavity, oropharyngeal and hypopharyngeal cancer respectively.</p> <p>All head and neck cancer patients who presented with hoarseness had</p> | <p>Data from Scottish National Cancer Diagnosis Audit linked with Scottish registry data<br/>Data from 1999-2001<br/>N= 1589</p> <p><b>Limitation:</b> the included data are quite old so the results may not be representative of the current landscape. For some symptoms related to specific cancer sites, the sample size is quite small. The results were adjusted for stage and age, but</p> |

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|  |  |  | <p>significantly better survival compared to those who did not present with hoarseness at both 5 and 12 years (median survival 5.9 vs 2.6 years). For other symptoms:</p> <ul style="list-style-type: none"> <li>• Patients presenting with a neck lump had a median survival of 1.3 years compared to 4.8 years for those without a neck lump at presentation.</li> <li>• Patients that presented with weight loss had a median survival of 0.8 years, compared to 4.2 years if they did not have weight loss.</li> <li>• Patients that presented with dysphagia had a median survival of 1.3 years compared to 4.3 years for those that didn't have dysphagia.</li> </ul> <p>There was no statistically significant difference in survival between people who did and didn't present with ulceration.</p> <p>Patients presenting with <b>hoarseness</b> who were diagnosed with <b>larynx</b> cancer (n=497) had a median survival of 7 years compared to 2.2 years for those who didn't present with hoarseness (n=106).</p> | <p>more detailed stage data would be useful to triangulate with survival data.</p> |
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|   |  |                                       | <p>Patients with <b>oral cavity cancer</b> who presented with an ulcer (n=275) had a median survival of 4.9 years compared to only 2.8 years for those who didn't (n=259). Patients presenting with weight loss (n=27) had a median survival of 0.6 years, compared to 4 years for those without weight loss (n=507).</p> <p>Patients with <b>oropharyngeal</b> cancer who presented with a neck lump (n=83) had a median survival of 1.8 years compared to 2.6 years for those who didn't present with a neck lump (n=247).</p> <p>Weight loss was the only symptom that was a significant predictor of survival after adjustment for age and stage in all four subsites.</p> |  |
| 5 | <p>Koo MM, Swann R, McPhail S, Abel GA, Elliss-Brookes L, Rubin GP, et al. <a href="#">Presenting symptoms of cancer and stage at diagnosis: evidence from a cross-sectional, population-based study</a>. The Lancet Oncology. 2019 Nov;21(1).</p> | <p>Laryngeal, oral, oropharyngeal</p> | <p>This study aimed to examine associations between common presenting symptoms of cancer and stage at diagnosis.</p> <p>The proportion of patients diagnosed at stage 4 was 80% for those with a <b>neck lump</b> (all cancers) and neck lump was consistently associated with an increased odds of stage 4 disease. Hoarseness was the only other head and neck cancer</p>  | <p>Cross-sectional, population-based study<br/>England data from NCDA (2014)<br/>N=7997 (for all cancers)<br/>N= 1715 (lung cancer only)</p> <p><b>Limitation:</b> this study analyses primary care records, which may be incomplete and prone to bias</p> |

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|  |  |  | <p>symptom included in this study, and had a higher proportion diagnosed at stage 1-3, compared to 4 (40%).</p> <p>The proportion of all cancer patients who presented with x symptom who were subsequently diagnosed with <b>laryngeal cancer</b> was as follows:</p> <ul style="list-style-type: none"> <li>• Hoarseness: 63%</li> <li>• Neck lump: 6%</li> <li>• Haemoptysis: 2%</li> <li>• Any other symptom: 1%</li> <li>• Weight loss: 1%</li> <li>• Cough: 1%</li> <li>• Dyspnoea: 1%</li> </ul> <p>The proportion of cancer patients who presented with x symptom who were subsequently diagnosed with <b>oral/oropharyngeal cancer</b> was as follows:</p> <ul style="list-style-type: none"> <li>• Neck lump: 66%</li> <li>• Any other symptom: 6%</li> <li>• Hoarseness: 4%</li> <li>• Fatigue: 2%</li> <li>• Weight loss: 2%</li> <li>• Haemoptysis: 2%</li> </ul> |  |
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| <p>6</p> | <p>Zakkak N, Barclay ME, Swann R, McPhail S, Rubin G, Abel GA, et al. <a href="#">The presenting symptom signatures of incident cancer: evidence from the English 2018 National Cancer Diagnosis Audit</a>. British Journal of Cancer [Internet]. 2024 Feb 1 [cited 2024 Feb 1];130(2):297–307.</p> | <p>Laryngeal, oral cavity, oropharyngeal, thyroid, 'other'</p> | <p>This study aimed to (1) examine the relative frequency of presenting symptoms by cancer site (the 'symptom signature' of each cancer site), (2) to examine the relative frequency of cancer sites by presenting symptom (the 'cancer site case-mix' of each symptom), among incident cancer cases.</p> <p>The proportion of patients with head and neck cancer presenting with the following symptom groups was:</p> <ul style="list-style-type: none"> <li>• Non-specific: 13%</li> <li>• Lump/mass/lymph node: 33%</li> <li>• Ulceration: 16%</li> <li>• Upper abdominal: 6%</li> <li>• Lower abdominal: 1%</li> <li>• Respiratory: 27%</li> <li>• CNS: 1%</li> <li>• MSK: 1%</li> <li>• None recorded: 17%</li> </ul> <p>Of all patients diagnosed with <b>laryngeal cancer</b>, the proportion that experienced x symptom are as follows:</p> <ul style="list-style-type: none"> <li>• Hoarseness: 69%</li> <li>• Sore throat: 19%</li> <li>• Cough: 10%</li> <li>• Weight loss, neck lump/mass: 6%</li> </ul> | <p>Data from 2018 NCDA (England)<br/>N=55,122 (total cohort)<br/>N=7,608 (lung only)</p> <p><b>Limitations:</b> this is a case-only analysis (only patients with diagnosis of cancer were included), so cannot make inferences about PPV of symptoms</p> |
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|  |  |  | <ul style="list-style-type: none"> <li>• Dysphagia: 5%</li> <li>• Dyspnoea, other: 4%</li> <li>• Loss of appetite: 2%</li> <li>• Local lymphadenopathy, oral lump/mass, dyspepsia, nausea/vomiting, chest infection, haemoptysis, stridor: 1%</li> <li>• N/A: 5%</li> <li>• N/K: 3%</li> </ul> <p>The mean number of symptoms per laryngeal cancer diagnosis was 1.4.</p> <p>Of all patients diagnosed with <b>oral cavity</b> cancer, the proportion that experienced x symptom are as follows:</p> <ul style="list-style-type: none"> <li>• Oral lump/mass: 30%</li> <li>• Oral ulcer: 21%</li> <li>• Other: 7%</li> <li>• Neck lump/mass, sore throat: 5%</li> <li>• Weight loss, dysphagia: 2%</li> <li>• Local lymphadenopathy, leukoplacia, ulceration, cough, dyspnoea, hoarseness: 1%</li> <li>• N/A: 20%</li> <li>• N/K: 9%</li> </ul> <p>The mean number of symptoms per oral cavity cancer diagnosis was 1.2.</p> |  |
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|  |  |  | <p>Of all patients diagnosed with <b>oropharyngeal</b> cancer, the proportion that experienced x symptom are as follows:</p> <ul style="list-style-type: none"> <li>• Neck lump/mass: 43%</li> <li>• Sore throat: 28%</li> <li>• Oral lump/mass, other: 8%</li> <li>• Local lymphadenopathy, dysphagia: 5%</li> <li>• Weight loss: 4%</li> <li>• Oral ulcer, cough: 3%</li> <li>• Fatigue, loss of appetite, chest pain, dyspnoea, haemoptysis, headache: 1%</li> <li>• N/A: 5%</li> <li>• N/K: 2%</li> </ul> <p>The mean number of symptoms per oropharyngeal cancer diagnosis was 1.3.</p> <p>Of all patients diagnosed with <b>thyroid</b> cancer, the proportion that experienced x symptom are as follows:</p> <ul style="list-style-type: none"> <li>• Neck lump/mass: 33%</li> <li>• Thyroid lump/mass: 23%</li> <li>• Other: 6%</li> <li>• Hoarseness, sore throat: 4%</li> <li>• Cough, dysphagia, fatigue: 3%</li> <li>• Weight loss, dyspnoea: 2%</li> <li>• Back pain, chest pain: 1%</li> </ul> |  |
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|   |  |             | <ul style="list-style-type: none"> <li>• N/A: 22%</li> <li>• N/K: 5%</li> </ul> <p>The mean number of symptoms per thyroid cancer diagnosis was 1.3.</p> <p>Of all patients diagnosed with '<b>other head and neck</b>' cancer, the proportion that experienced x symptom are as follows:</p> <ul style="list-style-type: none"> <li>• Neck lump/mass: 31%</li> <li>• Other: 13%</li> <li>• Sore throat: 12%</li> <li>• Oral lump/mass, dysphagia: 8%</li> <li>• Hoarseness: 7%</li> <li>• Epistaxis: 6%</li> <li>• Weight loss, local lymphadenopathy: 4%</li> <li>• Oral ulcer, headache: 3%</li> <li>• Cough, ulceration: 2%</li> <li>• Fatigue, infection, loss of appetite, loss of CN function, visual loss: 1%</li> <li>• N/A: 7%</li> <li>• N/K: 4%</li> </ul> <p>The mean number of symptoms per laryngeal cancer diagnosis was 1.3.</p> |   |
| 7 | Rogers, S.N., Staunton, A., Girach, R., Langton, S. and Lowe, D. (2019). <u>Audit of the</u> | Head & Neck | The study aimed to analyse head and neck cancer suspected two-week referrals in   | Retrospective analysis of audit data from Aintree Hospital, England |

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|  | <p><u>two-week pathway for patients with suspected cancer of the head and neck and the influence of socioeconomic status</u>. British Journal of Oral and Maxillofacial Surgery, 57(5), pp.419–424.<br/>doi:<a href="https://doi.org/10.1016/j.bjoms.2018.09.016">https://doi.org/10.1016/j.bjoms.2018.09.016</a>.</p> |  | <p>terms of clinical characteristics, source of referral, and cancer rates.</p> <p>79% (n=307) of patients only presented with one symptom, 19% (n=74) with two and 2% (n=8) with more than two.</p> <p>27% (n=104) of patients reported only 'other' (less common) symptoms, such as: mucosal lesions (n=32), throat issues/globus/swallowing problems (n=27), pain/soreness not otherwise specified (n=16), altered hearing (n=8), cough (n=5), others (n=23).</p> | <p>Data from July – Sept 2017</p> <p>N=390</p> <p><b>Limitation:</b> this study uses a relatively small sample and is based in one area of England, so generalisability may not be applicable to the wider population</p> |
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| <b>Topic: Estimates of PPV derived using secondary care data</b>   |   |   |   |
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| <p><b>Summary:</b> These studies calculated PPVs from a cohort of patients who had been referred into the head and neck urgent suspected cancer pathway. These estimates should therefore be interpreted with caution as they are calculated using a group already at higher risk of head and neck cancer. There are symptoms included in these studies which are not currently in SRG e.g. otalgia, which in combination with other symptoms were reported to have a PPV of &gt;3% in English primary care cohorts as well (see table below), which could be considered for inclusion in referral guidelines.</p> |   |   |   |
| <b>Paper number</b>  | <b>Study</b>  | <b>Summary</b>  | <b>Notes</b>  |
| 8  | Bassem Mettias, Charlton, A. and S. Ashokkumar (2021). <a href="#">Outcome of two-week head and neck cancer pathway for the otolaryngology department in a tertiary centre.</a> | This study aimed to explore presenting symptoms and their PPV in patients diagnosed with head and neck cancer after being seen at an urgent outpatient otolaryngology clinic. | Retrospective audit, based on data from England. Data was collected from January–June 2018<br><br>N=1107 (66 diagnosed with cancer) |

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|   | <p>135(10), pp.869–873.<br/>doi:<a href="https://doi.org/10.1017/s0022215121002061">https://doi.org/10.1017/s0022215121002061</a>.</p>  | <p>In those patients diagnosed with cancer, neck lump was the most common presentation. This was followed by persistent hoarseness and sore throat.</p> <p>PPVs estimated in this study:</p> <ul style="list-style-type: none"> <li>• Neck lump: 17.4%</li> <li>• Oral swelling: 10.2%</li> <li>• Otagia: 9.7%</li> <li>• Oral bleeding: 8%</li> <li>• Sore throat: 4%</li> </ul>   | <p><b>Limitation:</b> PPVs are calculated from those who have already been referred into the urgent referral pathway, rather than the whole population with x symptom which may lead to overestimation.</p>   |
| 9 | <p>Tikka, T., Pracy, P. and Paleri, V. (2016). <a href="#">Refining the head and neck cancer referral guidelines: a two centre analysis of 4715 referrals</a>. British Journal of Oral and Maxillofacial Surgery, 54(2), pp.141–150. doi:<a href="https://doi.org/10.1016/j.bjoms.2015.09.022">https://doi.org/10.1016/j.bjoms.2015.09.022</a>.</p> | <p>The aim of this study was to identify optimal criteria for referral from primary care in people with suspected head and neck cancer.</p> <p>The most common presenting complaint was an unexplained neck lump for more than 3 weeks (22.5%), followed by hoarseness for more than 3 weeks (20.2%). All of the other symptoms accounted for less than 10% of referrals.</p> <p>The recommended list of referral criteria based on this study includes (PPVs):</p> <ul style="list-style-type: none"> <li>• Persistent hoarseness &gt;3 weeks: 7.7%</li> <li>• Unexplained oral ulceration or mass &gt;3 weeks: 12.3%</li> <li>• Unexplained persistent swelling in the parotid or submandibular gland &gt;3 weeks:</li> <li>• Unexplained neck mass &gt;3 weeks: 17%</li> <li>• Recently appeared neck mass: 12.2%</li> </ul> | <p>Retrospective analysis</p> <p>Data collected between 2007–2010</p> <p>England data (Newcastle, Birmingham)</p> <p>N=4715</p> <p><b>Limitation:</b> the data analysed in this study is relatively dated, which may limit generalisability to current practice. The criteria proposed in this study (including all symptoms in the column to the left) has not been externally validated in other cohorts.</p> |

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|    |   | <ul style="list-style-type: none"> <li>• Dysphagia &gt;3 weeks: 13%</li> <li>• Odynophagia &gt;3 weeks: 18.8%</li> <li>• Unexplained otalgia with normal otoscopy: 18.2%</li> <li>• Sensation of lump in throat (1.5%) + blood in mouth (4.1%)</li> <li>• Sensation of lump in throat (1.5%) + unexplained otalgia + normal otoscopy (18.2%)</li> </ul>   |  |
| 10 | <p>Gao, C., Qin, C., Freeman, S., Oskooee, N. and Hughes, J. (2019). <a href="#">Two week wait referral criteria – heading in the right direction?</a> The Journal of Laryngology &amp; Otology, 133(8), pp.704–712.<br/>doi:<a href="https://doi.org/10.1017/s002221511900149x">https://doi.org/10.1017/s002221511900149x</a>.</p> | <p>This study estimated the PPV of signs and symptoms included in NICE NG12 guidelines during the study period.</p> <p><b>PPVs estimated in this study:</b></p> <p><b>Laryngeal/pharyngeal:</b></p> <ul style="list-style-type: none"> <li>• &gt;40 years old with persistent, unexplained hoarseness (&gt;3 weeks): 2.4%</li> <li>• Neck lump/mass: 9.2%</li> <li>• &gt;4 weeks of persistent, unilateral throat pain: 2.2%</li> <li>• &gt;40 years old with &gt;3 weeks of dysphagia: 2.4%</li> <li>• &gt;40 years old with &gt;3 weeks of odynophagia: 3.2%</li> <li>• &gt;40 years old with &gt;3 weeks of otalgia: 5.6%</li> </ul> <p><b>Thyroid:</b></p> <ul style="list-style-type: none"> <li>• Thyroid lump: 7%</li> </ul> | <p>Retrospective analysis at University College Hospital, L Hospital, England</p> <p>Data from May–November 2016</p> <p>N=984</p> <p><b>Limitation:</b> patient data were collected retrospectively from appointment letters which may limit the reliability of the symptoms noted in the letters and the duration of such symptoms. Also, there are very small numbers for some of these cancers diagnosed with each specific symptom (ranging from n=1-15)</p> |

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|  |  | <p><b>Oral:</b></p> <ul style="list-style-type: none"> <li>• &gt;3 weeks of unexplained ulceration in oral cavity: 5.3%</li> <li>• Suspicious lip or oral cavity lump or mass: 7.1%</li> <li>• Leukoplakia/erythroleukoplakia: 8.5%</li> </ul> <p><b>Salivary:</b></p> <ul style="list-style-type: none"> <li>• &gt;40 years old with unexplained or persistent parotid/submandibular swelling: 2.7%</li> <li>• Firm submucosal swelling in oral cavity: 11.1%</li> </ul> |  |
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| <b>Topic: Symptom Combinations</b>  |   |               |   |   |
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| <p><b>Summary:</b> There are symptom combinations not included in SRG which have been reported to exceed a 3% risk threshold for laryngeal cancer. Presentation with multiple symptoms has been associated with increased likelihood of cancer diagnosis and lower survival, which further supports the inclusion of symptom combinations in referral guidelines.</p> |   |               |   |   |
| <b>Paper number</b>   | <b>Study</b>  | <b>Cancer</b> | <b>Summary</b>  | <b>Notes</b>  |
| -   | <p>Shephard, E.A., Parkinson, M.A. and Hamilton, W.T. (2019). <a href="#">Recognising laryngeal cancer in primary care: a large case-control study using electronic records</a>. British Journal of General Practice, [online] 69(679), pp.e127–e133. doi:10.3399/bjgp19X700997.</p> <p>This paper is also summarised above, see paper 1.</p> | Laryngeal     | <p>This study aimed to identify and quantify the primary care features of laryngeal cancer.</p> <p>PPVs for combinations symptoms of <b>laryngeal cancer</b> in patients aged <math>\geq 60</math> years are outlined below. Symptom combinations defined as 'more than one symptom reported in the year before diagnosis'.</p> | <p>See above.</p> <p><b>Note:</b> there will likely be small numbers for some specific symptom combinations, as only hoarseness and sore throat (first attendance) exceeded n=100 as individual symptoms.</p> |

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|  |  |  | <p>Hoarseness in combination with:</p> <ul style="list-style-type: none"> <li>• raised inflammatory markers: 15%</li> <li>• sore throat (2<sup>nd</sup> attendance*): 12%</li> <li>• dyspnoea (2<sup>nd</sup> attendance): 7.9%</li> <li>• otalgia: 6.3%</li> <li>• insomnia: 5.2%</li> <li>• mouth symptoms: 4.1%</li> <li>• dysphagia: 3.5%</li> <li>• sore throat: 2%</li> <li>• chest infection (2<sup>nd</sup> attendance): 1.6%</li> </ul> <p>Sore throat (2<sup>nd</sup> attendance) in combination with</p> <ul style="list-style-type: none"> <li>• dysphagia: 4.1%</li> <li>• dyspnoea (both 2<sup>nd</sup> attendance): 4.1%</li> <li>• raised inflammatory markers: 3%</li> <li>• chest infection (2<sup>nd</sup> attendance): 3%</li> <li>• otalgia: 3%</li> </ul> <p>Sore throat in combination with:</p> <ul style="list-style-type: none"> <li>• dysphagia: 6.9%</li> <li>• otalgia: 6.3%</li> <li>• dyspnoea (2<sup>nd</sup> attendance): 5.2%</li> </ul> <p>Dysphagia + otalgia: 3%</p> |  |
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|   |  |  | *2 <sup>nd</sup> attendance is defined as the same symptom reported for a second time on a subsequent consultation date prior to referral   |            |
| - | <p>Khan, T., El-Sockary, Y., Hamilton, W.T. and Shephard, E.A. (2021). <a href="#">Recognizing sinonasal cancer in primary care: a matched case-control study using electronic records</a>. Family Practice. doi:<a href="https://doi.org/10.1093/fampra/cmab153">https://doi.org/10.1093/fampra/cmab153</a>.</p> <p>This paper is also summarised above, see paper 3.</p> | Sinonasal                                      | <p>This study aimed to identify and quantify clinical features of sinonasal cancer in UK primary care patients.</p> <p>The PPVs for individual symptoms were very low. These increased when patients reported more than one symptom. The highest risk was 0.62% for the following symptom combinations: epistaxis with rhinorrhoea, epistaxis with sinusitis, and rhinorrhoea with sinusitis (<b>Note:</b> only 5 cases and 0 controls were reported for these symptom combinations).</p> | See above. |
| - | <p>Douglas, C.M., Ingarfield, K., McMahon, A.D., Savage, S.A., Conway, D.I. and MacKenzie, K. (2018) <a href="#">Presenting symptoms and long term survival in head and neck cancer</a>. Clinical Otolaryngology, 43(3), pp. 795-804.</p> <p>This paper is also summarised above, see paper 4.</p>   | Laryngeal, oral, oropharyngeal, hypopharyngeal | <p>This study aimed to assess how type and number of symptoms are related to survival in head and neck cancer patients.</p> <p>If only one symptom was reported, the median survival was 5.3 years compared to 1.1 years for three symptoms.</p> <p>For <b>laryngeal cancer</b>, patients who presented with 0-1 symptom had a median survival of 7.7 years compared</p>  | See above. |

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|    |  |             | <p>to 2.0 years if they presented with 3 symptoms.</p> <p>For <b>oral cavity</b> cancer, patients who presented with 1 symptom had a median survival of 4.6 years compared to 1 year for those with 3 symptoms.</p> <p>For <b>oropharyngeal</b> cancer, patients who presented with 1 symptom had a significantly better median survival of 3.3 years, 1.0 year for those with 3 symptoms.</p> <p>For <b>hypopharyngeal</b> cancer, there was no significant difference in median survival by the number of symptoms they presented with.</p> |  |
| 11 | <p>Allgar, V.L., Oliver, S.E., Chen, H., Oviasu, O., Johnson, M.J. and Macleod, U. (2019). <a href="#">Time intervals from first symptom to diagnosis for head and neck cancers: An analysis of linked patient reports and medical records from the UK</a>. <i>Cancer Epidemiology</i>, 59, pp.37–45.<br/>doi:<a href="https://doi.org/10.1016/j.canep.2019.01.008">https://doi.org/10.1016/j.canep.2019.01.008</a>.</p> | Head & Neck | <p>This study aimed to improve understanding of the interval from initial recognition of a symptom by patient to diagnosis and to investigate associations between patient-reported symptoms and socio-demographic factors.</p> <p>Most commonly reported symptoms were ‘lump in the neck’, ‘difficulty swallowing’, ‘hoarseness’, and ‘pain’. 33% of participants reported having an</p>   | <p>Cross-sectional observational cohort study<br/>Data from 2013–2015<br/>Patient questionnaire and review of clinical records in North East England<br/>N=80</p> <p><b>Limitation:</b> analysis is based on a small sample and utilises patient questionnaires which can be prone to bias</p> |

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|    |  |             | isolated first symptom. Reporting of synchronous symptoms was common, with 17% reporting two symptoms, 16% reporting three and 23% reporting four or more. 11% reported no relevant symptoms.   |  |
| 12 | <p>Talwar, C., McClune, A., Kelly, D., Lowe, D. and Rogers, S.N. (2020). <a href="#">Two-week rule: suspected head and neck cancer referrals from a general medical practice perspective</a>. British Journal of Oral and Maxillofacial Surgery, 58(8), pp.981–985.<br/>Doi:<a href="https://doi.org/10.1016/j.bjoms.2020.05.004">https://doi.org/10.1016/j.bjoms.2020.05.004</a>.</p> | Head & Neck | <p>This study aimed to examine head and neck urgent referral outcomes in Merseyside.</p> <p>People presenting with multiple symptoms had a higher rate of malignancy (16%) than people who presented with a single symptom (3%) (p=0.06).</p> | <p>Retrospective analysis of 3 GP practices in Merseyside<br/>N=113 referred along HNC urgent pathway<br/>N=6 diagnosed with head and neck cancer<br/>Data from 2017–2019</p> <p><b>Limitation:</b> this study has a small sample size of those referred into head and neck pathway, and is based in one area of England which may limit wider generalisability.</p> |

**Topic: Safety Netting**

**Summary:** people who have been investigated along an urgent pathway for suspected head and neck cancer are at greater risk of being diagnosed with head and neck cancer in the years following referral, which could provide opportunities for earlier recognition of this higher risk group.

Information about groups more likely to experience late stage diagnosis, lower survival and higher rates of emergency presentation (see background) could be incorporated into safety netting guidelines, to reduce missed opportunities in higher risk cohorts.

| <b>Paper number</b> | <b>Study</b> | <b>Summary</b> | <b>Notes</b> |
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| 13 | <p>Scott SE, Gildea C, Nicholson BD, Evans RE, Waller J, Smith D, et al. <a href="#">Future cancer risk after urgent suspected cancer referral in England when cancer is not found: a national cohort study.</a> The Lancet Oncology [Internet]. 2023 Nov 1 [cited 2024 Jan 26];24(11):1242–51.</p> | <p>This study aimed to investigate the risk of cancer occurrence within 1–5 years of finding no cancer following an urgent suspected cancer referral.</p> <p>In years 1–5 post urgent referral for suspected head and neck cancer, people who were not diagnosed with head and neck cancer had a higher incidence rate of head and neck cancer than the rate expected in the general population (incidence ratio 3.49).</p> | <p>National cohort study (England)<br/>Data from Cancer Waiting Times dataset and National Cancer Registration Dataset from April 2013 – March 2014<br/>N= 63,112 subsequent cancers</p> <p><b>Limitations:</b> Clinical context has changed since the data collection e.g. guideline changes which may limit the applicability of the results to current setting.</p> |
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| <b>Topic: Risk Stratification</b>  |              |                |              |
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| <p><b>Summary:</b> There are risk stratification tools already in use (e.g. Head and Neck Risk Calculator v2) which could aid recognition and referral of head and neck cancers in primary care. Further research is required to optimise and validate risk stratification models for use in primary care pathways.</p>  |              |                |              |
| <p>The proportion of HPV-related oropharyngeal cancers is increasing in the UK, which can present differently to HPV negative head and neck cancers. As demographics of HPV+ head and neck cancers differ to usual presentation (e.g. more likely in younger patients, not attributed to typical risk factors such as smoking and alcohol consumption), it is important for primary care professionals to understand the difference in symptoms and risk factors to aid recognition of this group. Education and guidelines could play a role in this.</p> |              |                |              |
| <p>In NICE NG12 guidelines, only those aged &gt;45 years with hoarseness or a neck lump are eligible for an urgent referral for suspected laryngeal cancer, which differs from SRG which does not specify age stratification. The only study calculating PPVs for laryngeal cancer in a primary care cohort developed these in those aged &gt;60 years. There is a lack of high-quality evidence investigating how age impacts PPVs for head and neck cancers.</p>   |              |                |              |
| <b>Paper number</b>  | <b>Study</b> | <b>Summary</b> | <b>Notes</b> |

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| 14 | <p>Smith, C.D.L., McMahon, A.D., Ross, A., Inman, G.J. and Conway, D.I. (2022). <a href="#">Risk prediction models for head and neck cancer: A rapid review</a>. <i>Laryngoscope Investigative Otolaryngology</i>, 7(6), pp.1893–1908.<br/>doi:<a href="https://doi.org/10.1002/liv.2.982">https://doi.org/10.1002/liv.2.982</a>.</p>                                   | <p>This study aimed to undertake a comprehensive review of head and neck risk cancer prediction models or tools published.</p> <p>Most models (n=9) reported an AUC (area under the curve) greater than 0.7 which is deemed as ‘acceptable’ accuracy in this study.</p> <p>Measurements of accuracy in the form of sensitivity and specificity were described in seven of the 14 studies. These ranged from 67.5% to 100% and 67.7% to 100% for each measure respectively.</p> <p>Six models reported measurements of PPV and NPV. The PPV and NPV values reported ranged from 20.7% to 100% and 83% to 100%, respectively.</p> <p>Of the UK models included in this study, the highest performing was the HaNC-RC v2 with an AUC of 0.7.</p> | <p>Systematic review<br/>N=14 studies included</p> <p>3 were conducted in India, 1 in Sri Lanka, 3 in China, 3 in the USA, 3 in the UK, and 1 in multiple centres across Northern America/Europe</p> <p><b>Limitations:</b> of the 14 models, five were considered low quality.</p> |
| 15 | <p>Li, L., Tikka, T., Morton, C., Chan, C., Hayois, L., Henderson, M., Hastie, C., Lee, L., Porteus, L. and Nixon, I. (2023). <a href="#">Primary care triaging of head and neck cancer referrals using the head and neck cancer risk calculator version 2: impact on a tertiary head and neck service</a>. <i>The Journal of Laryngology and Otology</i>, [online]</p> | <p>This study aimed to investigate the use of the head and neck cancer risk calculator (HaNC-RC) version 2 in a primary care setting and to evaluate the impact of the risk calculator on the number of urgent or routine referrals, as well as conversion and detection rates.</p> <p>The calculator includes age, gender, unintentional weight loss, smoking, alcohol, and signs and symptoms of head and neck cancer.</p>  | <p>Retrospective analysis of referrals between 2019–2020 and 2020–2021 (after introduction of risk calculator) at NHS Lothian, Scotland</p> <p>N=2023</p> <p><b>Limitations:</b> the number of cancers diagnosed within the cohort is low and</p>                                   |

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|           | <p>137(7), pp.763–768.<br/>doi:<a href="https://doi.org/10.1017/S002221512200192X">https://doi.org/10.1017/S002221512200192X</a>.</p>   | <p>Overall, the head and neck cancer conversion rate was 2.7% before introduction and 4.1% following the introduction of the HaNC-RC v.2.</p> <p>When the risk calculator was used, a smaller proportion of all referrals were routine (3.6% vs 17.2%) and a higher proportion were urgent suspected cancer referrals (86.2% vs 63.6%), compared to the period prior to the introduction of the risk calculator.</p> <p>The HaNC-RC v.2 sensitivity was reported to be 100% but the specificity was low at 13.7%. The negative predictive value (NPV) was 100% and the positive predictive value (PPV) was 4.3%. This suggests that cases of head and neck cancer would likely be picked up by this tool, but a large proportion of people who do not have head and neck cancer would also be referred to secondary care.</p> | <p>the results may have been impacted by COVID-19 pandemic.</p>  |
| <p>16</p> | <p>Schache, A.G., Powell, N.G., Cuschieri, K.S., Robinson, M., Leary, S., Mehanna, H., Rapozo, D., Long, A., Cubie, H., Junor, E., Monaghan, H., Harrington, K.J., Nutting, C.M., Schick, U., Lau, A.S., Upile, N., Sheard, J., Brougham, K., West, C.M.L. and Oguejiofor, K. (2016).</p> | <p>The proportion of HPV-related oropharyngeal cancers is increasing, and typically presents in different demographic groups, which is important information for health professionals in primary care to be aware of when assessing risk of oropharyngeal cancer. This study aimed to assess the proportion of oropharyngeal cancer attributable to HPV infection.</p>  | <p>Cross sectional, retrospective analysis</p> <p>Tumour tissue blocks from 1,602 patients previously diagnosed with oropharyngeal cancer (2002–2011) were collated from 11 centres across the UK.</p> |

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|  | <p><a href="#">HPV-Related Oropharynx Cancer in the United Kingdom: An Evolution in the Understanding of Disease Etiology</a>. Cancer Research, 76(22), pp.6598–6606. doi:<a href="https://doi.org/10.1158/0008-5472.can-16-0633">https://doi.org/10.1158/0008-5472.can-16-0633</a>.</p> | <p>The proportion of oropharyngeal cancer cases that were HPV-positive was higher in men than women (54.3% vs. 44.4%) and decreased with increasing age (69.2% in patients aged less than 44 years vs. 37.2% in patients aged over 75 years). The mean age of patients with HPV-positive disease was 57.4 years compared with 61.4 years for people with HPV-negative disease.</p> | <p><b>Limitations:</b> confounding factors such as smoking and sexual history could explain some associations, but this was not investigated</p> |
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**Other considerations**

**Advice and guidance between health professionals**

Other health professionals, such as dentists, are in a strong position to identify and refer patients with suspected head and neck cancer. There may also be a role in the future for community pharmacists in the recognition and referral of head and neck cancer<sup>11</sup>, as they typically see patients in demographic groups at highest risk of head and neck cancer with symptoms such as persistent mouth ulcers. Consideration is required when developing referral guidelines to ensure they are suitable for any health professionals that may need to use them. Clear mechanisms for advice and guidance are required between GPs, dentists and secondary care. Dentists need to have clear guidance to support referral into secondary care services if they have suspicion of cancer<sup>12</sup>. Additionally, qualitative research suggests that

<sup>11</sup> Sturrock, A., Bissett, S.M., Carrozzo, M., Lish, R., Howe, D., Mountain, S., Nugent, M., O’Hara, J., Preshaw, P.M., Todd, A. and Wilkes, S. (2023). Qualitative interview study exploring the early identification and referral of patients with suspected head and neck cancer by community pharmacists in England. *BMJ open*, [online] 13(3), p.e068607. doi:<https://doi.org/10.1136/bmjopen-2022-068607>.

<sup>12</sup> Creaney, G., McMahon, A.D., Ross, A.J., Bhatti, L.A., Paterson, C. and Conway, D.I. (2022). Head and neck cancer in the UK: what was the stage before COVID-19? UK cancer registries analysis (2011–2018). *British Dental Journal*, [online] 233(9), pp.787–793. doi:<https://doi.org/10.1038/s41415-022-5151-4>.

specialists in England believe direct communication between primary and secondary care might improve speed of referral, the quality of referrals, reduce unnecessary referrals and assist with educating GPs when considering head and neck cancer referrals<sup>13</sup>.

### **EVEREST-HN<sup>14</sup>**

EVEREST-HN is a research programme aimed at improving the suspected head and neck cancer pathway, by speeding up diagnosis, improving patient experience and optimising the use of healthcare resources. The project will develop a patient-reported symptom-based risk stratified pathway and is due to run until 2028.

There are six workplans within the programme:

1. Optimise a patient-reported symptom inventory for HNC and outline a Symptom iNput Clinical (SYNC) system for patient use
2. Co-design key elements of the SYNC system, including symptom questionnaire and report, and use behaviour change intervention materials to integrate into patient and staff's existing hospital workflows
3. Use data from routinely collected electronic health records to describe the suspected HNC population and their diagnostic pathway
4. Cluster randomised control trial (RCT) with internal pilot and feasibility study, intervention development of the SYmptom iNput Clinical (SYNC) system, alongside process evaluation and health economic analysis
5. Assess the acceptability and feasibility of the full EVEREST-HN pathway, finalise the SYNC report and risk stratification algorithm for use in the cluster RCT.
6. Cluster RCT to compare a patient-reported symptom-based risk stratification pathway, to usual standard-of-care in the rate of cancer diagnosis at 62 days from referral.

### **Suspected Head and Neck Cancer Referral Guidelines: NICE and SRG**

| <b>NICE</b>             | <b>SRG</b>  |
|-------------------------|---|
| <b>Laryngeal cancer</b> | <b>Head and neck cancer:</b> <ul style="list-style-type: none"> <li>• Persistent unexplained head and neck lumps for &gt;3 weeks</li> </ul> |

<sup>13</sup> Langton, S., Rijken, J.A., Bankhead, C.R., Plüddemann, A. and Leemans, C.R. (2019). Referrals for head and neck cancer in England and The Netherlands: an international qualitative study of the views of secondary-care surgical specialists. *The British Journal of Oral & Maxillofacial Surgery*, [online] 57(2), pp.116–124.  
doi:<https://doi.org/10.1016/j.bjoms.2018.12.012>.

<sup>14</sup> <https://www.royalmarsden.nhs.uk/everest-hn/about-everest-hn>

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| <p>Consider a suspected cancer pathway referral for laryngeal cancer in people aged 45 and over with:</p> <ul style="list-style-type: none"> <li>• persistent unexplained hoarseness or</li> <li>• an unexplained lump in the neck.</li> </ul> <p><b>Oral cancer</b></p> <p>Consider a suspected cancer pathway referral for oral cancer in people with either:</p> <ul style="list-style-type: none"> <li>• unexplained ulceration in the oral cavity lasting for more than 3 weeks or</li> <li>• a persistent and unexplained lump in the neck.</li> </ul> <p><b>Consider an urgent referral (for an appointment within 2 weeks) for assessment for possible oral cancer by a dentist in people who have either:</b></p> <ul style="list-style-type: none"> <li>• a lump on the lip or in the oral cavity or</li> <li>• a red or red and white patch in the oral cavity consistent with erythroplakia or erythroleukoplakia.</li> </ul> <p><b>Consider a suspected cancer pathway referral by the dentist for oral cancer in people when assessed by a dentist as having either:</b></p> <ul style="list-style-type: none"> <li>• a lump on the lip or in the oral cavity consistent with oral cancer or</li> <li>• a red or red and white patch in the oral cavity consistent with erythroplakia or erythroleukoplakia</li> </ul> <p><b>Thyroid cancer</b></p> <ul style="list-style-type: none"> <li>• Consider a suspected cancer pathway referral for thyroid cancer in people with an unexplained thyroid lump.</li> </ul> | <ul style="list-style-type: none"> <li>• Unexplained ulceration or unexplained swelling/induration of the oral mucosa persisting for &gt;3 weeks</li> <li>• All unexplained red or mixed red and white patches of the oral mucosa persisting for &gt;3 weeks</li> <li>• Persistent (not intermittent) hoarseness lasting for &gt;3 weeks. If other symptoms are present to suggest suspicion of lung cancer, refer via lung cancer guideline</li> <li>• Persistent pain in the throat or pain on swallowing lasting for &gt;3 weeks</li> </ul> <p><b>Thyroid cancer:</b></p> <ul style="list-style-type: none"> <li>• Solitary nodule increasing in size</li> <li>• Thyroid swelling age 16 and under</li> <li>• Thyroid swelling with one or more of the following risk factors: <ul style="list-style-type: none"> <li>• neck irradiation</li> <li>• family history of endocrine tumour</li> <li>• unexplained hoarseness</li> <li>• cervical lymphadenopathy</li> </ul> </li> </ul> |
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