

First Interim report from the ENT UK INTEGRATE Head and Neck Cancer Telephone Triage Service Evaluation

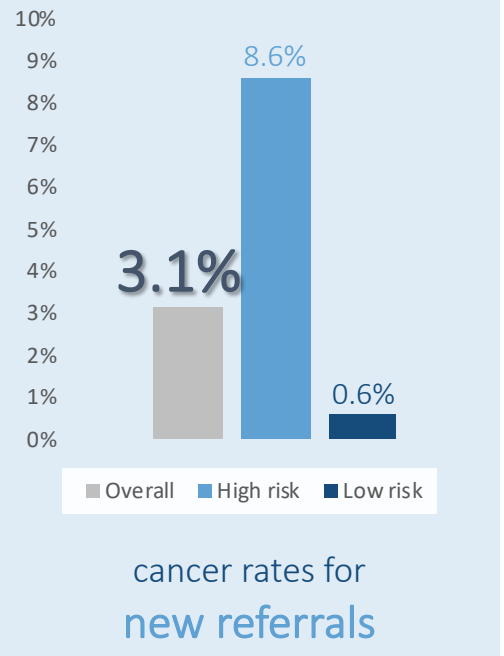
2,164 new and follow-up cases submitted over 8 weeks from 23rd March to 18th May 2020

1,568 new referrals triaged
596 follow-ups triaged

46 sites registered across England, Scotland, Wales & Northern Ireland [interim data from 32 sites]

after cancer treatment

- Only 10.8% of follow-ups had new symptoms since last reviewed
- Two thirds of follow-ups were for oropharyngeal and laryngeal cancers (66.2%)
- Half of follow-ups were within 2 years of completion of treatment (48.2%)
- 83.9% of follow-ups had no new symptoms and had their appointments deferred



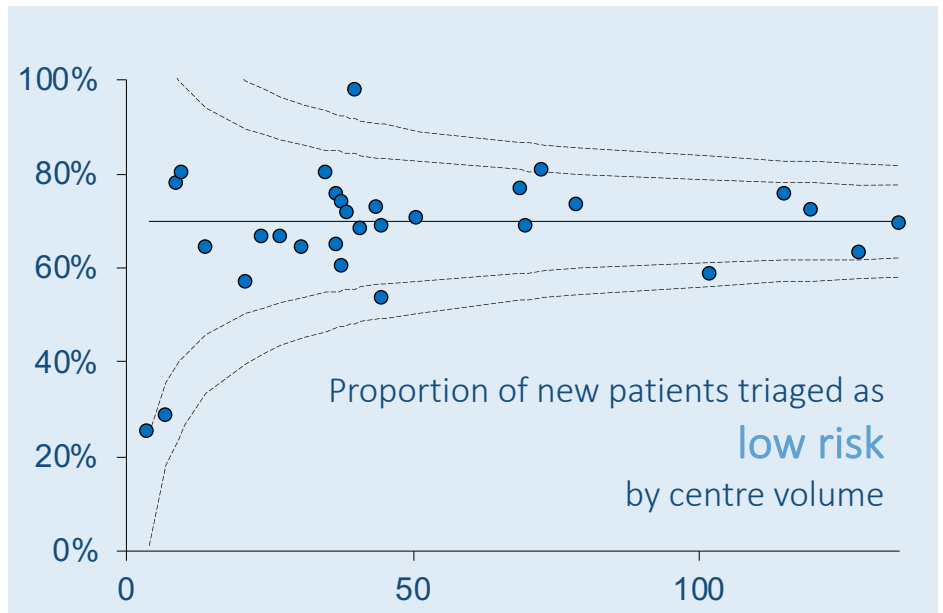
low risk new referrals **70.0%**

17.5% new referrals discharged directly from triage

new referrals triaged directly to investigation **56.7%**

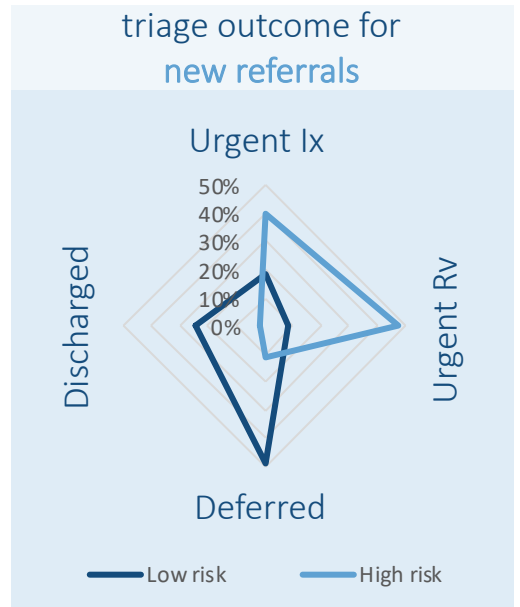
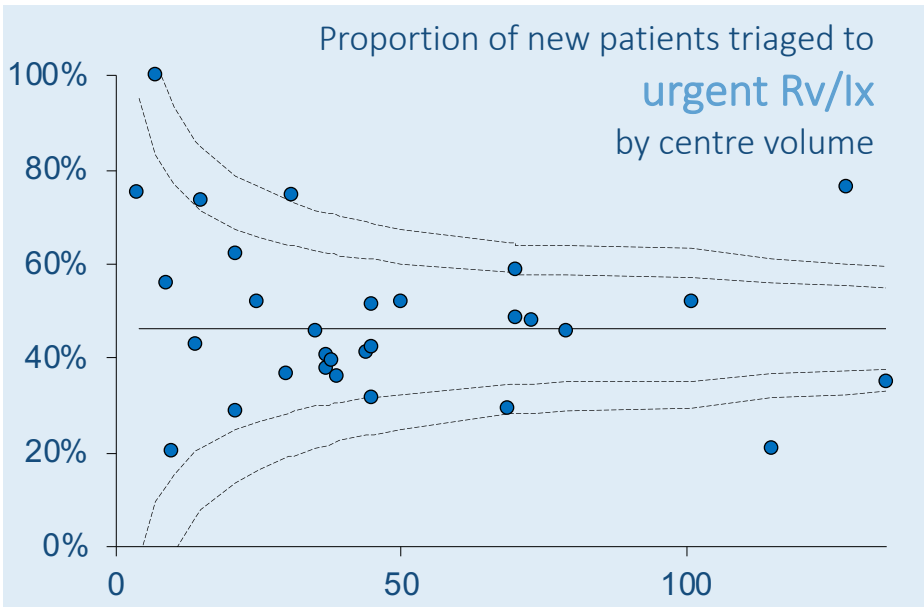
42.8% clinician override of calc outcome

avoided urgent review or investigation **54.7%**



H&N
Head and Neck

INTEGRATE
The UK ENT Trainee Research Network



ENT UK INTEGRATE HN Cancer Telephone Triage Service Evaluation

Registered site list available [here](#)

Thank you to everyone who is
taking part

1ST June 2020



Introduction

This report provides a snapshot of early experience with rapid implementation of a remote triaging system for assessment of suspected head and neck cancer (HNC) referrals, based on the head and neck cancer risk calculator (HaNC-RC) ^{1,2}. Remote triaging has never been used in such a large scale for new head and neck cancer (HNC) referrals or follow-up patients, and thus no prior data exists. This interim report aims to achieve the following:

- Allow comparison of **local performance** against the **national average**
- Provide information on the proportion of **low and high risk referrals**, and their **triage outcomes**
- Provide early insight into the **oncological outcomes** of the remote triage implementation

Two systematic reviews have identified pooled detection rate of cancer in patients referred for assessment of suspected HNC from primary care as 8.8% ³ and 11.1% ⁴ respectively, with the range being from 2.2% to 14.6%.

Results

Interim data were submitted by 32 of the 46 NHS centres signed up to this national service evaluation. This submission covered an 8 week period, from announcement of the study on the 23rd March, to the 18th May. Data were available for 1,568 cases of suspected HNC, with diagnosis of confirmed cancer being recorded in 3.1% of all cases at the time of this interim submission. The cancer rate is currently 0.6% for low risk referrals and 8.6% for high risk referrals (see bar chart).

The majority of referrals were low risk (70.0% , n=1,069/1,528) with larger volume centres showing less spread (see funnel plot). Only one of 30 centres was outside three standard errors of the mean, likely related to incomplete data submitted by the unit.

Following telephone triage, 17.5% of referrals (1.6% of high risk and 24.4% of low risk) were **discharged** on the basis of the telephone consultation alone. Less than half of all referrals (45.3% , n=768/1,404) were planned for urgent clinic review and/or investigation (urgent Rv/lx; see radar chart); thus, 54.7% of suspected HNC patients **avoided an urgent hospital visit** during the peak of the pandemic. All centres except two were within three standard errors of this mean figure; the centre with the lowest rate of urgent Rv/lx (20.9%) was declared the epicentre of COVID-19 in the early days of the pandemic outbreak in the UK.

An **investigation** was performed as the first urgent contact in 56.7% (n=250/441) with 75.2% (n=188/250) of these either being subsequently discharged or offered delayed follow up only; thus avoiding an urgent face to face review during the worst of the pandemic. Among patients who were recommended urgent Rv/lx, 6.6% (n=42/636) have been diagnosed with cancer by the time of this interim submission.

[Please note, only 45.3% (n=288/636) of those urgently investigated/reviewed had a confirmed outcome for cancer. As this data has been collected for an interim submission, this rate reflects patients still on the diagnostic pathway as well as those for whom cancer outcome data is missing. Patients who underwent urgent Rv/lx, and were subsequently discharged, were assumed to be cancer free for this interim analysis.]

Impact of the findings

The pressure on resources placed by the suspected cancer referrals system prior to the pandemic is well known and described in the literature. Cancer Research UK estimates that 2,300 cancer cases per week are likely to go undiagnosed every week across the UK during the pandemic ⁵.

Across all cancers, it has been estimated that a delay of three months across all 94,912 patients who would have had surgery to remove their cancer over the course of a year would lead to an additional 4,755 deaths in England ⁶. Thus, the pressure on resources for provision of cancer care, both diagnosis and treatment, is likely to be even greater in the coming months. Even when clinical services resume, more clinic time and PPE resources are needed to evaluate patients as the assessment of the majority within this patient group involve aerosol generating procedures. Any appropriate reduction in hospital visits, face to face assessment and investigations will thus be beneficial. The proportion of patients discharged following remote triage alone (17.5%), is an immediate resource gain.

Next steps

In 2018/19, 207,501 suspected HNC referrals were seen within NHS England. While HNC specialty associations have generated guidelines for the management of confirmed cancers ⁷, none exist for these suspected cancer referrals. Unlike other cancers (lung, breast, prostate) no screening tests exist for HNCs; however, symptom inventories seem to be an efficient way to separate the high risk individuals referred in from primary care. In our parallel survey, 92.3% of respondents indicated that the remote triaging system was likely to carry on at their centre for at least the next **3 months**.

This is an opportunity to radically **reform** the system, arisen due to a unique need to rationalise healthcare. A key priority of a service implementation such as this should be to ensure a safe system that does not miss out cancers following remote triage. Generated from over 10,000 patients, HaNC-RC has a high negative predictive value, with only a 1.4% chance of missing cancers in patients categorised as low risk. A large proportion of low risk patients were still urgently investigated or reviewed from our data and so it is hoped this chance is even lower for these patients triaged during the pandemic. However, this is a new implementation of the calculator in a new population and so its **safety** needs to be robustly evaluated.

An important measure to assure patients and clinicians will be to assess the HNC status in those patients who have been discharged, or have their appointments deferred on the basis of the triage, at a defined period in the future. Based on the natural history of HNCs, it is reasonable to confirm cancer status at 6 months from the date of the initial referral, and use this as the gold standard. We would therefore urge all centres to make a special effort to submit complete data for further reports as patients migrate through the diagnostic pathway.

This also is an opportunity to **evolve** the HaNC-RC based on the data emerging from the real world implementation. As experience with the system increases, it has become evident that the remote triaging process can be cumbersome. Work is progressing apace to allow patients to complete their symptomatology electronically (subsequently risk stratified by the HaNC-RC) and to submit these data alongside audio recordings, photos and videos as applicable, to allow asynchronous remote triaging based on the most relevant and informative data.

Registered centres: Colchester General Hospital (Arcot Maheshwar, Emma Nunn); Royal Albert Edward Infirmary, Wigan (Vijaya Pothula, John Rocke); Royal Blackburn Hospital (Anurag Daudia); Sunderland Royal Hospital (Nashreen Oozeer, Chris Rusius); Aberdeen Royal Infirmary (Kim Ah-See, Anas Gomati); Princess Alexandra Hospital, Harlow (Elina Kiverniti); Northwick Park Hospital, London (Taran Tatla, Phui Yee Wong); Raigmore Hospital, Inverness (Angus Cain, Fergus Cooper); Royal Berkshire Hospital, Reading (Dilip Nair, Jenny Walton); Countess of Chester Hospital (Fernando Galli, Rohan Pinto, Robert Temple, Shehzad Ghaffar); Guy's Hospital (Jean-Pierre Jeannon, Misha Verkerk, Ali Al-Lami, Aina Brunet); Craigavon Area Hospital (Ramesh Gurunathan, Brendan Wright); Ninewells Hospital, Dundee (Jaiganesh Manickavasagam, Richard Steven); Walsall Manor Hospital (Mark Simmons, Ahmad K. Abou-Foul, Emmanuel Diakos); Hinchingsbrooke Hospital, Huntingdon (Xenofon Kochilas); York Hospital (Richard Taylor); Queen Elizabeth Hospital Birmingham (Neil Sharma, Nikoleta Skalidi); Paul Montgomery Private Practice (Paul Montgomery); Stepping Hill Hospital, Greater Manchester (Vivek Kaushik, Shameena Shinaz, Namit Agarwal, Laxmi Ramamurthy, Milan Rudic, Mamoonah Khalid Raja); West Suffolk Hospital, Bury St Edmunds (Martinez Del Pero, Laura leach); Antrim Area Hospital (Andrew Kelly, David McCrory); John Radcliffe Hospital (Stuart Winter); Cumberland Infirmary, Carlisle (Paul Counter, Harry Tustin, Graham Putnam, Andrew Robson); The Royal Liverpool University Hospital (Katherine Davies , Anne markey); East Surrey Hospital, Redhill (Karan Kapoor, Sean Fang); Watford General Hospital (Chee Toh, Rohit Pratap); The Royal Marsden Hospital (Vinidh Paleri, Bhav Patel); Blackpool Victoria Hospital (Paul Hans , Catriona Shenton); Royal Preston Hospital (Arun Cardozo, Babatunde Oremule); Kent & Canterbury Hospital (Vikram Dhar, Katherine Steele); Northampton General Hospital (Mrinal Supriya , Elizabeth Mathew); Milton Keynes University Hospital (Adam Shakir, Prathibha Nanoo); Aintree University Hospital (Christopher Loh, Mila Roode); Glangwili General Hospital, Carmarthen (Vinod Prabhu); Chase Farm Hospital, London (Yogesh Bhatt, Guled Jama); University Hospital Crosshouse, Kilmarnock (Richard Townsley, Robin Crosbie, Lorna Langstaff); St John's Hospital, Livingston (Iain Nixon, Shiyang Hey); University Hospital Monklands, Airdrie (Ian Smillie, Theofano Tikka); Manchester Royal Infirmary (MRI) (Jarrod Homer, Melanie Dowling); Pinderfields Hospital, Wakefield (Sinnappa Gunasekaran, George Brown); Wythenshawe Hospital, Greater Manchester (Rohit Kumar, Rupali Sawant); Royal Victoria Hospital, Belfast (Barry Devlin, Gillian Gray); Broomfield Hospital, Chelmsford (Mark Puvanendran, Maria Kiakou); Basingstoke and North Hampshire Hospital (Paul Spraggs, Daniel O'Sullivan); Warrington Hospital (Sri Bathala , Rosie Wright); Princess Royal University Hospital, Orpington (Roland Terry, Rohan Vithani)

Project management team: John Hardman, Theofano Tikka, Vinidh Paleri

ENT UK Head & Neck Society Council: Chris Jennings, Costa Repanos, Frank Stafford, Hiro Ishii, Hugh Wheatley, Jarrod Homer, Jemy Jose, Oliver McLaren, Paul Pracy, Ricard Simo, Sanjai Sood, Shane Lester, Stuart Winter, Vinidh Paleri

British Association of Head and Neck Oncology: President Cyrus Kerawala

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