National Head & Neck Cancer Audit 2009 (Amended)

Fifth Annual Report

National Head and Neck Cancer Audit - key findings for England and Wales for the audit period November 2008 to October 2009

This fifth report for the National Head and Neck Cancer Audit presents data collected on new registrations from 1 November 2008 to 31 October 2009. The report reflects findings form the analysis of that data, an overview of the audit findings from the last five years and provides recommendations for improving data quality and completeness. The Audit aims to improve both the volume and quality of data submissions, and from this, provide comparative feedback to NHS Trusts, with the ultimate aim of improving patient care.

This year the annual report is only available in electronic format, but is accompanied by a brief printed summary report which will be widely disseminated.

Electronic copies of both the annual and summary reports can be found at www.ic/nhs.uk/canceraudits.

Printed copies of the summary report can be ordered from The Information Centre for health and social care's Contact Centre 0845 300 6016 or email: enquiries@ic.nhs.uk quoting document reference IC31030110

For further information about this report, email: enquiries@ic.nhs.uk or contact:

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HQIP
Healthcare Quality Improvement Partnership

The Healthcare Quality Improvement Partnership (HQIP) promotes quality in healthcare. HQIP holds commissioning and funding responsibility for the National Head and Neck Cancer Audit and other national clinical audits.

NHS
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The NHS Information Centre for Health and Social Care (The NHS IC) is England's central, authoritative source of essential data and statistical information for frontline decision makers in health and social care. The NHS IC managed the publication of the 2009 annual report.

British Association of Head & Neck Oncologists

The British Association of Head & Neck Oncologists is a multi-disciplinary society for healthcare professionals involved in the study and treatment of head and neck cancer. The association was first constituted in 1967 as the Association of Head and Neck Oncologists of Great Britain. The stimulus for its formation was the need to encourage discussion and the sharing of knowledge between the various clinical and research specialties involved in the management of head and neck cancer.

National Head & Neck Cancer Audit 2009 (Amended)

Key findings for England and Wales for the audit period November 2008 to October 2009

National Head and Neck Cancer Audit – Errata

- Corrections have been made relating to the allocation of cases from the South East and South West Cancer Networks to show Abertawe Bro Morgannwg NHS Trust entirely in the South West Wales Cancer Network
    - Participation table (page 20)
    - Submission by network and submitting trust of patients with new head and neck primaries in the index period (fig. 8.3.1a and 8.3.2a)
    - Submission by cancer network and contact trust of patients with new head and neck primaries where cases had recorded T & N staging (fig. 8.3.4b)
    - Crude mortality from head and neck cancer by cancer network (fig. 8.10.1.3)
- Figure 8.3.2a (page 20) shows submissions by network and submitting trusts of new head and neck primaries in the index period, not contact trusts

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Contents

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Simon Hodder at Informing Healthcare for the contribution from Wales to the audit.

The following groups have supported the audit, including; the Expert Panel, Data Management and Analysis Group; the Head and Neck Clinical Reference Group.

The analysis for this report was undertaken by the cancer registries and special thanks must be given to Sandra Edwards and her team from the Oxford Cancer Intelligence Unit and Ceri White and his team from the Welsh Cancer Intelligence and Surveillance Unit.

Finally, thanks go to all those organisations that have participated in the audit so far and for the individual contributions of clinicians, managers and administrative staff without whose efforts the audit would not be able to deliver. Thank you also to all those patients whose data is contributing towards bringing about improvements in the provision of care and outcomes for all those similarly afflicted by head and neck cancer.

Foreword

I am pleased to welcome the publication of the National Head and Neck Cancer Audit covering the period November 2008 to October 2009. Over the five years of this audit the number of records being submitted has improved very considerably and now stands at 5597, 89 per cent of expected incident cases. This compares with around 50 per cent in 2006. This is a very considerable achievement, with around half of all cancer networks submitting in excess of 90 per cent of cases, but with one network (South East London) hardly recording any cases.

Alongside the improvement in submission of cases to the audit, many of the parameters of the quality of care received by patients are improving too. For example, it is good news that at least 95 per cent of patients are being discussed by a multidisciplinary team and that 91.5 per cent are reported to have a care plan.

However, there is still room for further improvement in the recording of data. Only 70 per cent of patients had T and N staging reported, with 60 per cent having performance status. Comorbidity was only reported in 32 per cent of cases. These levels of casemix reporting are not yet good enough for risk stratification. However, the inclusion of crude one-year death rates by cancer network is an important step forward in this year's report. The apparent variations between cancer networks should act as a further stimulus to improve collection of data on patient casemix in the future.

The benefits of participation in this audit are very eloquently stated by the head and neck cancer team at the Royal Wolverhampton NHS Trust. They have said "Participation in the DAHNO audit has been hard work for both clinical and non-clinical members of the team, but the act of data collection through the MDT itself can improve patient care by ensuring that management decisions are made by an expert multidisciplinary team and ensure that the outcomes of treatment are fully measured and understood. By having the full perspective of treatment outcomes we can target the right treatments to the right patients more effectively and efficiently to provide the optimum result in terms of survival and quality of life".

The goal for the coming year should be to ensure that all head and neck teams and cancer networks provide full reports including casemix data. This is now achievable and will enable meaningful analyses of outcomes, with further benefits for patient care.

Professor Sir Mike Richards
National Cancer Director

Foreword continued

I am pleased to say Wales has again submitted data to the National Head and Neck Cancer Audit and taken part in this important audit of patients with head and neck cancer. From a troubled start with the changes in the NHS structure in Wales, with Trust Hospitals and Local Health Boards merging, going to Health Boards, some hard work was done behind the scenes to enable the Welsh data to be downloaded into the audit. The audit has in a short period collected a vast amount of data that can, and is, being used for the improvement of cancer care in these patients. Best practice guidelines can now be looked at, for compliance nationally. For the first time crude survival data is produced. Wales's benefits from participation in the audit, as the comparatively few cases seen here in Wales are now compared with the larger numbers in England. This will enable Wales to respond quicker to changes in practice that will be shown by this audit to be to the benefit of patient outcomes.

The numbers of cases estimated for Wales for the audit period was 390 cases (not all the cancer cases in Wales as some anatomic sites are not included in the audit) with an average reporting of 89 per cent of cases. There is variation in data with some areas recording 109 per cent of estimated cases to 74 per cent in others. This may reflect changes in incidence and needs to be monitored. Colour coding (traffic lights) for the performance of treatment centres (MDTs) is now used as a quick reference. Data on deprivation and incidence is, for the first time, reported for Wales as the numbers now allow analysis.

This is an ongoing audit that is well worth the effort and is starting to give supporting evidence for the development of head and neck services in Wales that will benefit the population of Wales in improved clinical outcomes.

Simon C Hodder
Chair, All Wales Steering Group Head and Neck Cancer

1.0 Executive Summary

The National Head and Neck Cancer Audit - fifth Annual Report on the management of head and neck cancer in England and Wales includes a brief background to head and neck cancer (section 2) and a description of the infrastructure, methods and analysis used within the audit (sections 3, 4 and 7). Improvements and benefits from the Head and Neck Cancer Audit and detailed recommendations are in sections 5 and 6. Detailed findings in section 8 cover outcomes, in section 9 multi-professional care and in section 11, information on rarer tumours in nasopharynx and major salivary gland. Comments on risk adjustment can be found in section 10.

The fifth Annual Report again includes a wide variety of outcomes provided in a trust identifiable format as well as more detailed aspects of multi-professional care.

Since its inception, the National Head and Neck Cancer Audit has matured, and collects information on the management of head and neck cancer to a level that allows assurances on the delivery of care to be given to; patients, the general public, cancer networks and health commissioners on a named trust basis. Whilst there is more to be targeted and achieved this is a commendable outcome.

Throughout the document significant points for consideration are shown in shaded green boxes, whilst practical examples of methods that improve data collection and collation can be found in the Good Practice Example boxes. An on line report is available at www.ic.nhs.uk/canceraudits

Submission by Provider Trust/Cancer Network is found in section 1, as well as listing those organisations that are yet to submit.

1.1. What is DAHNO?

DAHNO (Data for Head and Neck Oncology), provides a continuous electronic comparative audit on management of head and neck cancer. It is supported by professional bodies and funded by the Healthcare Quality Improvement Partnership (HQIP[1]).

The disease burden of head and neck cancer is significant. Patients require intensive multi-modality treatments and rehabilitation with long-term support to achieve an adequate recovery.

The core issues addressed in the first and second phases of the National Head and Neck Cancer Audit are:

- Delivery of appropriate primary treatment (including adjuvant therapy) in management of head and neck cancer affecting the larynx, oral cavity, pharynx and major salivary glands by a multi-professional team, and delivery of care to agreed standards.
- For larynx and oral cavity cancer to assess in more detail, the care provided by specialist nurses, dieticians and speech and language therapists (in particular related to surgical voice restoration)

1.2 What DAHNO adds to existing information

To confirm the quality of care delivered, anonymised data on individual patients needs to be collected and analysed. The National Head and Neck Cancer Audit continuously collects data at each patient service contact, and this record is continually updated. Clinical aspects of staging and other casemix factors can be more easily collected.

In the fifth Annual Report the following findings are reported in Trust identifiable format:

- Participation
- Number of new larynx, oral cavity, pharynx and major salivary cancer primaries
- Percentage of those cases submitted with T and N category recorded
- Interval from referral to diagnosis
- Interval from biopsy to reporting
- Percentage of cases discussed at MDT
- Interval from diagnosis to MDT
- Interval from diagnosis to first definitive treatment (surgery, radiotherapy, chemoradiotherapy and chemotherapy).
- Seen by the clinical nurse specialist
- Clinical nurse specialist present at the breaking of bad news

In the fifth Annual Report the following findings are reported in network identifiable format:

- Deprivation by anatomic site
- Crude mortality

1.3 Where head and neck cancer care happens - submission rates

1.3.1 Contributing Cancer Networks in England and Wales

The fifth Annual Report covers the period 1 November 2008 to 31 October 2009.

All English Cancer Networks and all three Welsh Cancer Networks have submitted patient records, and the fifth Annual Report describes results for over 5500 patient records – an extra 1559 cases. Fifteen Cancer Networks in England and one in Wales have managed to achieve high levels of registration with in excess of 90 per cent of the expected case numbers recorded. A more comprehensive picture of head and neck cancer care has been obtained and submitting Networks and Trusts should be congratulated for their continued efforts.

However not all trust and Networks achieved this:-

One cancer network - South East London Cancer Network- with an estimated case load of 180 patients, only managed to submit partial data for four patients, making it impossible to assess either the quality of care or give assurances about its timeliness.

Seven trusts failed to provide any information on their patients with head and neck cancer care by the submission deadline. Of these, two trusts (Royal Bolton Hospital NHS Foundation Trust and Royal United Hospital Bath NHS Trust) submitted data after the published deadline, which has not been included in the analysis.

Thus 5 trusts submitted no data making it impossible to assess either the quality of care or give assurances about its timeliness. There may be data on patients diagnosed at these trusts which has been submitted by treating trusts.

Trusts not submitting data to the 5th Annual Report:

- Central Manchester University Hospitals NHS Foundation Trust
- Trafford Healthcare NHS Trust
- Whipps Cross University Hospital NHS Trust
- Mid Yorkshire Hospitals NHS Trust
- Mid Staffordshire NHS Foundation Trust

1.3.2 Overview of case ascertainment and data quality

A continued improvement in case ascertainment has occurred with 89 per cent of estimated incident cases being recorded. In England and Wales of 6300 estimated cases 5597 were submitted. The English and Welsh Networks are to be congratulated on this level of case ascertainment.

Whilst the improved case ascertainment is welcomed, executive teams in organisations yet to contribute should ensure prioritisation of head and neck cancer in their audit programmes. Participation in the Head and Neck Cancer Audit is part of the Care Quality Commission's Annual Health check.

An overview of this year's records demonstrates a broader submission of information through the patient's journey. A consideration of the number of care plans obtained demonstrates a high level of recording, with 91.5 per cent of cases having a care plan record. A comparison of those with care plans and those patient records with treatment plan recorded shows that 89 per cent of patients with a care plan and treatment intent recorded have a subsequent treatment record, equating to 72 per cent of all registrations.

Complete and comprehensive submission provides a vehicle for assurance to trust boards and patient groups of the quality of care delivered in head and neck cancer.

Key overall findings

1.4 Who receives the care?

5597 cases of head and neck cancer were submitted.

1.4.1 The patient journey - Is care getting more timely?

Again this year, general dental practitioners do not appear to be embracing the two week rule referrals pathway in some networks and, in others, are not actively involved in the referral process. This may reflect difficulty for patients in accessing primary dental care services. Variability is also noted from general medical practitioners. Networks need to examine local urgent referral pathways and the effectiveness of their use.

The median time from biopsy to its reporting has improved, with a 10 per cent reduction of cases reported that have an interval greater than 10 days, from data supplied by 101 trusts. This is reported by provider trust and confirms both delays in a small number of organisations and a variation within providers. To improve the patient pathway, process mapping may identify areas where delays in the whole pathway could be reduced (from taking of a biopsy, through to its reporting). Manpower issues within pathology and in particularly head and neck pathology remain challenging.

The reporting intervals for resective pathology have been maintained with larynx (6 days) and oral cavity (8 days) (fourth Annual Report 6 and 7 days respectively). This reflects considerable effort by pathology colleagues to accelerate patients' pathways. In all sites more than 90 per cent of patients were reported within 25 days, which is encouraging.

The median interval from referral to start of first definitive treatment in England has fallen to less than 62 days for all larynx, oral cavity, oropharynx and hypopharynx patients, but considerable work remains to achieve this standard for all patients. Booked care and clearly defined patient pathways are key factors to minimise delay.

The impact of the 2 week referral pathway for head and neck cancer patients seems limited with a median time for referral to first definitive treatment for non urgent patients of 57 days compared to 60 days for urgently referred patients. However this also provides assurance that patients referred as non urgent are not disadvantaged in receiving care.

Of 3396 patients with date of first treatment recorded the median time to surgery was 26 days whilst to teletherapy, as primary treatment, was a median of 44 days (fourth Annual Report 28 and 42 days respectively). This continues to show improving access to surgery but that access to radiotherapy services appears delayed. The time to commencement of radiotherapy has slightly improved from earlier reports, but still suggests that head and neck cancer patients continue to have difficulty in accessing radiotherapy services both for primary and post operative radiotherapy. Provider organisations of radiotherapy services should review patient pathways, as well as the resource committed to head and neck cancer, with the aim of avoiding unnecessary delays.

1.5 Evidence of improvement/assurance in quality of care (increasing the proportion of patients who receive appropriate specialist opinion and treatment)

1.5.1 The pivotal role of the multi disciplinary (MDT) meeting

Patient expectations and Improving Outcomes Guidance (IOG) are that all care discussions are made at a MDT, and head and neck cancer teams need to provide assurance to Trust boards on this aspect of care delivery.

Overall 95 per cent of patients were confirmed as having been discussed at an MDT meeting. This is a further small improvement from 93 per cent last year. The expected standard suggested is this should reach 100 per cent. The not recorded category has been eliminated.

It is encouraging that the assurance of discussion at an MDT has risen, but with more cases there is also the concern that 5 per cent of patients are recorded as having their management planned outside an MDT. (7 per cent fourth report, 5.8 per cent third report and 3.8 per cent second report). For major salivary cancer this remains higher at 9 per cent (last year 12 per cent) and this may reflect failure to capture discussion following surgical intervention and the acquisition of definitive histology.

1.5.2 Chest Imaging

Of the 5127 patients with a care plan, up to 2207 patients record chest imaging. This output reflects best practice (due to the recognised incidence of second primary lung cancers), chest imaging should occur prior to a cancer care plan in all patients. The level of chest imaging completeness has not improved, and assurance of chest imaging is only provided for one third of total patients in the Annual Report. Where chest imaging is submitted over 85 per cent are having this performed prior to the cancer care plan. MDTs should be strongly encouraged to collect this information.

1.5.3 Multi-professional care in head and neck cancer

The introduction of an expanded number of fields for the fourth Annual Report collection year allowed, for the first time, the ability on a national basis across England and Wales, to collect information on multi-professional care in head and neck cancer.

In this, the second year of collection, speech and language therapists, dieticians and clinical nurse specialists are to be congratulated for their efforts in joining into the audit process. Submissions have risen this year across all areas but with a variable uptake across different trusts. The Expert Panels recognise that for these professionals there is frequently little administrative support and that it is on a personal basis that audit submission occurs.

From the submissions received, the beginnings of assurance of delivery of these important aspects of care can be made in a number of trusts. It equally allows others to benchmark themselves against this data, and will hopefully commit them to engage in the process to assure their local populations of the quality of services they provide.

38 trusts in England provided confirmation that at least some patients had been seen by a speech and language therapist. The highest reporting organisations provided assurance in over 60 per cent of patients.

Dietetic support is important through all parts of the patient pathway, particularly in those undergoing any form of treatment where the morbidity of the treatment can be reduced by appropriate intervention. 34 trusts in England provided confirmation that at least some patients had a pre treatment dietetic assessment, of which 9 reported that at least 40 per cent of patients having treatment received a pre-treatment dietetic assessment.

At least 37 per cent of patients with a treatment intent and 30 per cent of total patients were seen by a Clinical Nurse Specialist. This is a significant rise in the number of Clinical Nurse Specialist patient contacts in comparison to the fourth Annual Report. 63 trusts in England provided confirmation that at least some patients had been seen by a Clinical Nurse Specialist.

29 organisations provided assurance that at least 40 per cent of patients having care were assessed by a Clinical Nurse Specialist, and of these 29, 19 trusts were also able to provide assurance that at least 40 per cent had input from a Clinical Nurse Specialist at the breaking of bad news.

Whilst the above results are encouraging more submissions are required to allow assurance that patients are having these important assessments as part of their care.

1.6 Outcomes

For the first time the audit has published crude survival in head and neck cancer by network. The variations found must be interpreted with significant caution due to relatively small numbers but also as this data has not been casemix adjusted. All organisations are encouraged to support improved submission of casemix related factors to ensure that true comparisons can be made in future trust to trust comparisons.

1.7 Recommendations

The fifth analysis has again demonstrated variability in record completeness between different organisations and between individual records. High levels of submission and completeness of records are required to gain the most value from the audit and to achieve the desired output of risk adjusted outcomes. NHS provider trusts and cancer networks should facilitate data collection through the MDT by providing resources, training and direction.

Trusts, MDTs and site specific groups should review the recommendations below and develop action plans using the updated action planning tool for any deficiencies.

Trusts, MDTs and Networks should as a priority:

- With the stimulus of the fifth Annual Report, networks should reflect on where variation in access identified in trust identifiable data has occurred, compare with other access information and examine cancer pathways and their components that underpin these to improve timely pathways for all patients

- Following receipt of the local trust report, each trust should develop an action plan based on the findings in the fifth local report, particularly noting any areas of continuing weak performance compared to previous years' reports
- Ensure that tumour staging (TNM) is confirmed and recorded prior to care planning and following surgical procedures
- Facilitate meeting patient expectations that all care discussions are being made at a MDT, and teams need to give assurance of this important aspect of care delivery.
- Provide assurance of key aspects of multi-professional care provided in speech and swallowing, clinical nurse specialist support (at breaking bad news and prior to and during treatment) and dietetic support. This will require direct administrative support to professionals in these areas who personally enter data.
- Ensure that all cancer networks and constituent provider trusts not achieving high levels or any level of case submission review their processes and support for submission of data. Best practice supporting data collection can be found at: www.ic.nhs.uk/canceraudits.
- Record key factors including performance status, co-morbidity pre treatment and post surgical staging that contribute to future risk adjustment to enable true stage comparison of outcomes in all patients.
- Ensure that provider trusts uploading information via CSV should commence preparation of CSV requirements for the sixth Annual Report as well as attending future workshops.

Full details of all recommendations from the report can be found in section 6.5. This should be used by organisations when formulating local action plans.

Case Study

The Royal Wolverhampton Hospitals NHS Trust

We felt that the Head and Neck Team at New Cross is a unit to be proud of. In order to reflect this fact on the national stage, our contribution to the national audit needed to be as complete and accurate as possible. To do this we cross referenced clinician and trust databases not only to identify discrepancies, but also to understand why discrepancies were occurring. We discovered that the data for patients who started their cancer journey at hospitals other than New Cross Hospital was being lost in the Trust databases due to classification errors. For the Black Country Head and Neck MDT this amounted to two thirds of our activity.

For the current audit year most data was retrospectively added to the Somerset Cancer Registry once the patients eligible for the audit had been identified. This was time consuming for all members of the team. For the 2009/2010 audit we will be aiming to collect data prospectively to spread the load and to further improve data quality.

Live data entry at the MDT has been introduced to facilitate accurate coding of diagnosis and the MDT has been restructured to help the MDT coordinator identify where the patient is on their treatment journey. The MDT meeting discussion lists are split in to pre-diagnosis, post-diagnosis pre-treatment, post-treatment and recurrent disease lists. This also helps us to meet wait time targets, both the 31 and 62 day targets set by the government and those clinical best practice targets which have been shown to improve survival in head and neck cancer (less than 42 days between surgery and postoperative radiotherapy).

Data on treatment given and trial entry is collected and correlated with the MDT discussions to ensure that the team decision is followed by individual clinicians. Any changes in management plan due to changes in the clinical situation are brought back to the team for further discussion. The DAHNO audit database only records treatments that have been ratified by an MDT. Follow up outcome data is collected directly from outpatient clinics. Interactions of patients with healthcare professionals (Speech and language specialists, dieticians, clinical nurse specialists) are recorded on the data base wherever possible to provide as complete as possible picture of the package of care provided.

In the future, to provide a better service to all patients and to help us gain a more useful picture of our performance, we plan to collect information of functional outcomes such as quality of speech and ease of swallowing as well as the information on recurrence and survival currently collected. All patients will be seen in a multidisciplinary clinic at defined times after treatment which is dedicated to the formal assessment of these functional outcomes and also identification of any unmet patient concerns and needs.

Participation in the DAHNO audit has been hard work for both clinical and non clinical members of the team but the act of data collection through the MDT its self can improve patient care by ensuring that management decisions are made by an expert multidisciplinary team and ensure that the outcomes of treatment are fully measured and understood. By having the full perspective of treatment outcomes, we can target the right treatments to the right patients more effectively and efficiently, to provide the optimum result in terms of survival and quality of life.

1.8 Key aspects for the current collection year November 2009 – October 2010

- The National Head and Neck Cancer Audit should continue to be a priority for trusts and networks in 2010-2011, to promote clinical governance and provide assurance to patients and carers of the services provided
- In response to the fifth Annual Report each network should oversee an annual review of case ascertainment in contributing trusts and the completeness of submission of key items required for risk adjustment, as well as recording of care delivered along the whole patient pathway from referral to status following treatment
- Each trust should facilitate non medical personnel to contribute to the audit process in head and neck cancer, and ensure that adequate support to achieve this is available.

It is anticipated that in the sixth Annual Report, trust and network level information on outcomes will be reported. The analysis will use risk adjustment for those cases where adequate data are provided, otherwise, unadjusted outcome data will be provided.

1.9 Future direction of the National Head and Neck Cancer Audit and links to NCIN agenda

The National Head and Neck Cancer Audit is working closely with the evolving National Cancer Intelligence Network (NCIN[3]) Head and Neck SSCRG, with common membership across a number of groups.

1.10 Good Practice

This year it has been possible to capture good practice across England and Wales. Key factors influencing improvements in case ascertainment and data quality

- A committed clinical team who understand the benefits and requirements of the audit
- Close working between clinical and administrative staff in a supporting environment
- Dedicated administrative staff to capture data and provide data quality checks
- Close working relationships with the information and IT departments to maximise the use of technology in data capture and validation
- Systems and processes to check (ideally by clinicians) data to be entered into DAHNO

Whilst there is still room for improvement in terms of data completeness, levels of case ascertainment and data quality have improved significantly for a number of performance measures to be shown at trust level and have been incorporated into this report. This report has included a case study from the Royal Wolverhampton Hospitals NHS Trust of how they have achieved good results which may be useful for others.

1.11 Summary report

A summary report is in preparation and will be printed and distributed in May 2010. Its focus is for a wider audience beyond the professional head and neck community. It will be available on line at: www.ic.nhs.uk/canceraudits.

1.12 Participation and data quality

The following table displays case ascertainment by trust and an index of data quality by cancer network. The latter is based on 12 data quality measures and more details can be found in Appendix 3.

Participation		Case Ascertainment 2008/09	Cancer Network Data Quality, based on 12 measures (see Appendix 3)
		Key:	Key:
		● >85 per cent	● >60 per cent
		■ 60 - 85 per cent	■ 45 - 59 per cent
		▼ <60 per cent	▲ <45 per cent
		▲ 0 per cent	
		◆ Treating centre only	
Submitting Trust	**Submits For**		
3 Counties Cancer Network			
Gloucestershire Hospitals NHS Foundation Trust		●	■
Hereford Hospitals NHS Trust		●	
Worcestershire Acute Hospitals NHS Trust		●	
Anglia Cancer Network			
Cambridge University Hospitals NHS Foundation Trust	Hinchingbrooke Health Care NHS Trust, Peterborough and Stamford NHS Foundation Trust,	●	▲
Norfolk and Norwich University Hospitals NHS Foundation Trust	James Paget University Hospitals NHS Foundation Trust, The Queen Elizabeth Hospital King's Lynn NHS Trust, West Suffolk Hospital NHS Trust, Ipswich Hospital NHS Trust	●	

Participation		Case Ascertainment 2008/09	Cancer Network Data Quality, based on 12 measures (see Appendix 3)
Arden Cancer Network			
University Hospitals Coventry and Warwickshire NHS Trust	South Warwickshire General Hospitals NHS Trust, George Eliot Hospital NHS Trust	●	■
Avon Somerset and Wiltshire Cancer Network			
North Bristol NHS Trust	University Hospitals Bristol NHS Foundation Trust, Yeovil District Hospital NHS Foundation Trust, Weston Area Health NHS Trust	●	▲
Royal United Hospital Bath NHS Trust		▲	
Taunton and Somerset NHS Foundation Trust		▼	
Central South Coast Cancer Network			
Portsmouth Hospitals NHS Trust	Isle of Wight Healthcare NHS Trust	●	▲
Royal West Sussex NHS Trust		■	
Southampton University Hospitals NHS Trust	Isle of Wight Healthcare NHS Trust, Winchester and Eastleigh Healthcare NHS Trust, Salisbury NHS Foundation Trust	●	
Derby Burton Cancer Network			
Derby Hospitals NHS Foundation Trust	Burton Hospitals NHS Foundation Trust	■	■
Burton Hospitals NHS Foundation Trust		■	
Dorset Cancer Network			
Poole Hospital NHS Foundation Trust	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust, Dorset County Hospital NHS Foundation Trust	●	●
Essex Cancer Network			
Basildon and Thurrock University Hospitals NHS Foundation Trust		■	■
Colchester Hospital University NHS Foundation Trust		▼	
Mid Essex Hospital Services NHS Trust		●	
Southend University Hospital NHS Foundation Trust		●	
Greater Manchester and Cheshire Cancer Network			
Central Manchester University Hospitals NHS Foundation Trust		▲	▲
East Cheshire NHS trust		●	
Pennine Acute Hospitals NHS Trust		■	
Salford Royal NHS Foundation Trust		●	
Stockport NHS Foundation Trust		●	
Tameside Hospital NHS Foundation Trust		●	
University Hospital Of South Manchester NHS Foundation Trust		●	
Wrightington, Wigan and Leigh NHS Foundation Trust		▼	
Royal Bolton Hospital NHS Foundation Trust		▲	
Trafford Healthcare NHS Trust		▲	
The Christie NHS Foundation Trust		◆	
Greater Midlands Cancer Network			
Mid Staffordshire NHS Foundation Trust		▲	■
Shrewsbury and Telford Hospital NHS Trust		■	
The Royal Wolverhampton Hospitals NHS Trust	The Dudley Group of Hospitals NHS Foundation Trust	●	
University Hospital Of North Staffordshire NHS Trust		●	
Humber & Yorkshire Coast Cancer Network			
Hull and East Yorkshire Hospitals NHS Trust	Scarborough and NE Yorks Healthcare NHS Trust	▼	▲
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust		●	
Kent and Medway Cancer Network			
East Kent Hospitals University NHS Foundation Trust		■	▲
Maidstone and Tunbridge Wells NHS Trust		●	
Medway NHS Trust	Dartford and Gravesham NHS Trust	▼	
Queen Victoria Hospital NHS Foundation Trust		▼	
Lancashire and South Cumbria Cancer Network			
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust		●	■
Lancashire Teaching Hospitals NHS Foundation Trust		●	
University Hospitals Of Morecambe Bay NHS Trust		●	
East Lancashire Hospitals NHS Trust		●	

Participation		Case Ascertainment 2008/09	Cancer Network Data Quality, based on 12 measures (see Appendix 3)
Leicestershire, Northamptonshire and Rutland Cancer Network			
Northampton General Hospital NHS Trust	Kettering General Hospital NHS Foundation Trust	●	■
University Hospitals of Leicester NHS Trust		■	
Merseyside and Cheshire Cancer Network			
Aintree University Hospitals NHS Foundation Trust	The Mid Cheshire Hospitals NHS Trust	●	▲
Clatterbridge Centre For Oncology NHS Foundation Trust		◆	
Countess Of Chester Hospital NHS Foundation Trust		●	
Royal Liverpool and Broadgreen University Hospitals NHS Trust		●	
Southport and Ormskirk Hospital NHS Trust		●	
Warrington and Halton Hospitals NHS Trust		▼	
Wirral University Teaching Hospital NHS Foundation Trust		●	
St Helens and Knowsley Hospitals NHS Trust		●	
Mid Trent Cancer Network			
Nottingham University Hospitals NHS Trust	Sherwood Forest Hospitals NHS Foundation Trust	●	●
United Lincolnshire Hospitals NHS Trust		■	
Mount Vernon Cancer Network			
East and North Hertfordshire NHS Trust	West Hertfordshire Hospitals NHS Trust, The Hillingdon Hospital NHS Trust,	▼	▲
Luton and Dunstable Hospital NHS Foundation Trust	Bedford Hospital NHS Trust, West Hertfordshire Hospitals NHS Trust	▼	
North East London Cancer Network			
Barking, Havering and Redbridge University Hospitals NHS Trust		●	■
Barts and The London NHS Trust		■	
Whipps Cross University Hospital NHS Trust		▲	
Homerton University Hospital NHS Foundation Trust		●	
North London Cancer Network			
University College London Hospitals NHS Foundation Trust	The Whittington Hospital NHS Trust, The Royal Free Hampstead NHS Trust	●	■
Barnet and Chase Farm Hospitals NHS Trust	North Middlesex University Hospital NHS Trust	▼	
North of England Cancer Network			
City Hospitals Sunderland NHS Foundation Trust	South Tyneside NHS Foundation Trust, County Durham and Darlington NHS Foundation Trust, Gateshead Health NHS Foundation Trust	●	■
County Durham and Darlington NHS Foundation Trust		●	
North Cumbria University Hospitals NHS Trust		●	
South Tees Hospitals NHS Foundation Trust		■	
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	Gateshead Health NHS Foundation Trust, Northumbria Healthcare NHS Foundation Trust	■	
North Trent Cancer Network			
Barnsley Hospital NHS Foundation Trust		▼	■
Chesterfield Royal Hospital NHS Foundation Trust		■	
Doncaster and Bassetlaw Hospitals NHS Foundation Trust		▼	
Sheffield Teaching Hospitals NHS Foundation Trust		●	
The Rotherham NHS Foundation Trust		▼	
Pan Birmingham Cancer Network			
Heart Of England NHS Foundation Trust	Walsall Hospitals NHS Trust	■	●
Sandwell and West Birmingham Hospitals NHS Trust		■	
University Hospital Birmingham NHS Foundation Trust		●	
Peninsula Cancer Network			
Plymouth Hospitals NHS Trust		●	●
Royal Cornwall Hospitals NHS Trust		●	
Royal Devon and Exeter NHS Foundation Trust	Northern Devon Healthcare NHS Trust	●	
South Devon Healthcare NHS Foundation Trust		●	
South East London Cancer Network			
Guy's and St Thomas' NHS Foundation Trust	Bromley Hospitals NHS Trust, The Lewisham Hospital NHS Trust, Queen Mary's Sidcup NHS Trust, King's College Hospital NHS Foundation Trust	▼	▲

Participation		Case Ascertainment 2008/09	Cancer Network Data Quality, based on 12 measures (see Appendix 3)
South West London Cancer Network			
Epsom and St Helier University Hospitals NHS Trust		▼	■
St George's Healthcare NHS Trust	Mayday Healthcare NHS Trust	●	
The Royal Marsden NHS Foundation Trust	Kingston Hospital NHS Trust	▼	
Surrey, West Sussex & Hampshire Cancer Network			
Royal Surrey County Hospital NHS Trust	Surrey & Sussex Healthcare NHS Trust, Ashford and St Peter's Hospitals NHS Trust, Frimley Park Hospital NHS Foundation Trust, Basingstoke& North Hampshire NHS Trust	●	▲
Sussex Cancer Network			
Brighton and Sussex University Hospitals NHS Trust		●	■
East Sussex Hospitals NHS Trust		●	
Worthing and Southlands Hospitals NHS Trust		■	
Thames Valley Cancer Network			
Great Western Hospitals NHS Foundation Trust		●	▲
Heatherwood and Wexham Park Hospitals NHS Foundation Trust		▼	
Milton Keynes Hospital NHS Foundation Trust		●	
Oxford Radcliffe Hospitals NHS Trust	Buckinghamshire Hospitals NHS Trust	●	
Royal Berkshire NHS Foundation Trust		■	
West London Cancer Network			
Imperial College Healthcare NHS Trust	Ealing Hospital NHS Trust, West Middlesex University Hospital NHS Trust, Chelsea and Westminster Hospital NHS Foundation Trust	●	▲
North West London Hospitals NHS Trust		▼	
Yorkshire Cancer Network			
Bradford Teaching Hospitals NHS Foundation Trust	Airedale NHS Trust, Calderdale and Huddersfield NHS Foundation Trust	●	▲
Leeds Teaching Hospitals NHS Trust		▼	
Mid Yorkshire Hospitals NHS Trust		▲	
York Hospitals NHS Foundation Trust	Harrogate and District NHS Foundation Trust	●	
North Wales			
North Wales NHS Trust		■	▲
North West Wales NHS Trust		▼	
South East Wales			
Cardiff and Vale NHS Trust		■	▲
Gwent Healthcare NHS Trust		▼	
Cwm Taf NHS Trust		●	
Velindre NHS Trust		●	
South West Wales			
Abertawe Bro Morgannwg NHS Trust		■	▲
Hywel Dda NHS Trust		●	

2.0 Background to head and neck cancer and comparative audit

For a broader introduction please refer to previous annual reports. Relevant reports are identified in italics and brackets below

2.1 What is head and neck cancer and which anatomic sites does it include?

Head and neck cancer describes neoplasms arising from the mouth (oral cavity), voice box (larynx), throat / upper gullet (pharynx), salivary glands and related sites. Head and neck cancers are less common cancers, with approximately 6,700 new cases diagnosed in England and Wales[4,5] each year Over 90 per cent of all malignant head and neck tumours are squamous cell carcinomas (SCC). For the details of anatomical cancer sites covered by the head and neck cancer audit please see section 8.2.2.

2.1.2 Impact and outcome of head and neck cancer

Disease burden of head and neck cancer is significant. Patients require intensive multimodality treatments and prolonged rehabilitation with long term support to achieve an adequate recovery. The disease significantly impacts on functions such as eating, drinking, speech, swallowing, smell, breathing, social interaction and work capabilities.

Head and neck cancers have with significant mortality, for example, five year survival for larynx cancer is around 50 per cent. Better prognosis is associated with early detection, while late presentation and neck node metastasis drastically reduce long term survival.

2.2 Measuring clinical care

Core issues addressed in the National Head and Neck Cancer Audit are:

- Delivery of appropriate primary treatment (including adjuvant therapy) in management of head and neck cancer by a multi-professional team, and delivery of care to agreed standards.
- In larynx and oral cavity cancer to assess in more detail, care provided by specialist nurses, dieticians and speech and language therapists

2.3 Key partners influences in cancer audit

2.3.1 Clinical Audit Support Unit (CASU) and Patient Outcomes Programme

Both the Clinical Audit Support Unit (CASU) and Patient Outcomes Programme, (Healthcare Quality Improvement Partnership), promote high quality audits in which the clinical direction is through national professional bodies. (refer to fourth on line Annual Reports[6]).

The National Head and Neck Cancer audit is sponsored and commissioned by the Healthcare Quality Improvement Partnership (HQIP[1]).

2.3.2 National Institute for Clinical Excellence (NICE) Improving Outcomes Guidance for head and neck cancer

NICE guidance on head and neck cancer in England and Wales was published in 2005[7], and can be found at: www.nice.org.uk/, and measures at: www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/Cancer.

It provides recommendations for good practice based on best available evidence of clinical and cost effectiveness. Areas addressed, include head and neck cancer network and MDTs, referral, diagnosis and assessment, treatment services, post-treatment follow-up and care, prevention, patient centred care and palliative care. A process of peer review of compliance with these measures has been completed across England, and further peer review assessment will occur in 2010.

In Wales[7], National standards for Head and Neck Cancer Services 2005 define core aspects of service that should be provided for cancer patients throughout Wales by March 2009.

2.3.3 Standards from professional bodies

The British Association of Head and Neck Oncologists (BAHNO), a multi-professional organisation, with facilitation by CASU, has published standards for the process of head and neck cancer care in 2009[2]. The standards are referred to in this report but have not directly been measured against in this years audit as they were not available throughout the index year.

These standards can be accessed from the BAHNO website through the following link: http://www.bahno.org.uk/docs/BAHNO per cent20STANDARDS per cent20DOC09.pdf

3.0 DAHNO Application infrastructure

3.1 The DAHNO System

The DAHNO (Data for Head and Neck Oncology) system which supports the head and neck cancer audit provides a technical infrastructure for data collection across England to deliver continuous comparative audit. Data from Wales is collected within the Cancer Network Information System Cymru (CaNISC[8]) and uploaded to DAHNO. (refer to the fourth on line Annual Report for details on the DAHNO application and its requirements).

3.2 DAHNO application security and patient confidentiality

Details on the DAHNO application security and how patient confidentiality is protected can be found in the on line fourth Annual Report[6].

4.0 Methods and approaches

4.1 Methodology

The methodology followed was described in the second Annual Report[9].

4.2 Clinical aspects applicable to fifth report

4.2.1 Inclusions and exclusions

DAHNO includes the following details from contributory centres:

- New primary cases of head and neck carcinoma involving the larynx, oral cavity, pharynx, and major salivary glands (refer to fourth on line Annual Report for ICD 10 code details):
- For details of the anatomic subsites refer to section 8.2.2

These are identified from a range of sources including MDT meetings, urgent two week wait rule referrals and other clinic booking systems and pathology reports

- Decompensation from co-morbidity at diagnosis
- Whether management of patients has been by an identified MDT, to agreed standards with equity of care and without undue delay
- The primary treatment modality(ies) received
- In larynx and oral cavity care provided by clinical nurse specialists
- Multi-professional care provided by dietitians, and speech and language therapists (including for larynx surgical voice restoration)
- Disease eradication, cancer specific mortality rate and age specific corrected survival.

Exclusions from audit are:

- Cancers in anatomical sites outside the larynx, oral cavity, pharynx and major salivary glands
- Carcinoma in situ of the above sites
- Secondary carcinomas to the head and neck
- Adverse events.

4.3 Determining cancer centres: Provider Trusts managing head and neck cancer

Throughout the current year each network has been contacted and requested to provide an up to date list of trusts providing head and neck cancer care. In Wales, submission of data was by upload from CaNISC[8], plus organisations providing head and neck cancer care in Wales were provided.

4.4 Priority outputs and rationale

For details of the priority outputs used in the fifth Annual Report please refer to fourth Annual Report - reference report Appendix 5.

5.0 Benefits in participation

Why is comparative audit in head and neck cancer important?		
To whom	**Benefit**	**Application**
Patients	• Informs on quality of local services to aid patient choice • Best practice guidance improves communication between patient, carers and clinical team. Giving rationale for treatment and care expectations	The audit data is under consideration for incorporation into the NHS Choices database in 2010/11
National Monitoring Bodies	• Provides assurance of quality of care at both organisational and team level	Envisaged Local Action Plans from the audit will be incorporated into Peer Review to monitor clinical practice change
Service Commissioners	• Assures of quality of care given by organisations through publication of trust level data • Enables benchmarking of comparable services	Following publication of Annual Reports a number of Cancer Networks have utilised tailored reports of comparative data for their trusts to help inform local service provision
Provider Organisations	• Demonstrates compliance with the Health Commission's Annual Health Check • Provides performance data on the organisation's clinical services • Enables benchmarking of local services against peer organisations • Identifies deficiencies in multi-professional provision	Following publication of trust data in Annual Reports, clinical teams and Medical Directors have fed back local audits/reviews and indicated changes have been made in local practice National audit has stimulated local review and resource bidding for SALT posts etc
Clinicians and Clinical Teams	• Provides a baseline measurement of clinical performance against professionally developed standards • Development of a high quality clinical database of head and neck cancer patients	An increasing number of requests from research teams has been made to access anonymised data from DAHNO, as a unique only source of this type of clinical data in the UK

6.0 Improvements and trends over time

6.1 Case ascertainment and participation

This year has seen a dramatic increase in the level of cases submitted with 89 per cent case ascertainment, compared with 64 per cent in the fourth Annual Report. The number of trusts participating has also risen to 95 per cent of all eligible trusts, with only two trusts never having participated over the five year period the audit has been running.

2005–2009 Trusts never submitting data into DAHNO:

Manchester & Cheshire Cancer Network:
- Central Manchester University Hospitals NHS Trust
- Trafford Healthcare NHS Trust

As anticipated at the start of the audit, uptake has been incremental, with organisations gradually developing systems and processes to ensure data capture of all cases. As the importance of participation has been stressed – through the Peer Review process, Cancer Reform Strategy etc, so has the number of organisations submitting cases into the DAHNO system.

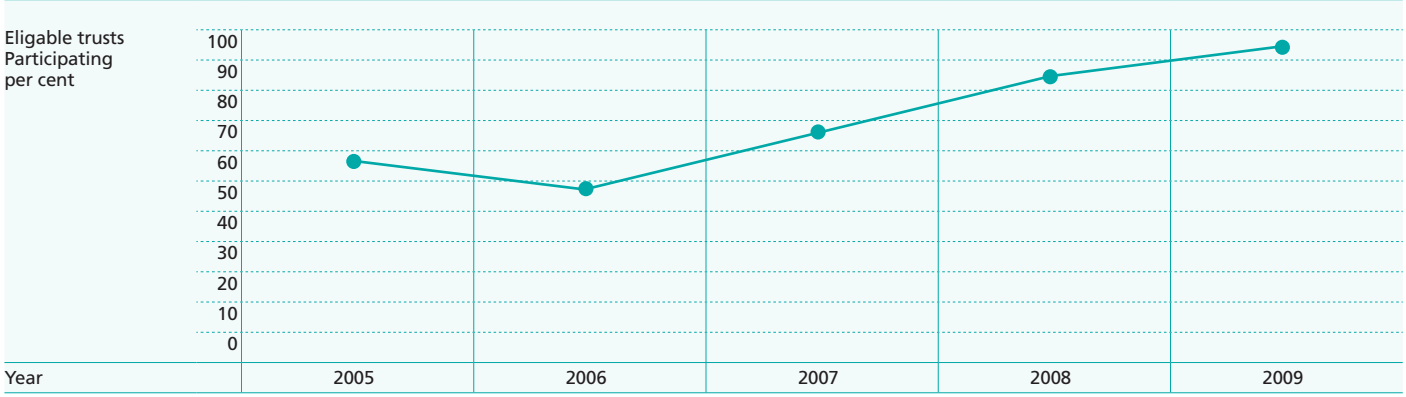
6.2 Data Quality

6.2.1 Data quality for measuring risk-adjusted outcomes

As well as being able to demonstrate trust performance against the NICE Improving Outcomes Guidance (IOG) standards for head and neck cancer, the audit has always aimed to provide risk adjusted trust level outcomes. In order for this to be possible, high quality recording of stage, performance status and co-morbidity need to be made. In this fifth Annual Report, staging is at approximately 70per cent, with performance status at 60 per cent and co-morbidity at 32 per cent. These values have changed over the five years of the audit, but never have been at a sufficiently high enough level for risk adjustment to be undertaken with confidence. If clinical teams wish to see this important element of the head and neck cancer audit, these data items need to be consistently and accurately recorded every year.

Case Ascertainment

Trust Participation



T & N Staging Recorded

Recorded Co-Morbidity

Recorded Performance Status

6.3 Improvements in care

6.3.1 Median interval – surgery to post operative radiotherapy

The median interval from surgery to post operative radiotherapy has gradually decreased over the five years of the audit, currently at a level of 51 days. Whilst this shows an improvement in practice, it is still unacceptably high compared to the 42 day target agreed in the BAHNO standards

6.4 Assuring the quality of services

Consistent, high levels of attainment of a number of NICE IOG and BAHNO standards show that the vast majority of trusts submitting data have, and continue, to provide the highest levels of care for their patients.

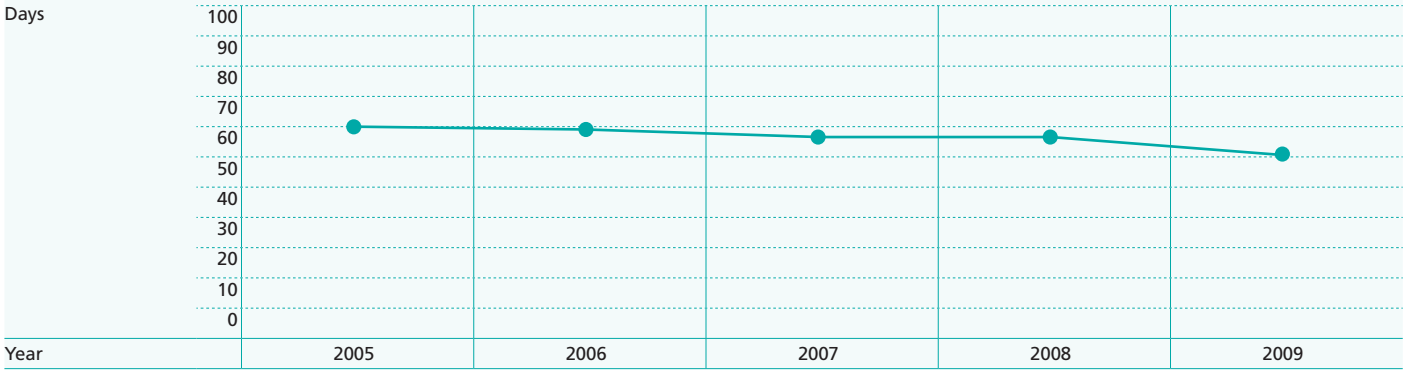
6.4.1 Patients being seen at the MDT

The fourth Annual Report showed that 93 per cent of patients from participating trusts were discussed at the multi disciplinary team (MDT) and has improved again this year to 95 per cent. This provides assurance that patients are getting an appropriate start to the planning of high quality care.

6.4.2 Patients having chest imaging (chest x ray and computerised tomography) reported prior to the MDT meeting.

In the two years this analysis has been published, participating trusts have attained a consistent level of over 80 per cent of patients having imaging prior to being seen at the MDT.

Median Interval - surgery to post op radiotherapy



Seen at MDT

6.4.3 Interval from biopsy to reporting.

Since the start of this analysis being published in the third Annual Report, the percentage of cases where reporting of biopsy specimens is less than ten days has remained consistently above 80 per cent.

6.5 Recommendations

- The fifth Annual Report has identified important areas which need to be addressed by all contributory organisations to allow a number of key outputs to be better reported.
- These either improve levels of assurance to patients, boards and trusts of care delivery or facilitate overall outcomes reporting.
- Each recommendation is described, clarified in its importance, likely responsibility(ies) attributed and an indication of supporting evidence for achievement provided.
- Key to group(s) with responsibility to action:-

N = Network
T = Trust
U = Users
P = Professions
D = DAHNO project team
M = Multidisciplinary teams

Recommendation 6.5.1
Networks should reflect on where variation in access identified in trust identifiable data has occurred, compare with other access information and examine cancer pathways and their components that underpin these to improve timely pathways for all patients
Why is it important? Timely care is important to patients and commissioners of cancer services. The fifth Annual Report identifies significant variations between organisations in close geographic location. All networks should be seeking to reduce variation and remove avoidable delay in patient pathways
Who shares responsibility? N T M
How will it be known if this has been achieved? Evidence in sixth DAHNO report submission of a reduced variation in treatment intervals between organisations within the network combined with an overall reduction in all median time intervals along the patient pathway

Recommendation 6.5.2
Following publication, each trust should develop a local action based on the findings in the fifth local report, particularly noting any areas of continuing weak performance compared to previous years' reports
Why is it important? National comparative audit provides a benchmark against which a multi-disciplinary team can compare its performance. Local "ownership" of the audit is essential to elicit improvement. Whilst for many of the intervals described, an organisation's median falls within national guidance on good practice (including the recently published BAHNO standards), there is still considerable inter-patient variation, meaning some patient pathways remain longer than desirable.
Who shares responsibility? T U P M
How will it be known if this has been achieved? A written local action plan with a timescale is developed by each contributory Trust in response to the findings of the fifth Annual Report, which is submitted to the Trust Governance Committee who monitor progress in delivery of actions. The action plan should be available for peer review and external validation if required.

Recommendation 6.5.3
Ensure tumour staging (TNM) is confirmed and recorded prior to care planning and following surgical procedures
Why is it important? Staging is a key element to be considered by the multi-disciplinary team in reaching all treatment plans. All MDT discussions should be concluded by confirmation of stage, be that at diagnosis or following surgical resection. In meeting the professions' requirement to report risk adjusted outcomes, the absence of staging prevents this.
Who shares responsibility? N T U P M
How will it be known if this has been achieved? Local and national evidence of staging being completed with a target to achieve this in at least 85 per cent of patients by the submission deadline for the sixth Annual Report.

Recommendation 6.5.4

Facilitate meeting patient expectations that all care discussions are being made at a MDT, and teams need to give assurance of this important aspect of care delivery.

Why is it important?
The MDT meeting is a common standard across all cancer sites. Improving Outcomes Guidance and professional guidance confirm this standard at 100 per cent

Who shares responsibility?
N T U P M

How will it be known if this has been achieved?
Evidence submitted to the sixth Annual Report of 100 per cent of cases being discussed. Local trust/MDT action via a critical path analysis approach of individual case review of any cases of head and neck cancer where MDT case discussion has not occurred. It is recognised that in a number of cases diagnostic biopsy acts as treatment however the case should still be discussed by the MDT for confirmation of follow up. All post surgical cases should have their pathology discussed.

Recommendation 6.5.5

Provide assurance of key aspects of multi-professional care being provided in speech and swallowing, clinical nurse specialist support (at breaking bad news and prior to and during treatment) and dietetic support. This will require direct administrative support to professionals in these areas who usually are personally entering data.

Why is it important?
The National Association of Laryngectomy Clubs and Lets Face It members of the audit's Head and Neck Clinical Reference Group, have emphasised the importance their members have placed on provision of multi-professional support to all head and neck cancer patients throughout their cancer journey. They believe significant gaps in provision remain and wish to see a higher year on year level of assurance on care provision.

Who shares responsibility?
T U P M

How will it be known if this has been achieved?
Evidence of a local action and resource plan to enable non-medical professionals to submit comprehensive data to the sixth Annual Report. Improved levels of data completeness across multi-professional care in the sixth Annual Report. Greater numbers of organisations confirming the delivery of these aspects of care to head and neck cancer patients.

Recommendation 6.5.6

Ensure that all cancer networks and constituent trusts not achieving high levels, or any level, of case submission review their processes and support for submission of data. Best practice supporting data collection can be found at: www.ic.nhs.uk/canceraudits.

Why is it important?
Improving Outcomes Guidance and Standards for Better Health have identified submission to national audits as a basic requirement of high quality care.

As the majority of trusts in England and Wales have now attained this, all remaining trusts should move to be compliant and ensure high levels of case submission year on year.

Who shares responsibility?
N T U P D M

How will it be known if this has been achieved?
High levels of case submission from each organisation providing head and neck cancer care to the sixth and future national comparative audits.

Recommendation 6.5.7

Record key factors including performance status, co-morbidity, pre treatment and post surgical staging that contribute to future risk adjustment, to enable true stage comparison of outcomes in all patients.

Why is it important?
In meeting the professions' requirement to report risk adjusted outcomes, the absence of these key fields currently prevents this. The audit for the first time this year has published crude mortality by network in response to pressure from members of the Head and Neck Clinical Reference Group representing their professional bodies. The National Head and Neck Cancer Audit project team recognise the limitation of such data and would wish to provide risk adjustment. If this is not forthcoming it may mean progressing to unadjusted mortality being published by named trust in the future.

Who shares responsibility?
T U P D M

How will it be known if this has been achieved?
Greater than 70 per cent completeness of the key fields of performance status, co-morbidity, pre treatment and post surgical staging for each contributory organisation

Recommendation 6.5.8

Ensure that provider trusts uploading information via CSV should commence preparation of CSV requirements as early as possible for the sixth Annual Report and submit this on a regular basis through the year, as well as attending future technical workshops.

Why is it important?
Many trusts using an upload facility have tended to make a block yearly submission close to the deadline. This has the risk of errors within the CSV upload that may mean missed or incomplete submission due to the lack of time to make corrections.

All users are encouraged to submit regular uploads through the submission year. This both confirms the adequacy of the CSV formulations and encourages higher levels of completion.

No changes are planned to the csv specification used in the current data collection year (sixth Annual Report) (subject to any errors coming to light)

Who shares responsibility?
T U D

How will it be known if this has been achieved?
Regular CSV uploads from organisations who use this method of submission with decreased loads in the period immediately prior to the close of the index year.

7.0 Statistical methods used for data analysis

The presented information is an analysis of a sample of head and neck cancer cases from hospital Provider Trusts across England and Wales. Most of the reported measures are either a count of cases or a percentage of total recorded cases. Notes accompanying each measure seek to make the basis of the calculations clear. The interpretation of the results must take into consideration the incomplete ascertainment of the cohort; not all incident cases in England and Wales have been entered onto the system, and some of those cases that are recorded have data items which have not been entered.

- Counts are the totals number of records (usually of patients) in the DAHNO application data extract with a specific record value, or in some cases a count of records with a recorded value.
- The calculation of percentages involves a count and a denominator. The choice of denominator is complicated by incompleteness. For certain measures the selected denominator is the total number of registrations, for others it has been more appropriate to use the number of registrations with any recorded value for a particular data item.

The data for analysis was extracted from the DAHNO application as a collection of text files (CSV format). Analysis was carried out using Microsoft® Access 2003 and Microsoft® Excel 2003.

8.0 Findings

8.1 Introduction

The following analysis was performed by the cancer registries on data extracted from the DAHNO application database. The data extract period includes patient records with a date of diagnosis between 1 November 2008 and 31 October 2009. Comparative information presented from previous reports uses published information and tables, and is not from cumulative or updated files unless stated.

8.2 Analysed data

Over 5500 patient diagnoses have been included in the analysis. Overall submissions have increased by 39 per cent with 1549 additional cases compared to the fourth Annual Report.

The information presented in this report is, therefore, a snapshot of the total population. The following chart shows an overview of data collected for the described cancer sites for cases with date of diagnosis between 1 November 2008 and 31 October 2009.

Complete case ascertainment remains a goal of the audit but it is pleasing to note the commitment of NHS organisations and head and neck teams to reach a further landmark in case submission. It also demonstrates, by considering larynx and oral cavity cases, the steady rise in submissions from the first to fifth Annual Reports as more teams have joined, with ever more complete submissions from existing users.

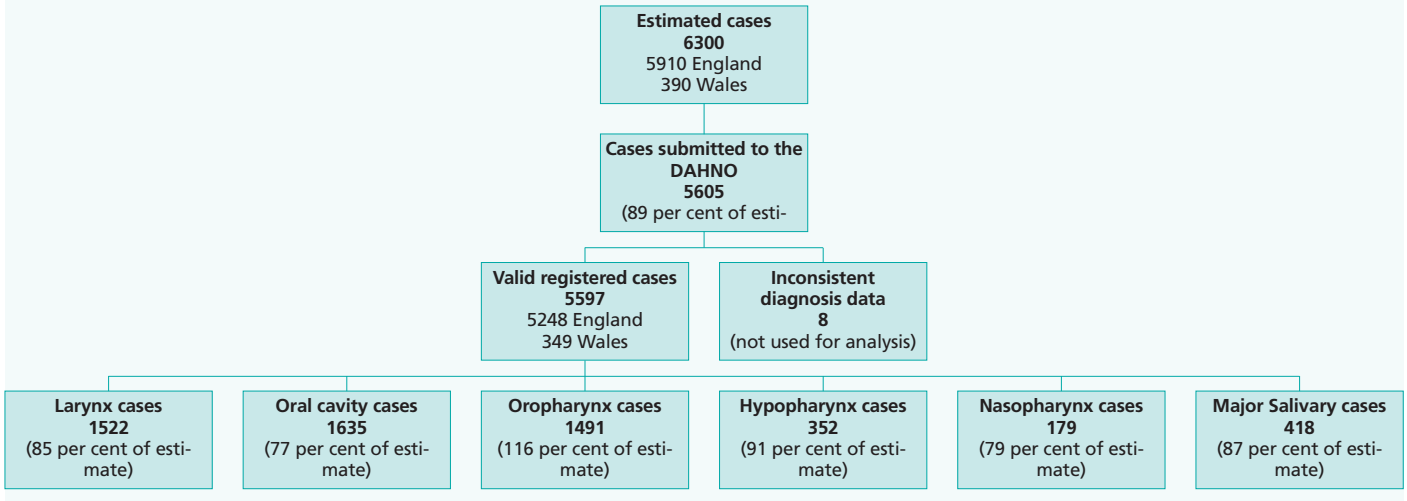
A continued improvement in case ascertainment has occurred with 89 per cent of estimated incident cases being recorded. In England 5248 of 5910 estimated cases (89 per cent) were submitted and in Wales 349 of an estimated 390 cases (90 per cent). The English networks are to be congratulated on their improved level of case ascertainment, now matching levels achieved in Wales.

The Expert Panels noted the high level of oropharyngeal carcinomas (116 per cent of estimate). The explanation of this is not clear, and cannot be explained solely on a variation of cases being classified to oropharynx instead of oral cavity. Incidence information from the National Cancer Intelligence

Figure 8.2.a
Submitted diagnoses by year

	Audit Year 04-05	Audit Year 05-06	Audit Year 06-07	Audit Year 07-08	Audit year 08-09
Diagnoses submitted	1042	1446	2130	4038	5597
Submissions from	England only	England and Wales	England and Wales	England and Wales	England and Wales
Months of audit	21	13	12	12	12
Estimate for period of audit	4454	2945	3032	6300	6300
Corrected annual estimate	2545 (England only)	2718	3032	6300	6300
Per cent of estimate	23 per cent	49 per cent	67 per cent	64 per cent	89 per cent
Larynx cancer	561	745	1049	1190	1522
Oral cavity cancer	477	698	986	1208	1635

Figure 8.2.b
Analysed Data



Network shows year on year, a steep rise in incidence of oropharynx cancers which reflect a rise in cases caused by human papilloma virus.

8 diagnoses were excluded from the analysis because of inconsistent diagnosis data.

The analysis presented thus reflects 5597 cases in 5558 individuals. In 39 patients more than one tumour was recoded in the index period.

8.2.1 Is data quality improving?

This year's submission confirms a continued trend of broader submission of information throughout the patients' journey.

A consideration of the number of care plans obtained by cancer site demonstrates a high level of recording, with between 87 and 94 per cent of cases having a care plan record.

Of the total patients registered it would be expected that up to 8 per cent of them would not have reached the point in their pathway where a care plan would be agreed, and when this adjustment* is applied between 95 and 99 per cent of patients have a care plan record.

Of those cases with a treatment intent recorded, 89 per cent have a record of first definitive treatment (identified by a date that treatment commenced), which is two thirds of the total cases submitted. Adjusting for cases that have not progressed through the patient journey to reach a point of care planning at least 72 per cent have a treatment record.

Thus, by this fifth report, at least three quarters of submitted cases have entries up to and including treatment which continues the trend of improved data submission along the patient journey.

Figure 8.2.1 a
Number of registered cases with at least one care plan and adjusted for cases not yet reaching care planning point in the patient pathway

	Larynx	Oral Cavity	Oropharynx	Hypopharynx	Nasopharynx	Major Salivary Gland	All cases
Total number of cases	1522	1635	1491	352	179	418	**5597**
Cases having at least one care plan	1385	1532	1348	322	155	382	**5124**
As per cent of total cases	91.0	93.7	90.4	91.5	86.6	91.4	**91.5**
As adjusted per cent of total cases *	99	100	98	99	95	99	**99**

Figure 8.2.1 b
Number of cases with at least one care plan and a treatment record containing a date of first definitive treatment and unadjusted and adjusted case count for patients not having reached point of care plan

	Larynx	Oral Cavity	Oropharynx	Hypopharynx	Nasopharynx	Major Salivary Gland	All cases
Cases having at least one care plan with treatment intent recorded	1164	1247	1112	264	123	295	**4205**
Number of cases with a treatment record containing a date of first definitive treatment* including supportive care	1027	1063	1032	234	120	275	**3751**
As per cent of those with at least one care plan intent recorded	88.2	85.2	92.8	90.2	97.5	93.2	**89.2**
As per cent of total case count unadjusted for those cases not having reached point of care plan*	67.4	65.0	69.2	66.4	67.0	65.7	**67.0**
As per cent of total case count adjusted for those cases having not reached point of care plan**	73.4	70.7	75.2	72.2	73.1	71.4	**72.9**

* First definitive treatment is the first treatment administered (surgey,teletherapy,chemotherapy,brachytherapy,palliative treatment)
** Of the total patients registered it would be expected that up to 8 per cent of them would not have reached the point in their pathway where a care plan would be agreed

8.2.2 Which subsites of head and neck cancer have been reported

5597 cases were presented for analysis, with a date of diagnosis between 1 November 2008 and 31 October 2009. These comprised 1522 (84.8 per cent of estimate) laryngeal cancers, 1635 (77.0 per cent) oral cavity cancers, 1491 (115.6 per cent) oropharyngeal cancers, 352 (91.3 per cent) hypopharyngeal cancers, 179 (79.3 per cent) nasopharyngeal cancers and 418 (86.8 per cent) salivary gland cancers.

The newly introduced anatomic sites in the fourth report now have similar levels of submission to the longer standing larynx and oral cavity cancer affirming support from head and neck teams for their inclusion.

Overall cumulative submissions have now exceeded 14,000 from all five reports.

A breakdown of registrations by anatomic sub-site is included in Figure 8.2.3.a. and for nasopharynx and major salivary gland see section 11.

Figure 8.2.2.a
Number of registered new head and neck primaries.

Number of patients registered by Site			
	Sub-site	**5th report total**	**Cumulative cases from audit inception**
Larynx	Glottis	825	2806
	Supraglottis	305	1153
	Larynx, unspecified	358	950
	Subglottis	34	116
	Anterior surface of epiglottis		38
	Laryngeal Cartilage		4
Larynx Total		**1522**	**5067**
Oral Cavity	Border of tongue	474	1389
	Dorsal surface of tongue	62	267
	Ventral surface of tongue	75	306
	Floor of mouth	291	745
	Cheek mucosa	152	443
	Upper & lower gingivae	122	417
	Retromolar area	122	341
	Lip, inner aspect	110	245
	Hard palate	83	285
	Vestibule of mouth	27	126
	Lingual tonsil	50	61
	Overlapping lesion palate	8	66
	Mouth, unspecified	59	113
	Overlapping lesion tongue		55
	Overlapping lesion floor mouth		83
	Lateral floor of mouth		62
Oral Cavity Total		**1635**	**5004**
Oropharynx	Tonsil	720	469
	Base of tongue	474	325
	Overlapping lesion oropharynx	117	37
	Soft palate	110	95
	Posterior wall	25	30
	Uvula	16	11
	Lateral wall	15	23
	Vallecula	14	12
Oropharynx Total		**1491**	**2501**
Hypopharynx	Piriform sinus	152	138
	Overlapping lesion hypopharynx	104	52
	Postcricoid region	56	46
	Posterior wall	24	23
	Aryepiglottic fold	16	9
Hypopharynx Total		**352**	**620**
Nasopharynx Total		**179**	**290**
Major Salivary Glands Total		**418**	**677**
Total		**5597**	**14159**

In larynx, as expected, glottic cancers predominate, (54 per cent), with 20 per cent occurring in the supraglottis. This was a similar distribution to that seen previously. 'Larynx NOS' (not otherwise specified) represents those cancers which involve cartilage, multiple sub-sites, and are also referred to as transglottic tumours, or it reflects failure to delineate the site of tumour origin. The Expert Panel members felt that this number was higher than expected and ask that otolaryngologists carefully assess site of origin and only default to larynx NOS appropriately.

In this year's report the percentage of subglottic tumours is slightly greater than last years figure at 2.2 per cent, suggesting that the figure seen in 2005-2006 (2.7 per cent) was anomalous. Overall since inception the audit has received 113 subglottic cancers, 2.2 per cent of all larynx cancers

In oral cavity, tumours of the lateral border of the tongue are the most common cancer site, (31.2 per cent), with a more even distribution amongst the remaining subsites. The hard palate (5 per cent compared to 2 per cent of all ONS registrations) appears again to be, over represented as in earlier years. In this years data collection tumours of the floor of mouth have become the second commonest subsite (18.5 per cent).

In oropharynx tonsil is the commonest site (48 per cent) and in combination with base of tongue making up 80 per cent of cases.

In hypopharyngeal cancer, piriform sinus predominates (43 per cent) with a more even distribution amongst the remaining subsites.

8.3 Where head and neck cancer care happens

8.3.1 Estimate of total number of patients with new head and neck primaries of the larynx, oral cavity, pharynx and major salivary glands in the index period by Cancer Network

The following figure includes an estimate of the expected number of cases of larynx, oral cavity, oropharynx, hypopharynx, nasopharynx and major salivary gland cancers per year in England and Wales. The estimate has been taken as the average number of new head and neck primaries that were registered by cancer registries in England and Wales for the period 2004 - 2006.

The estimate consists of 5910 cases in England and in Wales 390 cases, comprising 1796 larynx cancers and 2122 oral cavity cancers 1290 oropharyngeal cancers, 385 hypopharyngeal cancers, 226 nasopharyngeal and 482 salivary gland cancers.

Cancer registry data provides a good estimate of new cases, which allows for incident cases not attending at hospital. Although cancer networks serve a geographically defined population, they may also see cross border referrals.

Networks are shown as defined at the start of the index period November 2008, with the exception of the East Midlands Cancer Network, which is shown as its original three networks (Leicester, Northants and Rutland, Mid Trent and Derby Burton cancer networks).

One network stands out for its minimal submission- South East London submitted only 4 cases representing 2 per cent of its estimate (this compares with 19 per cent in the fourth Annual Report). The next group of networks achieved 50 per cent or more of estimate, confirming its outlier status. It is important that this network reviews its position and ensures action to actively contribute to future reports.

24 networks increased their case submission, with the greatest rise occurring in Central South Coast who are to be congratulated for their efforts, and Kent and Medway, who did not participate in the fourth Annual Report, submitted over 70 per cent of estimate in this report.

Of the remaining English networks all but Mount Vernon showed a minor decrease in submission (Essex, Humber and Yorkshire Coast, Mid Trent, South West London). Mount Vernon showed a fall from 122 cases to 59 cases with 55 per cent of estimate.

A number of high performing networks showed submissions significantly higher than estimate. The reasons for this are not clear. Whilst cross boundary migration can elevate numbers of cases, in those with the highest levels above estimate adjacent networks also show high levels. A potential rise in incidence is supported by recently released 2008 Welsh data showing a rise from 390 to 458 cases per year. If this trend is repeated in England then this may have impacted on the estimates. Updated estimates will be provided in next year's report.

Cases submitted by network ranged from 4 in South East London (estimate 180 cases) to a high of 510 in North of England (estimate 434 cases).

In Wales, case numbers submitted rose in South East Wales but fell in South West and North Wales.

Figure 8.3.1a
Estimate of total number of patients with new head and neck primaries in the index period.

Sub Network	DAHNO Registrations	Estimate	Per cent
North of England	510	434	117.5
Anglia	305	307	99.3
Merseyside and Cheshire	284	204	139.2
Yorkshire	248	311	79.7
Thames Valley	246	230	107.0
Peninsula	238	220	108.2
Central South Coast	236	218	108.3
Greater Midlands	235	249	94.4
Greater Manchester and Cheshire	233	396	58.8
Pan Birmingham	215	185	116.2
Lancashire & South Cumbria	212	203	104.4
Mid Trent	203	232	87.5
North Trent	185	260	71.2
3 Counties	173	127	136.2
Leicestershire, Northamptonshire & Rutland	164	183	89.6
West London	153	186	82.3
North London	142	173	82.1
Surrey, West Sussex & Hants	141	92	153.3
North East London	140	149	94.0
Sussex	133	108	123.1
Kent & Medway	122	172	70.9
South West London	121	238	50.8
Avon Somerset & Wiltshire	119	202	58.9
Dorset	114	88	129.5
Essex	102	101	101.0
Derby Burton	84	139	60.4
Arden	69	94	73.4
Mount Vernon	59	107	55.1
Humber & Yorkshire Coast	58	120	48.3
South East London	4	180	2.2
England	**5248**	**5908**	**88.8**
South East Wales	169	170	99.4
South West Wales	109	126	86.5
North Wales	71	95	74.7
Wales	**349**	**391**	**89.3**
England and Wales	**5597**	**6299**	**88.9**

Estimate based on cancer registry data in England and Wales for the period 2004-2006

8.3.2 Submission by Network and Provider Trust of patients with new head and neck primaries in the index period

A number of organisations submit data on behalf of other trusts and these can be seen in the participation table

The following NHS trusts did submit data but this was after the deadline date for inclusion in the analysis and annual report (highlighted in blue in chart). Their data has not been included in the analyses:

Royal Bolton Hospital NHS Foundation Trust
Royal United Hospital Bath NHS Trust

All organisations are encouraged to submit data throughout the index year which both assists in ensuring inclusion but also can support improved data quality.

The following NHS trusts identified by cancer network returns as providing head and neck cancer care, failed to submit any cases in the index period (highlighted in red in the chart below):

Trusts not submitting data to the 5th Annual Report:

- Central Manchester and Manchester Children's University Hospital NHS Trust
- Trafford Healthcare NHS Trust
- Whipps Cross University Hospital NHS Trust
- Mid Yorkshire Hospitals NHS Trust
- Mid Staffordshire General Hospitals NHS Trust

It is very disappointing that these organisations despite now over five years of an active audit have not submitted cases this year. They have missed an opportunity to provide assurance to local head and neck cancer patients, trust boards and the upcoming peer review process of the quality of their services. Networks, Medical Directors and Chief Executives should examine the causes of non submission and seek to rectify these at the earliest opportunity.

8.3.2.1 Where cancer care happens – has it changed since the inception of the audit?

At the inception of the audit 143 hospitals in England were identified as delivering head and neck cancer care by surveying cancer networks. Since the first Annual Report[10] a number of hospitals have merged with the formation of new NHS Trusts, and the current report is by hospital trust.

The impact of the recommendations of Improving Outcomes Guidance in centralising treatment services is now starting to impact as well as shared MDTs between trusts.

The current number of trusts identified by networks as delivering head and neck cancer care is 128.

Key for Figure 8.3.2.a

Blue = late submitting trusts, data not included

Red = no data submitted

Figure 8.3.2.a
Submission by network and submitting trust of patients with new head and neck primaries in the index period.

Network	Trust	Larynx	Oral Cavity	Oro-pharynx	Hypo-pharynx	Naso-pharynx	Major Salivary Glands	Total
3 Counties	Gloucestershire Hospitals NHS Foundation Trust	25	26	29	7	6	10	103
	Hereford Hospitals NHS Trust	6	6	5	1	1	2	21
	Worcestershire Acute Hospitals NHS Trust	13	20	6	3	1	6	49
3 Counties Total		**44**	**52**	**40**	**11**	**8**	**18**	**173**
Anglia	Cambridge University Hospitals NHS Foundation Trust	35	70	37	3	5	12	162
	Norfolk And Norwich University Hospitals NHS foundation	40	43	36	12	4	8	143
Anglia Total		**75**	**113**	**73**	**15**	**9**	**20**	**305**
Arden	University Hospitals Coventry and Warwickshire NHS Trust	19	22	17	4	2	5	69
Arden Total		**19**	**22**	**17**	**4**	**2**	**5**	**69**
Avon Somerset & Wiltshire	North Bristol NHS Trust	38	17	36	9	3	10	113
	Royal United Hospital Bath NHS Trust	0	0	0	0	0	0	0
	Taunton and Somerset NHS Foundation Trust	2	3	0	1	0	0	6
Avon Somerset & Wiltshire Total		**40**	**20**	**36**	**10**	**3**	**10**	**119**

Figure 8.3.2.a continued
Submission by network and submitting trust of patients with new head and neck primaries in the index period.

Network	Trust	Larynx	Oral Cavity	Oro-pharynx	Hypo-pharynx	Naso-pharynx	Major Salivary Glands	Total
Central South Coast	Portsmouth Hospitals NHS Trust	9	27	20	4	2	10	72
	Royal West Sussex NHS Trust	0	6	4	1	0	2	13
	Southampton University Hospitals NHS Trust	36	50	37	5	8	15	151
Central South Coast Total		**45**	**83**	**61**	**10**	**10**	**27**	**236**
Derby Burton	Burton Hospitals NHS Foundation Trust	5	0	2	3	0	5	15
	Derby Hospitals NHS Foundation Trust	16	23	19	4	1	6	69
Derby Burton Total		**21**	**23**	**21**	**7**	**1**	**11**	**84**
Dorset	Poole Hospital NHS Foundation Trust	31	32	26	12	5	8	114
Dorset Total		**31**	**32**	**26**	**12**	**5**	**8**	**114**
Essex	Basildon and Thurrock University Hospitals NHS Foundation Trust	11	4	4	0	0	1	20
	Colchester Hospital University NHS Foundation Trust	5	6	3	1	0	0	15
	Mid Essex Hospital Services NHS Trust	11	10	5	1	0	3	30
	Southend University Hospital NHS Foundation Trust	9	8	11	6	1	2	37
Essex Total		**36**	**28**	**23**	**8**	**1**	**6**	**102**
Greater Manchester and Cheshire	Central Manchester University Hospitals NHS Foundation Trust	0	0	0	0	0	0	0
	East Cheshire NHS Trust	3	6	3	0	1	0	13
	Pennine Acute Hospitals NHS Trust	6	5	22	2	2	1	38
	Royal Bolton Hospital NHS Foundation Trust	0	0	0	0	0	0	0
	Salford Royal NHS Foundation Trust	11	2	5	2	1	0	21
	Stockport NHS Foundation Trust	3	9	0	0	0	0	12
	Tameside Hospital NHS Foundation Trust	9	14	11	2	1	1	38
	The Christie NHS Foundation Trust *	27	8	29	5	5	4	78
	Trafford Healthcare NHS Trust	0	0	0	0	0	0	0
	University Hospital Of South Manchester NHS Foundation Trust	9	13	1	2	0	3	28
	Wrightington, Wigan and Leigh NHS Foundation Trust	2	0	3	0	0	0	5
Greater Manchester and Cheshire Total		**70**	**57**	**74**	**13**	**10**	**9**	**233**
Greater Midlands	Mid Staffordshire NHS Foundation Trust	0	0	0	0	0	0	0
	Shrewsbury and Telford Hospital NHS Trust	5	10	10	4	1	2	32
	The Royal Wolverhampton Hospitals NHS Trust	28	40	35	13	2	11	129
	University Hospital Of North Staffordshire NHS Trust	23	10	20	7	4	10	74
Greater Midlands Total		**56**	**60**	**65**	**24**	**7**	**23**	**235**
Humber & Yorkshire Coast	Hull and East Yorkshire Hospitals NHS Trust	15	5	7	1	1	0	29
	Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	9	13	0	2	0	5	29
Humber & Yorkshire Coast Total		**24**	**18**	**7**	**3**	**1**	**5**	**58**
Kent & Medway	East Kent Hospitals University NHS Foundation Trust	15	5	17	0	1	2	40
	Maidstone and Tunbridge Wells NHS Trust	10	19	23	4	1	13	70
	Medway NHS Foundation Trust	0	2	0	0	0	0	2
	Queen Victoria Hospital NHS Foundation Trust	0	5	5	0	0	0	10
Kent & Medway Total		**25**	**31**	**45**	**4**	**2**	**15**	**122**
Lancashire & South Cumbria	Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	16	2	4	3	2	3	30
	East Lancashire Hospitals NHS Trust	11	7	25	4	0	4	51
	Lancashire Teaching Hospitals NHS Foundation Trust	21	37	36	3	1	6	104
	University Hospitals Of Morecambe Bay NHS Trust	6	7	11	0	0	3	27
Lancashire & South Cumbria Total		**54**	**53**	**76**	**10**	**3**	**16**	**212**
Leicestershire, Northampton-shire & Rutland	Northampton General Hospital NHS Trust	21	34	8	2	7	1	73
	University Hospitals Of Leicester NHS Trust	17	32	24	8	6	4	91
Leicestershire, Northamptonshire & Rutland Total		**38**	**66**	**32**	**10**	**13**	**5**	**164**

Figure 8.3.2.a continued
Submission by network and submitting trust of patients with new head and neck primaries in the index period.

Network	Trust	Larynx	Oral Cavity	Oro-pharynx	Hypo-pharynx	Naso-pharynx	Major Salivary Glands	Total
Merseyside and Cheshire	Aintree University Hospitals NHS Foundation Trust	44	39	51	19	6	9	168
	Clatterbridge Centre For Oncology NHS Foundation Trust *	0	0	1	0	0	0	1
	Countess Of Chester Hospital NHS Foundation Trust	3	1	4	1	1	2	12
	Royal Liverpool and Broadgreen University Hospitals NHS Trust	11	7	9	6	0	4	37
	Southport and Ormskirk Hospital NHS Trust	2	0	9	0	1	0	12
	St Helens and Knowsley Hospitals NHS Trust	8	5	5	2	0	1	21
	Warrington and Halton Hospitals NHS Foundation Trust	0	0	1	0	0	0	1
	Wirral University Teaching Hospital NHS Foundation Trust	16	0	7	7	2	0	32
Merseyside and Cheshire Total		**84**	**52**	**87**	**35**	**10**	**16**	**284**
Mid Trent	Nottingham University Hospitals NHS Trust	41	34	42	12	5	8	142
	United Lincolnshire Hospitals NHS Trust	18	27	9	2	2	3	61
Mid Trent Total		**59**	**61**	**51**	**14**	**7**	**11**	**203**
Mount Vernon	East and North Hertfordshire NHS Trust	3	7	5	2	0	0	17
	Luton and Dunstable Hospital NHS Foundation Trust	8	26	4	2	0	2	42
Mount Vernon Total		**11**	**33**	**9**	**4**	**0**	**2**	**59**
North East London	Barking, Havering And Redbridge University Hospital	20	10	20	7	1	7	65
	Barts and The London NHS Trust	13	22	16	5	4	1	61
	Homerton University Hospital NHS Foundation Trust	2	4	2	1	3	2	14
	Whipps Cross University Hospital NHS Trust	0	0	0	0	0	0	0
North East London Total		**35**	**36**	**38**	**13**	**8**	**10**	**140**
North London	Barnet and Chase Farm Hospitals NHS Trust	0	24	4	0	0	5	33
	University College London Hospitals NHS Foundation Trust	26	39	24	6	9	5	109
North London Total		**26**	**63**	**28**	**6**	**9**	**10**	**142**
North of England	City Hospitals Sunderland NHS Foundation Trust	59	30	35	14	3	13	154
	County Durham and Darlington NHS Foundation Trust	13	14	7	1	0	2	37
	North Cumbria University Hospitals NHS Trust	14	15	11	2	0	0	42
	South Tees Hospital NHS Foundation Trust	34	41	38	1	3	5	122
	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	40	47	50	11	4	3	155
North of England Total		**160**	**147**	**141**	**29**	**10**	**23**	**510**
North Trent	Barnsley Hospital NHS Foundation Trust	4	0	3	1	1	0	9
	Chesterfield Royal Hospital NHS Foundation Trust	5	9	7	6	0	1	28
	Doncaster and Bassetlaw Hospitals NHS Foundation Trust	20	1	10	2	0	0	33
	Sheffield Teaching Hospitals NHS Foundation Trust	23	33	28	10	0	8	102
	The Rotherham NHS Foundation Trust	7	3	2	1	0	0	13
North Trent Total		**59**	**46**	**50**	**20**	**1**	**9**	**185**
Pan Birmingham	Heart Of England NHS Foundation Trust	17	12	8	4	4	7	52
	Sandwell and West Birmingham Hospitals NHS Trust	17	1	8	2	0	1	29
	University Hospital Birmingham NHS Foundation Trust	30	53	39	4	1	7	134
Pan Birmingham Total		**64**	**66**	**55**	**10**	**5**	**15**	**215**
Peninsula	Plymouth Hospitals NHS Trust	27	18	25	4	2	4	80
	Royal Cornwall Hospitals NHS Trust	25	14	17	0	0	3	59
	Royal Devon and Exeter NHS Foundation Trust	10	20	18	2	4	4	58
	South Devon NHS Foundation Trust	8	16	9	2	1	5	41
Peninsula Total		**70**	**68**	**69**	**8**	**7**	**16**	**238**
South East London	Guy's and St Thomas' NHS Foundation Trust	1	1	1	0	0	1	4
South East London Total		**1**	**1**	**1**	**0**	**0**	**1**	**4**

Figure 8.3.2.a continued
Submission by network and submitting trust of patients with new head and neck primaries in the index period.

Network	Trust	Larynx	Oral Cavity	Oro-pharynx	Hypo-pharynx	Naso-pharynx	Major Salivary Glands	Total
South West London	Epsom and St Helier University Hospitals NHS Trust	0	1	0	0	0	0	1
	St George's Healthcare NHS Trust	25	43	21	5	3	4	101
	The Royal Marsden NHS Foundation Trust	3	7	7	1	0	1	19
South West London Total		**28**	**51**	**28**	**6**	**3**	**5**	**121**
Surrey, West Sussex & Hants	Royal Surrey County Hospital NHS Trust	36	28	56	3	5	13	141
Surrey, West Sussex & Hants Total		**36**	**28**	**56**	**3**	**5**	**13**	**141**
Sussex	Brighton and Sussex University Hospitals NHS Trust	18	32	16	3	0	12	81
	East Sussex Hospitals NHS Trust	9	14	7	1	1	9	41
	Worthing and Southlands Hospitals NHS Trust	1	3	7	0	0	0	11
Sussex Total		**28**	**49**	**30**	**4**	**1**	**21**	**133**
Thames Valley	Great Western Hospitals NHS Foundation Trust	4	2	11	0	2	1	20
	Heatherwood and Wexham Park Hospitals NHS Foundation Trust	4	12	1	0	0	1	18
	Milton Keynes Hospital NHS Foundation Trust	7	1	6	0	0	6	20
	Oxford Radcliffe Hospitals NHS Trust	47	68	18	6	5	18	162
	Royal Berkshire NHS Foundation Trust	8	10	2	2	3	1	26
Thames Valley Total		**70**	**93**	**38**	**8**	**10**	**27**	**246**
West London	Imperial College Healthcare NHS Trust	33	29	26	8	19	5	120
	North West London Hospitals NHS Trust	9	6	10	0	3	5	33
West London Total		**42**	**35**	**36**	**8**	**22**	**10**	**153**
Yorkshire	Bradford Teaching Hospitals NHS Foundation Trust	17	30	14	4	3	9	77
	Leeds Teaching Hospitals NHS Trust	25	24	22	12	0	6	89
	Mid Yorkshire Hospitals NHS Trust	0	0	0	0	0	0	0
	York Hospitals NHS Foundation Trust	18	24	26	8	1	5	82
Yorkshire Total		**60**	**78**	**62**	**24**	**4**	**20**	**248**
England Total		**1411**	**1565**	**1375**	**333**	**177**	**387**	**5248**
North Wales	North Wales NHS Trust	10	22	16	2	1	7	58
	North West Wales NHS Trust	4	5	4	0	0	0	13
North Wales Total		**14**	**27**	**20**	**2**	**1**	**7**	**71**
South East Wales	Cardiff And Vale NHS Trust	5	13	16	5	0	9	48
	Cwm Taf NHS Trust	16	7	12	3	0	0	38
	Gwent Healthcare NHS Trust	10	2	7	0	0	1	20
	Velindre NHS Trust *	29	8	19	2	0	5	63
South East Wales Total		**60**	**30**	**54**	**10**	**0**	**15**	**169**
South West Wales	Abertawe Bro Morgannwg NHS Trust	20	12	29	6	1	7	75
	Hywel Dda NHS Trust	17	1	13	1	0	2	34
South West Wales Total		**37**	**13**	**42**	**7**	**1**	**9**	**109**
Wales Total		**111**	**70**	**116**	**19**	**2**	**31**	**349**
England and Wales Total		**1522**	**1635**	**1491**	**352**	**179**	**418**	**5597**

* Treating trust only, data allocated to trust submitting diagnostic data

Networks are shown as defined at the start of the index period November 2008.It should be noted that a number of trusts in Wales have undergone name changes since the fourth Annual Report.

8.4 Where is the audit in recording the distribution of stage?

- Recording of staging[11] has deteriorated, but is partly offset by decreased use of Tx and Nx
- The absence of staging remains a considerable factor in preventing risk adjusted outcomes being produced and it is disappointing that teams are failing to submit this key information

Recording cancer site and accurate stage is a key medical responsibility, with best practice suggesting that this should be clearly documented and captured at the MDT. Staging remains a key influence on outcome. It is important that this improves to achieve 100 per cent of cases staged, to allow valid comparisons to be made.

- Recording of stage certainty remains unchanged with between 48 and 60 per cent having of T, N and M stage certainty factor recorded. (refer to project team if details and tabulation required). This is similar to the fourth Annual Report
- At key points in the patient pathway, staging is a defining parameter which allows for greater interpretation of outcome. This facilitates a description of disease extent in a uniform manner, to allow valid comparison as shown below.

8.4.1 Submission by Cancer Network and Contact Trust of patients with new head and neck primaries in the index period, where cases had pre treatment recorded T and N staging category

Counts and percentage of cases with recorded pre treatment T and N staging by contact trust reflect where care was delivered. Trusts have been colour banded to represent completeness of staging information:

- Of 5597 patients who have been registered to the audit, 3942 (70.4 per cent) contained T and N pre treatment staging category information
- In the last two years there has been a significant improvement in staging in Wales and they should be encouraged to improve this further
- In England a small deterioration in staging submission has occurred with 70 per cent of cases (3668 cases) having a T and N value recorded compared to 74 per cent (3671 cases) in the preceding year
- The fall in staged cases is not solely attributable to new contributory trusts as a number of existing trusts also show declines in staging levels
- Clinicians have expressed strong views that they wish to see risk adjusted mortality but a high level of staging is fundamental to this process. All trusts not achieving 100 per cent staging are encouraged to revisit their MDT processes and to make improvement in this area a high priority for the sixth Annual Report collection year now in progress
- In the fourth Annual Report it was noted that in 14 trusts, a significant number of cases were recorded as Tx or Nx (primary tumour cannot be assessed, regional lymph nodes cannot be assessed), and all organisations were encouraged to reduce cases where Tx or Nx was utilised. Part of this reflected a fault within the Somerset Cancer Registry system (recording T0 as Tx and N0 as Nx) that has now been corrected. The 560 overall cases with Tx Nx recorded last year has reduced to 167 cases but further work needs to be done to reduce this further.

Figure 8.4
Summary of recorded stage certainty.

Certainty factor	
C1	Evidence from standard diagnostic means (e.g. inspection, palpation, and standard radiography, intraluminal endoscopy for tumours of certain organs)
C2	Evidence obtained by special diagnostic means (e.g. radiographic imaging in special projections, tomography, computerised tomography (CT), ultrasonography, lymphography, angiography, scintigraphy, magnetic resonance imaging (MRI), endoscopy, biopsy and cytology)
C3	Evidence from surgical exploration, including biopsy and cytology
C4	Evidence of the extent of disease following definitive surgery and pathological examination of the resected specimen
C5	Evidence from autopsy

Key for Figure 8.3.4
● = 85 per cent or more T and N recorded
■ = 40 per cent to 84 per cent T and N recorded
▲ = Less than 40 per cent T and N recorded

Figure 8.3.4
Submission by networks / provider, trust -new primaries of all anatomic sites where pre-treatment T and N staging recorded
This table uses the figures from the combined careplan and diagnosis tables - if no staging data in careplan then staging in diagnosis is used

Contact Network	Contact Trust	Yes	TX	NX	Total	Per cent Recorded	
3 Counties	Gloucestershire Hospitals NHS Foundation Trust	86	0	11	93	92	●
	Hereford Hospitals NHS Trust	10	0	0	23	43	■
	Worcestershire Acute Hospitals NHS Trust	57	5	3	57	100	●
3 Counties Total		**153**	**5**	**14**	**173**	**88**	●
Anglia	Cambridge University Hospitals NHS Foundation Trust	102	2	3	119	86	●
	Ipswich Hospital NHS Trust	11	0	1	19	58	■
	James Paget University Hospitals NHS Foundation Trust	11	0	0	18	61	■
	Norfolk and Norwich University Hospitals NHS Foundation Trust	70	0	4	87	80	■
	Peterborough and Stamford Hospitals NHS Foundation Trust	36	0	1	43	84	■
	The Queen Elizabeth Hospital King's Lynn NHS Trust	8	0	0	15	53	■
	West Suffolk Hospitals NHS Trust	3	0	0	4	75	■
Anglia Total		**241**	**2**	**9**	**305**	**79**	■
Arden	University Hospitals Coventry and Warwickshire NHS Trust	21	0	1	69	30	▲
Arden Total		**21**	**0**	**1**	**69**	**30**	▲
Avon Somerset & Wiltshire	North Bristol NHS Trust	32	1	11	90	36	▲
	Taunton and Somerset NHS Foundation Trust	4	0	0	6	67	■
	University Hospitals Bristol NHS Foundation Trust	16	0	3	23	70	■
	Yeovil District Hospital NHS Foundation Trust	0	0	0	1	0	▲
Avon Somerset & Wiltshire Total		**52**	**1**	**14**	**120**	**43**	■
Central South Coast	Basingstoke and North Hampshire NHS Foundation Trust	0	0	0	7	0	▲
	Portsmouth Hospitals NHS Trust	52	2	3	72	72	■
	Royal West Sussex NHS Trust	3	0	1	9	33	▲
	Southampton University Hospitals NHS Trust	44	7	2	151	29	▲
Central South Coast Total		**99**	**9**	**6**	**239**	**41**	■
Derby Burton	Burton Hospitals NHS Foundation Trust	6	0	0	21	29	▲
	Derby Hospitals NHS Foundation Trust	47	0	0	63	75	■
Derby Burton Total		**53**	**0**	**0**	**84**	**63**	■
Dorset	Dorset County Hospital NHS Foundation Trust	13	0	0	13	100	●
	Poole Hospital NHS Foundation Trust	101	0	0	101	100	●
Dorset Total		**114**	**0**	**0**	**114**	**100**	●
Essex	Basildon and Thurrock University Hospitals NHS Foundation Trust	20	0	0	20	100	●
	Colchester Hospital University NHS Foundation Trust	15	0	0	15	100	●
	Mid Essex Hospital Services NHS Trust	24	0	0	30	80	●
	Southend University Hospital NHS Foundation Trust	37	0	0	37	100	●
Essex Total		**96**	**0**	**0**	**102**	**94**	●
Greater Manchester and Cheshire	Central Manchester University Hospitals NHS Foundation Trust	0	0	0	6	0	▲
	East Cheshire NHS Trust	2	0	0	12	17	▲
	Mid Cheshire Hospitals NHS Foundation Trust	0	0	0	5	0	▲
	Pennine Acute Hospitals NHS Trust	8	0	0	51	16	▲
	Salford Royal NHS Foundation Trust	9	0	0	22	41	■
	Stockport NHS Foundation Trust	2	0	0	16	13	▲
	Tameside Hospital NHS Foundation Trust	6	0	0	37	16	▲

Figure 8.3.4 continued
Submission by networks / provider, trust -new primaries of all anatomic sites where pre-treatment T and N staging recorded
This table uses the figures from the combined careplan and diagnosis tables - if no staging data in careplan then staging in diagnosis is used

Contact Network	Contact Trust	Yes	TX	NX	Total	Per cent Recorded	
	The Christie NHS Foundation Trust	11	0	0	37	30	▲
	Trafford Healthcare NHS Trust	0	0	0	4	0	▲
	University Hospital Of South Manchester NHS Foundation Trust	3	0	1	32	9	▲
	Wrightington, Wigan and Leigh NHS Foundation Trust	1	0	0	9	11	▲
Greater Manchester and Cheshire Total		**42**	**0**	**1**	**231**	**18**	▲
Greater Midlands	Mid Staffordshire NHS Foundation Trust	1	0	0	10	10	▲
	Shrewsbury and Telford Hospital NHS Trust	27	0	0	32	84	■
	The Dudley Group Of Hospitals NHS Foundation Trust	11	1	2	16	69	■
	The Royal Wolverhampton Hospitals NHS Trust	89	2	1	109	82	■
	University Hospital Of North Staffordshire NHS Trust	0	0	0	65	0	▲
Greater Midlands Total		**128**	**3**	**3**	**232**	**55**	■
Humber & Yorkshire Coast	Hull and East Yorkshire Hospitals NHS Trust	26	0	0	29	90	●
	Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	6	0	1	29	21	▲
Humber & Yorkshire Coast Total		**32**	**0**	**1**	**58**	**55**	■
Kent & Medway	East Kent Hospitals University NHS Foundation Trust	1	0	0	40	3	▲
	Maidstone and Tunbridge Wells NHS Trust	53	1	2	70	76	■
	Medway NHS Foundation Trust	2	0	0	2	100	●
	Queen Victoria Hospital NHS Foundation Trust	13	0	2	17	76	■
Kent & Medway Total		**69**	**1**	**4**	**129**	**53**	■
Lancashire & South Cumbria	Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	33	1	0	37	89	●
	East Lancashire Hospitals NHS Trust	30	2	5	53	57	■
	Lancashire Teaching Hospitals NHS Foundation Trust	74	2	9	90	82	■
	University Hospitals Of Morecambe Bay NHS Trust	12	0	1	32	38	▲
Lancashire & South Cumbria Total		**149**	**5**	**15**	**212**	**70**	■
Leicestershire, Northamptonshire & Rutland	Northampton General Hospital NHS Trust	52	3	7	73	71	■
	University Hospitals Of Leicester NHS Trust	81	1	1	91	89	●
Leicestershire, Northamptonshire & Rutland Total		**133**	**4**	**8**	**164**	**81**	■
Merseyside and Cheshire	Aintree University Hospitals NHS Foundation Trust	112	1	2	176	64	■
	Countess Of Chester Hospital NHS Foundation Trust	3	1	1	12	25	▲
	Royal Liverpool and Broadgreen University Hospitals NHS Trust	36	0	0	36	100	●
	Southport and Ormskirk Hospital NHS Trust	10	0	0	11	91	●
	St Helens and Knowsley Hospitals NHS Trust	19	0	1	19	100	●
	Wirral University Teaching Hospital NHS Foundation Trust	31	0	0	32	97	●
Merseyside and Cheshire Total		**211**	**2**	**4**	**286**	**74**	■
Mid Trent	Nottingham University Hospitals NHS Trust	136	0	0	142	96	●
	United Lincolnshire Hospitals NHS Trust	46	0	3	61	75	■
Mid Trent Total		**182**	**0**	**3**	**203**	**90**	●
Mount Vernon	East and North Hertfordshire NHS Trust	9	0	0	15	60	■
	Luton and Dunstable Hospital NHS Foundation Trust	39	0	0	42	93	●
Mount Vernon Total		**48**	**0**	**0**	**57**	**84**	■
North East London	Barking, Havering and Redbridge University Hospitals NHS Trust	54	2	2	65	83	■
	Barts and The London NHS Trust	58	1	5	62	94	●
	Homerton University Hospital NHS Foundation Trust	6	0	0	14	43	■
North East London Total		**118**	**3**	**7**	**141**	**84**	■

Figure 8.3.4 continued
Submission by networks / provider, trust -new primaries of all anatomic sites where pre-treatment T and N staging recorded
This table uses the figures from the combined careplan and diagnosis tables - if no staging data in careplan then staging in diagnosis is used

Contact Network	Contact Trust	Yes	TX	NX	Total	Per cent Recorded	
North London	Barnet and Chase Farm Hospitals NHS Trust	27	0	1	33	82	■
	University College London Hospitals NHS Foundation Trust	109	7	4	109	100	●
North London Total		**136**	**7**	**5**	**142**	**96**	●
North of England	City Hospitals Sunderland NHS Foundation Trust	126	0	5	154	82	■
	County Durham and Darlington NHS Foundation Trust	37	6	6	37	100	●
	North Cumbria University Hospitals NHS Trust	37	0	0	42	88	●
	Northumberland, Tyne and Wear NHS Trust	1	0	0	1	100	●
	Northumbria Healthcare NHS Foundation Trust	1	0	0	1	100	●
	South Tees Hospital NHS Foundation Trust	116	2	0	122	95	●
	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	142	1	1	152	93	●
North of England Total		**460**	**9**	**12**	**509**	**90**	●
North Trent	Barnsley Hospital NHS Foundation Trust	8	1	1	10	80	●
	Chesterfield Royal Hospital NHS Foundation Trust	28	1	1	28	100	●
	Doncaster and Bassetlaw Hospitals NHS Foundation Trust	33	0	0	33	100	●
	Sheffield Teaching Hospitals NHS Foundation Trust	97	1	1	101	96	●
	The Rotherham NHS Foundation Trust	2	0	0	13	15	▲
North Trent Total		**168**	**3**	**3**	**185**	**91**	●
Pan Birmingham	Heart Of England NHS Foundation Trust	34	3	0	55	62	■
	Sandwell and West Birmingham Hospitals NHS Trust	5	0	1	32	16	▲
	University Hospital Birmingham NHS Foundation Trust	125	3	6	128	98	●
	Walsall Hospitals NHS Trust	2	1	1	2	100	●
Pan Birmingham Total		**166**	**7**	**8**	**217**	**76**	■
Peninsula	Plymouth Hospitals NHS Trust	49	1	5	81	60	■
	Royal Cornwall Hospitals NHS Trust	55	0	0	59	93	●
	Royal Devon and Exeter NHS Foundation Trust	57	0	0	57	100	●
	South Devon Healthcare NHS Foundation Trust	41	6	10	41	100	●
Peninsula Total		**202**	**7**	**15**	**238**	**85**	●
South East London	Guy's and St Thomas' NHS Foundation Trust	4	0	0	4	100	●
South East London Total		**4**	**0**	**0**	**4**	**100**	●
South West London	Epsom and St Helier University Hospitals NHS Trust	0	0	0	1	0	▲
	St George's Healthcare NHS Trust	96	0	3	100	96	●
	The Royal Marsden NHS Foundation Trust	18	1	0	19	95	●
South West London Total		**114**	**1**	**3**	**120**	**95**	●
Surrey, West Sussex & Hants	Ashford and St Peter's Hospitals NHS Trust	4	0	0	14	29	▲
	Frimley Park Hospital NHS Foundation Trust	1	0	0	9	11	▲
	Royal Surrey County Hospital NHS Trust	28	0	4	90	31	▲
	Surrey and Sussex Healthcare NHS Trust	4	0	1	16	25	▲
Surrey, West Sussex & Hants Total		**37**	**0**	**5**	**129**	**29**	▲
Sussex	Brighton and Sussex University Hospitals NHS Trust	51	1	6	76	67	■
	East Sussex Hospitals NHS Trust	16	3	3	43	37	▲
	Worthing and Southlands Hospitals NHS Trust	1	0	0	15	7	▲
Sussex Total		**68**	**4**	**9**	**134**	**51**	■
Thames Valley	Great Western Hospitals NHS Foundation Trust	4	0	0	20	20	▲
	Heatherwood and Wexham Park Hospitals NHS Foundation Trust	7	0	1	20	35	▲
	Milton Keynes Hospital NHS Foundation Trust	6	0	1	20	30	▲
	Oxford Radcliffe Hospitals NHS Trust	55	5	0	162	34	▲
	Royal Berkshire NHS Foundation Trust	19	0	1	26	73	■
Thames Valley Total		**91**	**5**	**3**	**248**	**37**	▲

Figure 8.3.4 continued
Submission by networks / provider, trust -new primaries of all anatomic sites where pre-treatment T and N staging recorded
This table uses the figures from the combined careplan and diagnosis tables - if no staging data in careplan then staging in diagnosis is used

Contact Network	Contact Trust	Yes	TX	NX	Total	Per cent Recorded	
West London	Imperial College Healthcare NHS Trust	80	2	8	109	73	■
	North West London Hospitals NHS Trust	29	1	3	34	85	●
	West Middlesex University Hospital NHS Trust	10	0	1	12	83	■
West London Total		**119**	**3**	**12**	**155**	**77**	■
Yorkshire	Bradford Teaching Hospitals NHS Foundation Trust	13	1	0	65	20	▲
	Calderdale and Huddersfield NHS Foundation Trust	1	0	0	12	8	▲
	Leeds Teaching Hospitals NHS Trust	75	0	2	89	84	■
	York Hospitals NHS Foundation Trust	73	0	0	82	89	●
Yorkshire Total		**162**	**1**	**2**	**248**	**65**	■
England Total		**3668**	**82**	**167**	**5248**	**70**	■
North Wales	North Wales NHS Trust	48	0	0	58	83	■
	North West Wales NHS Trust	9	0	0	13	69	■
North Wales Total		**57**	**0**	**0**	**71**	**80**	■
South East Wales	Cardiff and Vale NHS Trust	21	0	5	48	44	■
	Cwm Taf NHS Trust	38	3	2	38	100	●
	Gwent Healthcare NHS Trust	19	1	0	20	95	●
	Velindre NHS Trust *	60	2	2	63	95	●
South East Wales Total		**138**	**6**	**9**	**169**	**82**	■
South West Wales	Abertawe Bro Morgannwg NHS Trust	54	0	11	75	72	■
	Hywel Dda NHS Trust	25	0	0	34	74	■
South West Wales Total		**79**	**0**	**11**	**109**	**72**	■
Wales Total		**274**	**6**	**20**	**349**	**79**	■
England and Wales Total		**3942**	**88**	**187**	**5597**	**70**	■
* Treating trust only, data allocated to trust submitting diagnostic data							

- In this year's report the colour banding remains unchanged, with green representing 85 per cent or above.
- In 10 Networks 85 per cent or greater recording of TNM category was achieved with a number obtaining 100 per cent. No Network in Wales achieved 85 per cent, but 3 trusts obtained this level
- 4 Cancer Networks had poor recording of staging:-
  - Arden
  - Greater Midlands and Cheshire
  - Surrey West Sussex and Hants
  - Thames Valley

Recording cancer site and accurate stage is a key medical responsibility, with best practice suggesting that this should be clearly documented and captured at the MDT. Staging remains a key influence on outcome. It is important that this improves to achieve 100 per cent of cases staged in any high quality database collection, to allow valid comparisons to be made.

8.5 In each anatomic subsite what is shown about disease extent?

8.5.1 Larynx (refer to project team if details and tabulation required)

8.5.1.1 Larynx stage at diagnosis

- Over 64 per cent had T and N category recorded (including Tx and Nx)
- Overall 14 per cent of larynx cancers were node positive at presentation.
- Analysis by subsite of primary showed, for glottic cancers, 48 of 825 cases to be node positive at diagnosis, compared to 104 of 305 cases of supraglottic cancer, with 62 of 327 larynx NOS (not specified). This demonstrates the greater propensity of supraglottic cancer compared to glottic cancer to involve regional nodes.
- 1.4 cent were M1, confirming the low propensity of laryngeal carcinomas of presenting with distant metastatic disease.

60.7 per cent of laryngeal cancers have stage at diagnosis recorded to allow categorisation into low stage and high stage disease (thus excluding Tx and Nx). In laryngeal cancer, as previously found, early stage disease predominates[12].

Figure 8.4.1
Submitted diagnoses by year where T and N recorded

	04-05[10]	05-06[9]	06-07[12]	07-08[6]	08-09
Diagnoses submitted	1042	1443	2035	4038	5597
Submissions from	England only	England and Wales	England and Wales	England and Wales	England and Wales
Cases with T and N staging recorded	673	776	1550	2936	3942
Per cent of staging	64.8	53.8	76.2	72.7	70.4

8.5.1.2 Larynx comparison of stage at diagnosis and post-surgery staging

Of the 469 patients recorded as undergoing surgery, information on stage at diagnosis, with post surgical staging (i.e. based on resective pathology), was available for T category in 177 patients and N category in 168 patients.

Of the 177 patients where staging was recorded, 95 underwent laser surgery.

- In T category, 17 patients were upstaged following surgery, and 14 downstaged.
- In N category 3 patients were upstaged and 8 patients were downstaged, which shows a level of correlation expected. The sample size, however, is too small and incomplete at this stage to draw any definitive conclusions.
- As expected only a small number of patients with very advanced neck disease staging recorded (N3) underwent surgical treatment.

For those cases undergoing surgical management it is important that resective pathology is accurately recorded to allow true stage comparison. Surgical teams should develop responsibilities in this key area.

8.5.2. Oral Cavity (refer to project team if details and tabulation required)

8.5.2.1 Oral Cavity stage at diagnosis

- 69 per cent had T and N category recorded (including Tx and Nx).
- 21 per cent were N positive at diagnosis
- Of the 360 cases of oral cavity cancer which were node positive at diagnosis, there was a more even distribution of associated primary site. Analysis by subsite showed, for border of tongue, 97 of 472 cases to be node positive at diagnosis, compared to 37 of 152 cases of cheek mucosa cancer, 40 of 122 cases of retromolar trigone and with 70 of 291 cases of anterior floor of mouth (not specified). This demonstrates a similar propensity to involve regional nodes.
- 1.3 per cent were M1, confirming the low propensity of oral cavity carcinomas to present with distant metastatic disease.

64 per cent of oral cavity cancers have stage at diagnosis recorded to allow categorisation into low and high stage disease (thus excluding Tx and Nx).

36 per cent of oral cancers have no staging recorded, or insufficient information to categorise stage.

The fluctuating dominance of early (2007-2008 and 2008-2009) or late stage cancer (2004-2005 report) means no firm conclusion can be drawn due to the level of no stage recorded or insufficient TNM to categorise.

8.5.2.2 Oral cavity comparison of stage at diagnosis and post-surgery staging (refer to project team if details and tabulation required)

Of the 780 patients recorded as undergoing surgery, information on stage at diagnosis, with post surgical staging (i.e. based on resective pathology), was available for T category in 388 patients and N category in 379 patients.

- 49.7 per cent of patients undergoing surgery had post resective surgery staging details recorded.
- In T category, 29 patients were upstaged following surgery and 38 were downstaged (17 per cent change in stage).
- In N category, 25 patients were upstaged and 29 patients were downstaged (14 per cent change in stage). The number of patients upstaged following surgery again seems low compared to published estimates of occult metastasis in squamous cell carcinoma of the oral cavity. Given the predominance of cancer of the tongue in the cases submitted it might be expected that higher percentage of upstaging would be seen. However the numbers of neck dissections reported as having been performed is smaller than expected.

8.5.3 Oropharynx (refer to project team if details and tabulation required)

8.5.3.1 Oropharynx stage at diagnosis

- 64 per cent had T and N category recorded (including Tx and Nx).
- As expected by the Expert Panels a high percentage (47 per cent) were N positive at diagnosis
- Of the 706 cases of oropharynx cancer which were node positive at diagnosis, 413 of 720 tonsil cases (57 per cent) were node positive at diagnosis, compared to 189 of 474 cases of base of tongue cancer (40 per cent), with 31 of 110 cases of soft palate cancer (28 per cent). This demonstrates the greater propensity of tonsil cancer compared to other oropharynx sites to involve regional nodes.
- 3.2 per cent were M1, confirming the higher propensity of oropharynx cancers to present with distant metastatic disease, compared to other head and neck sites.

59.0 per cent of oropharynx cancers have stage at diagnosis recorded to allow categorisation into low and high stage disease (thus excluding Tx and Nx).

41.0 per cent of oropharynx cancers have no staging recorded, or insufficient information to categorise stage and considerable further work remains to meet universal stage recording.

8.5.3.2 Oropharynx comparison of stage at diagnosis and post-surgery staging

Of the 339 patients recorded as undergoing surgery, information on stage at diagnosis, with post surgical staging (i.e. based on resective pathology), was available for T category in 140 patients and N category in 143 patients.

- 41.3 per cent of patients undergoing surgery had post resective surgery staging details recorded.
- In T category, 9 patients were upstaged following surgery and 19 were downstaged (20 per cent change in stage).
- In N category 10 patients were upstaged and 7 patients were downstaged (12 per cent change in stage).

8.5.4 Hypopharynx (refer to project team if details and tabulation required)

8.5.4.1 Hypopharynx stage at diagnosis

- 83 per cent had T and N category recorded (including Tx and Nx).
- As expected by the Expert Panels a high percentage 38 per cent were N positive at diagnosis
- Of the 131 cases of hypopharynx cancer which were node positive at diagnosis, 71 of 152 piriform fossa cases (47 per cent) were node positive at diagnosis, compared to 7 of 16 cases of aryepiglottic fold cancer (44 per cent), with 11 of 56 cases of post cricoid cancer (20 per cent). This demonstrates the lesser propensity of post cricoid cancer compared to other hypopharynx sites to involve regional nodes.
- 4.5 per cent were M1, confirming the higher propensity of hypopharynx cancers to present with distant metastatic disease, compared to other head and neck sites.

65.0 per cent of hypopharynx cancers have stage at diagnosis recorded to allow categorisation into low and high stage disease (thus excluding Tx and Nx).

34.7 per cent of hypopharynx cancers have no staging recorded, or insufficient information to categorise stage and considerable further work remains to meet universal stage recording.

8.5.4.2 Comparison of low to high stage disease by tumour site

- In larynx cancer for glottic cancer low stage disease predominates (3.1 to 1), whilst in supraglottic cancer high stage disease is the more common (3.0 to 1).
- This year's data for anterior floor of mouth, cheek mucosa, hard palate and dorsal surface of tongue show an equal incidence of early and late stage cases. For the anatomical sites including tongue and inner aspect of lip, low stage disease predominates, whilst in the remaining sites high stage disease is more frequent.
- In oropharynx, hypopharynx and nasopharynx, late stage disease again predominates as expected by the Expert Panels. The normal presentation is of a neck lump prior to the presentation of the primary cancer.
- The exception in oropharynx is soft palate where there were equivalent low and high stages.
- In major salivary gland cancer this year high stage disease exceeds low stage compared to previous equivalence.
- However, no firm conclusion can be drawn due to the level of no stage recorded or insufficient TNM to categorise.

Figure 8.5.4.2.a
Distribution of low and high stage disease by anatomic sub site. Low stage disease is Stage I and Stage II and high stage disease is Stage III and Stage IV (see UICC manual[11] for contributory T and N categories)

	Subsite	Early	Late	Unknown Stage	Total
Larynx	Glottis	393	128	304	825
	Larynx, unspecified	62	109	187	358
	Subglottis	4	12	18	34
	Supraglottis	54	162	89	305
Larynx Total		**513**	**411**	**598**	**1522**
Oral Cavity	Border of tongue	206	130	138	474
	Cheek mucosa	52	51	49	152
	Dorsal surface of tongue	19	19	24	62
	Floor of mouth	95	98	98	291
	Hard palate	22	23	38	83
	Lingual tonsil	1	15	34	50
	Lip, inner aspect	43	9	58	110
	Mouth unspecified	12	17	30	59
	Overlapping lesion palate	3	2	3	8
	Retromolar area	21	61	40	122
	Upper & lower gingivae	31	53	38	122
	Ventral surface of tongue	30	19	26	75
	Vestibule of mouth	5	11	11	27
Oral Cavity Total		**540**	**508**	**587**	**1635**
Oropharynx	Base of tongue	28	209	237	474
	Lateral wall	2	12	1	15
	Overlapping lesion oropharynx	9	43	65	117
	Posterior wall	7	9	9	25
	Soft palate	29	38	43	110
	Tonsil	44	429	247	720
	Uvula	5	6	5	16
	Vallecula	1	9	4	14
Oropharynx Total		**125**	**755**	**611**	**1491**
Hypopharynx	Aryepiglottic fold	3	9	4	16
	Overlapping lesion hypopharynx	5	43	56	104
	Piriform sinus	19	84	49	152
	Postcricoid region	8	30	18	56
	Posterior wall	7	11	6	24
Hypopharynx Total		**42**	**177**	**133**	**352**
Nasopharynx Total		**16**	**63**	**100**	**179**
Major Salivary Glands Total		**62**	**89**	**267**	**418**
Grand Total		**1298**	**2003**	**2296**	**5597**

8.6 Cumulative submission by Network of patients with new head and neck primaries of the larynx and oral cavity by ratio of low to high stage disease January 2004 - October 2009

In preparation for future risk adjustment, a comparison of pooled submission since the inception of the audit by network of the ratio of low to high stage disease was again made to understand variation in presentation of the stage of disease.

The higher the ratio the greater the predominance of low stage disease.

The ratio varied between 2.5:1 and 0.6:1, with an average in England of 1.2:1 and in Wales of 0.9:1, similar to last year's report. This supports the initial presumption of a geographic variation in the stage of disease in presentation across England and Wales.

Caution should be made in interpreting data from networks whose submission rates, or the level of recording stage, are poor.

With this year's addition to the cumulative data (3157 cases to a total cumulative of 11004 cases) there is continued support of the earlier finding of geographic variation in the presentation of disease by stage. A comparison of five networks with high levels of submission (shown below) demonstrates that the ratio in 2006–2007 is little changed when compared to 2007–2008 and 2008–2009.

Figure 8.6.a
Submission by network of patients with new head and neck primaries of the larynx and oral cavity by ratio of low to high stage disease January 2004-October 2009

Cancer Network	January 2004 - October 2009				
	Low	High	Unknown	Total	Low: High Ratio
3 Counties	112	45	76	233	2.5
Anglia	235	155	246	636	1.5
Arden	18	29	140	187	0.6
Avon Somerset & Wiltshire	42	36	171	249	1.2
Central South Coast	36	31	96	163	1.2
Derby Burton	113	111	36	260	1.0
Dorset	136	87	10	233	1.6
Essex	112	92	36	240	1.2
Greater Manchester and Cheshire	40	40	261	341	1.0
Greater Midlands	44	55	118	217	0.8
Humber & Yorkshire Coast	48	40	67	155	1.2
Kent & Medway	21	24	43	88	0.9
Lancashire & South Cumbria	39	28	149	216	1.4
Leicestershire, Northamptonshire & Rutland	167	158	118	443	1.1
Merseyside and Cheshire	352	246	151	749	1.4
Mid Trent	218	167	174	559	1.3
Mount Vernon	54	68	49	171	0.8
North East London	67	42	21	130	1.6
North London	33	47	46	126	0.7
North of England	440	419	365	1224	1.1
North Trent	178	125	54	357	1.4
Pan Birmingham	285	246	109	640	1.2
Peninsula	231	196	149	576	1.2
South East London	8	17	8	33	0.5
South West London	180	142	35	357	1.3
Surrey, West Sussex & Hants	37	37	100	174	1.0
Sussex	48	43	155	246	1.1
Thames Valley	31	49	325	405	0.6
West London	48	46	34	128	1.0
Yorkshire	320	293	176	789	1.1
England Total	**3693**	**3114**	**3518**	**10325**	**1.2**
North Wales	34	39	88	161	0.9
South East Wales	104	118	107	329	0.9
South West Wales	38	30	121	189	1.3
Wales Total	**176**	**187**	**316**	**679**	**0.9**
England and Wales Total	**3869**	**3301**	**3834**	**11004**	**1.2**

This measure used Submitting Network since the cumulative data used this variable

Figure 8.6.b
Comparison of five networks with large numbers of submissions. Comparing ratios of low to high stage disease in the third and fourth annual report

Cancer Network	06/07 Total	Low: High Ratio	07/08 Total	Low: High Ratio	08/09 Total	Low: High Ratio
North of England	636	1.1	917	1.1	1224	1.1
Pan Birmingham	367	1.2	510	1.1	640	1.2
Peninsula	300	1.3	438	1.2	576	1.2
Yorkshire	514	1.1	651	1.1	789	1.1
Mersey and Cheshire	402	1.6	613	1.3	749	1.4

8.6.1 Submission by Cancer Network of patients who underwent surgery of the larynx and oral cavity where recording of pre treatment and post resective pathological staging is identified in the index period

- Of the 1804 diagnoses where T and N staging category (excluding Tx and Nx) were recorded, 1257 underwent surgery. Of the 1257 surgical cases, all of which would be expected to have resective pathological staging (pTNM), 571 had post surgery T and N category recorded. This represents 45.4 per cent of the surgical treatment group. This shows no increase compared to last year's figure.
- 5 networks show high levels of post surgery T and N category and are to be congratulated.
- The Expert Panels wish to emphasise the importance of capturing staging including post surgical data and that all teams should endeavour to increase the recording of these fundamental items as pTNM remains the gold standard in the staging of cancer. MDTs should be discussing all pathological staging and this is an important point in the patient pathway to record information. Networks and surgical teams should recognise the lack of this information prevents any meaningful comparative analysis of treatment effectiveness and survival.

8.7 Are factors relevant to risk adjustment being recorded?

8.7.1 Distribution of performance status at point of treatment decision

- 5124 patients had at least one care plan (a care plan represents the point in the patient pathway where a plan of treatment is proposed and thus an appropriate point to assess and record a patient's fitness).

Figure: 8.6.1
Submission by Cancer Network of patients who underwent surgery of the larynx and oral cavity where recording of pre treatment and post resective pathological staging is identified in the index period

Contact Network	T and N recorded pre-treatment	Number with Surgery	No. T and N recorded post surgery (per cent)
3 Counties	43	41	24 (59)
Anglia	54	15	6 (40)
Arden	13	25	5 (20)
Avon Somerset & Wiltshire	13	20	4 (20)
Central South Coast	28	55	0 (0)
Derby Burton	25	32	19 (60)
Dorset	63	25	25 (100)
Essex	40	24	13 (54)
Greater Manchester and Cheshire	16	18	3 (17)
Greater Midlands	65	24	17 (71)
Humber & Yorkshire Coast	16	12	1 (8)
Kent & Medway	5	19	11 (58)
Lancashire & South Cumbria	66	20	12 (60)
Leicestershire, Northamptonshire & Rutland	48	44	15 (34)
Merseyside and Cheshire	50	42	0 (0)
Mid Trent	100	24	18 (75)
Mount Vernon	17	24	7 (26)
North East London	58	46	39 (85)
North London	77	17	0 (0)
North of England	278	141	93 (66)
North Trent	91	52	35 (67)
Pan Birmingham	93	49	47 (96)
Peninsula	105	68	47 (69)
South East London	1	1	0 (0)
South West London	69	31	26 (84)
Surrey, West Sussex & Hants	17	16	8 (50)
Sussex	35	25	16 (64)
Thames Valley	57	99	2 (2)
West London	60	46	12 (26)
Yorkshire	47	71	26 (37)
England Total	**1650**	**1126**	**531 (47)**
North Wales	32	25	13 (52)
South East Wales	89	76	21 (28)
South West Wales	33	30	6 (20)
Wales Total	**154**	**131**	**40 (31)**
England and Wales Total	**1804**	**1257**	**571 (45)**

- 3708 patients had an entry of performance status recorded. Excluding those with a value of 5-not recorded, 2258 patients had a performance status assessment which is 40.3 per cent of the total registrations of all subsites. This equates to 44.1 per cent of patients with a recorded care plan.
- Assessment of performance status is slowly improving.
- To facilitate risk adjustment further training on performance status and improved completeness is required. The figures for the first five annual reports suggest that the majority of patients have a normal performance status.
- Overall performance status across all anatomic subsites shows little variation. This questions the sensitivity of the performance status tool as oropharyngeal, nasopharyngeal and major salivary gland cancer impact upon different population groups. Co-morbidity data recording may be a more sensitive mechanism to identify the impact of other conditions on outcomes.

8.7.2 Presence or absence of significant co-morbidity at index point of diagnosis (ACE-27[13])

8.7.2.1 Summary of recorded co-morbidity

- Of the 5124 patients across all subsites with at least one recorded care plan, 1649 had co-morbidity values recorded. This is 32.2 per cent of patients with a care plan.
- Co-morbidity recording has improved slowly in successive reports, rising a further 6 per cent this year.

Co-morbidity has been shown to have an important impact in assessing risk and to be an important predictor of outcome. Further effort will be put into training workshops to encourage completeness. All MDTs are encouraged to collect co-morbidity data. The ACE 27 proforma can be found in appendix 2.

The figures in this year's report demonstrate that predominantly patients show no or mild decompensation.

However, the percentage of those with moderate or severe decompensation in larynx, oral cavity, oropharynx and hypopharynx varies from 22.8 per cent in oral cavity to 42.6 per cent in hypopharynx. The latter must be interpreted with some caution at this point as the numbers for hypopharynx are relatively small. The Expert Panels noted that in oropharynx it is increasingly being recognised that a subpopulation of patients have a different causation via HPV infection and these generally present younger, have fewer co-morbidities and are of better performance status.

8.7.2.2 Summary by Network of records containing staging, performance status and co-morbidity for larynx and oral cavity cancer

- Of 3155 cases of larynx and oral cavity cancer submitted this year, only 778 (24.7 per cent) cases contained the three values of staging, performance status and co-morbidity.
- Significant variation exists between networks in their ability to provide this information, with 8 English networks having no cases that contained these three core values. In Wales no network submitted cases with these three values.
- These three items are core factors that facilitate accurate casemix adjustment - a key desirable output from the audit. The lack of submitted data makes it currently impractical to present casemix adjusted outcomes.

The influence of factors such as staging, co-morbidity and performance status can have a significant effect upon treatment outcomes. Therefore all MDT's are strongly encouraged to collect these data set items to facilitate future risk adjustment.

Figure 8.7.1
Larynx; Oral cavity; Oropharynx; Hypopharynx; Nasopharynx; Major Salivary Gland Distribution of performance status at point of treatment decision.

Performance status	Percentage of 3708 recorded values
0. Able to carry out all normal activity without restriction	34.4
1. Restricted in physically strenuous activity	14.6
2. Able to walk and capable of all self care but unable to carry out any work	7.3
3. Capable of only limited self care	3.9
4. Completely disabled	0.6
5. Not recorded	39.1
Total	**100.0**

Figure 8.7.2.1
Summary of recorded co-morbidity-all subsites.

Grade	Percentage of 1649 recorded values
Grade 0 - No co-morbidity	48.9
Grade 1 - Mild decompensation	25.0
Grade 2 - Moderate decompensation	16.4
Grade 3 - Severe decompensation	9.6
Total	**100**

8.7.3 Deprivation analysis: Distribution of diagnosis, treatment and outcome by socio-economic Lower Super Output Areas, derived from the postcode in England and Wales

There is increasing evidence that the survival of socio-economically deprived head and neck cancer patients is worse than in more affluent patients[14]. Thus deprivation analysis is an important part of the head and neck audit

The Index of Multiple Deprivation 2007 (IMD 2007[15]) was used as a measure of socio-economic deprivation and is applicable in England. The Welsh Index of Multiple Deprivation (WIMD 2008[16]) was used as a measure of socio-economic deprivation and is applicable to Wales. (refer to fourth Annual Report for details)

The lower the index score the greater the level of deprivation for each Lower Super Output Area (LSOA). For each country, these LSOAs were split into quintiles based on the same number of LSOAs (or as close to as possible) being in each quintile, thus the first quintile represents those who are most deprived. Each registration was assigned a quintile of deprivation.

8.7.3.1 Summary of registrations by deprivation in England and Wales

- The distribution of cases is more even across the deprivation quintiles for oral cavity and oropharynx.
- A greater number of larynx and hypopharynx registrations reside in areas of relative deprivation (quintiles 1 and 2), and this is also demonstrated in Wales for the first time.

Figure 8.7.3.1.a
Summary of registrations by deprivation in England

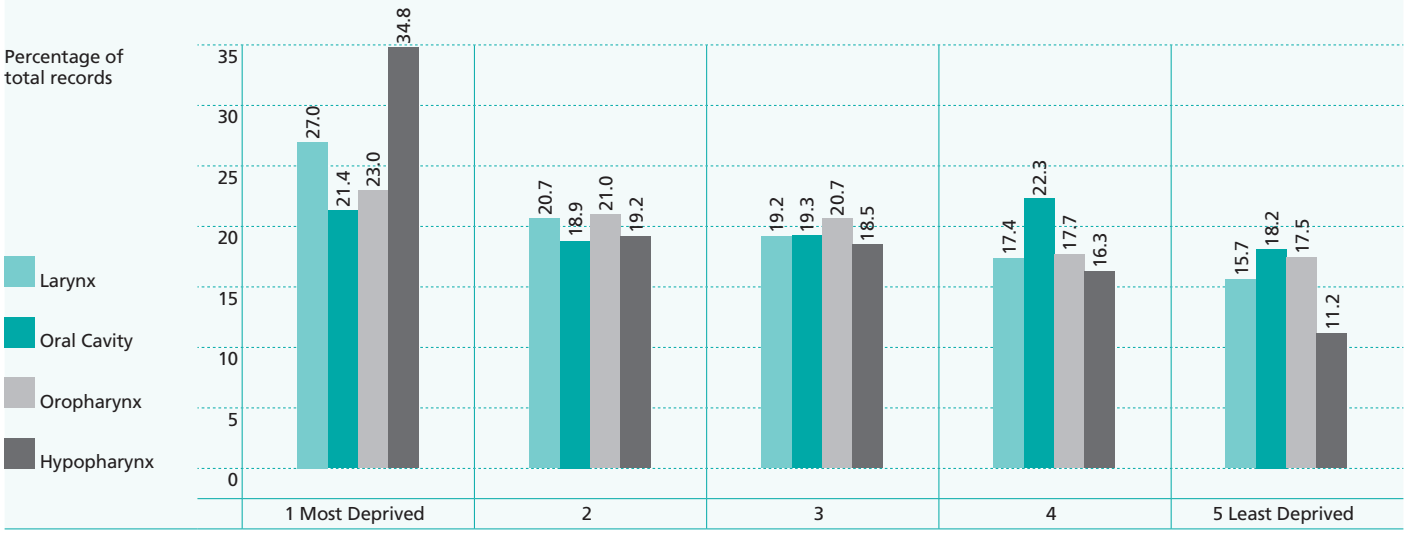
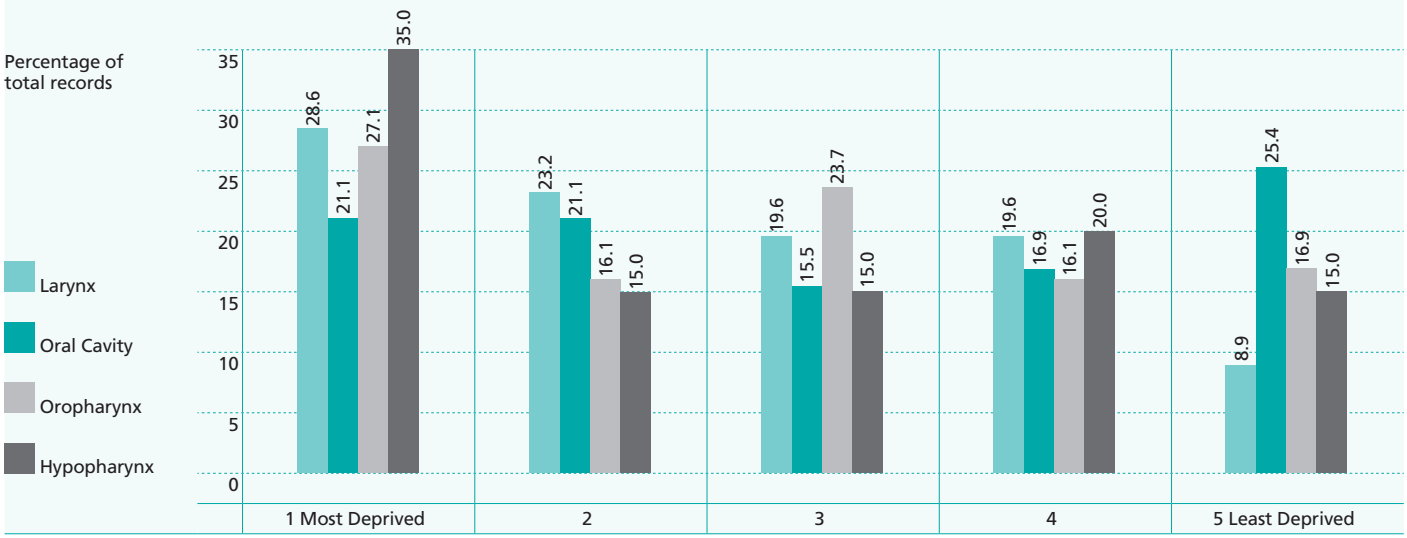


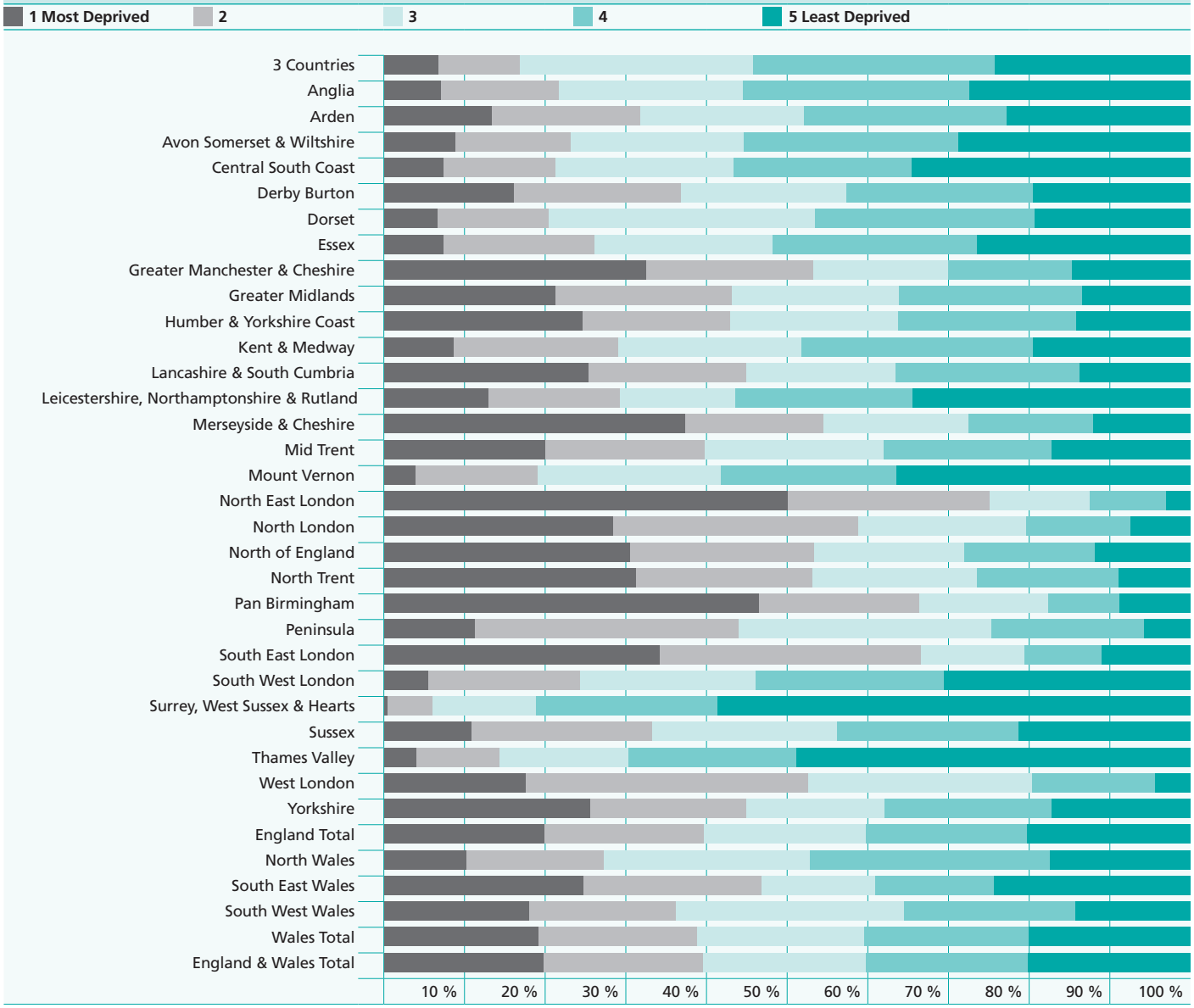
Figure 8.7.3.1.b
Summary of registrations by deprivation in Wales



8.7.3.2 Proportion of registrations in each cancer network in England and Wales by quintile of deprivation January 2004-October 2009

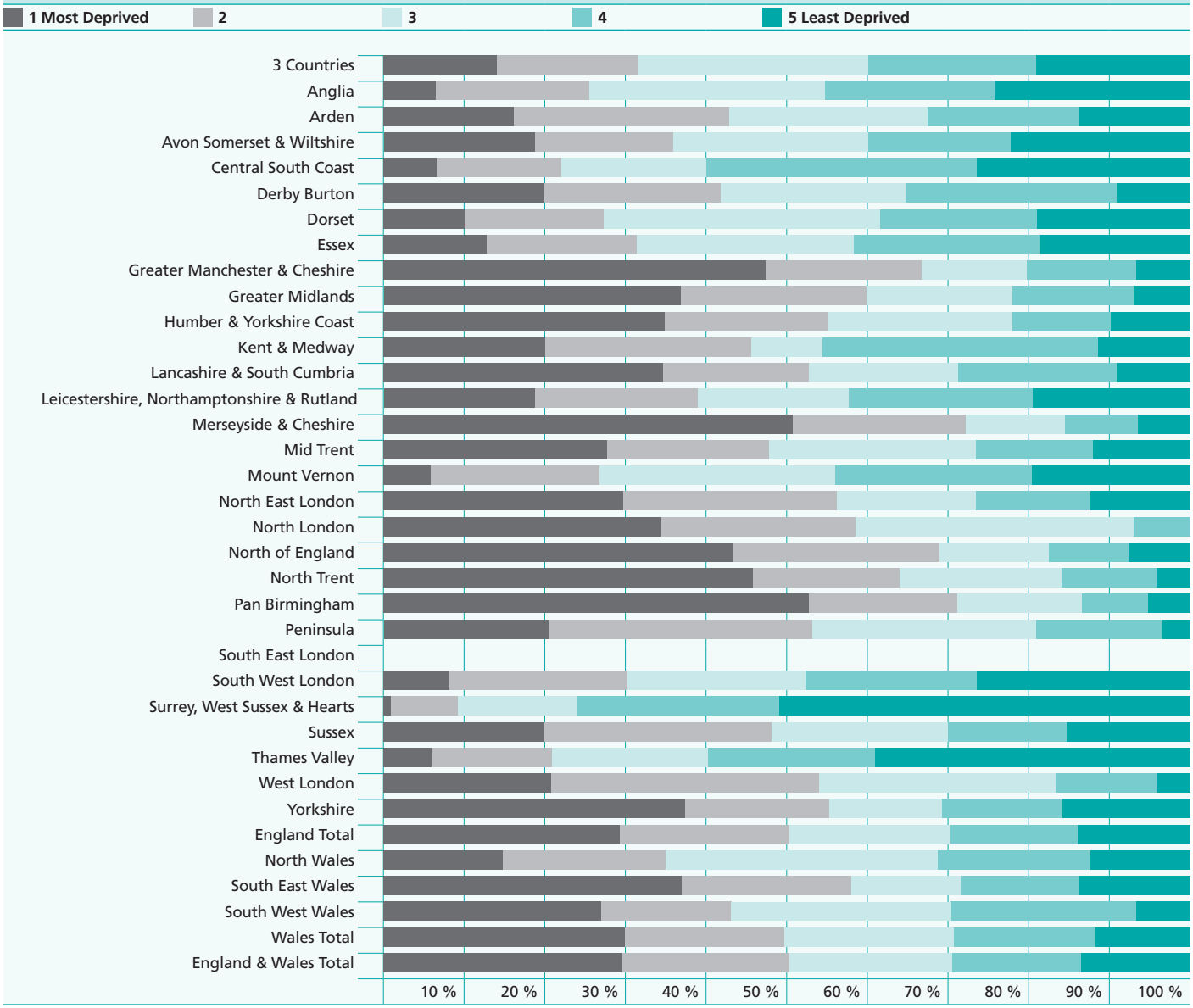
- A comparison between networks in England since the inception of the audit who have submitted greater than 20 larynx or oral cavity cases are shown in the rainbow charts. The total number of cases submitted is shown at the top of the column.
- The smaller numbers in a few networks mean that selection bias may influence the comparison.
- Differences in deprivation will be utilised in calculating risk adjustment in future reports.
- Differences in deprivation may influence the level of support particularly for social care required by each network for its head and neck services.
- The first chart demonstrates deprivation as found in the whole population (non cancer and cancer) by cancer network
- The following three charts then demonstrate the proportion of deprivation quintiles by Network for the three commonest anatomic sites of larynx, oral cavity and oropharynx.

Figure 8.7.3.2 a
Population distribution of cancer networks by quintile of deprivation in England and Wales, 2008



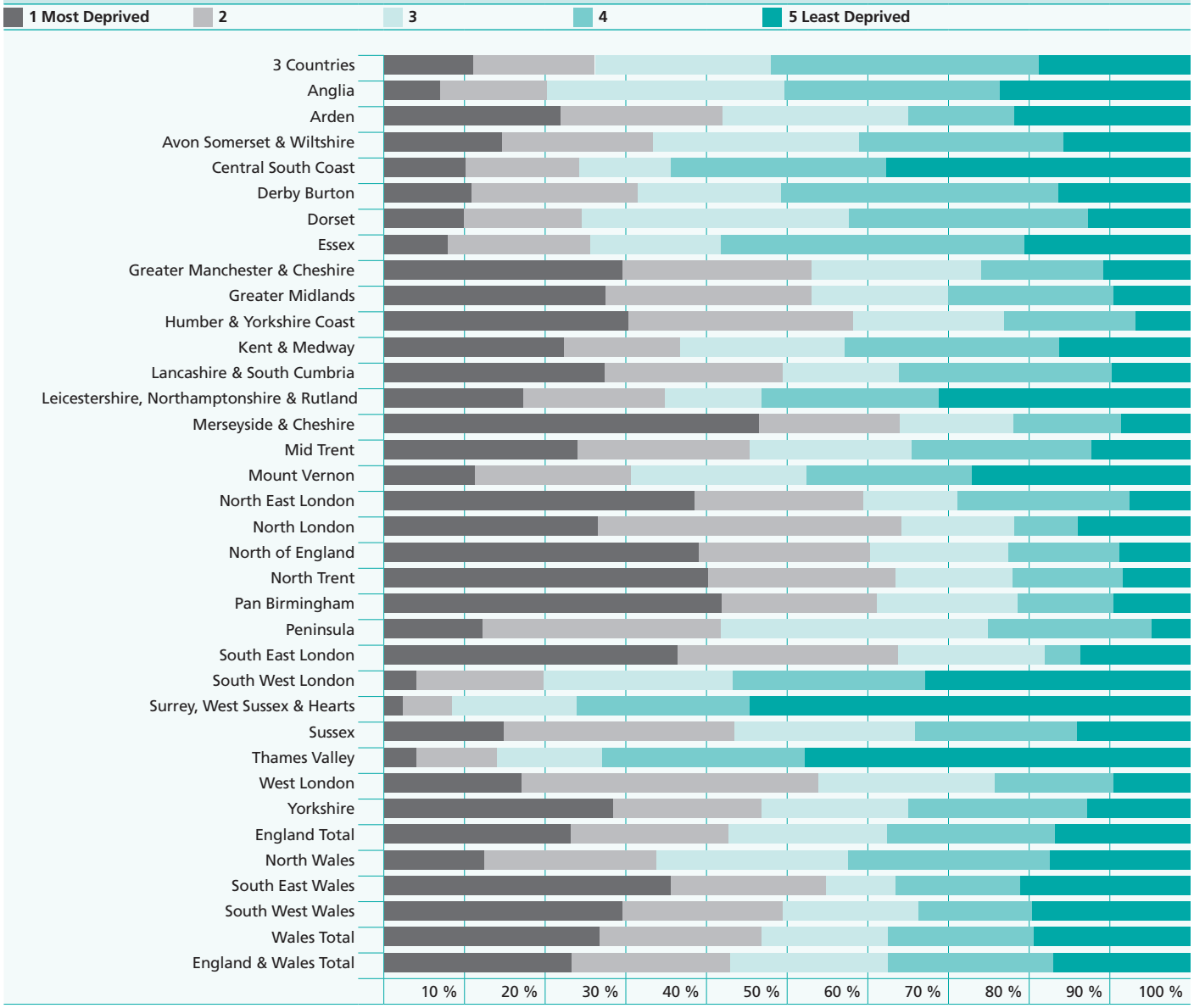
- In larynx cancer, the most deprived have a greater prevalence in the North of England, being 20 per cent above the England average in some networks. This position remains unchanged with the accumulation of additional data.
- In larynx cancer, the least deprived have a greater prevalence in the South of England, being 10 to 30 per cent below the England average in some networks.

Figure 8.7.3.2.b
Proportion of registrations in each cancer network in England and Wales by quintile of deprivation. January 2004 - October 2009. Larynx



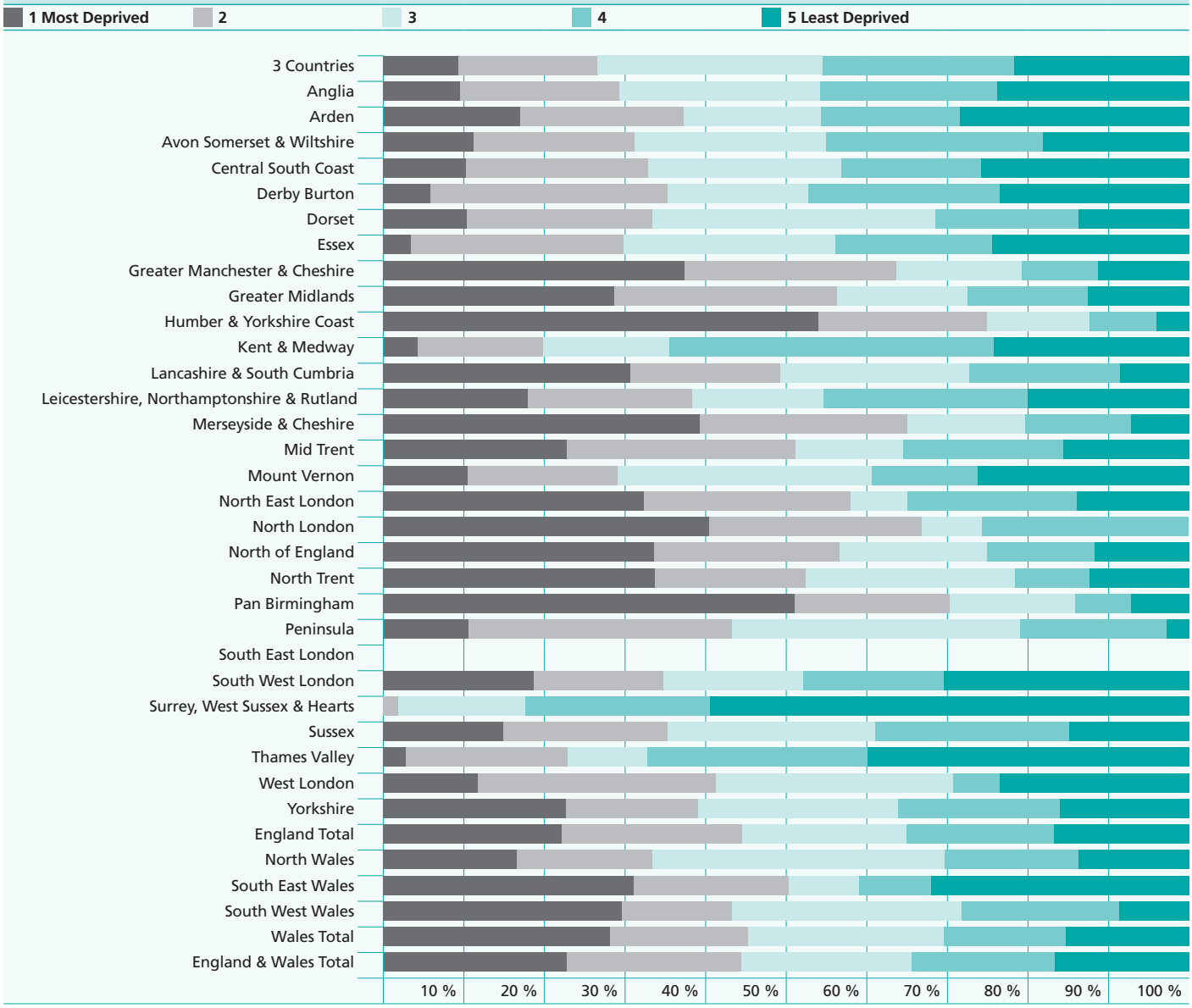
- In oral cavity cancer, the most deprived have a greater prevalence again in the North of England, being 10 to 15 per cent above the England average in some networks.
- In oral cavity cancer, the least deprived have a greater prevalence in the South of England, being 15 to over 30 per cent below the England average in some networks.

Figure 8.7.3.2.c
Proportion of registrations in each cancer network in England and Wales by quintile of deprivation. January 2004 - October 2009. Oral cavity



- In oropharynx cancer, the most deprived have a trend of greater prevalence again in the North of England, being 10 to 15 per cent above the England average in some networks, however the numbers submitted by some networks are small making any conclusion tentative.
- Similarly the least deprived have a greater prevalence in the South of England, but small numbers again limit conclusions.

Figure 8.7.3.2.d
Proportion of registrations in each cancer network in England and Wales by quintile of deprivation. November 2007 - October 2009. Oropharynx



- The following charts show a comparison by cancer network of the percentage point difference between the total population of the network and the cancer patient group by each of three anatomic sites –larynx, oral cavity and oropharynx. Each quintile is colour coded from red most deprived to dark blue least deprived. Each cancer network is allocated a number for ease of presentation and is listed in the key below:-

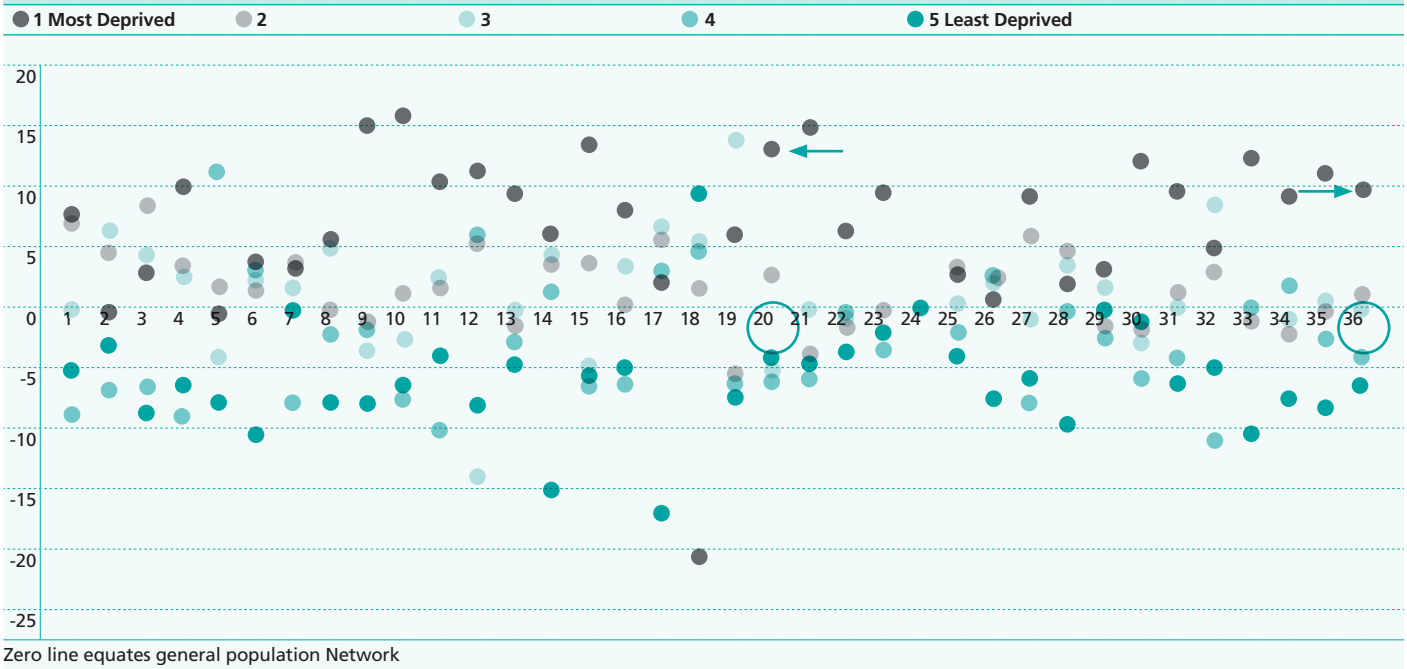
- For example in larynx cancer in network 20 (North of England), the case distribution of the most deprived shown by a red diamond is 14 points higher in those with larynx cancer than the general North of England population (zero line). This compares to an England and Wales (number 36 on x axis) distribution of most deprived in larynx cancer of 10 points higher than the general England and Wales non larynx cancer population.

Key

Cancer Network

1 3 Counties
2 Anglia
3 Arden
4 Avon Somerset & Wiltshire
5 Central South Coast
6 Derby Burton
7 Dorset
8 Essex
9 Greater Manchester and Cheshire
10 Greater Midlands
11 Humber & Yorkshire Coast
12 Kent & Medway
13 Lancashire & South Cumbria
14 Leicestershire, Northamptonshire & Rutland
15 Merseyside and Cheshire
16 Mid Trent
17 Mount Vernon
18 North East London
19 North London
20 North of England
21 North Trent
22 Pan Birmingham
23 Peninsula
24 South East London
25 South West London
26 Surrey, West Sussex & Hants
27 Sussex
28 Thames Valley
29 West London
30 Yorkshire
31 England Total
32 North Wales
33 South East Wales
34 South West Wales
35 Wales Total
36 England and Wales Total

Figure 8.7.3.2.e
Percentage point difference between population and case distribution, Larynx, January 2001-October 2009



Zero line equates general population Network

Key

Cancer Network

1 3 Counties
2 Anglia
3 Arden
4 Avon Somerset & Wiltshire
5 Central South Coast
6 Derby Burton
7 Dorset
8 Essex
9 Greater Manchester and Cheshire
10 Greater Midlands
11 Humber & Yorkshire Coast
12 Kent & Medway
13 Lancashire & South Cumbria
14 Leicestershire, Northamptonshire & Rutland
15 Merseyside and Cheshire
16 Mid Trent
17 Mount Vernon
18 North East London
19 North London
20 North of England
21 North Trent
22 Pan Birmingham
23 Peninsula
24 South East London
25 South West London
26 Surrey, West Sussex & Hants
27 Sussex
28 Thames Valley
29 West London
30 Yorkshire
31 England Total
32 North Wales
33 South East Wales
34 South West Wales
35 Wales Total
36 England and Wales Total

Figure 8.7.3.2.f
Percentage point difference between population and case distribution, Larynx, January 2004-October 2009

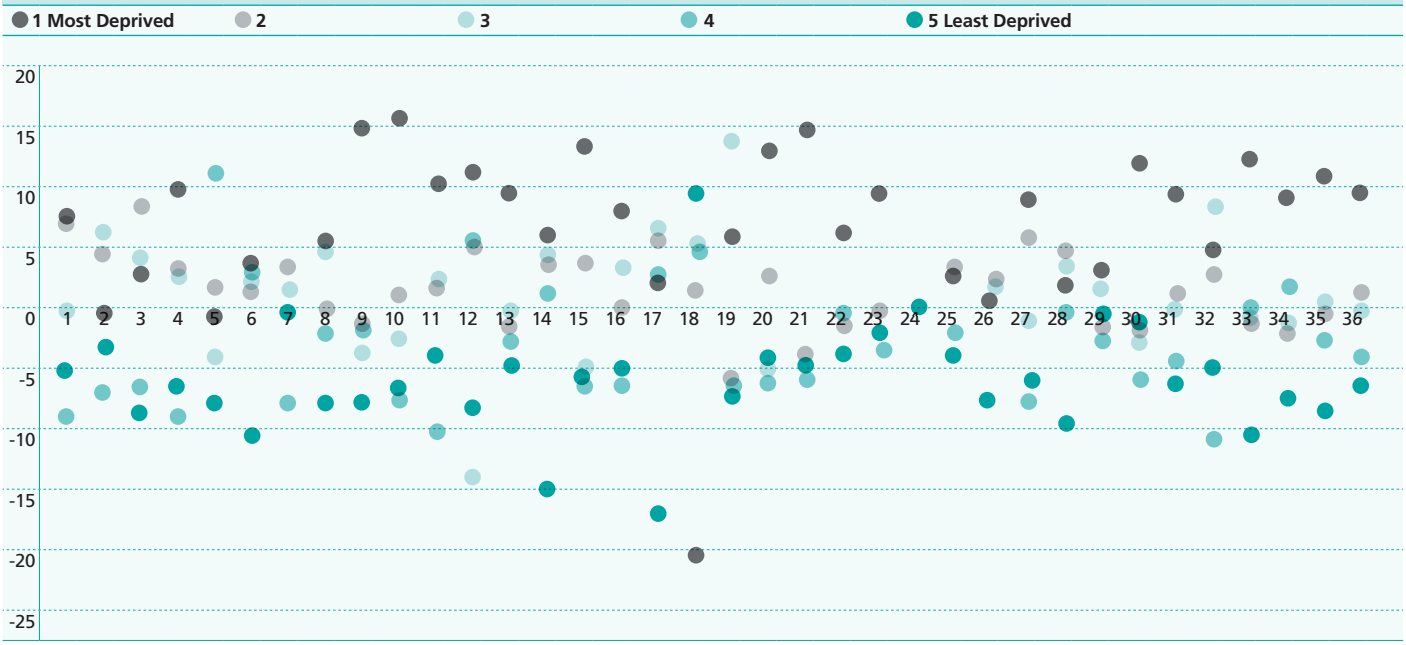


Figure 8.7.3.2.g
Percentage point difference between population and case distribution, Oral Cavity, January 2004-October 2009

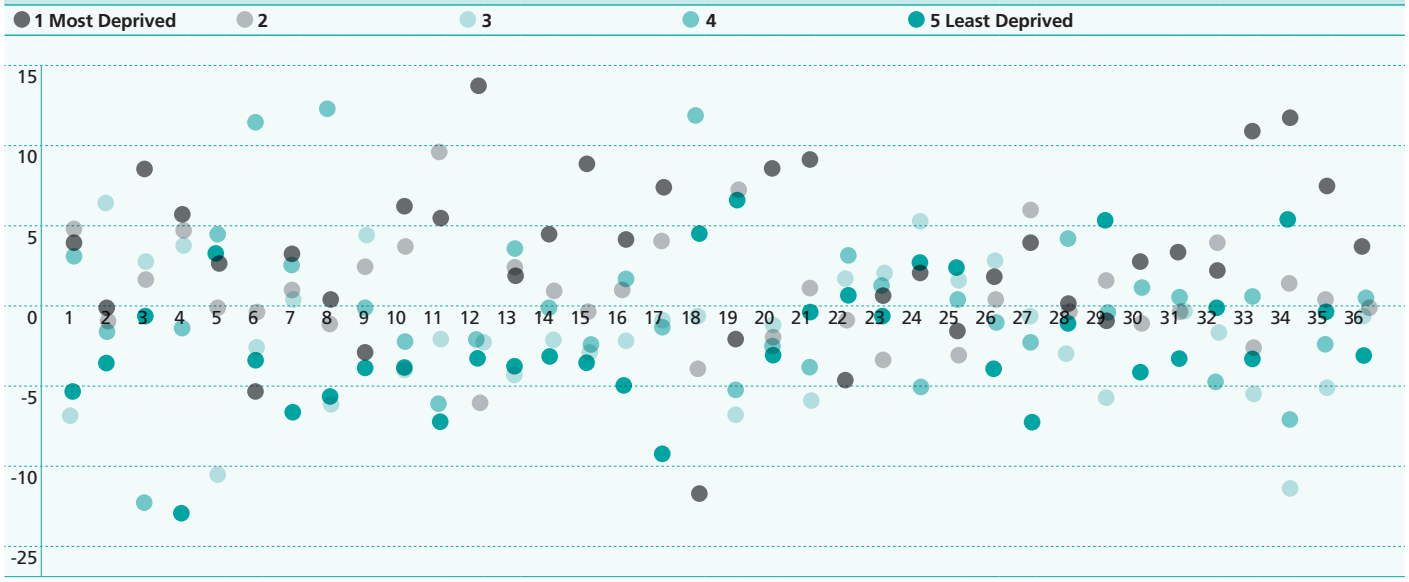
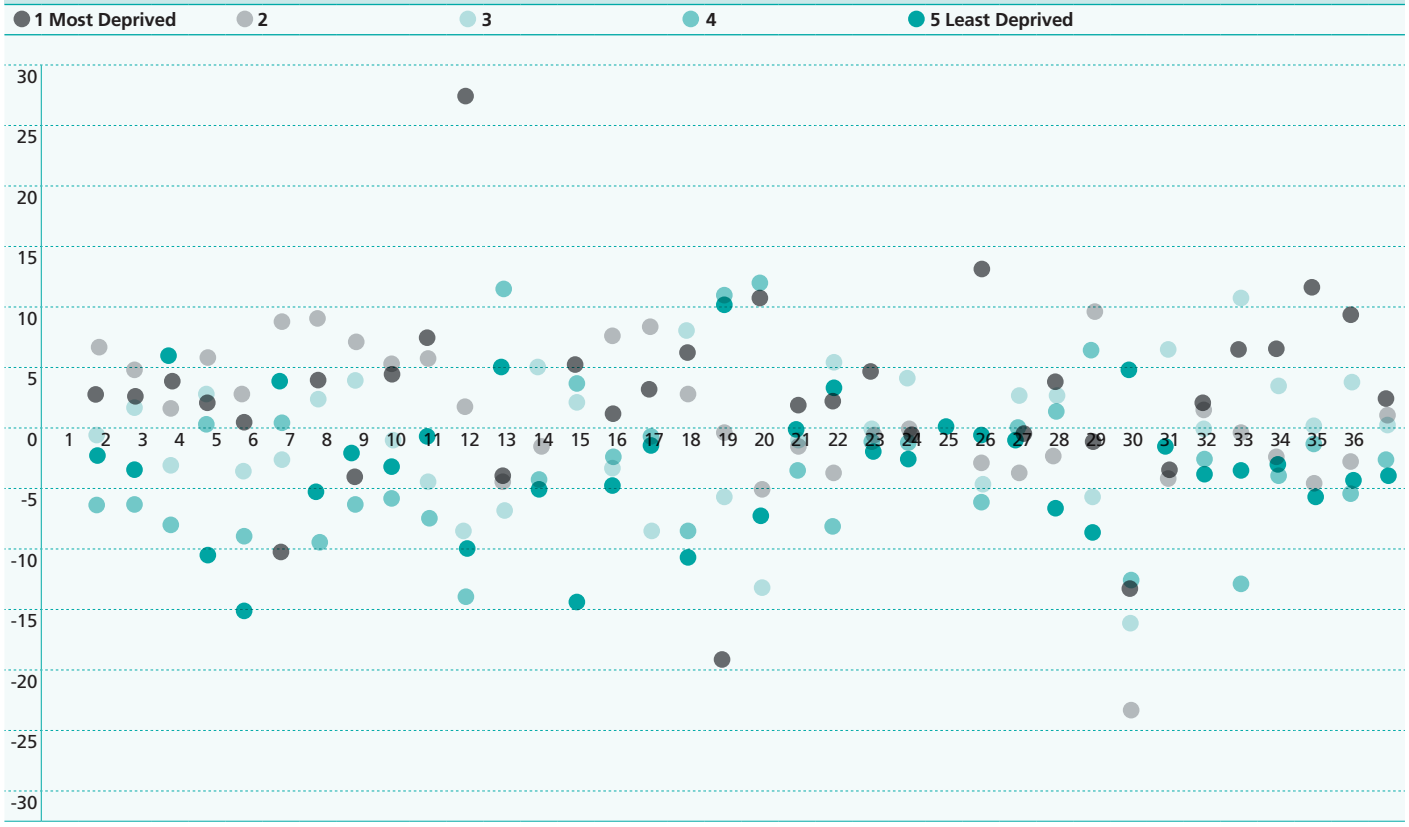


Figure 8.7.3.2.h
Percentage point difference between population and case distribution, Oropharynx, November 2007-October 2009



- In larynx cancer in the majority of networks the distribution of the most deprived is greater than the general contributory population by 5 percentage points, with 9 networks over 10 percentage points most deprived patients than the general population. The England and Wales distribution being at 10 per cent for larynx cancer above the general population.
- In oral cavity cancer in the majority of networks the distribution of the most deprived is greater than the general contributory population by less percentage points than in larynx, with 3 networks over 10 percentage points most deprived patients than the general population. The England and Wales distribution for oral cavity cancer is 4 per above the general population for the most deprived quintile.
- In oropharynx cancer there appears a more varied picture with in the majority of networks the distribution of the most deprived closer to the general contributory population but with 4 networks over 10 percentage points most deprived patients than the general network population. The England and Wales distribution in oropharynx cancer is 2 per above the general population for the most deprived quintile.

8.7.4 Age distribution at diagnosis by anatomic sub-site of head and neck cancer

- For more detailed information on age distribution and male to female age distribution and cumulative information please refer to the fourth Annual Report - reference report.

8.7.4.1 Larynx and oral cavity median age at diagnosis (refer to project team if details and tabulation required)

- Data accumulated since the inception of the audit has confirmed a consistent median age in these cancer sites
- For larynx cancer the median age is 66 years
- For oral cavity cancer the median age is 65 years. In the first Annual Report it was reported that a rising trend in younger patients may become apparent. The four subsequent reports have failed to demonstrate this trend, which should now be discounted.

8.7.4.2 Oropharynx, Hypopharynx, Nasopharynx median age at diagnosis

Median age at diagnosis

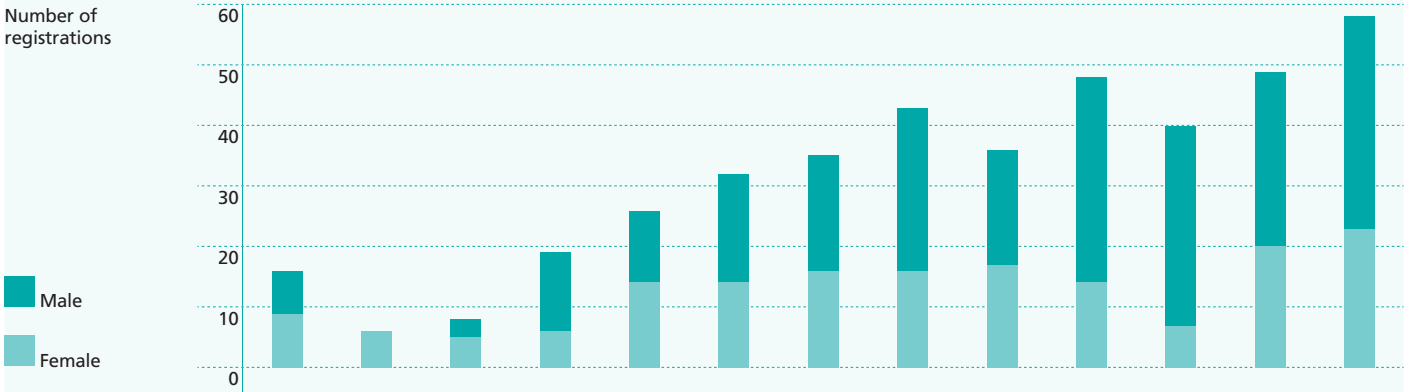
Oropharynx	59 years
Hypopharynx	65 years
Nasopharynx	60 years

- Oropharynx and nasopharynx cancer have a lower median age at diagnosis reflecting the likely impact of HPV infection in oropharynx and EBV infection in nasopharynx as causative factors in a younger population, separate to alcohol and tobacco in older oropharynx cancer patients
- Hypopharynx has a similar median age at diagnosis to laryngeal and oral cavity cancer-cancers more traditionally associated with smoking and alcohol as contributory factors. This figure is identical to a Canadian series[17].

8.7.4.3 Major salivary gland age at diagnosis

- The Expert Panel noted the cluster of a higher incidence of cases in the under 30 age group in both males and females. This rare, but important, young population both in its age profile, morphology and its outcome will be further studied as cases accumulate and also be considered for inclusion in the National Cancer Intelligence Head and Neck Group portfolio

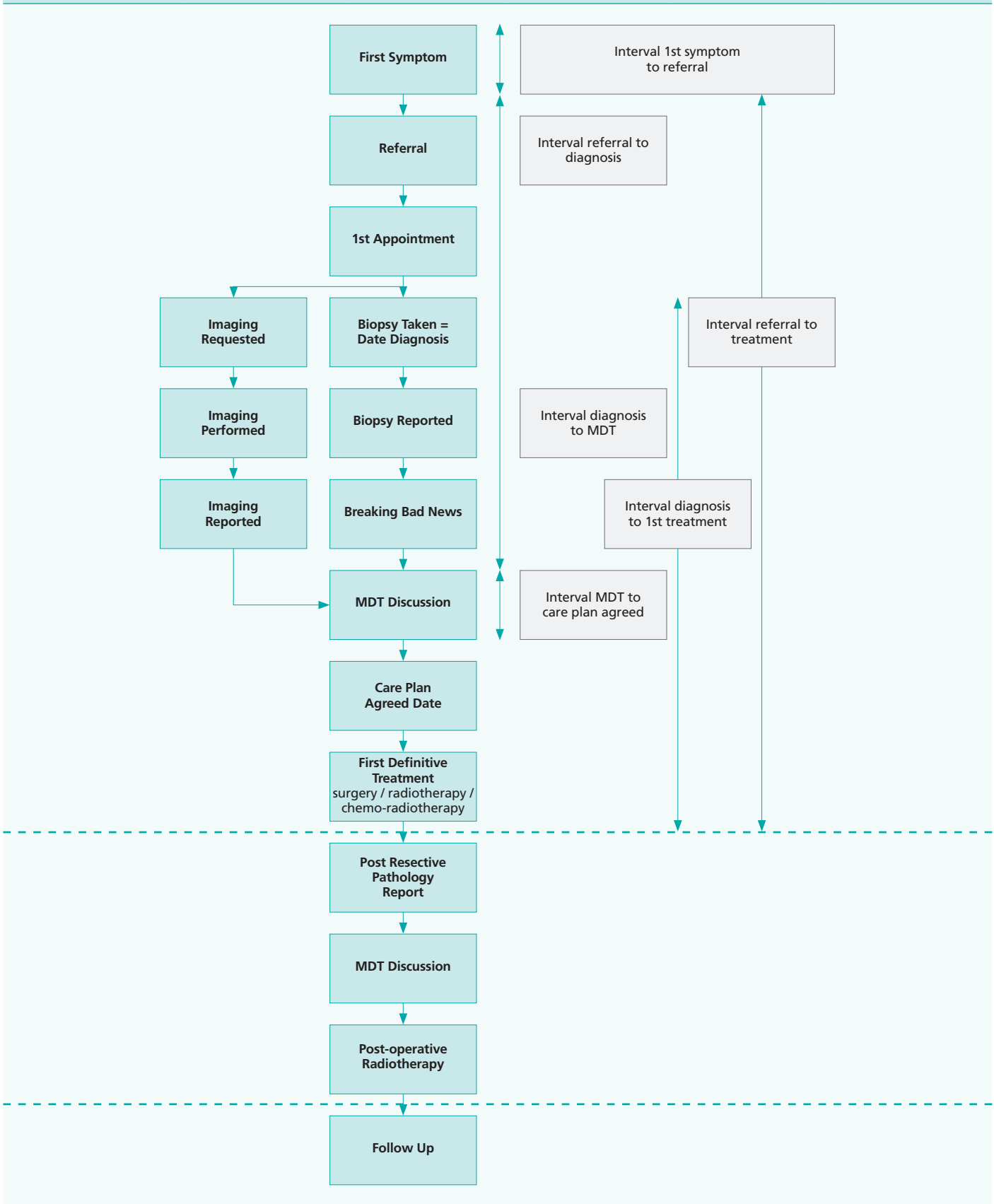
Figure 8.7.3.1.a
Summary of registrations by deprivation in England



	0–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
Male	7	0	3	13	12	18	19	27	19	34	33	29	35
Female	9	6	5	6	14	14	16	16	17	14	7	20	23

8.8 The Patient Journey

Figure 8.8 The Patient Journey
Is care getting more timely? The patient journey in head and neck cancer Analysed Data



8.8.1 The patient journey - diagnostic and staging process, waiting intervals

8.8.1.1 Source of referral to specialist team in England

8.8.1.1.1 All anatomic sites

- There is a ratio of 2.2:1 in referral via the two week wait urgent referral pathway[18] compared to other referral priorities, in referrals from general practitioners in those with diagnosed cancer. However, the audit has not sampled the total number of referrals from which these derived.
- In overall referrals from all sources there is a ratio of 0.84:1 via the two week wait urgent referral pathway compared to other referral priorities in those with diagnosed cancer. This is influenced by a significant number of consultant to consultant referral, indicating cooperation between specialist and non specialist colleagues.
- A comparison by network of the ratio of referrals from general medical practitioners via the two week wait pathway shows a range from 0.6 to 6.3 where referrals were 50 or greater in number.

8.8.1.1.2 Oral cavity – the role of the General Dental Practitioner

- As previously, half of those diagnosed with oral cavity cancers are referred by their general practitioner, whilst 12.8 per cent are referred from a general dental practitioner or the Community Dental Service.
- There is a ratio of 2.46:1 in referral via the two week wait urgent referral pathway compared to other referral priorities, in referrals from general medical practitioners in those with diagnosed oral cavity cancer and a ratio of 0.58:1 for those referred under the two week wait from general dental practitioners (GDP) / Community Dental Services (CDS).
- In 2007 the ratio was 0.3:1 for primary dental care services, 0.51:1 in 2008 and 0.58:1 in 2009 for those referred under the two week wait from general dental practitioners (GDP) / Community Dental Services (CDS). Over five Annual Reports there has been a small improvement in the number of cases sent in on the two week rule referral pathway from primary dental care services, but overall general dental practitioners still do not appear to be embracing the two week rule referrals pathway in some networks and in others, do not seem actively involved in the process. Cancer networks should continue to pursue a strategy to enhance the role of the GDP in the cancer referral process, and ensure access to primary dental care is universal.

Figure 8.8.1.1.1.a
All anatomic sites: Source of referral to specialist team in England. (5248 cases)

Primary referral source	Two week wait from GP or dentist	Other	Not recorded	Total
GP	1957	883	86	2926
GDP / CDS	92	154	10	256
Emergency/A&E	2	67	2	71
Consultant referral	39	843	31	913
Self/Other	21	410	71	502
Unknown	59	179	291	537
Total	**2170**	**2575**	**503**	**5248**

The two week wait target for urgent cancer referral applies to England and figures above only include patients from England.

Figure 8.8.1.1.1.b
All anatomic sites; Referrals from General Practitioners to specialist team in England by network and ratio of urgent two week wait referral route compared to other routes

Cancer Network	Number Of Referrals From GP or GDP	Urgent From GP or GDP	Ratio Of Patients Referred By Two Week Wait To Other Routes
3 Counties	126	91	2.6
Anglia	184	114	1.6
Arden	55	37	2.1
Avon Somerset & Wiltshire	86	55	1.8
Central South Coast	58	50	6.3
Derby Burton	38	27	2.5
Dorset	93	59	1.7
Essex	79	60	3.2
Greater Manchester And Cheshire	124	93	3.0
Greater Midlands	175	103	1.4
Humber & Yorkshire Coast	44	31	2.4
Kent & Medway	67	48	2.5
Lancashire & South Cumbria	161	87	1.2
Leicestershire, Northamptonshire & Rutland	107	70	1.9
Merseyside And Cheshire	183	152	4.9
Mid Trent	116	46	0.7
Mount Vernon	38	28	2.8
North East London	82	61	2.9
North London	26	11	0.7
North Of England	347	229	1.9
North Trent	123	74	1.5
North Wales	60	23	0.6
Pan Birmingham	111	64	1.4
Peninsula	159	96	1.5
South East London	1		
South East Wales	128	83	1.8
South West London	46	33	2.5
South West Wales	70	46	1.9
Surrey, West Sussex & Hants	75	51	2.1
Sussex	104	65	1.7
Thames Valley	130	67	1.1
West London	50	26	1.1
Yorkshire	188	119	1.7
Total	**3434**	**2199**	**1.8**

Figure 8.8.1.1.2
Oral Cavity; Source of referral to specialist team in England (1565 cases)

Primary Referral Source	Two Week Wait From GP or Dentist	Other	Not Recorded	Total
GP	527	214	33	774
GDP / CDS	70	121	10	201
Emergency / A&e	1	11	0	12
Consultant Referral	14	243	4	261
Self / Other	8	104	15	127
Unknown	13	71	106	190
Total	**633**	**764**	**168**	**1565**

The two week wait target for urgent cancer referral applies to England and figures above only include patients from England.

8.8.1.3 Interval from first symptom to referral to specialist team

- Patient recall of the onset of their first symptom to their point of referral is a crude indicator of patient awareness. The figures presented continue to suggest earlier presentation of oral cavity and oropharynx cancer (median interval 54 days) compared to other cancer sites (hypopharynx and larynx median interval 74 days). This confirms the trend previously seen in the first four years' Annual Reports and shows this measure to have a greater degree of consistency than previously attributed.

The significance of delay in outcome and stage at presentation remains controversial. Increasing patient and practitioner awareness of suspicious symptoms should yield an early diagnosis, particularly in larynx cancer[19,20,21].

Practitioners should be encouraged to familiarise themselves with and utilise national referral guidelines. National referral guidelines (Referral Guidelines for Suspected Cancers) can be found at: www.dh.gov.uk/assetRoot/04/01/44/21/04014421.pdf.

8.8.1.4 Interval from referral to first appointment in England

- The figure shows that for non two week wait referrals, 25 per cent have an interval from referral to first appointment of 0 days. This reflects self referrals, referrals to an Accident and Emergency Service and those seen on the day of phone or fax request.
- The two week wait rule for referral to first appointment was introduced in England in December 2000. This is designed to speed up the patient's entry into the cancer care pathway. The median for both larynx and oral cavity two week wait and other referrals is comfortably within the standard, showing that patients with suspicious symptoms, independent of route of referral, are seen promptly. Again, however 5 per cent (fourth Annual Report 5 per cent) of larynx and oral cavity cancers and 2 per cent of other referrals in the sample, are waiting over one month for their first appointment, and would imply 10 per cent of two week wait patients are waiting over 14 days. The latter are not adjusted times and therefore do not take into account patients choosing to wait over 14 days and those not attending first appointments. National cancer waiting times with the introduction in December 2008 of "Going further on cancer waits22", which no longer take account of adjustments, show 99.9 per cent of those received within 24 hours and 99.9 per cent of those not received within 24 hours being seen within 14 days for two week wait patients.
- Understanding of factors responsible for recognition of signs and symptoms in patients that encourage a visit to a doctor and dentist is growing. Furthermore, the variation of the interval from first recognition of suspicious symptoms to diagnosis, as shown by this audit, beg questions of the psychological response to possible malignancy, not only by patients but also care-givers.

Figure 8.8.1.3
Interval from first symptom to referral to specialist team in England

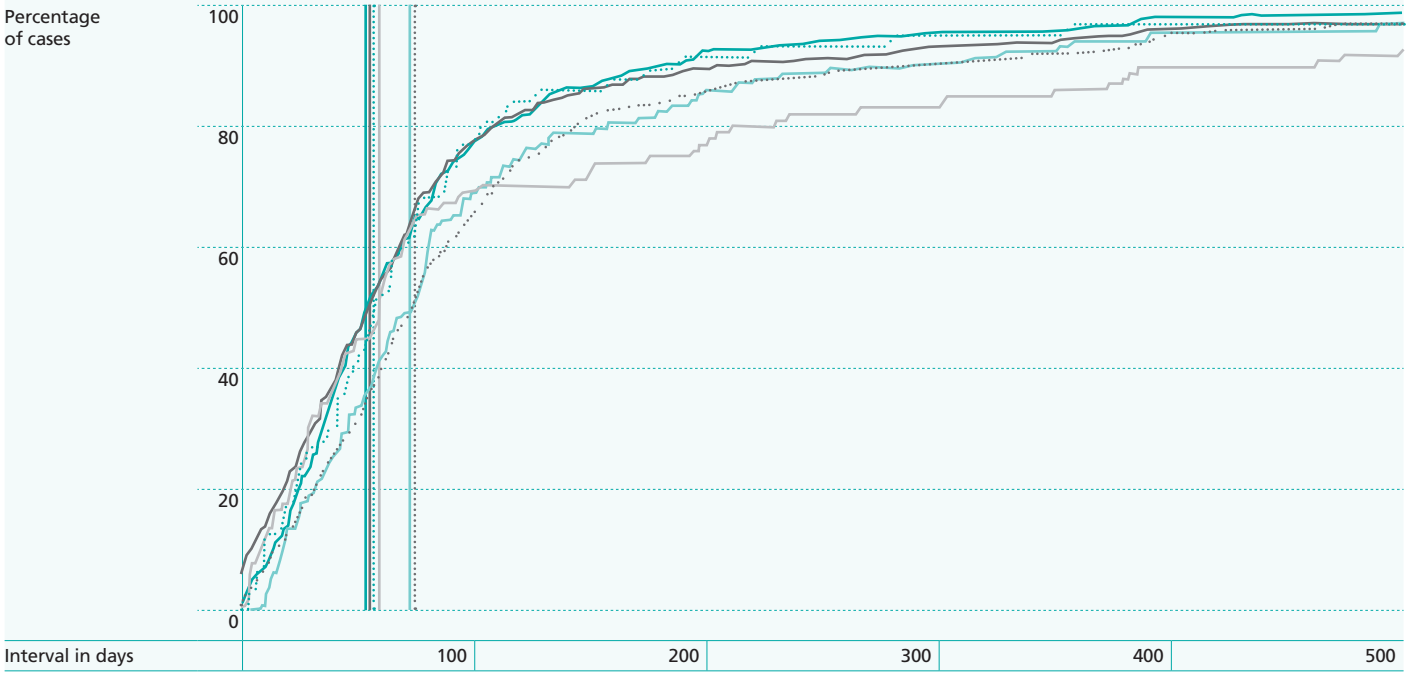


Figure 8.8.1.4
Interval from referral to first appointment in England for urgent referrals (two week wait)

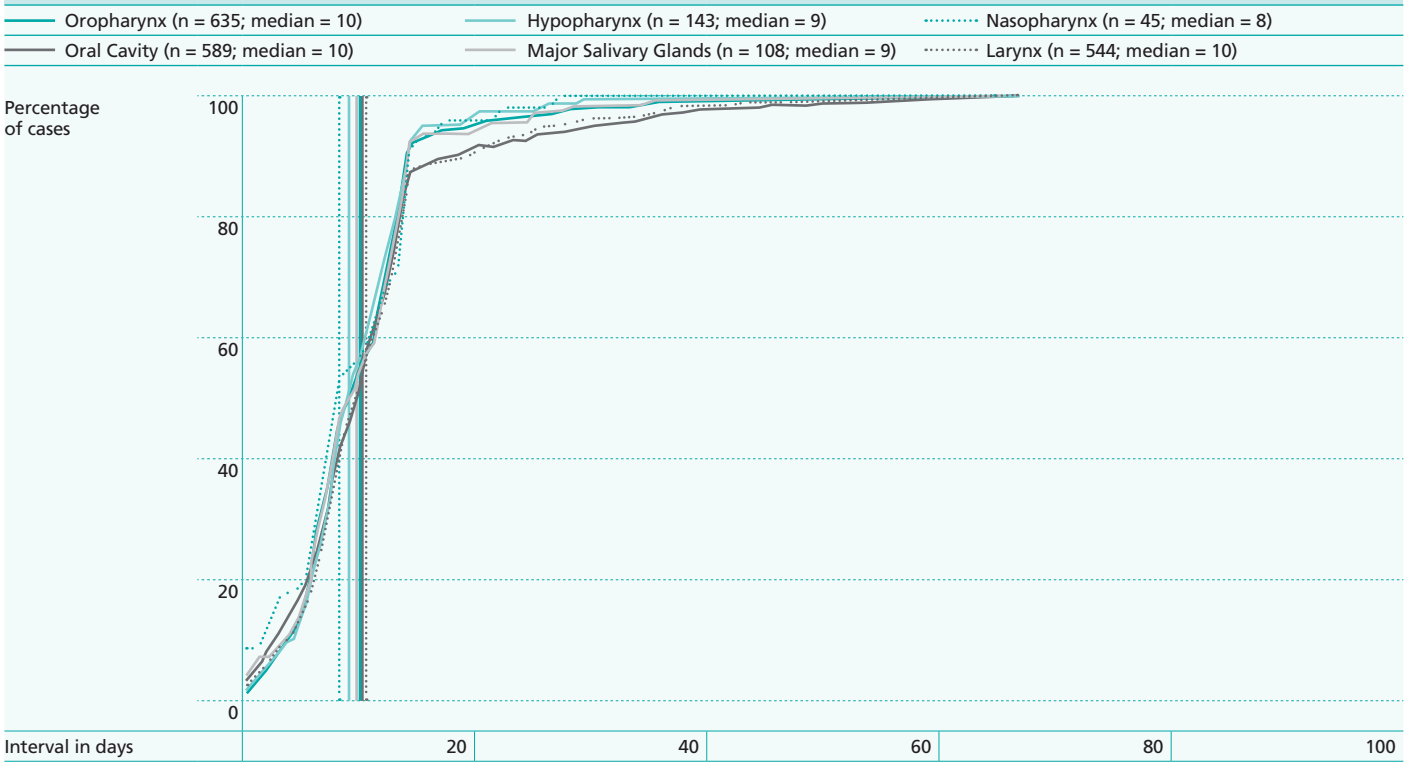
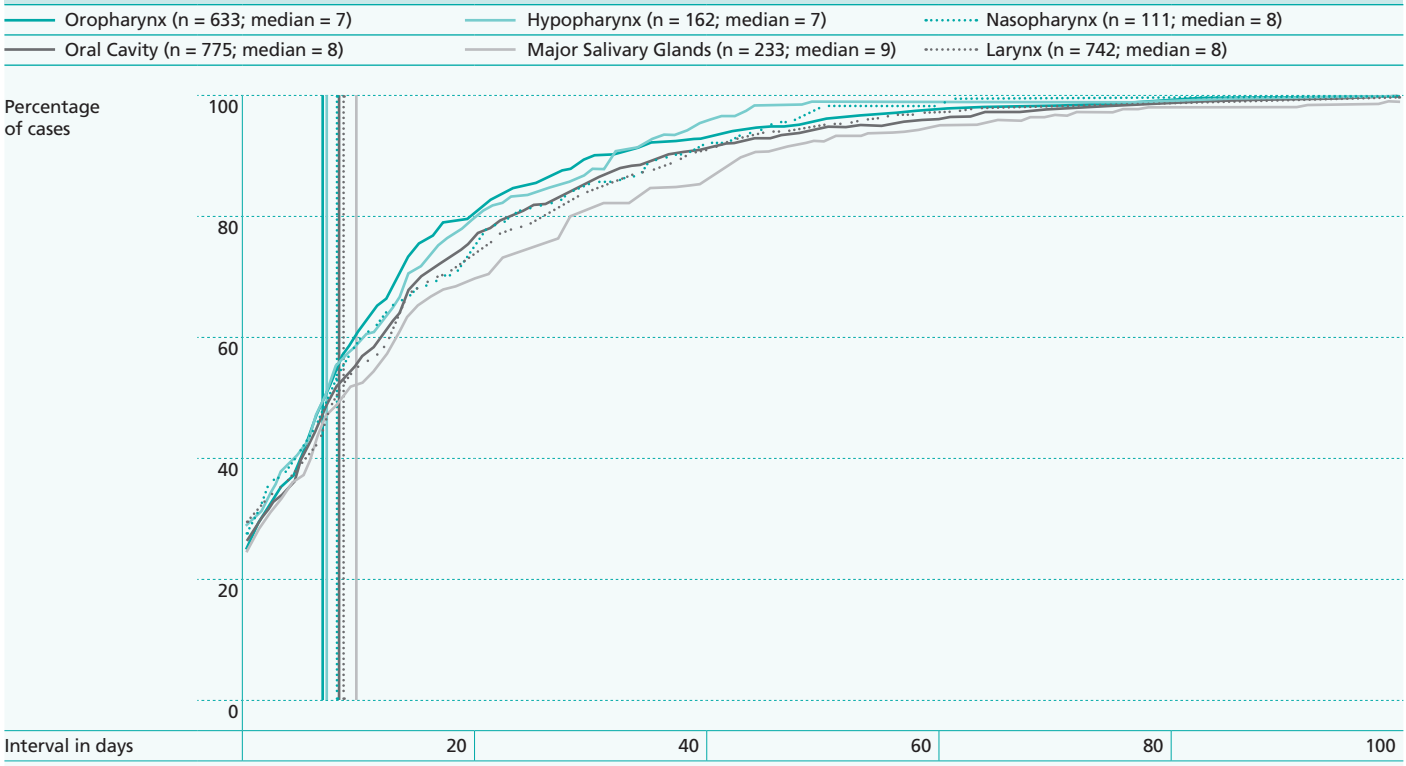


Figure 8.8.1.4 b
Interval from referral to first appointment in England for urgent referrals (non two week wait)



The two week wait target for urgent cancer referral applies to England and figures above only include patients from England.

8.8.1.5 Interval from referral to diagnosis in England and Wales

The recently published BAHNO Standards 2009, which at present are seen as aspirational suggest that all patients should have a summated interval from referral to first appointment and first appointment to biopsy (equivalent to date of diagnosis) of 21 days.

The median interval by anatomic subsite is only at 21 days for oral cavity whilst it varies to a 40 day median in major salivary gland cancer.

The Expert Panels questioned as to whether this varied within or between organisations. A comparison by provider trust was therefore produced.

Figure 8.8.1.5a
Interval from referral to diagnosis in England and Wales by anatomic subsite.

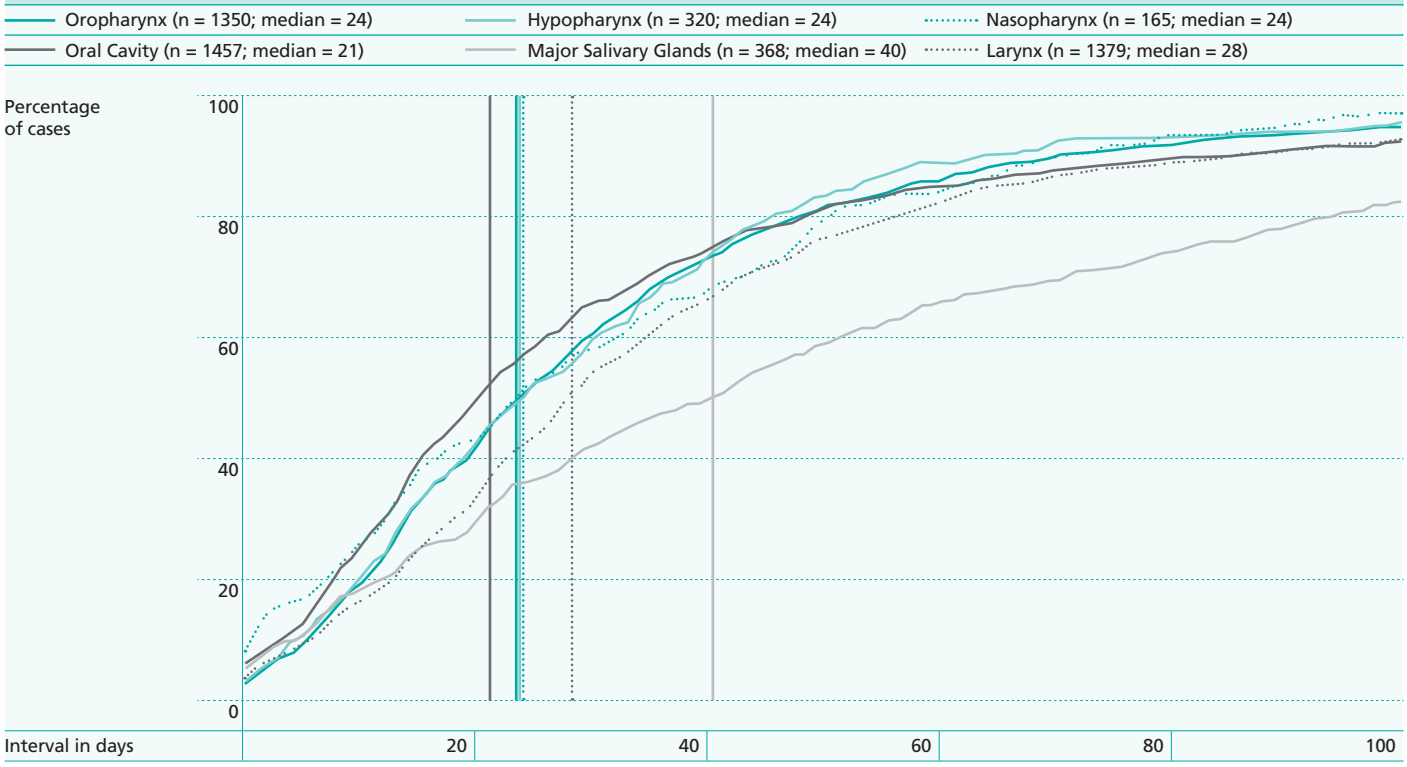


Figure: 8.8.1.5b
Interval from referral to diagnosis in England and Wales by provider trust

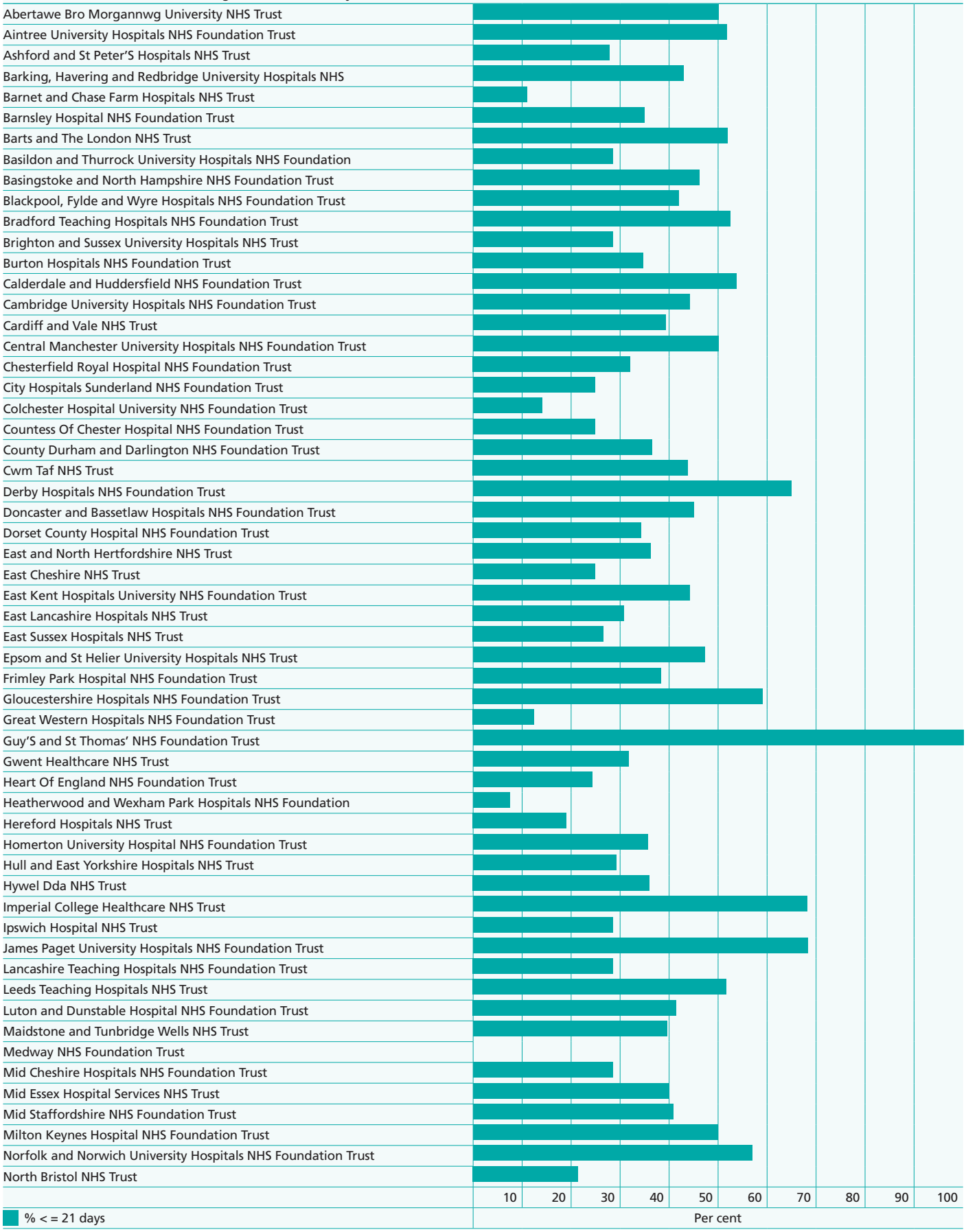


Figure: 8.8.1.5b continued
Interval from referral to diagnosis in England and Wales by provider trust

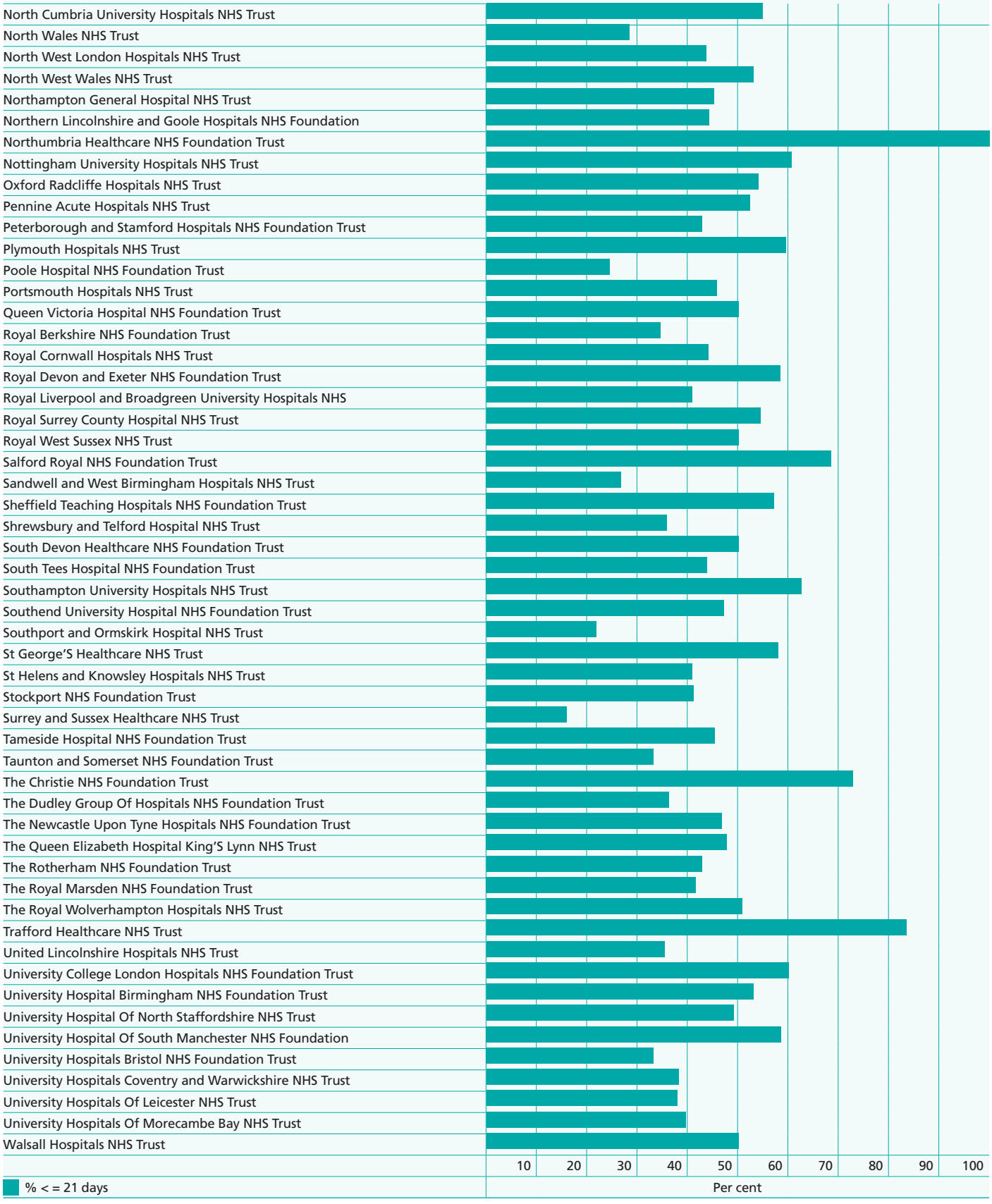
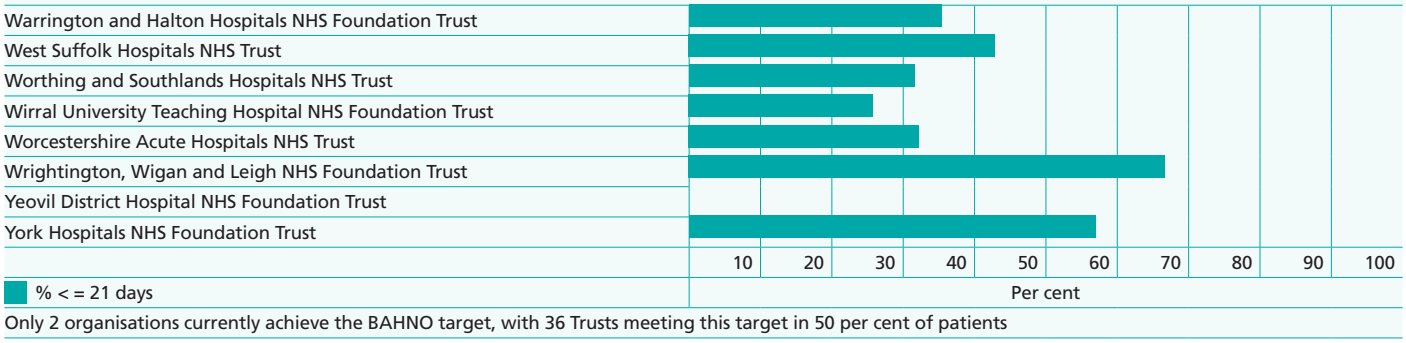


Figure: 8.8.1.5b continued
Interval from referral to diagnosis in England and Wales by provider trust



Only 2 organisations currently achieve the BAHNO target, with 36 Trusts meeting this target in 50 per cent of patients

8.8.1.5.1 Time from biopsy to reporting

- A further improvement in the volume of data submitted for this item has occurred with submissions from 101 trusts
- There are several methods of obtaining a biopsy in order to reach a diagnosis. The most appropriate method will be determined by the clinical presentation. This figure is a combination of data from cytological and histological specimens; these specimen types have different implications in terms of the complexity of interpretation and the types of diagnoses that can be made. Organisations should consider this complexity when reviewing pathways.
- The Expert Panels considered whether this represented delay in a small number of organisations or a variation within providers. The chart below reports by provider a breakdown for all cancer sites of an interval from biopsy to reporting of 10 days or less and greater than 10 days.
- The chart is colour coded to show quartiles as follows: red displays those trusts with greater than or equal to 50 per cent of cases which have taken more than 10 days, amber displays those trusts with less than 50 per cent but greater than or equal to 25 per cent which have taken more than 10 days, finally green displays those trusts where less than 25 per cent of cases have taken more than 10 days.

Figure 8.8.1.5.1
Time from biopsy to reporting by trust, for those trusts reporting greater than 5 cases. Those submitting less than five cases are shown as <5.

NHS Trust	Time to report (days)									
	<=10		<=10		>10		>10		Total	
	N		Per cent		N		Per cent		N	
Abertawe Bro Morgannwg University NHS Trust	49	●	100	●			0	●	49	●
Aintree University Hospitals NHS Foundation Trust	25	●	76	●	8	●	24	●	33	●
Ashford and St Peter's Hospitals NHS Trust									<5	
Barking, Havering and Redbridge University Hospitals NHS Trust	53	●	87	●	8	●	13	●	61	●
Barnet and Chase Farm Hospitals NHS Trust	3	▲	50	▲	3	▲	50	▲	6	▲
Barnsley Hospital NHS Foundation Trust	6	■	60	■	4	■	40	■	10	■
Barts and The London NHS Trust	18	●	82	●	4	●	18	●	22	●
Basingstoke and North Hampshire NHS Foundation Trust									<5	
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	20	■	71	■	8	■	29	■	28	■
Bradford Teaching Hospitals NHS Foundation Trust	6	■	55	■	5	■	45	■	11	■
Brighton and Sussex University Hospitals NHS Trust	18	■	56	■	14	■	44	■	32	■
Burton Hospitals NHS Foundation Trust	4	●	80	●	1	●	20	●	5	●
Calderdale and Huddersfield NHS Foundation Trust									<5	
Cardiff and Vale NHS Trust	21	■	70	■	9	■	30	■	30	■
Chesterfield Royal Hospital NHS Foundation Trust	25	●	100	●			0	●	25	●
City Hospitals Sunderland NHS Foundation Trust	80	●	85	●	14	●	15	●	94	●
Colchester Hospital University NHS Foundation Trust	1	▲	8	▲	12	▲	92	▲	13	▲
Countess Of Chester Hospital NHS Foundation Trust	5	■	71	■	2	■	29	■	7	■
County Durham and Darlington NHS Foundation Trust	29	●	88	●	4	●	12	●	33	●
Cwm Taf NHS Trust	27	●	82	●	6	●	18	●	33	●
Derby Hospitals NHS Foundation Trust	41	●	89	●	5	●	11	●	46	●
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	15	●	88	●	2	●	12	●	17	●
Dorset County Hospital NHS Foundation Trust	10	●	77	●	3	●	23	●	13	●
East Cheshire NHS Trust	3	■	60	■	2	■	40	■	5	■
East Lancashire Hospitals NHS Trust	12	■	63	■	7	■	37	■	19	■
East Sussex Hospitals NHS Trust	13	●	87	●	2	●	13	●	15	●
Epsom and St Helier University Hospitals NHS Trust									<5	
Frimley Park Hospital NHS Foundation Trust									<5	
Gloucestershire Hospitals NHS Foundation Trust	68	●	92	●	6	●	8	●	74	●
Great Western Hospitals NHS Foundation Trust									<5	
Guy's and St Thomas' NHS Foundation Trust									<5	
Gwent Healthcare NHS Trust	19	●	100	●			0	●	19	●
Heart Of England NHS Foundation Trust	41	●	93	●	3	●	7	●	44	●
Heatherwood and Wexham Park Hospitals NHS Foundation Trust									<5	
Hereford Hospitals NHS Trust	16	■	73	■	6	■	27	■	22	■
Homerton University Hospital NHS Foundation Trust									<5	

Figure 8.8.1.5.1 continued
Time from biopsy to reporting by trust, for those trusts reporting greater than 5 cases. Those submitting less than five cases are shown as <5.

NHS Trust	Time to report (days)									
	<=10		<=10		>10		>10		Total	
	N		Per cent		N		Per cent		N	
Hull and East Yorkshire Hospitals NHS Trust	21	●	78	●	6	●	22	●	27	●
Hywel Dda NHS Trust	30	●	97	●	1	●	3	●	31	●
Imperial College Healthcare NHS Trust	34	●	89	●	4	●	11	●	38	●
Ipswich Hospital NHS Trust									<5	
James Paget University Hospitals NHS Foundation Trust									<5	
Lancashire Teaching Hospitals NHS Foundation Trust	22	▲	46	▲	26	▲	54	▲	48	▲
Luton and Dunstable Hospital NHS Foundation Trust	10	●	83	●	2	●	17	●	12	●
Medway NHS Foundation Trust									<5	
Mid Essex Hospital Services NHS Trust	18	■	64	■	10	■	36	■	28	■
Mid Staffordshire NHS Foundation Trust									<5	
Milton Keynes Hospital NHS Foundation Trust	4	●	80	●	1	●	20	●	5	●
Norfolk and Norwich University Hospitals NHS Foundation Trust	19	●	90	●	2	●	10	●	21	●
North Bristol NHS Trust	24	■	67	■	12	■	33	■	36	■
North Cumbria University Hospitals NHS Trust									<5	
North Wales NHS Trust	44	●	92	●	4	●	8	●	48	●
North West London Hospitals NHS Trust	26	●	87	●	4	●	13	●	30	●
North West Wales NHS Trust									<5	
Northampton General Hospital NHS Trust	5	●	83	●	1	●	17	●	6	●
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	26	●	90	●	3	●	10	●	29	●
Northumbria Healthcare NHS Foundation Trust									<5	
Nottingham University Hospitals NHS Trust	104	●	91	●	10	●	9	●	114	●
Pennine Acute Hospitals NHS Trust	11	■	73	■	4	■	27	■	15	■
Plymouth Hospitals NHS Trust	19	■	73	■	7	■	27	■	26	■
Poole Hospital NHS Foundation Trust	65	■	66	■	34	■	34	■	99	■
Portsmouth Hospitals NHS Trust	55	●	92	●	5	●	8	●	60	●
Queen Victoria Hospital NHS Foundation Trust	11	■	73	■	4	■	27	■	15	■
Royal Berkshire NHS Foundation Trust	23	●	92	●	2	●	8	●	25	●
Royal Cornwall Hospitals NHS Trust	47	●	92	●	4	●	8	●	51	●
Royal Devon and Exeter NHS Foundation Trust	40	●	95	●	2	●	5	●	42	●
Royal Surrey County Hospital NHS Trust	26	■	62	■	16	■	38	■	42	■
Royal West Sussex NHS Trust	5	■	63	■	3	■	38	■	8	■
Salford Royal NHS Foundation Trust	13	●	100	●			0	●	13	●
Sandwell and West Birmingham Hospitals NHS Trust	7	●	78	●	2	●	22	●	9	●
Sheffield Teaching Hospitals NHS Foundation Trust	49	■	60	■	33	■	40	■	82	■
Shrewsbury and Telford Hospital NHS Trust	22	●	79	●	6	●	21	●	28	●
South Devon Healthcare NHS Foundation Trust	30	●	77	●	9	●	23	●	39	●
South Tees Hospital NHS Foundation Trust	90	●	88	●	12	●	12	●	102	●
Southampton University Hospitals NHS Trust	14	■	74	■	5	■	26	■	19	■
Southend University Hospital NHS Foundation Trust	32	●	91	●	3	●	9	●	35	●
Southport and Ormskirk Hospital NHS Trust									<5	
St George's Healthcare NHS Trust	74	●	76	●	24	●	24	●	98	●
St Helens and Knowsley Hospitals NHS Trust	5	■	63	■	3	■	38	■	8	■
Stockport NHS Foundation Trust	12	●	100	●			0	●	12	●
Surrey and Sussex Healthcare NHS Trust	3	■	60	■	2	■	40	■	5	■
Tameside Hospital NHS Foundation Trust	29	●	100	●			0	●	29	●
Taunton and Somerset NHS Foundation Trust									<5	
The Christie NHS Foundation Trust									<5	
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	121	●	98	●	3	●	2	●	124	●
The Queen Elizabeth Hospital King'S Lynn NHS Trust									<5	
The Royal Marsden NHS Foundation Trust	7	●	78	●	2	●	22	●	9	●
The Royal Wolverhampton Hospitals NHS Trust	6	■	55	■	5	■	45	■	11	■
United Lincolnshire Hospitals NHS Trust	29	●	78	●	8	●	22	●	37	●
University Hospital Birmingham NHS Foundation Trust	49	●	82	●	11	●	18	●	60	●

Figure 8.8.1.5.1 continued
Time from biopsy to reporting by trust, for those trusts reporting greater than 5 cases. Those submitting less than five cases are shown as <5.

NHS Trust	Time to report (days)									
	<=10		<=10		>10		>10		Total	
	N		Per cent		N		Per cent		N	
University Hospital Of North Staffordshire NHS Trust	29	●	88	●	4	●	12	●	33	●
University Hospital Of South Manchester NHS Foundation Trust	23	●	96	●	1	●	4	●	24	●
University Hospitals Bristol NHS Foundation Trust	9	●	90	●	1	●	10	●	10	●
University Hospitals Coventry and Warwickshire NHS Trust	27	●	87	●	4	●	13	●	31	●
University Hospitals Of Leicester NHS Trust	73	●	85	●	13	●	15	●	86	●
University Hospitals Of Morecambe Bay NHS Trust	6	■	60	■	4	■	40	■	10	■
Velindre NHS Trust	42	●	98	●	1	●	2	●	43	●
West Middlesex University Hospital NHS Trust	11	●	92	●	1	●	8	●	12	●
Worthing and Southlands Hospitals NHS Trust	8	●	89	●	1	●	11	●	9	●
Wirral University Teaching Hospital NHS Foundation Trust	9	▲	43	▲	12	▲	57	▲	21	▲
Worcestershire Acute Hospitals NHS Trust	44	●	90	●	5	●	10	●	49	●
Wrightington, Wigan and Leigh NHS Foundation Trust									<5	
York Hospitals NHS Foundation Trust	76	●	95	●	4	●	5	●	80	●
Total	**2305**	●	**82**	●	**489**	●	**18**	●	**2794**	●

- To improve the patient pathway, process mapping may identify areas where delays in the whole pathway could be reduced (from taking of a biopsy, through to its reporting). Local MDTs should regularly review performance in the patient pathway.
- Manpower issues within pathology and in particular head and neck pathology remain.

Comparison or organisations submitting this information to both the fourth and fifth Annual Reports demonstrates only a single organisation that shows recurrent issues with more than 50 per cent of cases taking more than 10 days from biopsy to reporting. In this report four organisations have greater than 50 per cent of cases taking more than 10 days from biopsy to reporting .Multidisciplinary teams in these organisations should consider whether pathology resources are satisfactory to deliver consistent timely cancer care.

These comments are based on units contributing data on over 5 cases in both years, and not a complete list of organisations delivering head and neck cancer care

8.8.1.6 The head and neck multi disciplinary team (MDT) – are all patients discussed?

- Overall 95 per cent of patients with a cancer care plan were confirmed as having been discussed at an MDT meeting. There has been a significant year on year improvement in assurance of this standard of care. The expected standard (proposed in the SWAHN audit 1997-1999[23]) suggested this should reach 100 per cent
- It is a standard in the Improving Outcomes Guidance that all patients are discussed in an MDT[24]
- All submissions now state a response to this item apart from a small number of Welsh returns where the CaNISC[8] system contains an option for unknown.
- These results show there remains a small but significant group of patients whose management has been planned outside of an MDT - 5 per cent this year recorded as not discussed at MDT. (7 per cent fourth report, 5.8 per cent third report, 3.8 per cent second report).
- It is encouraging that the assurance of discussion at an MDT has risen, but with more cases there is also the concern that 5 per cent of patients are recorded as having their management planned outside an MDT. For major salivary cancer this remains higher at 9 per cent (last year 12 per cent) and this may reflect failure to capture discussion following surgical intervention and the acquisition of definitive histology.

100 per cent of diagnoses should be discussed at a MDT, currently in England and Wales only 95 per cent are recorded as having been discussed

Figure 8.8.1.6.b
Summated analysis of multi-disciplinary discussion for index year.

Discussed	Percentage All Sites
Yes	95
No	5
Not recorded	0

Note: Although this table reflects the number of patients discussed at MDT and this report makes reference to the MDT meeting, we refer to the standard definition of MDT from IOG. The data collected for the head and neck cancer audit does not indicate the understanding of what constitutes MDT.

What is the performance in cases discussed by an MDT in each trust?

- The chart below reports by contact trust the information supplied to the audit on MDT discussion. Care should be taken in assessing percentages where only small case numbers were submitted.
- 45 organisations who submitted over 10 cases to the audit discussed 100 per cent of cases (unadjusted for dates of diagnosis after 1.10.09) at MDT providing assurance of an aspect of their patient care and should be commended.
- 14 organisations who submitted over 10 diagnoses stated significant numbers of patients as not having being discussed at MDT. Cancer leads may wish to consider whether this reflects poor data quality or issues about the function and availability of the MDT. Whilst it is possible that for a small tumour, excision biopsy may be curative, it would still be expected that these cases would be discussed at MDT

Patient expectations are that all care discussions are being made at a MDT, and head and neck cancer teams need to provide assurance around this important aspect of care delivery. 45 organisations have provided this.

Figure: 8.8.1.6.c
Analysis of multi disciplinary discussion for index year by contact trust

NHS Trust	Discussed						
	No		Yes		Unknown		Total
	N	Per cent	N	Per cent	N	Per cent	N
Abertawe Bro Morgannwg University NHS Trust	2	3	71	95	2	3	75
Aintree University Hospitals NHS Foundation Trust	9	7	120	93	0	0	129
Ashford and St Peter's Hospitals NHS Trust	0	0	13	100	0	0	13
Barking, Havering and Redbridge University Hospitals NHS Trust	3	5	61	95	0	0	64
Barnet and Chase Farm Hospitals NHS Trust	0	0	30	100	0	0	30
Barnsley Hospital NHS Foundation Trust	1	11	8	89	0	0	9
Barts and The London NHS Trust	1	2	61	98	0	0	62
Basildon and Thurrock University Hospitals NHS Foundation Trust	0	0	20	100	0	0	20
Basingstoke and North Hampshire NHS Foundation Trust	1	17	5	83	0	0	6
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	5	14	32	86	0	0	37
Bradford Teaching Hospitals NHS Foundation Trust	9	14	54	86	0	0	63
Brighton and Sussex University Hospitals NHS Trust	1	1	74	99	0	0	75
Burton Hospitals NHS Foundation Trust	0	0	20	100	0	0	20
Calderdale and Huddersfield NHS Foundation Trust	1	8	11	92	0	0	12
Cambridge University Hospitals NHS Foundation Trust	0	0	119	100	0	0	119
Cardiff and Vale NHS Trust	2	4	42	88	4	8	48
Central Manchester University Hospitals NHS Foundation Trust	0	0	1	100	0	0	1
Chesterfield Royal Hospital NHS Foundation Trust	1	4	27	96	0	0	28
City Hospitals Sunderland NHS Foundation Trust	9	6	143	94	0	0	152
Colchester Hospital University NHS Foundation Trust	0	0	15	100	0	0	15
Countess Of Chester Hospital NHS Foundation Trust	2	67	1	33	0	0	3
County Durham and Darlington NHS Foundation Trust	0	0	36	100	0	0	36
Cwm Taf NHS Trust	0	0	37	97	1	3	38
Derby Hospitals NHS Foundation Trust	0	0	61	100	0	0	61
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	0	0	33	100	0	0	33
Dorset County Hospital NHS Foundation Trust	0	0	13	100	0	0	13
East and North Hertfordshire NHS Trust	1	11	8	89	0	0	9
East Cheshire NHS Trust	1	17	5	83	0	0	6
East Kent Hospitals University NHS Foundation Trust	0	0	23	100	0	0	23
East Lancashire Hospitals NHS Trust	23	50	23	50	0	0	46
East Sussex Hospitals NHS Trust	4	12	30	88	0	0	34
Epsom and St Helier University Hospitals NHS Trust	1	100	0	0	0	0	1
Frimley Park Hospital NHS Foundation Trust	1	20	4	80	0	0	5
Gloucestershire Hospitals NHS Foundation Trust	17	19	74	81	0	0	91
Great Western Hospitals NHS Foundation Trust	1	9	10	91	0	0	11
Guy's and St Thomas' NHS Foundation Trust	0	0	4	100	0	0	4
Gwent Healthcare NHS Trust	0	0	20	100	0	0	20
Heart Of England NHS Foundation Trust	0	0	53	100	0	0	53
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	0	0	20	100	0	0	20
Hereford Hospitals NHS Trust	0	0	23	100	0	0	23
Homerton University Hospital NHS Foundation Trust	0	0	5	100	0	0	5

Figure: 8.8.1.6.c continued
Analysis of multi disciplinary discussion for index year by contact trust

NHS Trust	Discussed						
	No		Yes		Unknown		Total
	N	Per cent	N	Per cent	N	Per cent	N
Hull and East Yorkshire Hospitals NHS Trust	0	0	29	100	0	0	29
Hywel Dda NHS Trust	2	6	31	91	1	3	34
Imperial College Healthcare NHS Trust	1	1	108	99	0	0	109
Ipswich Hospital NHS Trust	0	0	18	100	0	0	18
James Paget University Hospitals NHS Foundation Trust	2	11	16	89	0	0	18
Lancashire Teaching Hospitals NHS Foundation Trust	13	15	73	85	0	0	86
Leeds Teaching Hospitals NHS Trust	2	2	81	98	0	0	83
Luton and Dunstable Hospital NHS Foundation Trust	0	0	39	100	0	0	39
Maidstone and Tunbridge Wells NHS Trust	0	0	67	100	0	0	67
Medway NHS Foundation Trust	0	0	2	100	0	0	2
Mid Essex Hospital Services NHS Trust	0	0	30	100	0	0	30
Mid Staffordshire NHS Foundation Trust	0	0	10	100	0	0	10
Mid Yorkshire Hospitals NHS Trust	0	0	0	0	0	0	0
Milton Keynes Hospital NHS Foundation Trust	8	50	8	50	0	0	16
Norfolk and Norwich University Hospitals NHS Foundation Trust	2	3	78	98	0	0	80
North Bristol NHS Trust	35	47	39	53	0	0	74
North Cumbria University Hospitals NHS Trust	0	0	40	100	0	0	40
North Wales NHS Trust	0	0	56	97	2	3	58
North West London Hospitals NHS Trust	0	0	34	100	0	0	34
North West Wales NHS Trust	1	8	8	62	4	31	13
Northampton General Hospital NHS Trust	1	1	71	99	0	0	72
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	0	0	3	100	0	0	3
Northumberland, Tyne & Wear NHS Trust	0	0	1	100	0	0	1
Northumbria Healthcare NHS Foundation Trust	0	0	1	100	0	0	1
Nottingham University Hospitals NHS Trust	0	0	139	100	0	0	139
Oxford Radcliffe Hospitals NHS Trust	5	3	148	97	0	0	153
Pennine Acute Hospitals NHS Trust	0	0	38	100	0	0	38
Peterborough and Stamford Hospitals NHS Foundation Trust	0	0	43	100	0	0	43
Plymouth Hospitals NHS Trust	13	17	64	83	0	0	77
Poole Hospital NHS Foundation Trust	0	0	101	100	0	0	101
Portsmouth Hospitals NHS Trust	0	0	72	100	0	0	72
Queen Victoria Hospital NHS Foundation Trust	0	0	17	100	0	0	17
Royal Berkshire NHS Foundation Trust	3	12	23	88	0	0	26
Royal Bolton Hospital NHS Foundation Trust	0	0	0	0	0	0	0
Royal Cornwall Hospitals NHS Trust	2	4	52	96	0	0	54
Royal Devon and Exeter NHS Foundation Trust	0	0	57	100	0	0	57
Royal Liverpool and Broadgreen University Hospitals NHS Trust	1	3	31	97	0	0	32
Royal Surrey County Hospital NHS Trust	4	5	72	95	0	0	76
Royal United Hospital Bath NHS Trust	0	0	0	0	0	0	0
Royal West Sussex NHS Trust	0	0	9	100	0	0	9
Salford Royal NHS Foundation Trust	0	0	3	100	0	0	3
Sandwell and West Birmingham Hospitals NHS Trust	0	0	26	100	0	0	26
Sheffield Teaching Hospitals NHS Foundation Trust	0	0	101	100	0	0	101
Shrewsbury and Telford Hospital NHS Trust	0	0	31	100	0	0	31
South Devon Healthcare NHS Foundation Trust	0	0	41	100	0	0	41
South Tees Hospital NHS Foundation Trust	4	3	116	97	0	0	120
Southampton University Hospitals NHS Trust	0	0	145	100	0	0	145
Southend University Hospital NHS Foundation Trust	0	0	37	100	0	0	37
Southport and Ormskirk Hospital NHS Trust	7	70	3	30	0	0	10
St George's Healthcare NHS Trust	0	0	100	100	0	0	100
St Helens and Knowsley Hospitals NHS Trust	12	67	6	33	0	0	18
Stockport NHS Foundation Trust	0	0	1	100	0	0	1
Surrey and Sussex Healthcare NHS Trust	0	0	13	100	0	0	13
Tameside Hospital NHS Foundation Trust	2	17	10	83	0	0	12
Taunton and Somerset NHS Foundation Trust	5	83	1	17	0	0	6
The Christie NHS Foundation Trust	0	0	18	100	0	0	18
The Dudley Group Of Hospitals NHS Foundation Trust	1	6	15	94	0	0	16
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	0	0	152	100	0	0	152

Figure: 8.8.1.6.c continued
Analysis of multi disciplinary discussion for index year by contact trust

NHS Trust	Discussed						
	No		Yes		Unknown		Total
	N	Per cent	N	Per cent	N	Per cent	N
The Queen Elizabeth Hospital King'S Lynn NHS Trust	3	20	12	80	0	0	15
The Rotherham NHS Foundation Trust	0	0	2	100	0	0	2
The Royal Marsden NHS Foundation Trust	0	0	18	100	0	0	18
The Royal Wolverhampton Hospitals NHS Trust	4	4	102	96	0	0	106
Trafford Healthcare NHS Trust	0	0	1	100	0	0	1
United Lincolnshire Hospitals NHS Trust	0	0	61	100	0	0	61
University College London Hospitals NHS Foundation Trust	0	0	105	100	0	0	105
University Hospital Birmingham NHS Foundation Trust	8	7	115	93	0	0	123
University Hospital Of North Staffordshire NHS Trust	1	2	61	98	0	0	62
University Hospital Of South Manchester NHS Foundation Trust	0	0	30	100	0	0	30
University Hospitals Bristol NHS Foundation Trust	1	5	20	95	0	0	21
University Hospitals Coventry and Warwickshire NHS Trust	2	3	67	97	0	0	69
University Hospitals Of Leicester NHS Trust	0	0	89	100	0	0	89
University Hospitals Of Morecambe Bay NHS Trust	2	12	15	88	0	0	17
Velindre NHS Trust	0	0	54	86	9	14	63
Walsall Hospitals NHS Trust	0	0	2	100	0	0	2
West Middlesex University Hospital NHS Trust	0	0	12	100	0	0	12
West Suffolk Hospitals NHS Trust	0	0	3	100	0	0	3
Worthing and Southlands Hospitals NHS Trust	0	0	5	100	0	0	5
Whipps Cross University Hospital NHS Trust	0	0	0	0	0	0	0
Wirral University Teaching Hospital NHS Foundation Trust	1	17	5	83	0	0	6
Worcestershire Acute Hospitals NHS Trust	4	7	53	93	0	0	57
Wrightington, Wigan and Leigh NHS Foundation Trust	0	0	1	100	0	0	1
Yeovil District Hospital NHS Foundation Trust	0	0	1	100	0	0	1
York Hospitals NHS Foundation Trust	1	1	81	99	0	0	82
Total	**249**	**5**	**4853**	**95**	**23**	**0**	**5125**

8.8.1.7 Interval from diagnosis to decision to treat

8.8.1.7.1 Interval from diagnosis to MDT ('triage' date)

- The median interval from diagnosis to MDT varies from 10–22 days.
- The interval from diagnosis to MDT reflects transfer of the biopsy to the laboratory, processing of the specimen and its reporting, receipt of the report and booking to the next MDT. An interim step can be a return to out patients when an unexpected diagnosis arises.
- 10 per cent of patients with laryngeal cancer and 20 per cent with oral cavity cancer have their MDT management planned in more than 30 days from the biopsy being taken. The difference between larynx and oral cavity is evident again in this year's report. The reasons for this difference remain unclear.
- To examine whether there is variation in interval within organisations or variation in different providers the chart below compares those diagnoses where the interval from diagnosis is less than 30 days and those of 30 days or longer.

Figure 8.8.1.7.1.a
Interval from diagnosis to MDT ('triage' date)

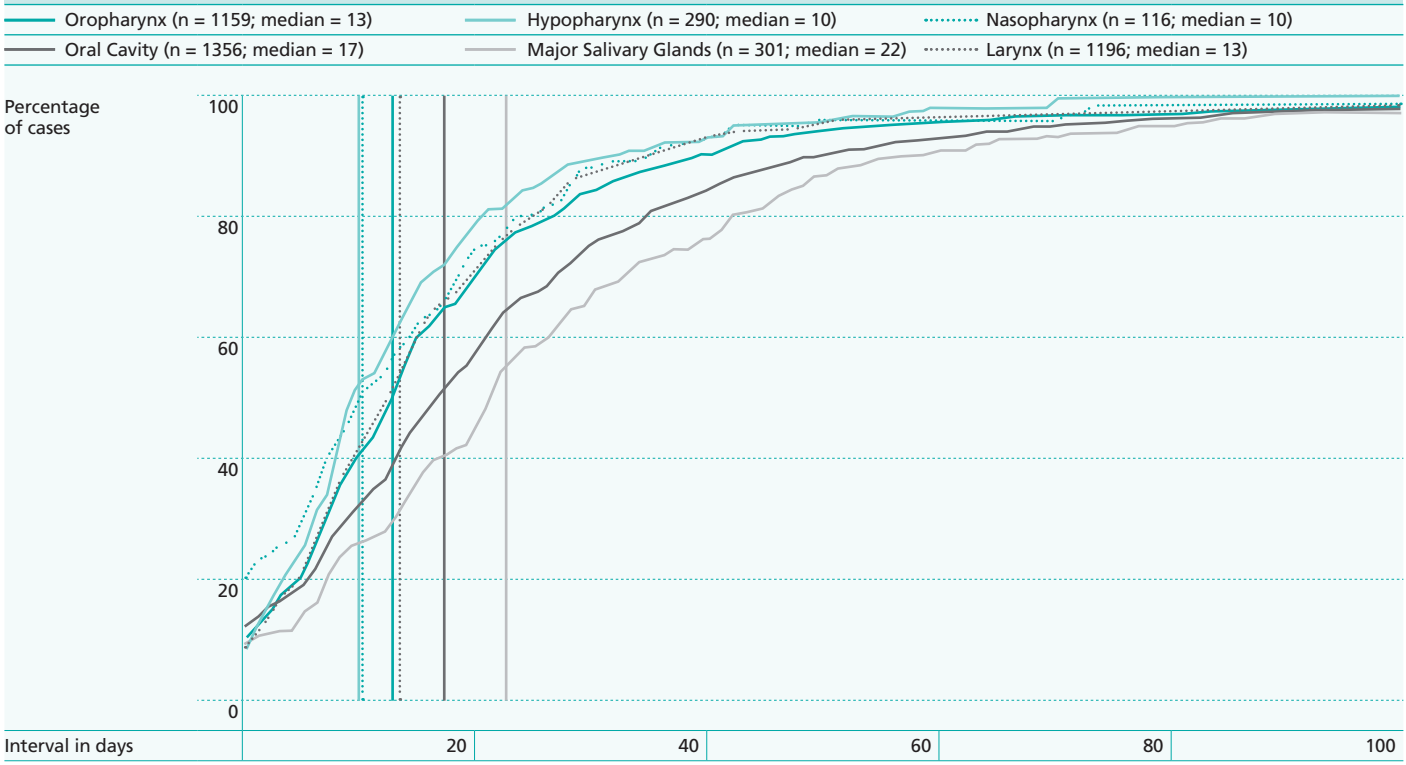


Figure 8.8.1.7.1.b
Percentage of patients with Interval diagnosis to MDT by provider trust of less than 30 days (where more than 5 cases submitted).

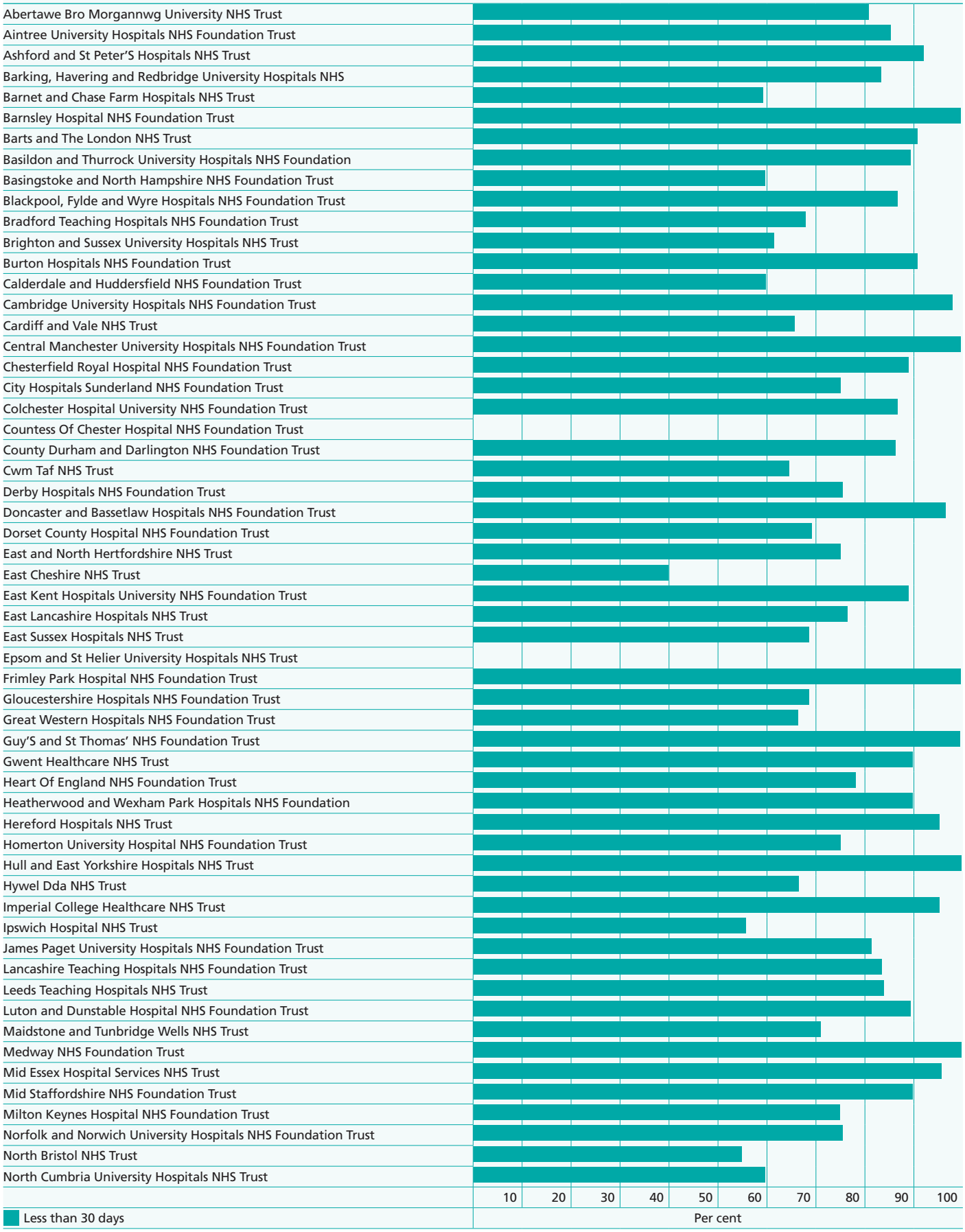


Figure 8.8.1.7.1.b continued
Percentage of patients with Interval diagnosis to MDT by provider trust of less than 30 days (where more than 5 cases submitted).

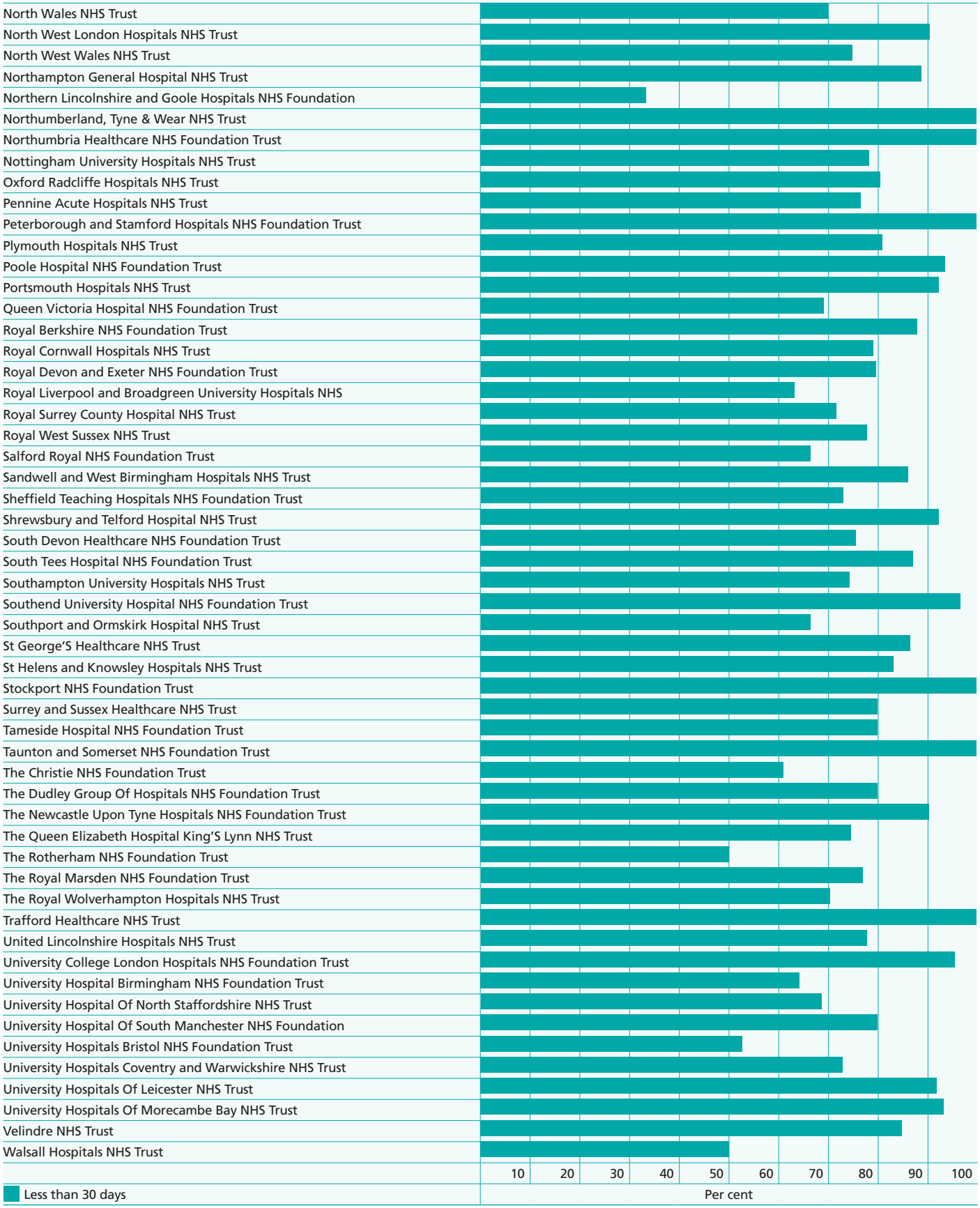


Figure 8.8.1.7.1.b continued
Percentage of patients with Interval diagnosis to MDT by provider trust of less than 30 days (where more than 5 cases submitted).

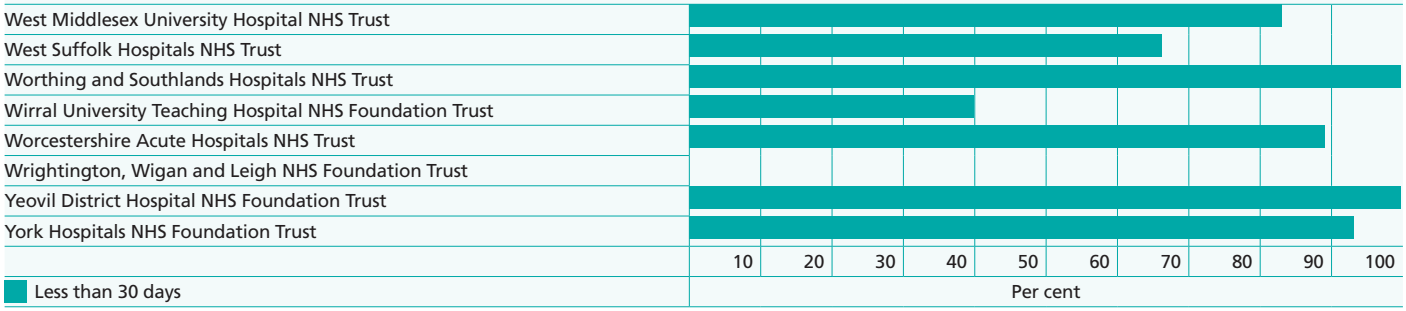


Figure 8.8.1.7.1.c
Interval diagnosis to MDT by provider trust of less than 30 days

NHS Trust	<30 days	>= 30 days	Total	Per cent less than 30 days
Abertawe Bro Morgannwg University NHS Trust	56	13	69	81.2
Aintree University Hospitals NHS Foundation Trust	76	13	89	85.4
Ashford and St Peter's Hospitals NHS Trust	12	1	13	92.3
Barking, Havering and Redbridge University Hospitals NHS Trust	44	9	53	83.0
Barnet and Chase Farm Hospitals NHS Trust	16	11	27	59.3
Barnsley Hospital NHS Foundation Trust	6		6	100.0
Barts and The London NHS Trust	40	4	44	90.9
Basildon and Thurrock University Hospitals NHS Foundation Trust	17	2	19	89.5
Basingstoke and North Hampshire NHS Foundation Trust	3	2	5	60.0
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	26	4	30	86.7
Bradford Teaching Hospitals NHS Foundation Trust	32	15	47	68.1
Brighton and Sussex University Hospitals NHS Trust	43	27	70	61.4
Burton Hospitals NHS Foundation Trust	10	1	11	90.9
Calderdale and Huddersfield NHS Foundation Trust	6	4	10	60.0
Cambridge University Hospitals NHS Foundation Trust	115	2	117	98.3
Cardiff and Vale NHS Trust	25	13	38	65.8
Central Manchester University Hospitals NHS Foundation Trust	1		1	100.0
Chesterfield Royal Hospital NHS Foundation Trust	24	3	27	88.9
City Hospitals Sunderland NHS Foundation Trust	99	33	132	75.0
Colchester Hospital University NHS Foundation Trust	13	2	15	86.7
Countess Of Chester Hospital NHS Foundation Trust		1	1	0.0
County Durham and Darlington NHS Foundation Trust	25	4	29	86.2
Cwm Taf NHS Trust	24	13	37	64.9
Derby Hospitals NHS Foundation Trust	40	13	53	75.5
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	31	1	32	96.9
Dorset County Hospital NHS Foundation Trust	9	4	13	69.2
East and North Hertfordshire NHS Trust	6	2	8	75.0
East Cheshire NHS Trust	2	3	5	40.0
East Kent Hospitals University NHS Foundation Trust	16	2	18	88.9
East Lancashire Hospitals NHS Trust	13	4	17	76.5
East Sussex Hospitals NHS Trust	20	9	29	69.0
Epsom and St Helier University Hospitals NHS Trust			0	0.0
Frimley Park Hospital NHS Foundation Trust	3		3	100.0
Gloucestershire Hospitals NHS Foundation Trust	51	23	74	68.9
Great Western Hospitals NHS Foundation Trust	6	3	9	66.7
Guy's and St Thomas' NHS Foundation Trust	2		2	100.0
Gwent Healthcare NHS Trust	18	2	20	90.0
Heart Of England NHS Foundation Trust	36	10	46	78.3
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	18	2	20	90.0
Hereford Hospitals NHS Trust	20	1	21	95.2
Homerton University Hospital NHS Foundation Trust	3	1	4	75.0
Hull and East Yorkshire Hospitals NHS Trust	18		18	100.0
Hywel Dda NHS Trust	20	10	30	66.7
Imperial College Healthcare NHS Trust	84	4	88	95.5
Ipswich Hospital NHS Trust	10	8	18	55.6
James Paget University Hospitals NHS Foundation Trust	13	3	16	81.3
Lancashire Teaching Hospitals NHS Foundation Trust	56	11	67	83.6
Leeds Teaching Hospitals NHS Trust	63	12	75	84.0
Luton and Dunstable Hospital NHS Foundation Trust	34	4	38	89.5
Maidstone and Tunbridge Wells NHS Trust	44	18	62	71.0
Medway NHS Foundation Trust	2		2	100.0
Mid Essex Hospital Services NHS Trust	22	1	23	95.7
Mid Staffordshire NHS Foundation Trust	9	1	10	90.0
Milton Keynes Hospital NHS Foundation Trust	6	2	8	75.0
Norfolk and Norwich University Hospitals NHS Foundation Trust	58	19	77	75.3

Figure 8.8.1.7.1.c continued
Interval diagnosis to MDT by provider trust of less than 30 days

NHS Trust	<30 days	>= 30 days	Total	Per cent less than 30 days
North Bristol NHS Trust	17	14	31	54.8
North Cumbria University Hospitals NHS Trust	24	16	40	60.0
North Wales NHS Trust	38	16	54	70.4
North West London Hospitals NHS Trust	28	3	31	90.3
North West Wales NHS Trust	6	2	8	75.0
Northampton General Hospital NHS Trust	56	7	63	88.9
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	1	2	3	33.3
Northumberland, Tyne & Wear NHS Trust	1		1	100.0
Northumbria Healthcare NHS Foundation Trust	1		1	100.0
Nottingham University Hospitals NHS Trust	105	29	134	78.4
Oxford Radcliffe Hospitals NHS Trust	105	25	130	80.8
Pennine Acute Hospitals NHS Trust	23	7	30	76.7
Peterborough and Stamford Hospitals NHS Foundation Trust	43		43	100.0
Plymouth Hospitals NHS Trust	51	12	63	81.0
Poole Hospital NHS Foundation Trust	90	6	96	93.8
Portsmouth Hospitals NHS Trust	61	5	66	92.4
Queen Victoria Hospital NHS Foundation Trust	9	4	13	69.2
Royal Berkshire NHS Foundation Trust	15	2	17	88.2
Royal Cornwall Hospitals NHS Trust	34	9	43	79.1
Royal Devon and Exeter NHS Foundation Trust	43	11	54	79.6
Royal Liverpool and Broadgreen University Hospitals NHS Trust	19	11	30	63.3
Royal Surrey County Hospital NHS Trust	41	16	57	71.9
Royal West Sussex NHS Trust	7	2	9	77.8
Salford Royal NHS Foundation Trust	2	1	3	66.7
Sandwell and West Birmingham Hospitals NHS Trust	19	3	22	86.4
Sheffield Teaching Hospitals NHS Foundation Trust	71	26	97	73.2
Shrewsbury and Telford Hospital NHS Trust	25	2	27	92.6
South Devon Healthcare NHS Foundation Trust	25	8	33	75.8
South Tees Hospital NHS Foundation Trust	96	14	110	87.3
Southampton University Hospitals NHS Trust	90	31	121	74.4
Southend University Hospital NHS Foundation Trust	33	1	34	97.1
Southport and Ormskirk Hospital NHS Trust	2	1	3	66.7
St George's Healthcare NHS Trust	80	12	92	87.0
St Helens and Knowsley Hospitals NHS Trust	5	1	6	83.3
Stockport NHS Foundation Trust	1		1	100.0
Surrey and Sussex Healthcare NHS Trust	8	2	10	80.0
Tameside Hospital NHS Foundation Trust	8	2	10	80.0
Taunton and Somerset NHS Foundation Trust	1		1	100.0
The Christie NHS Foundation Trust	11	7	18	61.1
The Dudley Group Of Hospitals NHS Foundation Trust	12	3	15	80.0
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	130	14	144	90.3
The Queen Elizabeth Hospital King'S Lynn NHS Trust	9	3	12	75.0
The Rotherham NHS Foundation Trust	1	1	2	50.0
The Royal Marsden NHS Foundation Trust	10	3	13	76.9
The Royal Wolverhampton Hospitals NHS Trust	67	28	95	70.5
Trafford Healthcare NHS Trust	1		1	100.0
United Lincolnshire Hospitals NHS Trust	46	13	59	78.0
University College London Hospitals NHS Foundation Trust	90	4	94	95.7
University Hospital Birmingham NHS Foundation Trust	69	38	107	64.5
University Hospital Of North Staffordshire NHS Trust	42	19	61	68.9
University Hospital Of South Manchester NHS Foundation Trust	24	6	30	80.0
University Hospitals Bristol NHS Foundation Trust	10	9	19	52.6
University Hospitals Coventry and Warwickshire NHS Trust	41	15	56	73.2
University Hospitals Of Leicester NHS Trust	80	7	87	92.0
University Hospitals Of Morecambe Bay NHS Trust	14	1	15	93.3

Figure 8.8.1.7.1.c continued
Interval diagnosis to MDT by provider trust of less than 30 days

NHS Trust	<30 days	>= 30 days	Total	Per cent less than 30 days
Velindre NHS Trust	46	8	54	85.2
Walsall Hospitals NHS Trust	1	1	2	50.0
West Middlesex University Hospital NHS Trust	10	2	12	83.3
West Suffolk Hospitals NHS Trust	2	1	3	66.7
Worthing and Southlands Hospitals NHS Trust	5		5	100.0
Wirral University Teaching Hospital NHS Foundation Trust	2	3	5	40.0
Worcestershire Acute Hospitals NHS Trust	43	5	48	89.6
Wrightington, Wigan and Leigh NHS Foundation Trust		1	1	0.0
Yeovil District Hospital NHS Foundation Trust	1		1	100.0
York Hospitals NHS Foundation Trust	71	5	76	93.4
Total	**3568**	**850**	**4418**	**80.8**

- In a minority of organisations (13 trusts 10.7 per cent) all patients have an interval from diagnosis to MDT of less than 30 days; whilst in 7 trusts (5.8 per cent of organisations) over 40 per cent of patients exceed 30 days.
- Local teams should regularly monitor patients' pathway intervals and work with service improvement leads where regular delay is seen for both "two week wait" patients and those of other priorities.
- This has changed little from previous years' reports.

8.8.1.8 Number and percentage with histological confirmation prior to cancer care plan

- 2543 patients can be associated with a date of pathology report, and 2168 of these patients have a care plan agreed date
- Of these, 1774 (81.8 per cent) have histological confirmation recorded before the care plan, using date pathology is reported. This represents a five per cent increase in histological confirmation recorded prior to a cancer care plan agreed date in comparison to last year.
- In head and neck cancer, it would be expected that all patients would have histological confirmation of a tumour prior to the agreement of a care plan.
- There is a significant risk in proceeding to a cancer care plan without written histological confirmation of diagnosis, as non malignant conditions can mimic cancer.

8.8.1.9 Number and percentage with staging information recorded at time of cancer care plan

The percentage with staging information recorded at the time of cancer care plan reflects the percentage of patients with a care plan (indicated by record of management planned date or non-blank care plan agreed date), with an entry required in each of the T, N and M categories to be included.

5125 patients have a care plan date (recorded entry in care plan agreed date, or recorded entry in management planned date).

2848 have diagnostic T, N and M staging recorded.

The tables summarise those 5125 records with a care plan date:

- A 60 per cent figure was defined as a baseline in the fourth Annual Report.
- Despite an increase in case acquisition, the overall percentage of cases recorded with TNM at time of cancer care plan has fallen to 55.6 per cent.
- Staging of tumours is a critical part of the treatment pathway as well as being a key determinant of outcome, and is a key medical responsibility, helping to support the delivery of casemix adjusted outcomes
- All MDTs should continue to be encouraged to complete and validate staging information and validate outcome. It is important that the information is recorded on T category, N category and M category for complete staging. Whilst the incidence of distant metastasis in head and neck cancer is small, a value for the M category should still be entered and should not be defaulted to "blank" or "Mx"

The Expert Panels are unanimous that all MDTs must ensure the recording of accurate staging information in 100 per cent of patients.

Figure 8.8.1.8.a
Number of cases with histological confirmation prior to cancer careplan.

Number of cases	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Major Salivary Gland	All
Yes	517	507	495	121	43	91	1774
No	106	115	92	28	13	40	394
Total	**623**	**622**	**587**	**149**	**56**	**131**	**2168**

Figure 8.8.1.8.b
Percentage with histological confirmation prior to cancer careplan

As percentage of cases with both dates recorded	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Major Salivary Gland	All
Yes		81.5	84.3	81.2	76.8	69.5	81.8
No	17.0	18.5	15.7	18.8	23.2	30.5	18.2

8.8.1.10 Imaging and head and neck cancer

- At the inception of the audit collection of imaging data was problematical due to an error in the data collection software. This was redesigned and a steady rise in imaging information has occurred year on year
- This year 4798 CT and MRI scans have been recorded, as well as 1832 chest x-rays, but encompasses multiple imaging in a single patient. Whilst many departments' CT scans do encompass both the neck and chest, a significant number of submissions do not have the accompanying information on the anatomic site imaged to allow assurance of chest imaging, or imaging of the primary site having occurred. The project team would wish to emphasise the availability of the entry field of anatomical examination site of imaging in the imaging record.

8.8.1.10.1 Percentage having chest imaging by chest x-ray (CXR) or chest computerised tomography (CT) prior to cancer care plan

- Of 5125 patients with care plans, 3581 patients have an imaging event recorded (69.9 per cent). 1832 patients (32.7 per cent of all diagnoses) have both a record of chest imaging by chest x-ray or chest CT and a cancer care plan agreed date. A further 377 had CT scans which are likely to have included the chest but did not have the confirmatory anatomic site of thorax recorded
- Chest imaging data is recorded for up to 61.7 per cent of patients with an imaging event recorded (2209 of 3581) This represents 43 per cent of patients with a care plan.
- Where both imaging and care plan data is recorded, 85.8 per cent have chest imaging by x-ray or CT prior to care plan.
- This output was intended to reflect best practice where due to the recognised incidence of second primary lung cancers[25] chest imaging should occur prior to a cancer care plan in all patients. The role of CT scanning is less clear in early disease[26] as well as in some anatomic subsites[27].
- The level of completeness has not improved for this item, with assurance only provided for less than half of all patients in the annual report. MDTs should be strongly encouraged to collect this information.

Synchronous malignancies of the chest can occur and have a significant impact on treatment options. Teams are encouraged to confirm that chest imaging has occurred in all head and neck cancer patients prior to planning treatment.

Figure 8.8.1.9.a
Number of cases with staging information recorded at time of cancer care plan

Staging Information Complete	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Major Salivary Gland	All
Yes	802	887	778	194	68	119	2848
No	583	645	571	128	87	263	2277
Total	**1385**	**1532**	**1349**	**322**	**155**	**382**	**5125**

Figure 8.8.1.9.b
Percentage with staging information recorded at time of cancer care plan

Staging Information Complete	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Major Salivary Gland	All
Yes	57.9	57.9	57.7	60.2	43.9	31.2	55.6
No	42.1	42.1	42.3	39.8	56.1	68.8	44.4
							100

8.8.1.10.2 Percentage with reported chest imaging by chest x-ray (CXR) or chest computerised tomography (CT) prior to MDT

- From the imaging cohort of 1832 patients, 1329 patients had a date of chest imaging report recorded with an MDT discussion date, representing 23.7 per cent of all diagnoses.
- Of those with chest imaging report recorded 81.9 per cent of patients had an imaging report date prior to an MDT
- It remains unclear as to whether this reflects poor data quality or that image reporting is occurring at or beyond the first MDT, or alternatively whether the MDT is acting as a reminder of the requirement to check imaging. To understand further this issue MDTs are encouraged to assess and report this item

Figure 8.8.1.10.1.a
Number and percentage of cases having chest imaging by chest x-ray (CXR) or chest computerised tomography (CT) prior to cancer care plan

Chest imaging performed	All sites	Percentage
Same day or before careplan	1572	85.8
Imaging after careplan	260	14.2
Total with chest imaging confirmed	1832	100.0
CT without anatomical site confirmed	377	
Total	**2209**	

Figure 8.8.10.2.
Number and percentage of cases having a report date for chest imaging by chest x-ray (CXR) or chest computerised tomography (CT) prior to MDT

Chest imaging performed	All sites	Percentage of those with report	Percentage of total diagnoses
Report same day or before MDT	1089	81.9	19.5
Imaging report after MDT	240	18.1	4.3
Either no chest imaging report date recorded or no MDT discussion date			
Total	**1329**	**100.0**	**23.7**

8.8.1.11 Interval from imaging request to date imaging performed (CT/MRI) contributory to pre-treatment staging

- 2731 CT and MRI scans are recorded with both date of request and date imaging performed
- The median interval from request to imaging being performed varies from 7 to 9 days by anatomic subsite
- Of concern is in 10 per cent of patients there is a delay from request to imaging of 16 to 23 days depending on anatomic subsite. Presentation of imaging is a key part of MDT discussion.

8.8.1.11.1 PET Scanning in head and neck cancer

PET (Positron Emission Scanning[28]) in head and neck cancer is a relatively new technique in the United Kingdom. It uses a combination of CT scanning and injection of a radio-isotope (5 FDG) which is avid for cancer cells. The technique allows better delineation of disease and has particular relevance in the assessment of otherwise occult disease either ahead of major treatment or during follow up.

- Its availability and usage varies between MDTs, but a significant submission of its usage has occurred this year.
- Further assessment of the role of PET CT will be considered in the sixth Annual Report and MDTs are encouraged to submit data on this imaging modality

Figure 8.8.1.11
Interval from imaging request to date imaging performed (CT/MRI) contributory to pre-treatment staging complying with the Royal College of Radiologists' guidelines.

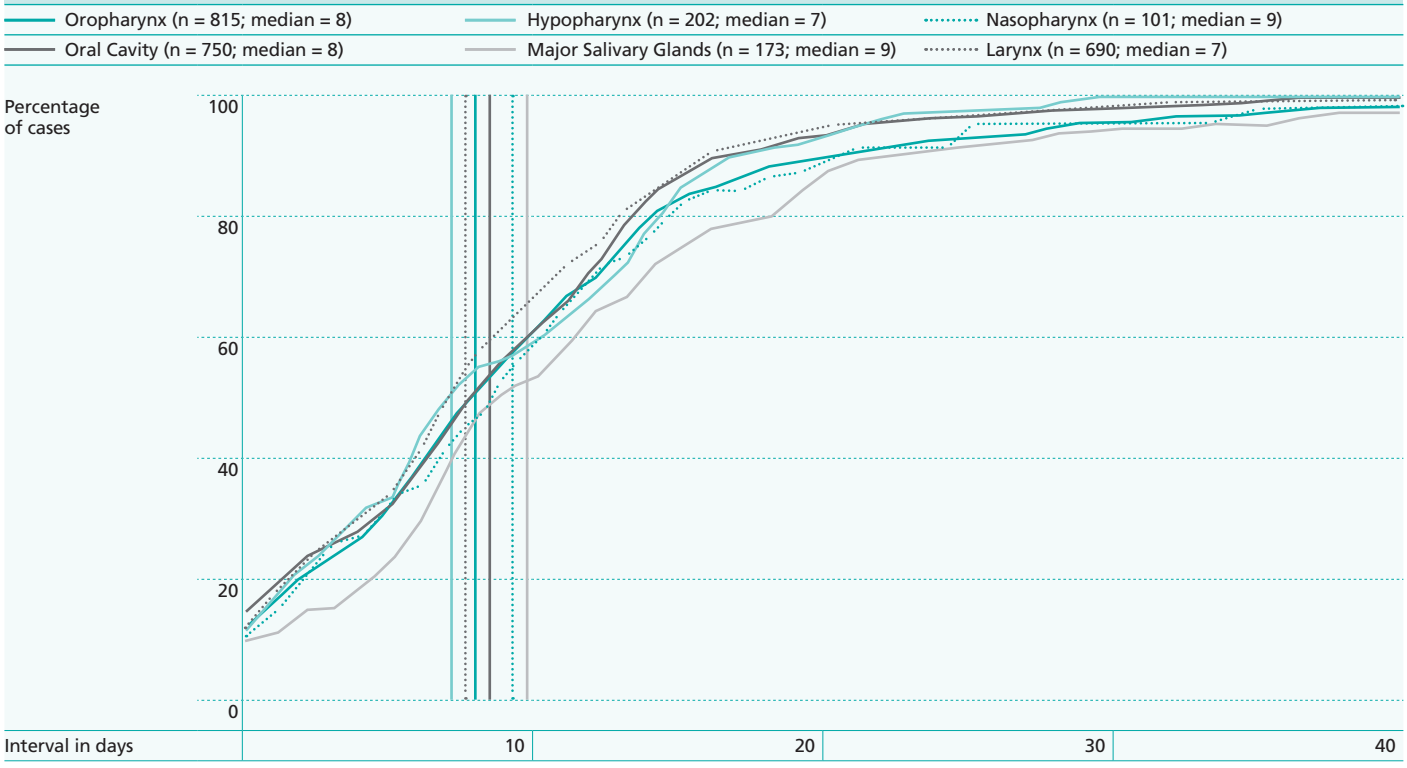


Figure 8.8.1.11.1
Count of PET scans by anatomic site submitted to DAHNO

Cancer imaging modality	Hypopharynx	Larynx	Major Salivary Glands	Nasopharynx	Oral Cavity	Oropharynx	Total
PET Scan	15	20	16	12	20	111	194

8.8.1.12 Interval from diagnosis to first definitive treatment

- Of 3396 patients with the date of first treatment recorded the median time to surgery was 26 days whilst to teletherapy as a primary treatment the median was 44 days. This continues to show that access to radiotherapy services appears delayed.
- Over the course of five annual reports the interval from diagnosis to surgery has reduced. The interval for radiotherapy has not mirrored this reduction with an increase since the fourth report of the median from 42 to 44 days.
- The reasons for the absence of a reduction in the interval from diagnosis to commencing radiotherapy are likely to be multi-factorial. Over the time course of the audit new techniques in radiotherapy for head and neck cancer have been introduced, such as IMRT, which have the potential to reduce treatment morbidity. These techniques are more labour intensive and increased manpower and facilities are yet to come fully on-stream.

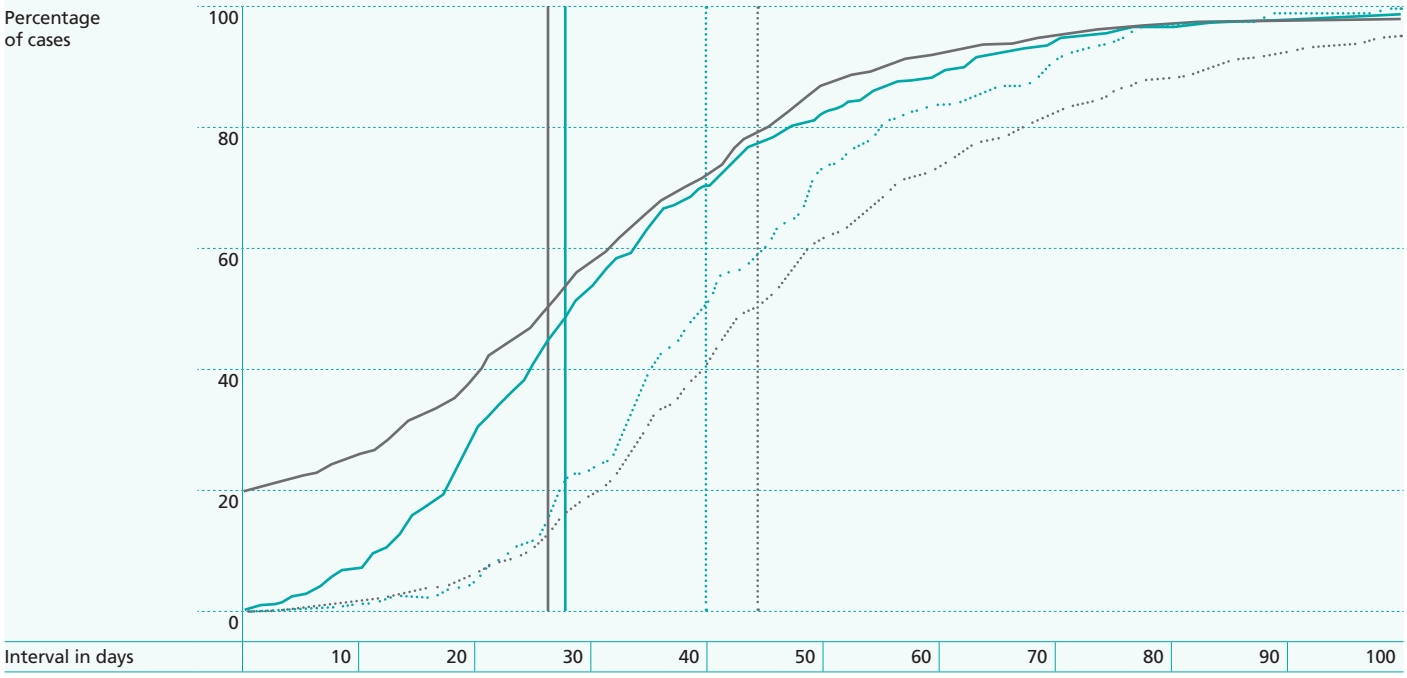
50 per cent of patients are waiting for more than 44 days to commence radiotherapy, which may reflect resource limitations. The conclusion that resource limitations particularly apply to radiotherapy, is supported by shorter access times for surgery in comparison for all subsites which share the initial common pathway to treatment decision.

Best practice has previously suggested that primary radiotherapy should commence within 28 days of diagnosis[29] The recently published British Association of Head and Neck Oncologists (BAHNO) standards (2009) present even more challenging performance; with those patients being treated with curative intent for 50 per cent to start within two weeks of decision to treat and 100 per cent within four weeks and those with palliative intent, 50 per cent to start within 48 hours and 100 per cent within two weeks.

Larynx and oral cavity data has been collected since the inception of the audit. In this year's analysis:-

- There are similar numbers of laryngeal cancer patients undergoing first treatment with primary radiotherapy (n=439), with a median interval of 42 days from the point of diagnosis, and surgery (n=412) with the median interval from diagnosis to first recorded treatment being 20 days. Previously radiotherapy had predominated in treatment.

Figure 8.8.1.12.a
All sites; Interval from diagnosis to first definitive treatment.



- A comparison over 5 reports shows a year on year reduction in the median interval from diagnosis to surgery in larynx cancer with a reduction of 33 per cent from 30 days to a median of 20 days, with ninety per cent being treated within 50 days.
- For radiotherapy in larynx cancer over five reports a reduction had occurred to the fourth report, but with a rise in the median in the last year
- The majority of oral cavity cancer patients first treatment is surgery (n=717), with this year a median interval of 31 days from the point of diagnosis. For smaller numbers who undergo primary radiotherapy (n=174), the median interval from diagnosis to first radiotherapy is 55 days.
- A comparison over five reports shows year on year only a small reduction in the median interval from diagnosis to surgery in oral cavity cancer with a reduction of 3 days to a median of 31 days, with ninety per cent being treated within 61 days.
- For radiotherapy in oral cavity cancer over five reports a reduction had occurred to the fourth report, but with a rise in the median in the last year

8.8.1.12.1 Interval from diagnosis to first definitive treatment by trust and by type of treatment

In considering the changes identified above in 8.7.1.12, the Expert Panels again questioned whether there was variation within organisations or between trusts. A number of inconsistencies arose within the fourth report analysis and therefore a chart by named trust was not included last year.

These issues have been resolved and this year's data is represented as box and whisker plots. The left edge of the box depicts the 25th percentile (or lower quartile) i.e. the number of days from diagnosis to first definitive treatment for one quarter of all observations for that particular NHS trust, the marker near the middle of the box represents the median (or 50th percentile) and the right edge of the box represents the 75th percentile (or upper quartile). The whiskers represent the minimum or maximum number of days from diagnosis to first definitive treatment.

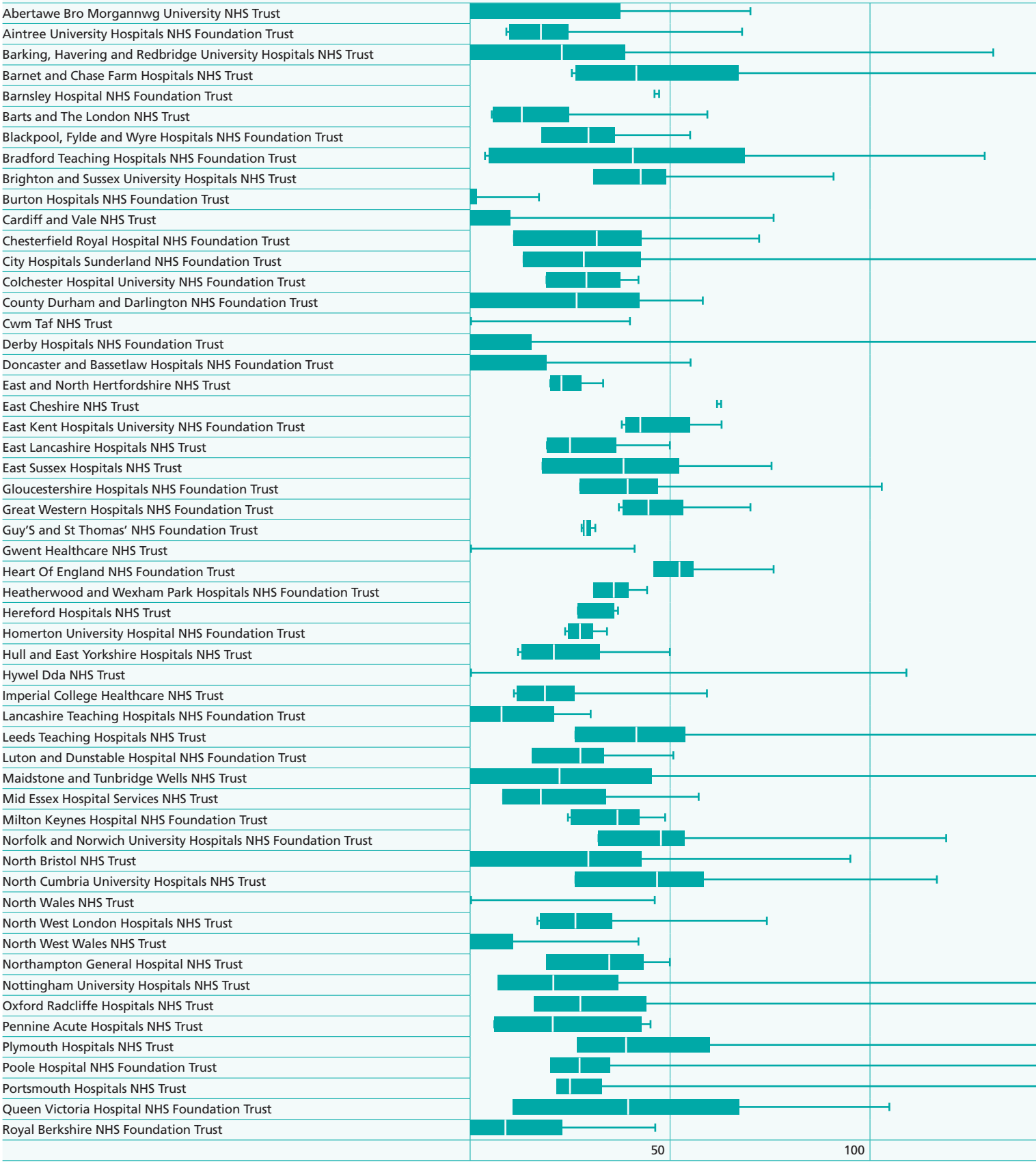
Figure 8.8.1.12.b
Larynx; Interval from diagnosis to first definitive treatment.

	1st report	2nd report	3rd report	4th report	5th report
Surgery-median days	30	24	25	23	20
Radiotherapy-median days	49	45	45	41	42

Figure 8.8.1.12.c
Oral Cavity; Interval from diagnosis to first definitive treatment.

	1st report	2nd report	3rd report	4th report	5th report
Surgery-median days	34	34	33	32	31
Radiotherapy-median days	60	48	52	51	55

Figure 8.8.1.12.1a
Interval from diagnosis to first definitive treatment by trust and by surgery



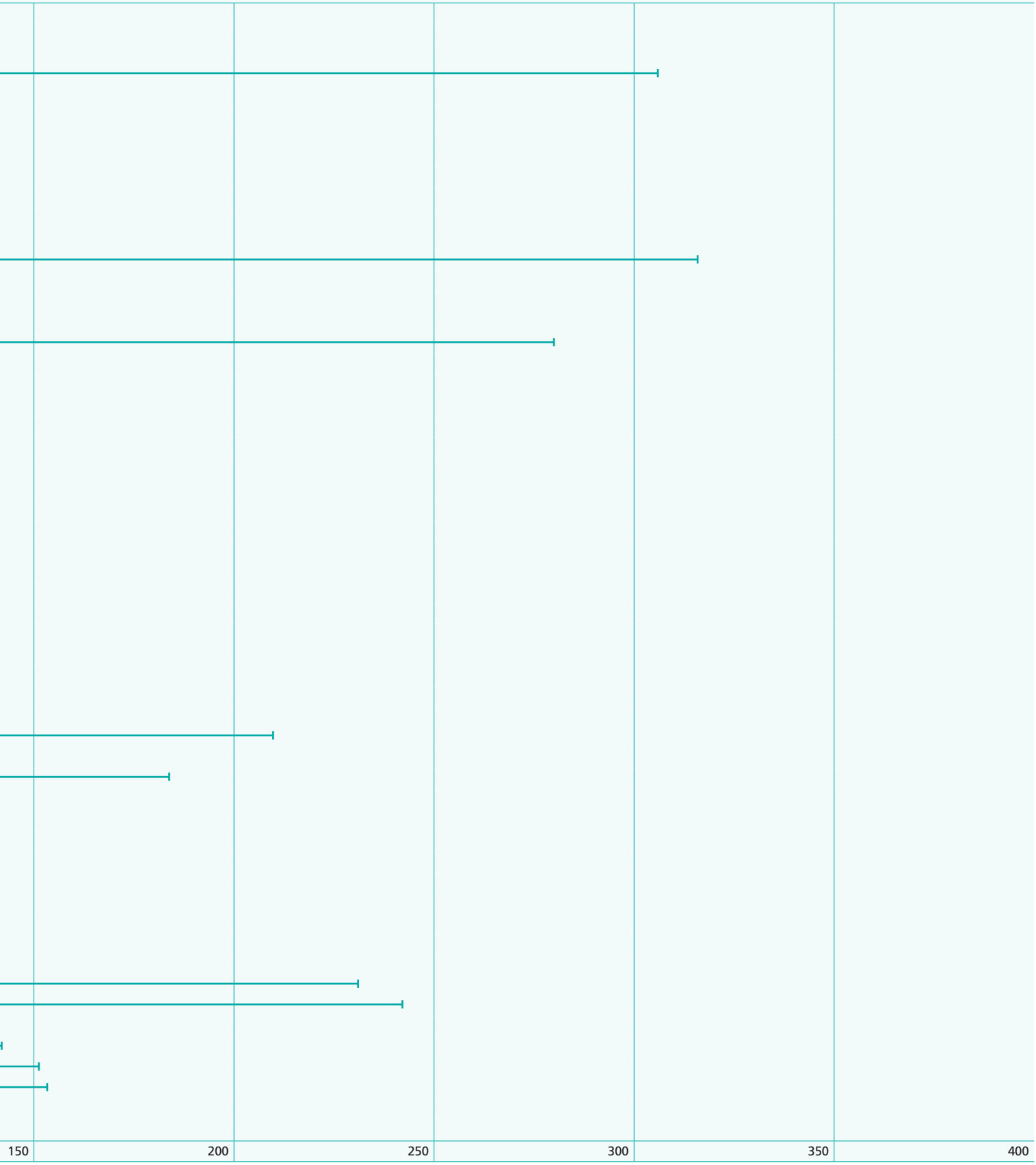


Figure 8.8.1.12.1a continued
Interval from diagnosis to first definitive treatment by trust and by surgery

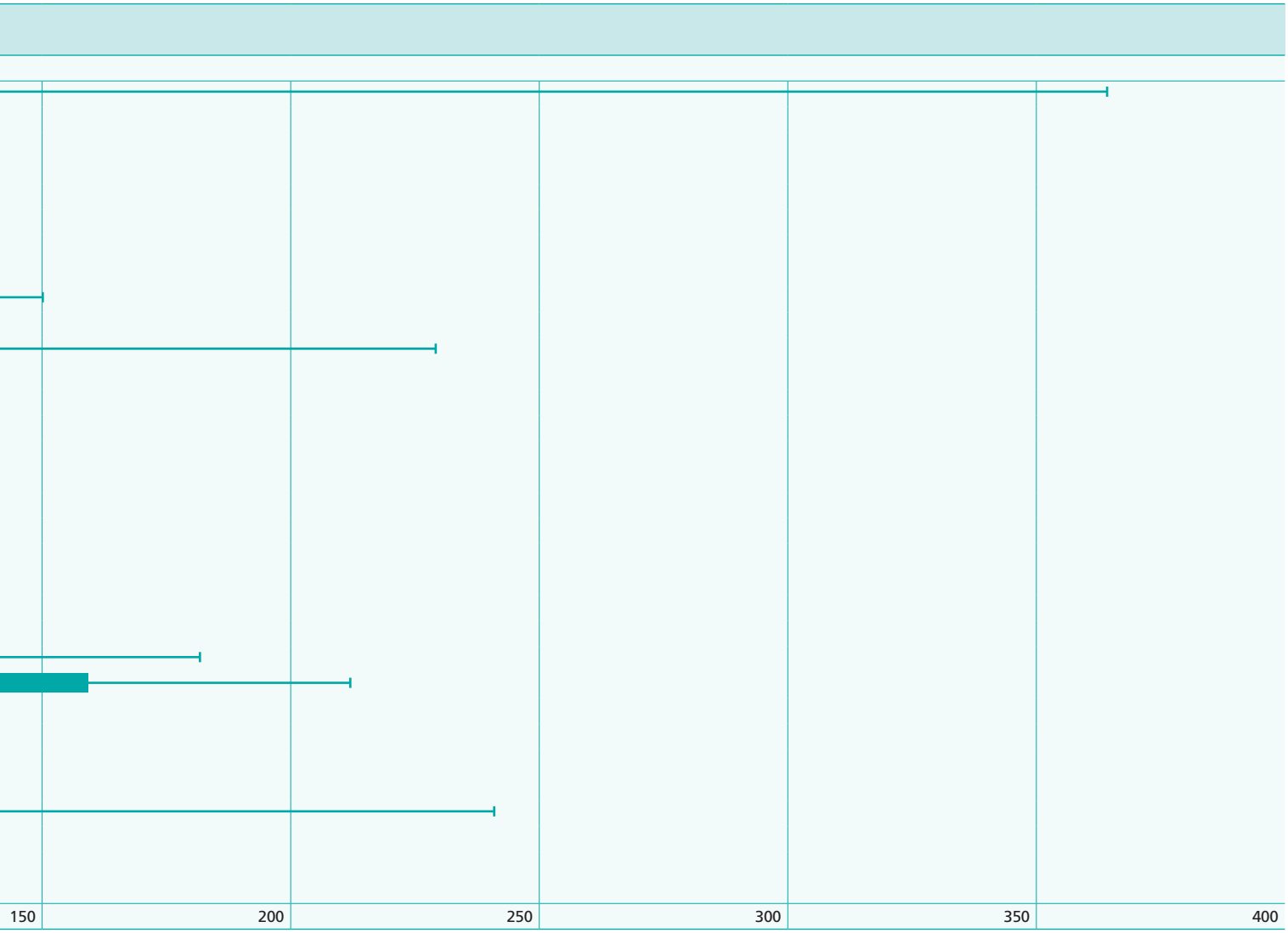
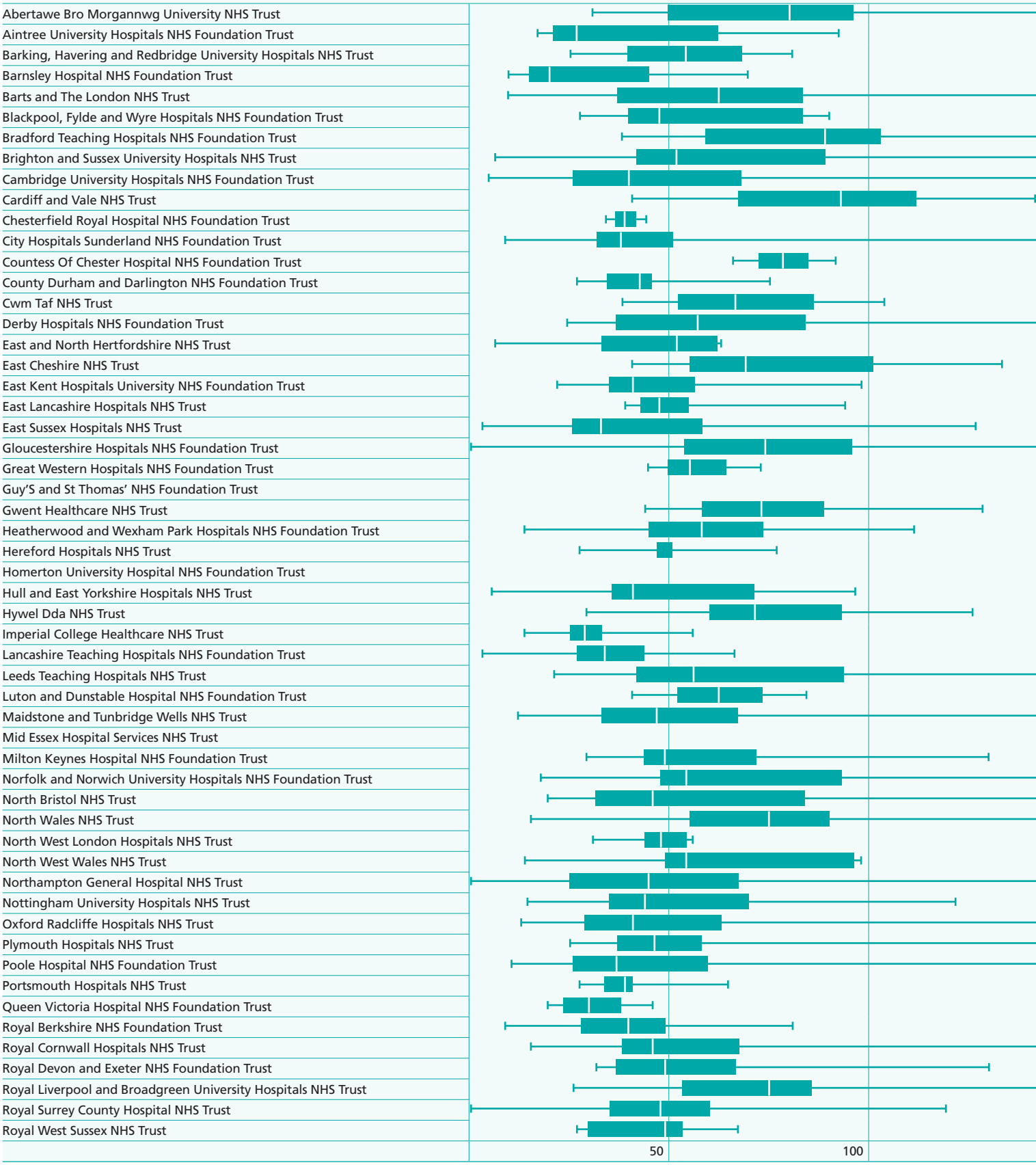


Figure 8.8.1.12.1b
Interval from diagnosis to first definitive treatment by trust and by radiotherapy



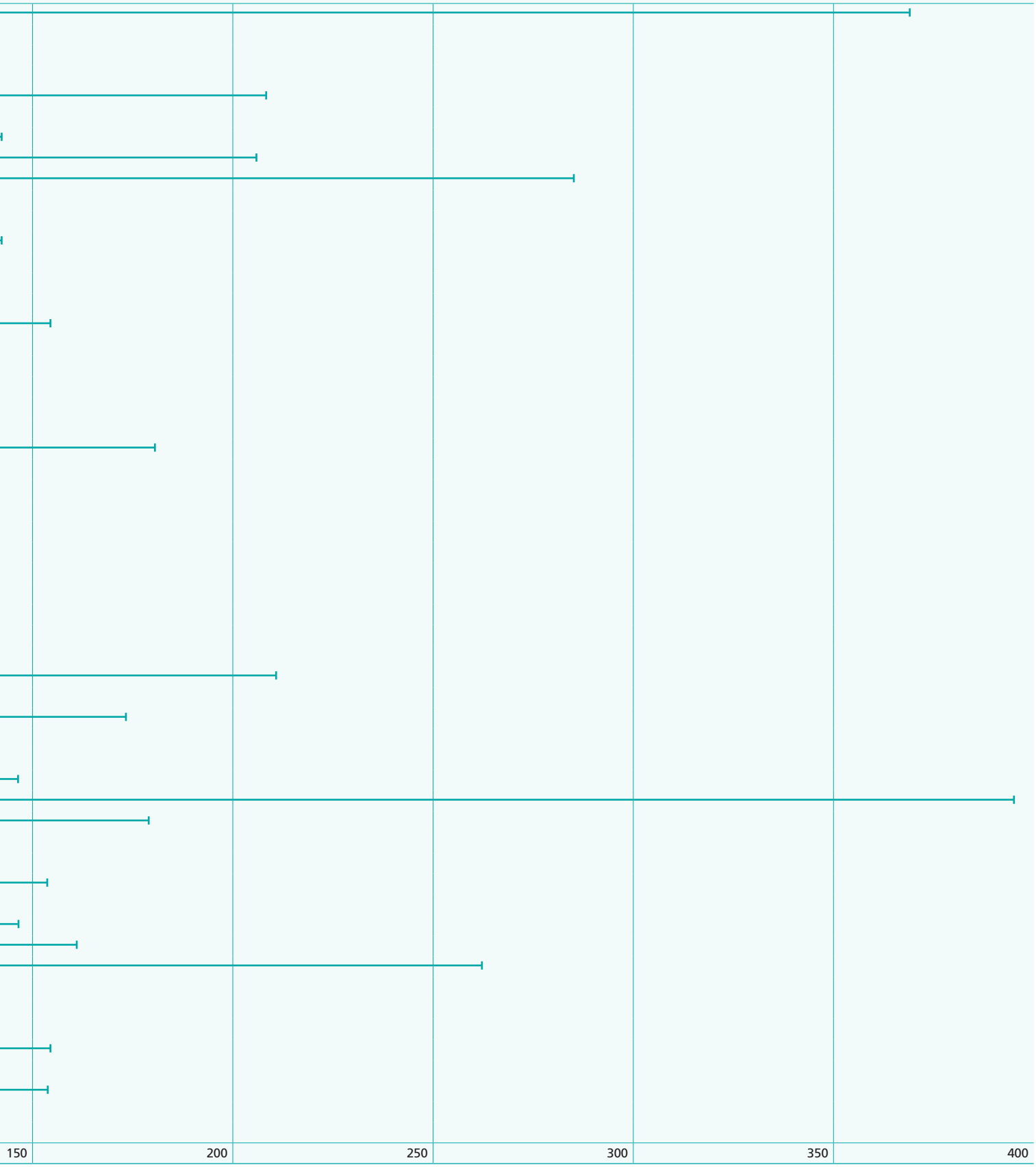
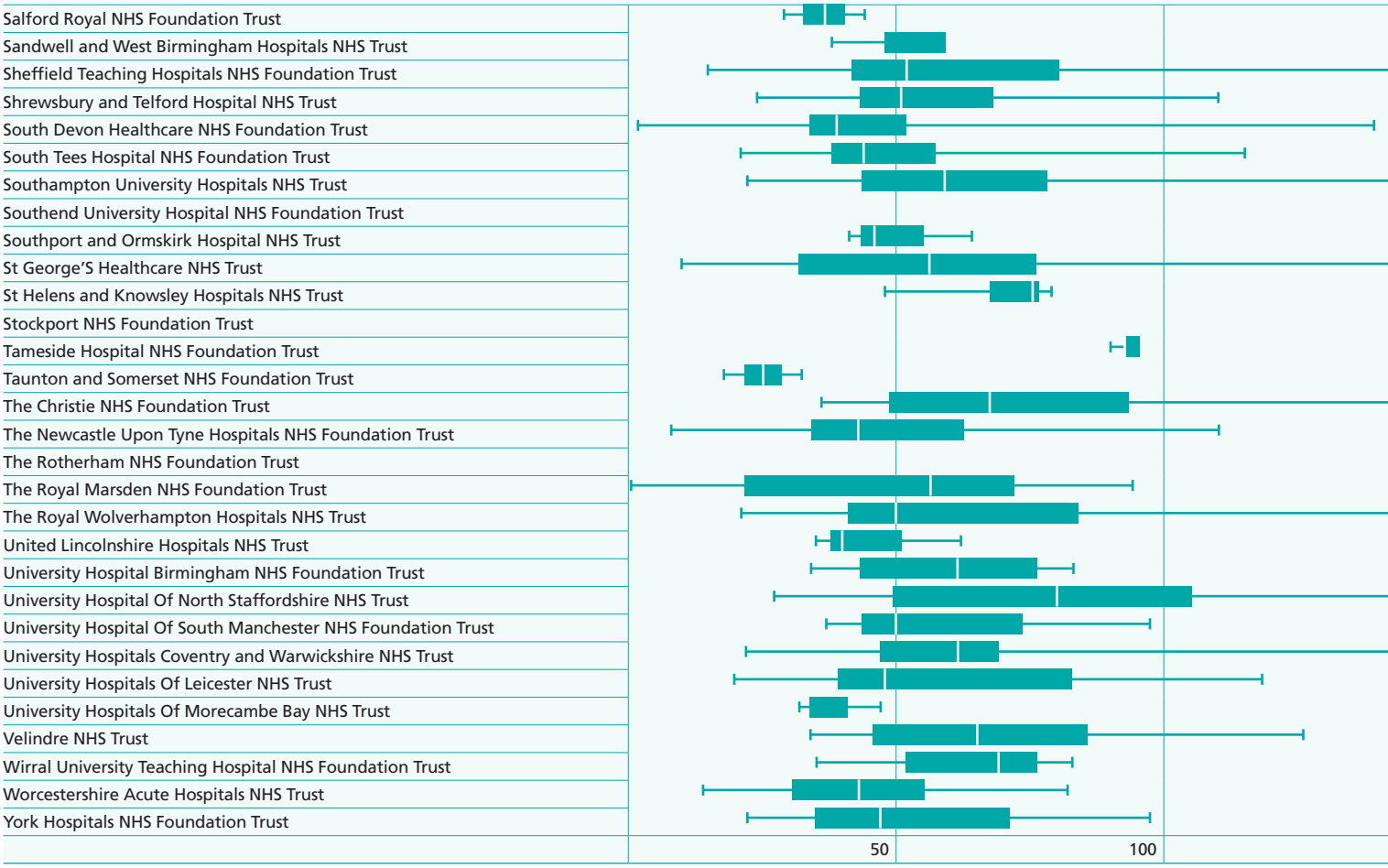


Figure 8.8.1.12.1b continued
Interval from diagnosis to first definitive treatment by trust and by radiotherapy



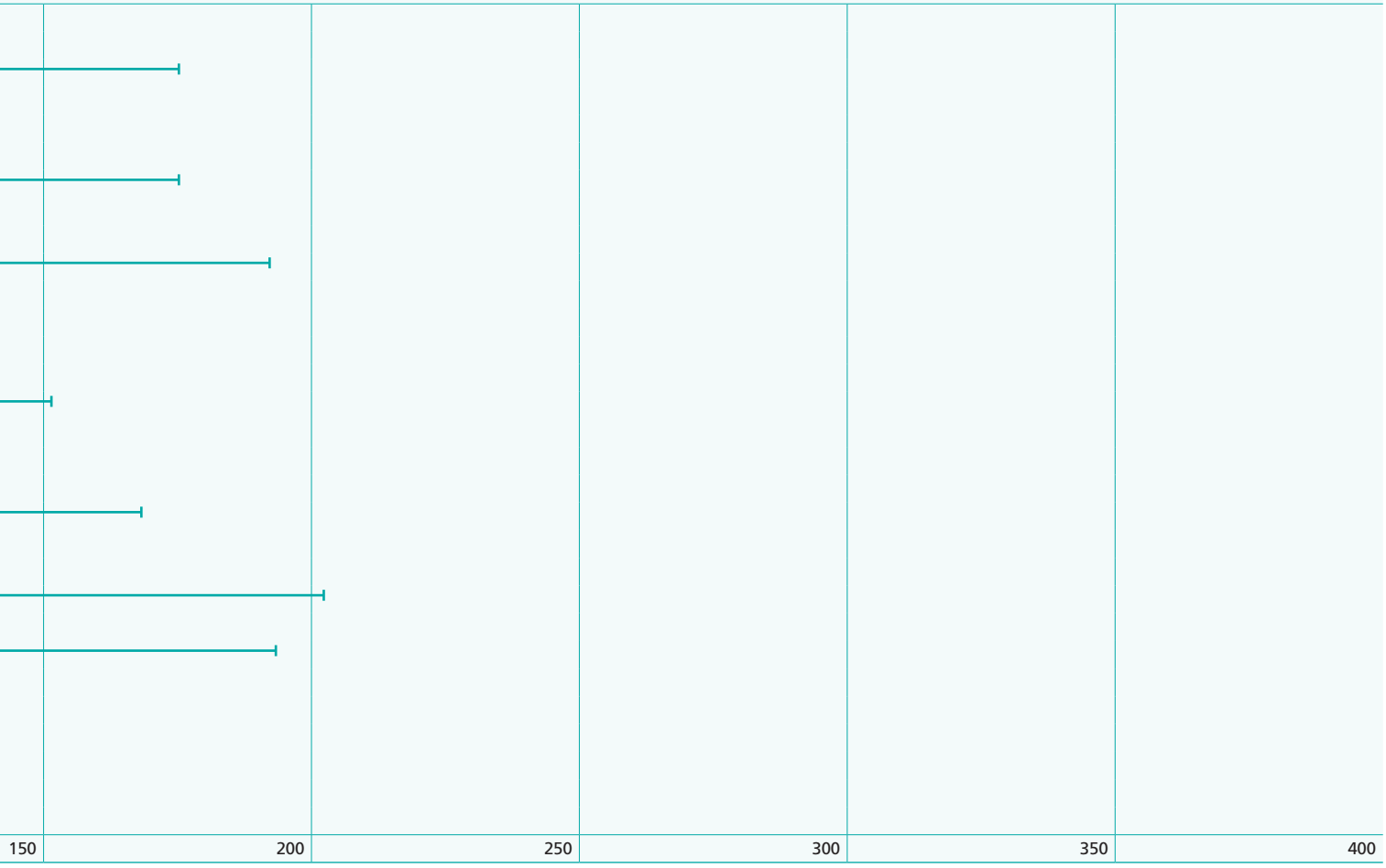
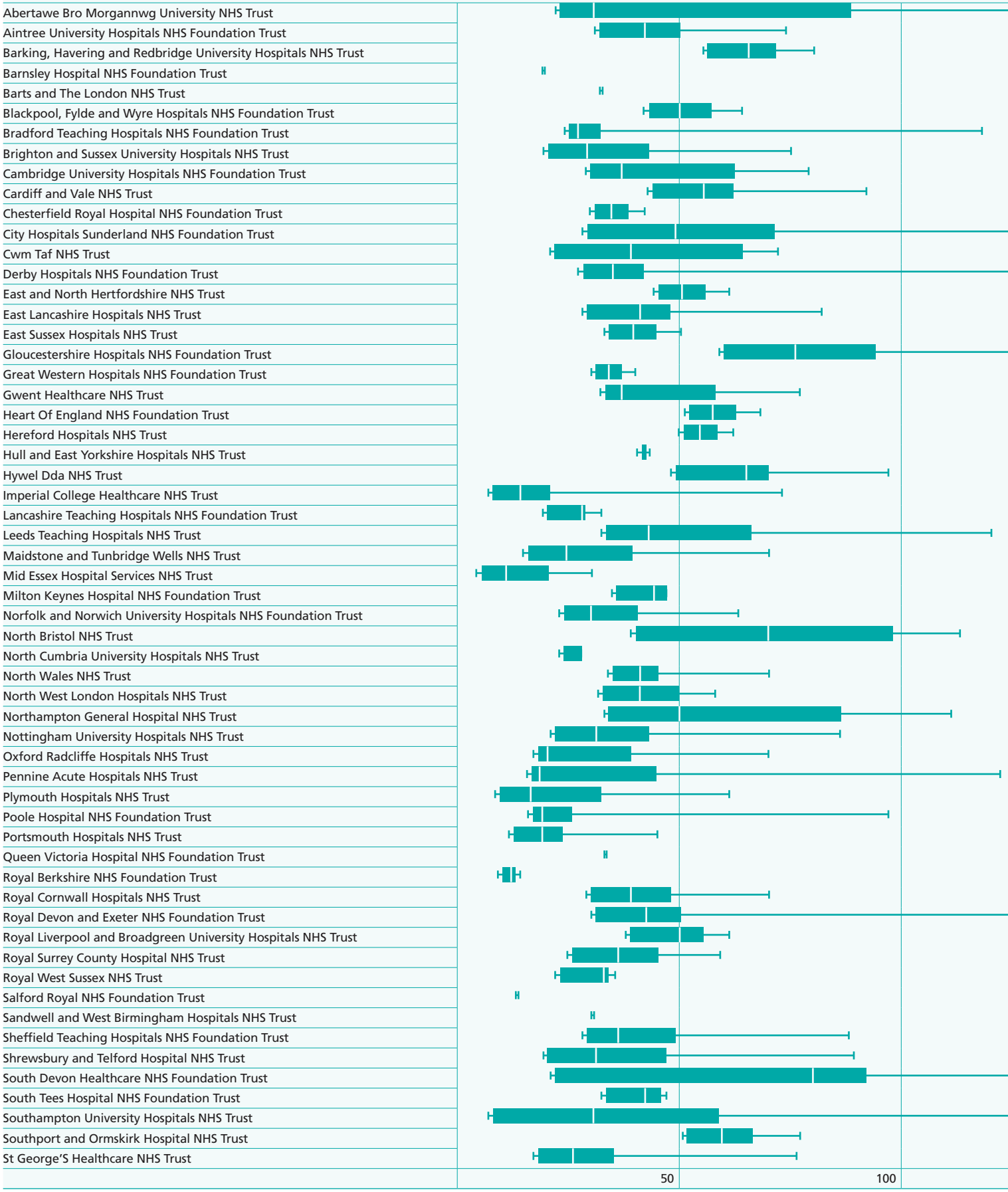


Figure 8.8.1.12.c
Interval from diagnosis to first definitive treatment by trust and by chemotherapy



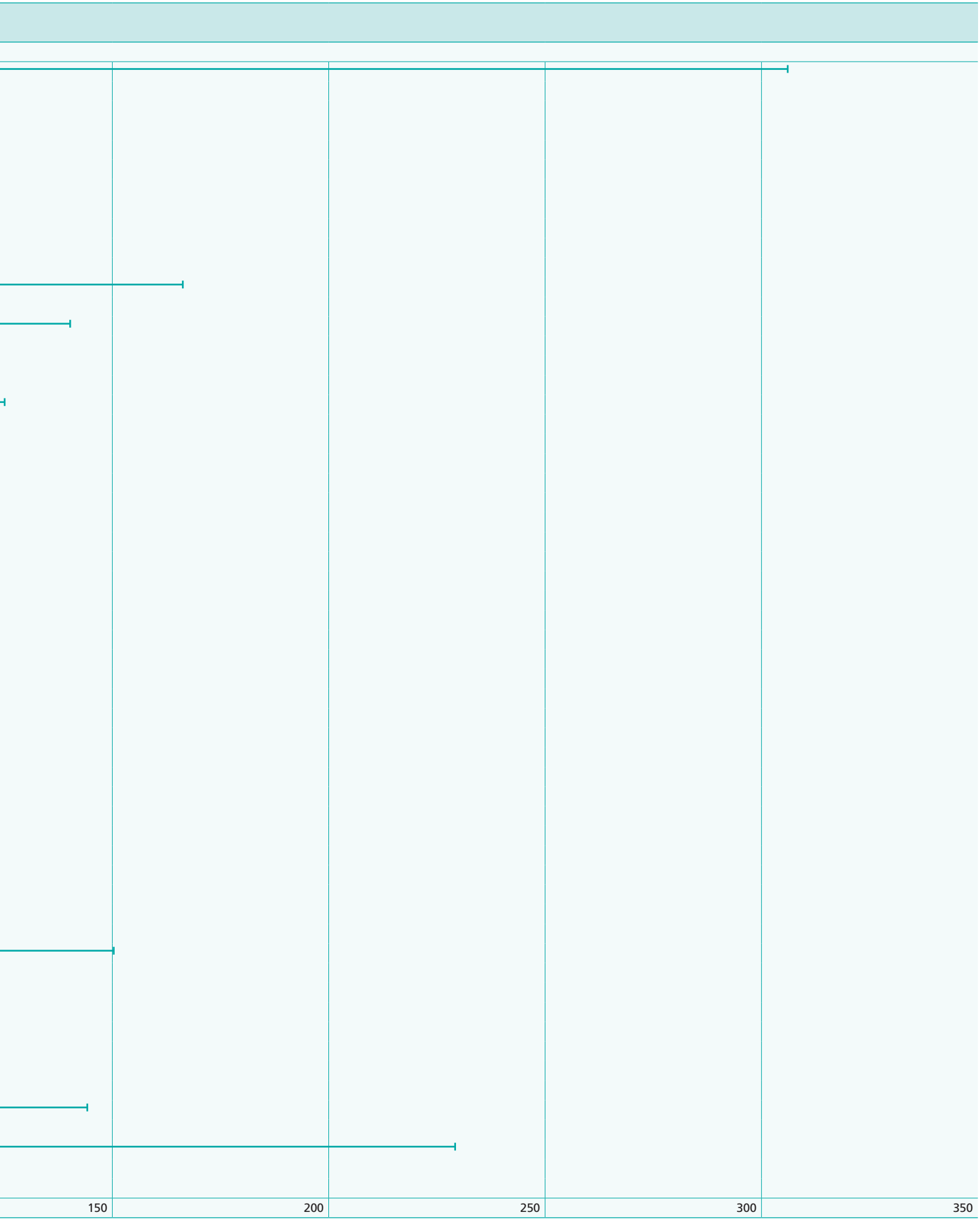


Figure 8.8.1.12.c continued
Interval from diagnosis to first definitive treatment by trust and by chemotherapy

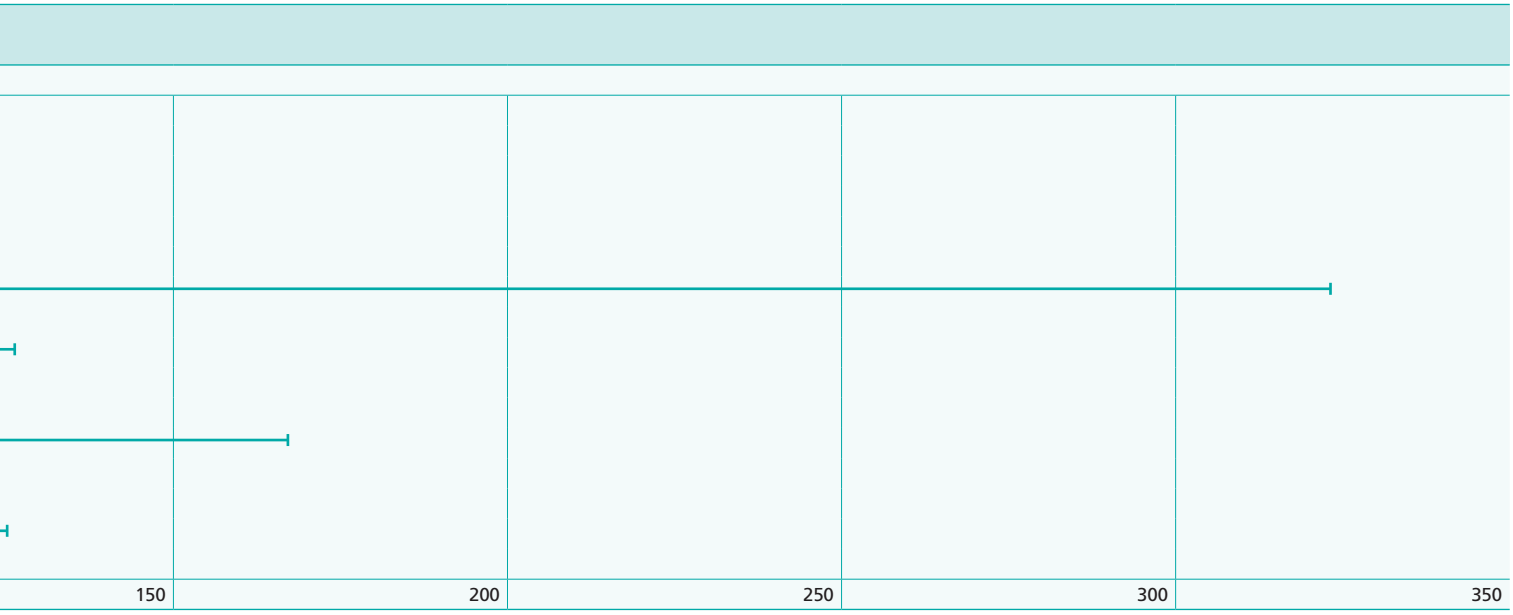
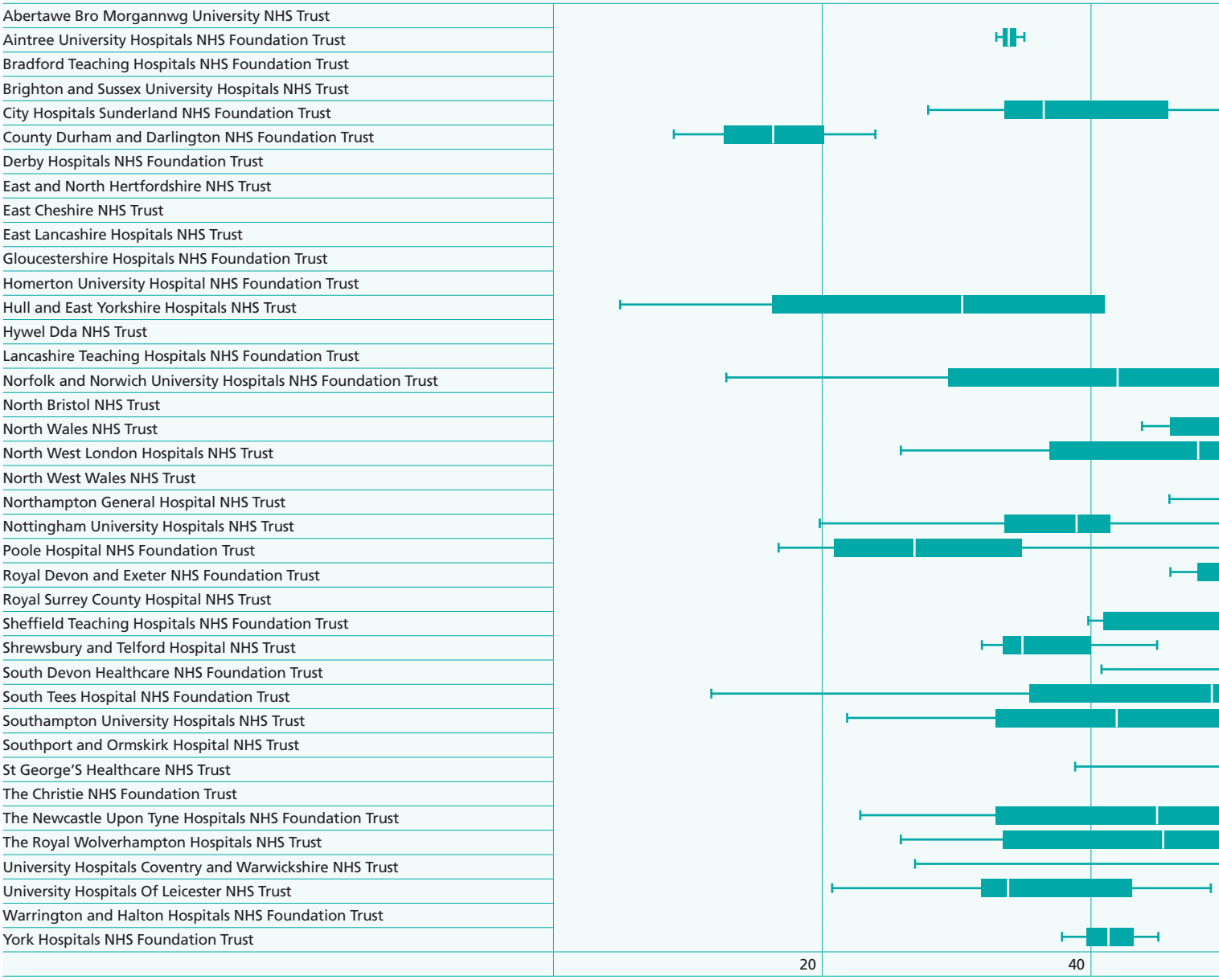
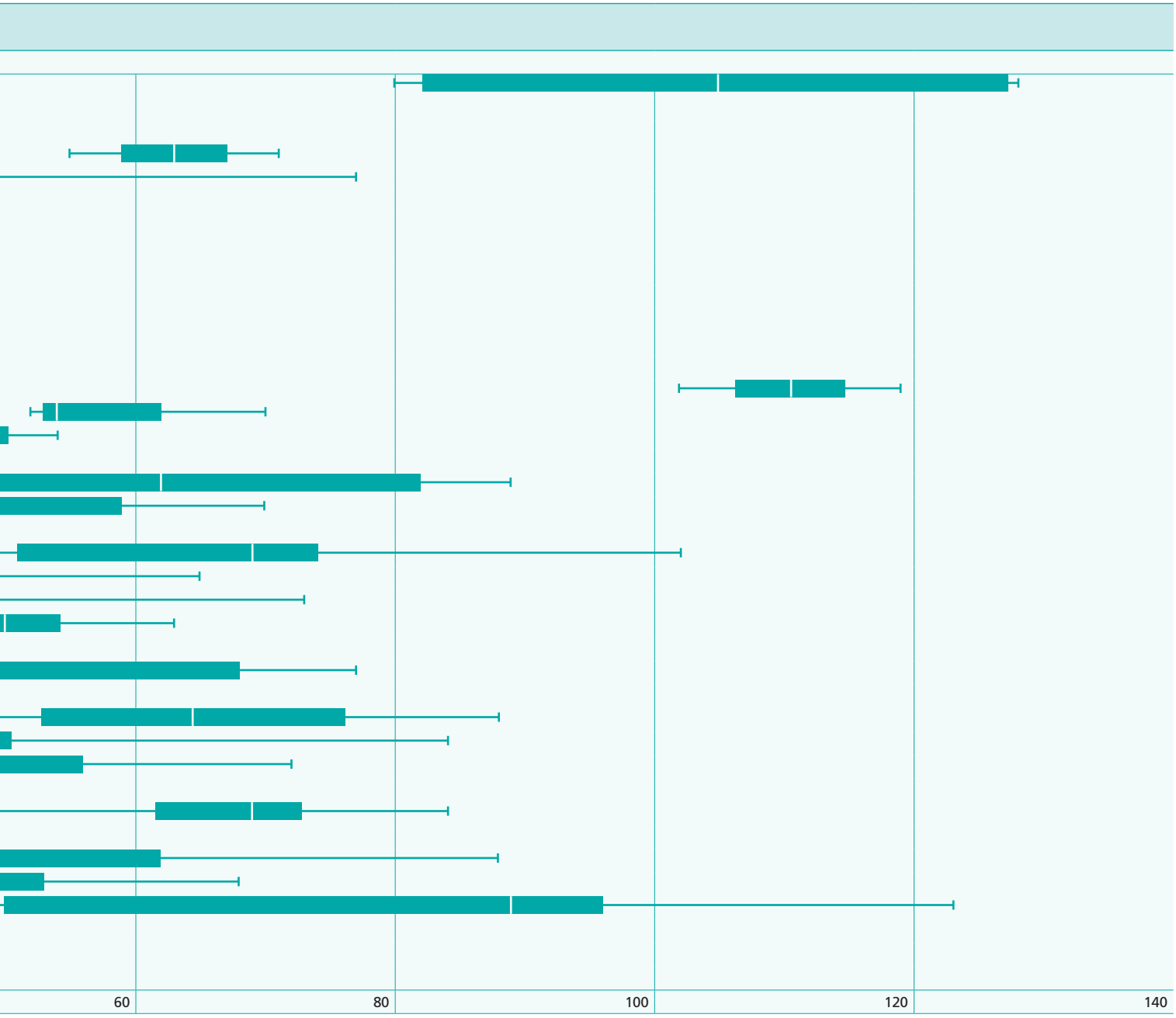


Figure 8.8.1.12.d
Interval from diagnosis to first definitive treatment by trust and by chemo-radiotherapy





An overview of the results obtained to each treatment shows:-

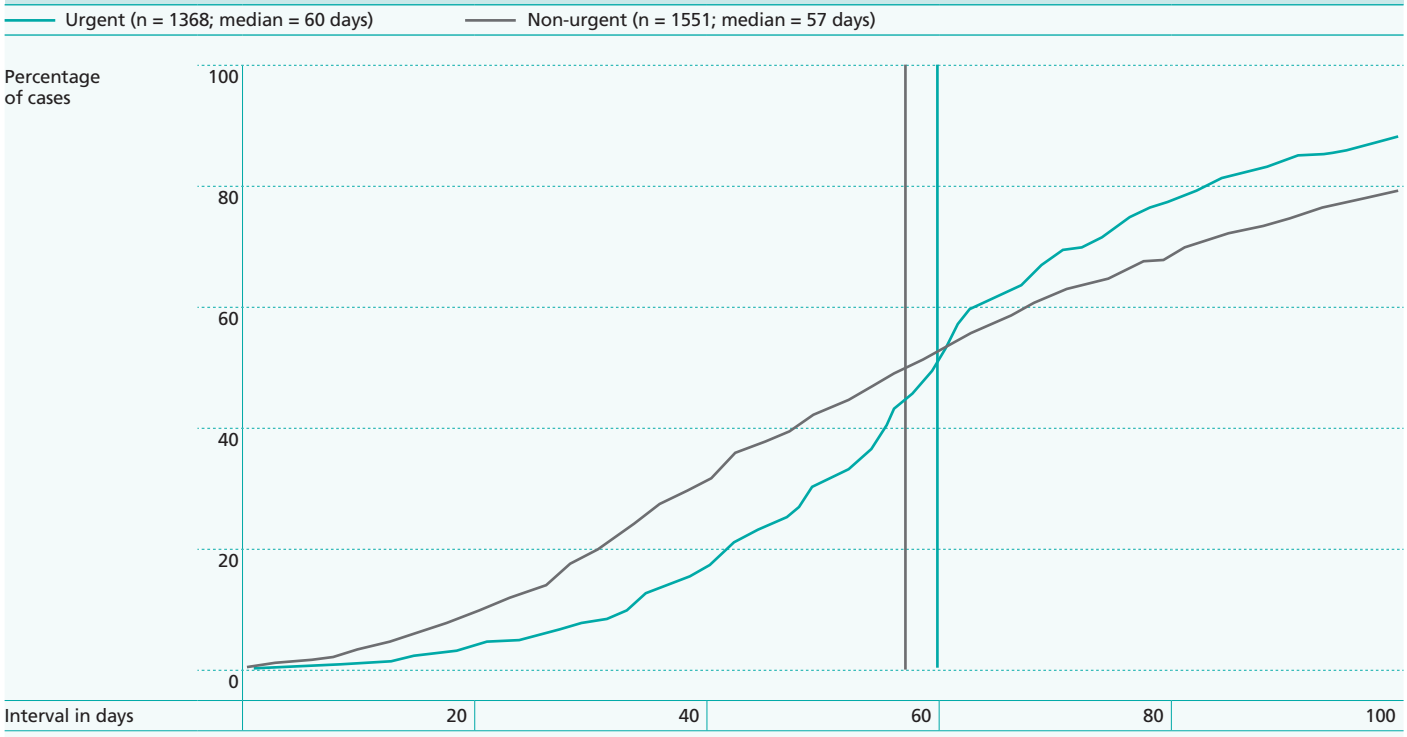
- significant variation within organisations, but confirms the previously identified problem in accessing radiotherapy services.
- those trusts with very long whiskers extending out over 200 days are likely to represent anomalous data, where patients have been followed with pre-neoplastic conditions for a length of time before a definitive cancer arises
- for surgery, considerable variation is again seen, and MDTs should be encouraged to process map the pathway to minimise access times.
- MDTs may benefit from monitoring this interval prospectively between audits, and considering both patients on 2 week wait paths and those on non 2 week wait paths. The 31 day treatment target is from care plan agreed to start of definitive treatment but does not include the interval from diagnosis to care plan agreed.

The sixth Annual Report will examine time intervals for treatment in recurrence

8.8.1.13 Interval from referral to first definitive treatment in England

- The median interval for all sites not referred via the two week rule was 57 days, but for two week wait patients it was 60 days. This shows a small increase compared to the fourth report.
- Over five annual reports there has been little change in this interval
- Whilst the median now falls less than 62 days for both two week wait and non two week wait referrals, considerable work remains to achieve this standard for all patients from date of referral to start of treatment. It should be noted that the intervals reported for "two week rule patients" are unadjusted (for cancellations, did not attends and deferred treatments etc). In this fifth Annual Report the index period reflects the "going further on cancer waits" where two week rule patients have no adjustments made and thus concordance of results with cancer wait times would be expected.

Figure 8.8.1.13
Interval from referral to first definitive treatment in England.



The two week wait target for urgent cancer referral applies to England and figures above only include patients from England.

8.8.1.14 Interval from surgical resection to reporting on resective specimen

- The median interval to reporting varied from a median of 6 days in larynx to 10 days in hypopharynx and major salivary gland. The analysis looked at 999 cases.
- The median interval for larynx (6 days) and oral cavity (8 days) has significantly reduced from early reports but has not fallen further from the fourth Annual Report.
- This reflects continuing efforts by pathology colleagues to accelerate patients' pathways balanced against resource availability.
- In all sites apart from hypopharynx more than 90 per cent of patients were reported within 25 days, which is encouraging. It is assumed that the practice of issuing an interim report where decalcification is required for complete reporting has helped achieve this target.

8.8.1.15 Interval from date of surgery to post-operative radiotherapy

The first recorded surgery date was considered. The first recorded radiotherapy after the surgery date was then compared to it and the interval derived.

- 358 cases were identified where an interval from date of surgery to the commencement of post operative radiotherapy could be calculated
- The median interval to post-operative radiotherapy was 51 days for all sites. This is a reduction from the third and fourth Annual Reports (56.5 days).
- Tumour biology and previous work suggest that there should be less than 6 weeks (42 days) to commencement of radiotherapy following surgery[29]. The results presented suggest delay to commencing radiotherapy following oropharyngeal surgery and greater delays to both oral and laryngeal surgery. Less than 50 per cent of patients achieved this interval for their treatment
- A variation in interval was noted with a lower median interval for oropharynx (46 days) compared to larynx (49 days) and oral cavity (52 days). It should be noted the sample size is smaller in salivary and hypopharynx.
- This part of the pathway reflects completion of post surgical healing, confirmation of resective pathology and preparation to proceed to start radiotherapy including production of a mould and planning. Further work is required to assess the contributory elements to this process, and MDTs are encouraged to locally evaluate this important pathway.
- Pre-booking of adjuvant radiotherapy at the time of decision to treat may assist in reducing this interval.

Figure 8.8.1.14
Interval from surgical resection to reporting on resective specimen

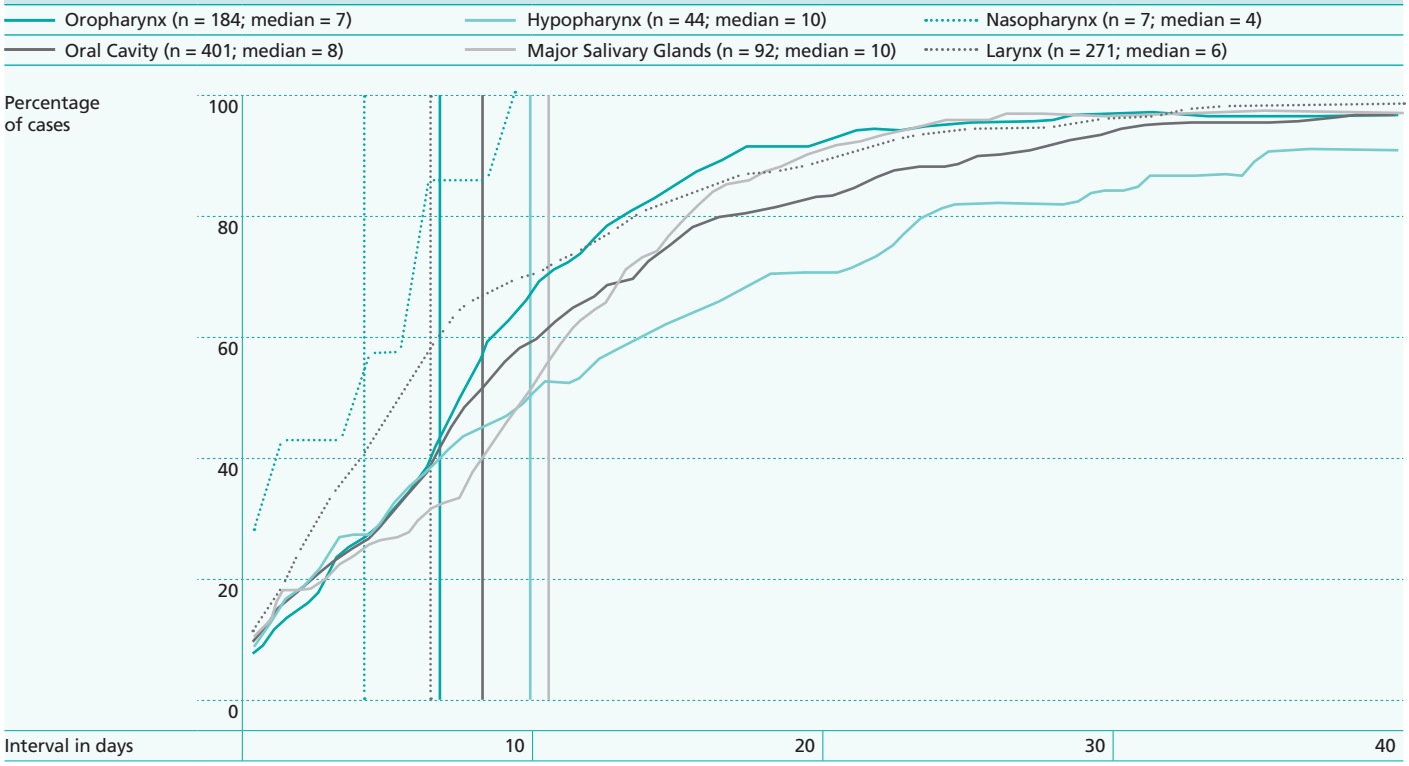


Figure 8.8.1.15.a
Interval from date of surgery to post-operative radiotherapy-all sites. (n=358)

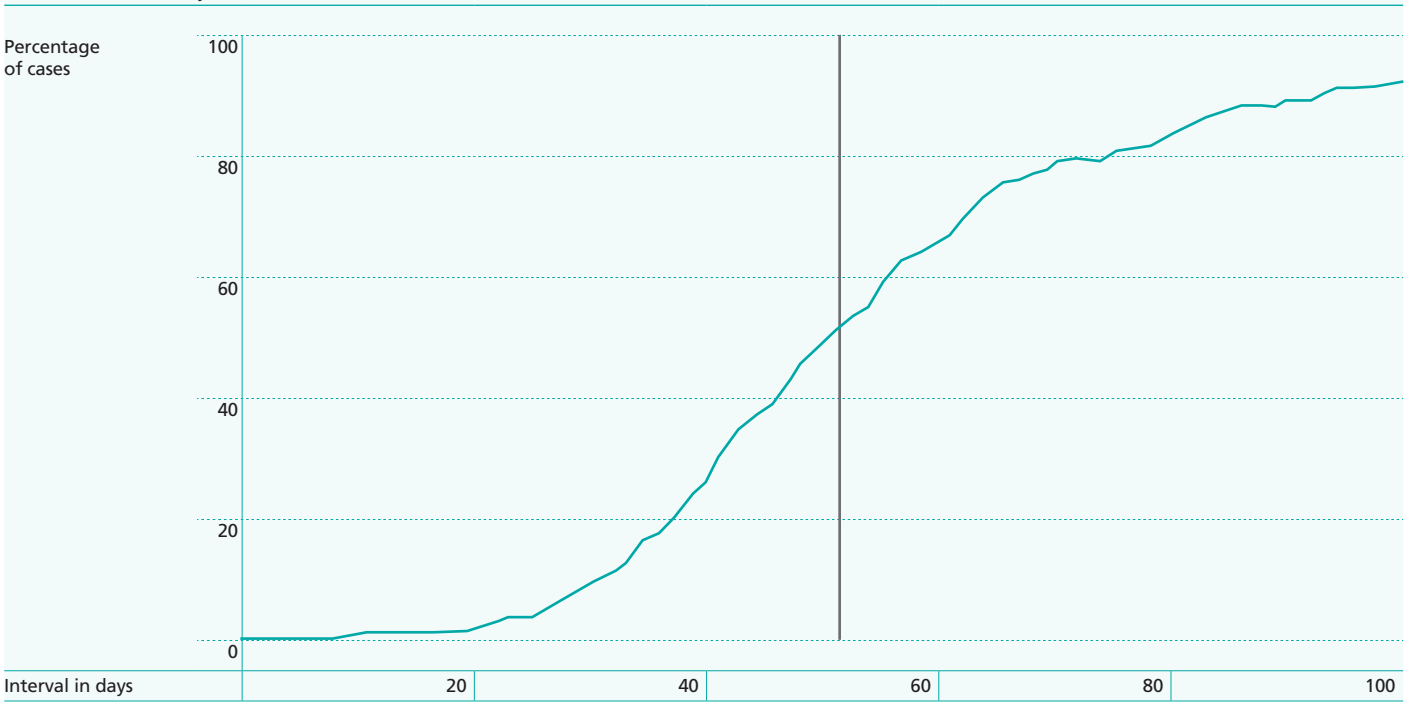
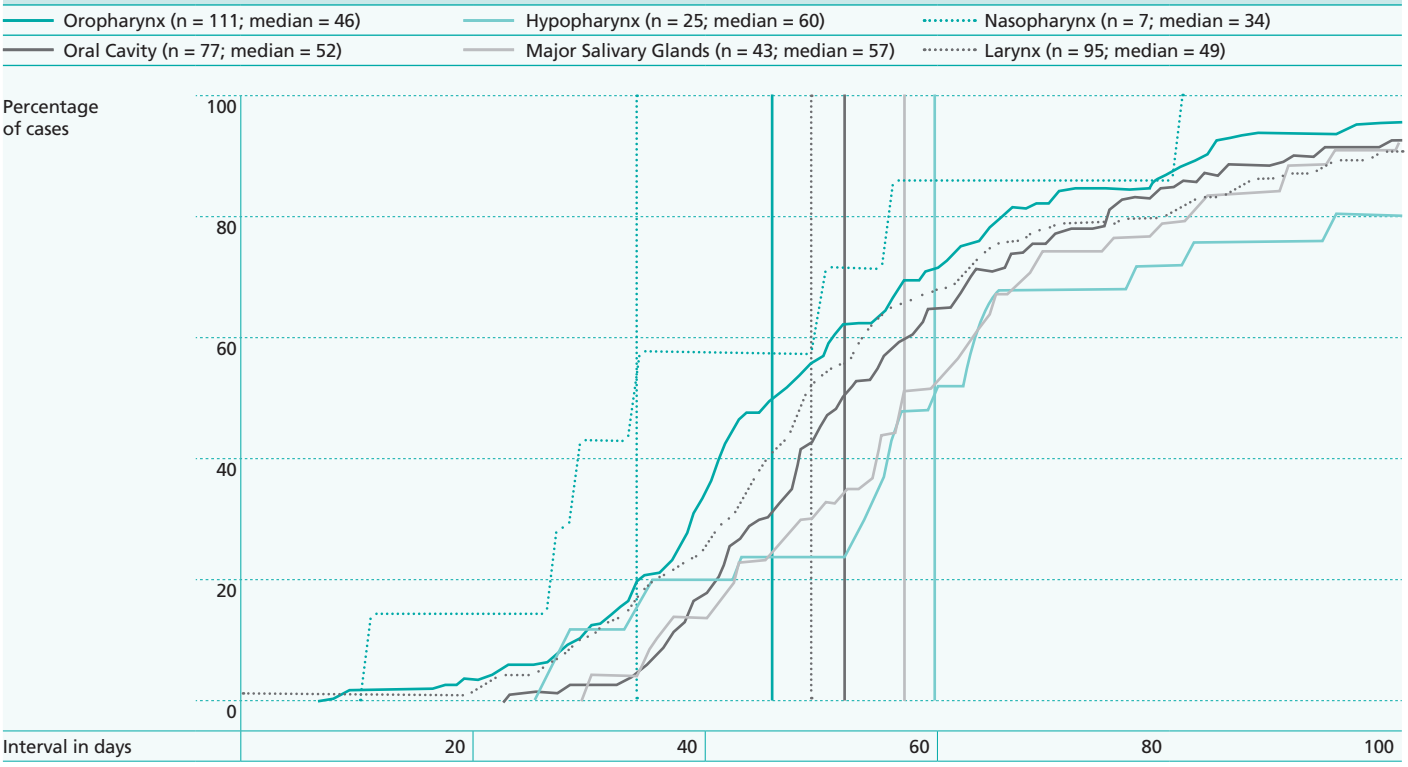


Figure 8.8.1.15.b
Interval from date of surgery to post-operative radiotherapy-by anatomic site.



8.9 Evidence of improvement/assurance in quality of care (increasing the proportion of patients who receive appropriate specialist opinion and treatment)

8.9.1 Care provided - squamous cell carcinoma larynx

- Of the 1522 cases of larynx cancer, 1385 cases have a care plan, of which 1164 (84.0 per cent) have a care plan with recorded treatment intent. This includes intent of treatment or indicating palliative or supportive care. This has risen from 79.4 per cent in the last report.
- The actual treatments received are described below by stage:-
- The established historic treatment for patients with laryngeal cancer in England and Wales has been radiotherapy, but this year for the first time a greater number of patients are recorded as having undergone surgery. This may reflect a trend or better data quality in the recording of surgery.
- There appears to be an increase in surgery for early stage disease with the rising popularity of endolaryngeal resection confirmed for the first time. 43.3 per cent of patients with early stage disease were treated surgically (compared to 34.5 per cent in the fourth Annual Report). Endolaryngeal surgery[30] can be either by cold steel or using a CO_2 (carbon dioxide) laser and a more detailed discussion can be found in section 8.8.2. This trend and the comparative outcomes with radiotherapy will be assessed in future reports as well as looking at variations in care by region.
- In advanced disease where appropriate, radical surgery (laryngectomy) with adjuvant radiotherapy is the curative treatment of choice. In those unsuitable for surgery organ sparing protocols are being reported in the literature[31], but the numbers in the submission are very small.

Figure 8.9.1
Care provided - squamous cell carcinoma larynx.

First recorded treatment of those patients with recorded treatment intent in care plan	Early stage	Late stage	Not staged*	Total
Surgery	167	152	150	469
Radiotherapy	205	77	164	446
Chemotherapy	8	38	17	63
Chemoradiotherapy	6	13	5	24
Palliative care	0	16	9	25
Supportive care/no specific treatment or Not recorded	127	115	253	495
Total	**513**	**411**	**598**	**1522**

* Not staged – insufficient T, N, M for categorising early / late

8.9.1.1 Surgery

8.9.1.1.1 Percentage receiving each category of surgical procedure (including surgery to neck, surgical voice restoration)

- Of 470 patients undergoing surgery, 308 (65.5 per cent) have at least one surgical procedure recorded.
- 134 cases of endolaryngeal microsurgical resection procedures are recorded (compared to 94 cases in the fourth Annual Report) accounting for 43.5 per cent of all surgical procedures which is a similar percentage to last year's figure (41 per cent). The audit notes the overall rise in surgical data quality.
- Of cases undergoing endolaryngeal resection 101 were glottic, 11 supraglottic, 1 subglottic and 23 not specified cancer anatomic sites.
- The distribution of stage as expected due to the predominance of glottic cancers, is greatest for T category T1a
- 37.3 per cent of surgical procedures were laryngectomies, with nearly all being total laryngectomies but with only 9.6 per cent recorded as having primary surgical voice restoration. This seems a very low and non-credible figure. However 7.6 per cent were reported as having pre operative speech and language therapy (SALT) counselling on surgical voice restoration. The Expert Panels felt again that this was not representative of current clinical practice, but wish to see assurance of care delivered in this important area.
- The Expert Panel members would expect that the majority of patients (in excess of 80 per cent) undergoing this procedure would be counselled by a speech and language therapist pre-operatively and be offered and undergo primary surgical voice restoration. The availability of speech and language therapists may be a confounding factor but the absence of full data collection above (Figure: 8.6.5.a) limits the ability to resolve this. See also section 9.2.1.
- The sixth annual collection period will continue to examine surgical voice restoration, which is hoped will encourage speech and language colleagues to more actively participate in the audit.
- A small number of more extensive procedures are identified for very advanced tumours.

It is important that all components of a surgical procedure are recorded to provide a true reflection of the breadth and complexity of surgical management. Surgical voice restoration appears currently under-represented in the surgical procedures submitted

Figure 8.9.1.1.1a
Percentage receiving each category of surgical procedure (including surgery to neck, surgical voice restoration)

Main categories of operation (patients may be counted in more than one category)		
Larynx patients – surgery summary	**Number**	**Percentage of 308 with surgical procedure recorded**
Endolaryngeal resection	**134**	**43.5**
— of these 134 patients the number having neck dissection	2	
Laryngectomy	**115**	**37.3**
— of these 115 the number having supraglottic laryngectomy	4	
— of these 115, the number having neck dissection	59	
— of these 115, number having primary surgical voice restoration	9	
More extensive resection	**30**	**9.7**
Neck dissections		
— (including those mentioned with laryngectomy and more extensive resection)*	95	30.8 per cent
Comprehensive neck dissection	34	11 per cent
Modified neck dissection	13	4.2 per cent
Selective neck dissection	50	16.2 per cent
* More extensive resection describes where a portion of the hypopharynx or oropharynx is removed beyond that normally included in a total laryngectomy		

Figure 8.9.1.1.1b
Count of cases undergoing endolaryngeal surgery by pre-treatment T stage category

Pre treatment T category	Number of cases
T1a	46
T1b	2
T1 (not a or b)	9
T2	23
T3	11
T4a	1
Tx or blank T category	3
Total	**43**

8.9.1.1.2 Percentage by category of clearance for surgical resection margins

- Of the 308 records with surgery, 122 (39.6 per cent) of records contained this information, a further improvement in recording.
- In the 134 cases where microlaryngeal resection of early lesions was carried out, 27 per cent had margins recorded but as expected fewer cases had margins greater than 5 mm. A recent consensus meeting on endolaryngeal management of early larynx cancer concluded that margins may be much narrower than for open surgery and thus obviate the classification used in data collection.
- In the 115 cases undergoing total laryngectomy 51 cases (44 per cent) had margins recorded. Where open surgery was performed, 32 cases had margins over 1mm clear, and 18 more than 5 mm clear. However the Expert Panels noted that 7 cases had involved margins, which is a poor prognostic factor as the goal in open surgery is to obtain clear margins. The number not recorded however obviates any other significant conclusions.

8.9.1.2 Radiotherapy

The treatment for many of patients with laryngeal cancer in England is radiotherapy, and this matches to the results shown above. An increasing number appear to be receiving chemo-radiotherapy, where it would be expected the chemotherapy would be given concurrently i.e. on the same day preceding the start of radiotherapy and weekly during it.

- 446 cases have recorded primary radiotherapy, with a further 24 recorded as undergoing chemo-radiotherapy. This represents 40.3 per cent of actual treatments recorded in larynx cancer.
- However an assessment of those receiving chemotherapy show up to a further 46 receiving radiotherapy within 3 months of the commencement of chemotherapy. This suggests a number of patients may be receiving induction chemotherapy. The data quality is insufficient to study this in detail, but the Expert Panels discussed whether this could reflect some centres using chemotherapy to control disease due to delays in radiotherapy commencement.
- The majority of patients have radiotherapy as primary treatment or as a planned adjuvant treatment within their initial cancer care plan. However, some patients, having undergone primary surgery, may be advised to proceed to post-operative radiotherapy based on adverse features evident in their resective histology report. Of the 95 patients having post surgical radiotherapy, 7 had undergone microlaryngeal resection, and 11 total laryngectomy. The former would suggest that margins at laser excision were close or incomplete and the latter could be influenced by both poor prognostic indicators in the primary specimen or neck.
- The Expert Panel members have concern that there may be deficiencies in capturing radiotherapy data. This still accounts for a small number of patients and thus will be looked at in future reports when sufficient cases have been captured.
- The availability of (Radiotherapy Episode Statistics[32]) RES data from 2010, will be an opportunity for the National Head and Neck Cancer Audit to acquire radiotherapy data more readily

8.9.1.3 Chemotherapy

In the view of the Expert Panel members, there is very limited available evidence supporting the notion that chemotherapy in isolation improves long-term survival in laryngeal cancer[33,34]. There is, however, some evidence suggesting the benefits of concurrent chemo-radiation[35], and again it will be of interest to assess the benefits as they accrue with time.

- 87 patients received chemotherapy as their first treatment, with 24 of these recorded as chemo-radiotherapy. See section 8.8.1.2 for further discussion.
- Of those 63 patients receiving chemotherapy as their first treatment up to 46 had subsequent radiotherapy within 90 days, leaving 17 patients only recorded as having received chemotherapy alone.

Figure 8.9.1.1.2
Percentage by category of clearance for surgical resection margins

	endolaryngeal	Other laryngeal surgery ie laryngectomy	All Larynx
1. Margin involved	20	7	27
2. <1 mm clear	10	5	15
3. 1-5 mm clear	5	14	19
4. > 5 mm clear	10	18	28
5. Uncertain	14	2	16
8. Not applicable	12	5	17
Not coded		64	

8.9.1.4 Palliative treatment and supportive care

Of those presenting with advanced disease, only small numbers would be expected to get true palliative treatment. It will be of interest in the future to assess what benefit they accrue, and whether they have received this as part of a clinical trial.

- 46 patients have recorded palliative treatment, 3.0 per cent of the total 1522 registrations, 4.5 per cent of the 1027 with recorded treatment.
- The 46 cases break down as: 11 cases of palliative surgery, 34 cases of palliative radiotherapy and 7 cases with palliative chemotherapy. (0 patients had palliative chemo-radiotherapy treatment).
- There were 37 cases of referral to a specialist palliative care team

Specialist palliative care practitioners should be essential members of the core MDT team. Current processes of data capture may not pick up this activity as the provision can occur in a variety of non hospital organisations e.g. community and hospice care.

Data collection of care delivered along the whole patient pathway is a key requirement to understand the whole package of care. Networks are encouraged to facilitate this data collection.

- 10 of these cases have 'supportive' as their care plan intent.

8.9.2 Care provided - oral cavity cancer

- Of the 1635 cases of oral cavity cancer, 1532 have a care plan, of which1247 (81.4 per cent) have a care plan with recorded treatment intent. This includes intent of treatment or indicating palliative or supportive care. This has risen from 64 per cent in the last report.
- The established treatment for the majority of patients with oral cavity cancer in England and Wales is primary surgery, and this matches the results shown above.
- Chemotherapy and chemoradiotherapy although in small numbers are almost exclusively found in the treatment of late stage disease

8.9.2.1 Surgery

- Of 780 patients undergoing surgery, 635 (81.4 per cent) have at least one surgical procedure recorded).

8.9.2.1.1 Percentage receiving each category of surgical procedure (including surgery to neck, and flap repair)

- Surgery followed by adjuvant radiotherapy – determined by histological findings is the commonest treatment modality for oral squamous cell carcinoma.
- Management of the N0 neck remains a contentious issue, but may be influenced by the requirement to enter the neck for reconstructive options.

It is important that all components of a surgical procedure are recorded to provide a true reflection of the breadth and complexity of surgical management.

8.9.2.1.2 Percentage by category of clearance for surgical resection margins

331 cases had surgical resection margins recorded.

- Using the Royal College of Pathologists' guidelines[36], there was evidence in only 34 per cent of cases, of an acceptable clear margin, but a significant number of records do not record details on margins of normal tissue around the tumour, which limits the conclusions that can be drawn
- Adequate resective margins are a predictor of both local recurrence and surgical adequacy
- Of the records completed, a third of them demonstrate margins greater than 5mm.

Figure 8.9.2
Care provided - squamous cell carcinoma oral cavity

First recorded treatment of those patients with recorded treatment intent in careplan	Early stage	Late stage	Not staged*	Total
Surgery	343	220	217	780
Radiotherapy	35	89	50	174
Chemotherapy	4	22	22	48
Chemoradiotherapy (same day)	1	10	1	12
Palliative care	3	31	15	49
Supportive care/no specific treatment or Not recorded	154	136	282	572
Total	**540**	**508**	**587**	**1635**

* Not staged – insufficient T, N, M for categorising as early / late

8.9.2.2 Radiotherapy

- 174 cases have recorded primary radiotherapy as their first treatment, with a further 12 recorded as undergoing chemo-radiotherapy. This represents 17.5 per cent of actual recorded treatments No case was recorded as receiving brachytherapy.
- The majority of patients have radiotherapy as primary treatment or as a planned adjuvant treatment within their initial cancer care plan. Some patients, having undergone primary surgery, may be advised to proceed to post-operative radiotherapy based on adverse features in their resective histology report. Of the 780 cases having surgery, only 77 (9.9 per cent) are recorded as receiving post-operative radiotherapy. The Expert Panel members have concern that there may be deficiencies in capturing post operative radiotherapy data.

A general theme of the analysis is that the second phase of treatment is not being well captured. This may reflect MDT data capture processes. Teams are encouraged to capture all parts of the patients' care plan.

Figure 8.9.2.1.1
Percentage receiving each category of surgical procedure (including surgery to neck, and flap repair).

Oral cavity patients - surgery summary	Count	Percentage of 635 patients with surgical procedure recorded
Floor of mouth excision	**108**	**17**
— of these 108, the number having neck dissection	55	8.7
Buccal mucosa excision	**68**	**10.7**
	26	4.1
Patients having tongue procedures	**255**	**40.2**
— of these 225, the number having neck dissection	116	18.3
patients having total glossectomy	9	1.4
patients having partial glossectomy	130	20.5
patients having excision lesion of tongue	121	19.1
Patients having mandible procedures	**62**	**9.8**
— of these 62, the number having neck dissection	30	
patients having extensive mandibulectomy	7	
patients having hemimandibulectomy	12	
patients having marginal mandibulectomy	28	
patients having mandibulotomy or excision lesion	18	
Total maxillectomy	**0**	**0**
Partial maxillectomy	**29**	**4.6**
Neck dissections (including those mentioned with procedures above)	**318**	**50.1**
Comprehensive neck dissection (includes those listed previously)	**66**	**10.4**
Modified neck dissection (includes those listed previously)	**29**	**4.6**
Selective neck dissection (includes those listed previously)	**227**	**35.7**
Reconstruction mouth	**126**	**19.8**
with flap	48	
with primary closure	5	
with buccal flap	2	
with pectoralis major	8	
with radial forearm	66	
with other		
with SSG	6	
Reconstruction mouth by cancer site		
tongue	40	
lip	11	
gum	8	
mouth floor	35	
palate	3	
cheek mucosa	15	
mouth vestibule	9	
retromolar trigone	5	
Reconstruction mandible	**7**	
with other	4	
with fibula	3	

8.9.2.3 Chemotherapy

In the view of the Expert Panel members, there is no currently available evidence supporting the notion that chemotherapy in isolation improves long-term survival in oral cavity cancer. There is, however, some evidence suggesting the benefits of concurrent chemoradiation[37], and again it will be of interest to assess the benefits as they accrue with time.

- 60 patients received chemotherapy as their first treatment, with 12 of these recorded as chemo-radiotherapy.
- Of those 60 patients receiving chemotherapy as their first treatment up to 33 had subsequent radiotherapy within 90 days, leaving 27 patients only recorded as having received chemotherapy alone.

8.9.2.4 Palliative treatment

Of those presenting with advanced disease only small numbers would be expected to get true palliative treatment. It will be of interest in the future to assess what benefit they accrue and whether they have received this as part of a clinical trial.

- 62 patients have recorded palliative treatment. The 62 cases break down as: 6 cases of palliative surgery, 48 cases of palliative radiotherapy and 8 cases with palliative chemotherapy.
- There were 64 cases of referral to a specialist palliative care team

Specialist palliative care practitioners should be essential members of the core MDT team. Current processes of data capture may not pick up this activity as the provision can occur in a variety of non hospital organisations e.g. community and hospice care.

Data collection of care delivered along the whole patient pathway is a key requirement to understand the whole package of care. Networks are encouraged to facilitate this data collection.

- 15 of these cases have 'supportive' as their care plan intent.

8.9.3 Care provided – oropharynx cancer

- Of the 1491 cases of oral cavity cancer, 1348 have a care plan, of which 1112 (82.5 per cent) have a care plan with recorded treatment intent. This includes intent of treatment or indicating palliative or supportive care.
- The treatment for patients with oropharynx cancer in England and Wales has seen a shift away from surgery towards chemoradiotherapy. There is a suggestion that there is geographical variation in treatment provided and this will be studied in more detail in future reports.
- A sub group of patients have been identified where human papilloma virus (HPV) is linked as a causative factor[38,39,40] and treatment protocols are being adjusted in light of this.

8.9.3.1. Surgery

8.9.3.1.1 Percentage receiving each category of surgical procedure (including surgery to neck, and flap repair)

- Of 339 patients undergoing surgery, 273 (80.5 per cent) have at least one surgical procedure recorded).
- The majority of surgical procedures (70 per cent) are neck dissections, reflecting the propensity of oropharynx cancers to present late with neck lumps requiring surgery to the neck
- The smaller number of procedures to the tongue are likely to reflect tonsil tumours involving adjacent tongue. An increasing number of patients with tumours in this area are being treated by chemo-radiotherapy and the audit will monitor geographic variations in use of primary surgical and non-surgical modalities.

Figure 8.9.3.
Care provided - squamous cell carcinoma oropharynx

First recorded treatment of those patients with recorded treatment intent in careplan	Early stage	Late stage	Not staged*	Total
Surgery	47	179	113	339
Radiotherapy	27	139	95	261
Brachytherapy	1			1
Chemotherapy	11	168	117	296
Chemoradiotherapy (same day)	6	78	11	95
Palliative care	3	24	13	40
Supportive care/no specific treatment or not recorded	30	167	262	459
Total	**125**	**755**	**611**	**1491**

* Not staged – insufficient T, N, M for categorising as early / late

8.9.3.1.2 Percentage by category of clearance for surgical resection margins

86 cases had surgical resection margins recorded.

- Using the Royal College of Pathologists' guidelines, there was evidence in only 9.3 per cent of cases of an acceptable clear margin, but a significant number of records do not record details on margins of normal tissue around the tumour, which limits the conclusions that can be drawn
- Of note is that 31 of the 86 patients with surgical margins recorded had an involved surgical margin. This reflects the technical difficulty of three dimensional resection in the oropharynx. However it is noted that a significant number of patients did not have this information recorded.
- Adequate resective margins are a predictor of both local recurrence and surgical adequacy

8.9.3.2 Radiotherapy in oropharynx cancer

- There is a reported rising trend in the use of chemoradiotherapy particularly in younger individuals[38,40,41,42] where HPV infection may be a contributory causative factor. Overall in this cohort the number treated by non surgical methods is greater than those treated by surgery (rising from 61 per cent in the fourth report to 68 per cent). This trend will continue to be studied in future reports and as submissions grow a comparison in different age and sex groups will be made.
- 261 cases have recorded primary radiotherapy as their first treatment, with a further 95 recorded as undergoing chemo-radiotherapy. This represents 34.5 per cent of actual recorded treatments. One case was recorded as receiving brachytherapy.
- Some patients, having undergone primary surgery, may be advised to proceed to post-operative radiotherapy based on adverse features in their resective histology report. Of the cases having surgery, only 111 (40.6 per cent) are recorded as receiving post-operative radiotherapy. Better recording may reflect that the initial surgery was to the neck with a high likelihood of post operative treatment to the neck occurring.

Figure: 8.9.3.1.1
Percentage receiving each category of surgical procedure (including surgery to neck, and flap repair)

Category	count	per cent of 273 patients with surgery
Tongue procedures	46	16.8
— of these 46, the number having neck dissection	26	
Total glossectomy	4	
Partial glossectomy	16	
Excision lesion of tongue	27	
Mandible procedures	7	
— of these 7, the number having neck dissection	5	
Extensive mandibulectomy	1	
Marginal mandibulectomy	3	
Mandibulectomy/split/division of jaw	3	
Partial maxillectomy	1	
All neck dissections (includes those listed previously)	189	69.2
Radical neck dissections (includes those listed previously)	94	34.4
Modified neck dissections (includes those listed previously)	32	11.7
Selective neck dissections (includes those listed previously)	69	25.3
Reconstruction mouth - all	12	4.4
with flap	8	2.9
with primary closure	0	0.0
with buccal flap	0	0.0
with pectoralis major	1	0.4
with radical forearm	3	1.1
with SSG	0	0.0

8.9.3.3 Chemotherapy in oropharynx cancer

In the view of the Expert Panel members, there is no currently available evidence supporting the notion that chemotherapy in isolation improves long-term survival in oropharynx cancer. There is, however, evidence suggesting the benefits of concurrent chemoradiation, and again it will be of interest to assess the benefits as they accrue with time.

- 391 patients received chemotherapy as part of their treatment, with 95 of these recorded as chemo-radiotherapy.
- Of those 296 patients receiving chemotherapy as their first treatment up to 222 had subsequent radiotherapy within 90 days, leaving 74 patients as having received chemotherapy alone.

8.9.3.4 Palliative treatment by type

- 68 patients have recorded palliative treatment. The cases break down as: 2 cases of palliative surgery, 37 cases of palliative radiotherapy and 28 cases with palliative chemotherapy.
- There were 47 cases of referral to a specialist palliative care team. Specialist palliative care practitioners should be essential members of the core MDT team. Current processes of data capture may not pick up this activity as the provision can occur in a variety of non hospital organisations e.g. community and hospice care.
- 19 of these cases have 'supportive' as their care plan intent.

8.9.4 Care provided – hypopharynx cancer

- Of the 352 cases of hypopharynx cancer, 322 have a care plan, of which 264 (82 per cent) have a care plan with recorded treatment intent. This includes intent of treatment or indicating palliative or supportive care.
- The established treatment for the majority of patients with hypopharynx cancer in England and Wales is primary surgery[43,44], and this matches the results shown above. However studies from abroad have shown no difference in survival comparing primary surgery to primary radiotherapy[45], believing the differences in survival previously reported are related to patient selection bias. Hypopharyngeal carcinoma has a high incidence of co-morbid conditions[45] and in understanding outcomes it is important that the audit can collect this information.
- Of the 234 with recorded treatment, 65 per cent have sufficient staging data to allow categorisation into early and late disease. Chemotherapy and chemoradiotherapy although[47] in small numbers are almost exclusively found in the treatment of late stage disease.

8.9.4.1 Surgery

- Of 81 patients undergoing surgery, 62 (76.5 per cent) have at least one surgical procedure recorded).

8.9.4.1.1 Percentage receiving each category of surgical procedure (including surgery to neck, and flap repair)

- In late disease where applicable radical surgery followed by post operative radiotherapy is the treatment of choice[43,47] with organ sparing regimes as an alternative. Over half (38 cases) of the patients in the surgery group had extensive surgery (total and partial pharyngectomy, total laryngectomy and pharyngolaryngectomy). These individuals require extensive rehabilitation and support.
- In a select group of patients presenting with early disease transoral laser excision[44] may be an alternative treatment modality to radiotherapy. 9 such cases are reported this year.

8.9.4.2 Radiotherapy in hypopharynx cancer

- 65 cases have recorded primary radiotherapy as their first treatment, with a further 56 recorded as undergoing chemo-radiotherapy. This represents 51.7 per cent of actual recorded treatments.
- Some patients, having undergone primary surgery, may be advised to proceed to post-operative radiotherapy based on adverse features in their resective histology report. Of cases having surgery, only 25 (40.3 per cent) are recorded as receiving post-operative radiotherapy.

Figure 8.9.4.
Care provided - squamous cell carcinoma hypopharynx

First recorded treatment	Early stage	Late stage	Not staged*	Total
Surgery	8	45	28	81
Radiotherapy	14	32	19	65
Chemotherapy	3	31	22	56
Chemoradiotherapy (same day)	4	5	2	11
Palliative care	0	10	11	21
Supportive care/no specific treatment or not recorded	13	54	51	118
Total	**42**	**177**	**133**	**352**

* Not staged – insufficient T, N, M for categorising as early / late

8.9.4.3 Percentage having chemotherapy

In the view of the Expert Panel members, there is no currently available evidence supporting the notion that chemotherapy in isolation improves long-term survival in oropharynx cancer. There is, however, evidence suggesting the benefits of concurrent chemoradiation particularly in bulky disease[48], and again it will be of interest to assess the benefits as they accrue with time.

- 67 patients received chemotherapy as part of their first treatment, with 11 of these recorded as chemo-radiotherapy.
- Of those 67 patients receiving chemotherapy as their first treatment up to 30 had subsequent radiotherapy within 90 days, leaving 37 patients as having received chemotherapy alone.

8.9.4.4 Palliative treatment by type

- 22 patients have recorded palliative treatment. The cases break down as: 2 cases of palliative surgery, 16 cases of palliative radiotherapy and 4 cases with palliative chemotherapy.
- There were 24 cases of referral to a specialist palliative care team. 4 of these cases have 'supportive' as their care plan intent.

8.10 Patient outcomes

8.10.1 Death

8.10.1.1 Deaths recorded within trust submissions for index year

Overall, of the 5597 cases submitted 402 (7.2 per cent) were deceased within one year from diagnosis by trust reports. This includes deaths from all causes i.e. crude death rate.

Of the 1522 larynx cancers recorded 87 (5.7 per cent) were deceased and identified by trusts within 1 year of diagnosis.

Of the 1635 oral cavity registrants 130 (8.0 per cent) had died within one year of diagnosis.

These deaths may be related to a number of causes such as aggressive disease or deaths from non-cancer causes. It was not unexpected that hypopharynx had the highest crude death rate at 15 per cent as the disease predominantly presents late in individuals with significant other smoking and alcohol related co-morbidities

8.10.1.2 Deaths recorded for index year after supplementation with ONS data

A case file was obtained from the Office for National Statistics (ONS) of patients registered in the audit for which ONS had evidence, from death certification, of the registrant having died.

The audit is working to provide data for survival analyses.

Overall of the 5597 cases submitted a further 441 cases were identified as deceased, making a total of 843 (15.12 per cent) were deceased within one year from diagnosis. This includes deaths from all causes i.e. crude death rate.

Figure 8.9.4.1.1
Percentage receiving each category of surgical procedure (including surgery to neck, and flap repair).

Category	Count	Per cent of 62 patients with surgery
Total pharyngectomy	0	0.0
Partial pharyngectomy	12	19.4
— of these 12, the number having neck dissection	9	
Pharyngo-laryngectomy	5	8.1
— of these 5, the number having primary closure	3	
— of these 5, the number having neck dissection	4	
— of these 5, the number having free jejunum	2	
Laser removal of lesion	9	
Total laryngectomy (including laryngectomy nec)	21	33.9
— of these 21, the number having neck dissection	14	
All neck dissections (includes those listed previously)	36	58.1
Radical neck dissections (includes those listed previously)	14	22.6
Modified neck dissections (includes those listed previously)	5	8.1
Selective neck dissections (includes those listed previously)	20	32.3

Figure 8.10.1a
Number of deaths in the index period within one year of diagnosis reported in trust submissions

	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Salivary Glands	Total
Number of deaths	87	130	114	39	11	21	402
Total number of cases	1522	1635	1491	352	179	418	5597
Proportion died	5.7	8.0	7.6	11.1	6.1	5.0	7.2

Of the 1522 larynx cancers recorded, 190 (12.5 per cent) were deceased within 1 year of diagnosis, and of the 1635 oral cavity registrants 263 (16.1 per cent) had died within one year of diagnosis.

These deaths may be related to a number of causes such as aggressive disease or deaths from non-cancer causes. It was not unexpected that hypopharynx had the highest crude death rate at 25 per cent as the disease predominantly presents late in individuals with significant other smoking and alcohol related co-morbidities

8.10.1.3 Based on ONS data - crude death rate by cancer network

A case file was obtained from the Office for National Statistics (ONS) of patients registered in the audit for which ONS had evidence, from death certification, of the registrant having died. This was then compared with the Network at registration to DAHNO and a crude death rate calculated by cancer network. These are deaths occurring in less than 14 months from diagnosis.

The figures below should be considered extremely cautiously. Crude death rate reflects death from any cause (not just

Figure 8.10.1.2a
Number of deaths in the index period within one year of diagnosis supplemented by ONS data

	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Salivary Glands	Total
Number of deaths	190	263	216	87	29	58	843
Total number of cases	1522	1635	1491	352	179	418	5597
Proportion died	12.5	16.1	14.5	24.7	16.2	13.9	15.1

Figure 8.10.1.3
Crude mortality from head and neck cancer by cancer network

Contact network	Deaths of cases diagnosed in index year	Per cent of total cases	Total number of cases
3 Counties	21	12.1	173
Anglia	45	14.8	305
Arden	17	24.6	69
Avon Somerset & Wiltshire	18	15.1	119
Central South Coast	29	12.3	236
Derby Burton	8	9.5	84
Dorset	17	14.9	114
Essex	11	10.8	102
Greater Manchester and Cheshire	33	14.2	233
Greater Midlands	35	14.9	235
Humber & Yorkshire Coast	4	6.9	58
Kent & Medway	20	16.4	122
Lancashire & South Cumbria	43	20.3	212
Leicestershire, Northamptonshire & Rutland	28	17.1	164
Merseyside and Cheshire	32	11.3	284
Mid Trent	22	10.8	203
Mount Vernon	8	13.6	59
North East London	32	22.9	140
North London	37	26.1	142
North of England	94	18.4	510
North Trent	29	15.7	185
Pan Birmingham	35	16.3	215
Peninsula	33	13.9	238
South East London	0	0.0	4
South West London	15	12.4	121
Surrey, West Sussex & Hants	11	7.8	141
Sussex	18	13.5	133
Thames Valley	25	10.2	246
West London	27	17.6	153
Yorkshire	40	16.1	248
England	**787**	**15.0**	**5248**
North Wales	11	15.5	71
South East Wales	28	16.6	169
South West Wales	17	15.6	109
Wales	**56**	**16.0**	**349**
Total	**843**	**15.1**	**5597**

cancer) and cannot be considered in isolation as a marker of the impact of any treatment received, nor of the efficacy of services. No adjustments to the figures have been and each cancer network will vary in its casemix and the background health of individuals presenting with cancer. In addition the cancer subsites vary in their mortality rates and thus variation in case distribution by cancer network will impact on this.

The purpose of this inclusion is to provide an overview of both the impact of head and neck cancer as well as stimulating organisations to submit high levels of factors that impact on casemix adjustment, so that more meaningful comparisons can be made in future reports.

- Of 5597 cases of head and neck cancer submitted, 843 (15.1 per cent) had died from all causes in less than 14 months from diagnosis
- Further analysis shows the lowest numbers of deaths in larynx cancer (12.5 per cent) and the highest as expected in hypopharynx (24.5 per cent) where patients present late with advanced disease.
- Similar percentages had died in England and Wales
- Networks vary in crude death rate from 6.9 per cent to 26.1 per cent. Examining the three commonest anatomic sites larynx, oral cavity and oropharynx there was again considerable variation between cancer networks. In larynx, cancer crude mortality ranged from 2.8 per cent to 42.3 per cent, in oral cavity from 3.8 per cent to 31.8 per cent and in oropharynx from 3.5 percent to 25 per cent.
- At the inception of the audit, one of the key rationales was a belief that if the worst performing trusts could match the delivery of the best performing, then without a major technological advance survival could be improved. The figures presented are a further small step to meeting this aim. They have however, thrown up more questions than answers but will act as driver to all to try and understand whether the variations are real or a reflection of a variation of patient and disease.

8.10.1.4 Survival analysis

The audit is working to provide data for casemix adjusted survival analyses, but is handicapped by the data quality of key contributory factors of stage, co-morbidity and performance status. We would hope that an improvement in submission of these items in the current years data will allow risk adjustment to be applied to these figures in next years report.

8.10.2 Locoregional recurrence within one year and two years of diagnosis

The audit is working to provide data for analysis of recurrence. A key requirement is details on current status for patients at regular intervals following completion of treatment. This allows assessment of disease specific survival and interval to recurrence.

Only around 10 per cent of records contain current status information and it is strongly encouraged for trusts to collect and submit this information for the sixth Annual Report.

8.10.3 Number of treatment -related deaths (to include death within 30 days of surgery and / or within the same admission)

- Overall, head and neck surgery appears a safe procedure. This has been consistently identified throughout each of the five Annual Reports

Performing complex procedures in a predominantly elderly population with significant co-existent co-morbidities will, however, inevitably lead to some deaths in the peri-operative period.

Further cycles of the audit will assist in providing nationally derived estimates of risk to patients and MDTs.

The audit will also seek to quantify deaths that are attributed to treatment with radiotherapy and chemo-radiotherapy as this information becomes more readily available.

8.11 Clinical trials

Percentage entered into national clinical trials at cancer care plan has not been calculated.

In head and neck cancer, there is a paucity of national and international clinical trials. This remains an important area for development as trials become available.

Via the Head and Neck Site Specific Clinical Reference Group of The National Cancer Intelligence Network, the audit contributes to increasing awareness of data as reference information to support the work of the National Cancer Research Network Head and Neck Group. These groups have a shared membership.

Figure 8.10.2
Number of treatment-related deaths (to include death within 30 days of surgery and / or within the same admission).

Description	Larynx	Oral Cavity
Number of reported deaths within 30 days of diagnosis or with discharge destination 'death' after any admission	22	22
Number of reported deaths within 30 days of surgery or with discharge destination 'death' after surgery	5	7
Of these patients, the number whose death followed diagnostic surgery	1	0
Of these patients, the number whose death followed recorded surgery with curative intent	2	6
Of the others, the number whose death followed recorded surgery with no treatment intent recorded	2	1
Total number of patients with recorded curative intent	**306**	**632**

9. What increased knowledge do we have on multi-professional care?

The introduction of an expanded number of fields for the fourth Annual Report collection year allowed for the first time the ability to collect information on multi-professional care in head and neck cancer across England and Wales.

It is well recognised that non-medical professionals play important roles in the support and rehabilitation of cancer patients. This was emphasised in the improving outcomes guidance[24], as well as being highlighted by lay membership of the audit's Clinical Reference Group.

At the inception of the audit it was noted that there a wide geographic variation in the provision of Allied Health professionals to support head and neck cancer patients. A recent mapping exercise continues to show these deficiencies[49].

In this, the second year of collecting this information, a number of common themes across speech and language, dietetics, and clinical nurse specialist support have arisen:-

- Speech and language therapists (SALT), dieticians and clinical nurse specialists are to be congratulated for their efforts in participating in the audit process.
- The Expert Panels recognise that for these professionals there is frequently little administrative support and that it is on a personal basis that audit submission occurs.
- Submissions have risen this year across all areas but with a variable uptake across different trusts. This is mirroring the evolution of the audit in its initial phase in which teams having differing access to resources enter into the process.
- From the submissions received, assurance of the quality of these important aspects of care can start to be made in a number of trusts. It equally allows others to benchmark themselves against this data and will hopefully commit them to engage in the process to assure their local populations of the quality of services they provide.
- The audit starts to highlight comparative areas of deficiency that should engage local debate in the prioritisation of resource and longer term planning to meet need. The more comprehensive the national picture the greater contrasts in care are likely to be shown, enabling both staff and patients to engineer improvement in care provision.
- For those yet to supply information on multi-professional care, details on the data to be collected can be found in appendix 1b

Phase II of the National Head and Neck Cancer Audit has extended sections on swallowing, surgical voice restoration, dietetic and clinical nurse specialist care provision. It is hoped that active involvement of all health professionals who care for head and neck cancer patients will be encouraged by MDTs to provide a comprehensive record of the multi-professional care provided.

- For the sixth Annual Report data collection year now in progress, teams are requested to submit data across all included subsites, not just larynx and oral cavity data for some to improve the breadth of knowledge and details of provision.

9.1 Percentage having dental assessment

The Expert Panel members believe that it is important to maintain good dental health throughout treatment

- A dental assessment is recorded 6.5 per cent of the 5558 patient registrations (365 patients), and 10.1 per cent of the 3606 of patients with treatment plans. This is similar to the fourth Annual Report.
- The percentage of patients receiving dental assessment varies by anatomic subsite, from 14.7 per cent in oropharynx to 4.8 per cent in major salivary gland.
- In larynx and oral cavity, which has been assessed historically through earlier reports, a combined 270 of 2606 patients (13.5 per cent) with treatment records, received pre-treatment dental assessment.
- It is disappointing, that again, the volume of data has not increased and MDTs are recommended to collect this data to provide assurance in this important area. The Expert Panels noted that there are apparent shortages of restorative dentists working with head and neck cancer patients. The importance of these specialists as core members of an MDT is recognised in Improving Outcomes Guidance.

Dental health during and after treatment for head and neck cancer is a significant contributor to patient well being. MDTs are strongly encouraged to provide information to confirm that care is being provided.

9.2 Pre-operative / pre-treatment speech and swallowing assessment

- A pre-treatment speech and swallowing assessment is recorded for 8.6 per cent of the registrations with treatment records (309 of 3606 patients)
- 38 trusts in England provided confirmation that at least some patients had been seen by a speech and language therapist. No information was available for Wales.
- In these 38 trusts assurance is provided of speech and swallowing assessment occurring prior to treatment in 309 of the 1649 patients recorded as having treatment (18.7 per cent).
- Pre-treatment input in speech and swallowing varied by anatomic site, being highest in hypopharynx (35.6 per cent) and larynx (20.7 per cent).
- The highest reporting organisations provided assurance in over 60 per cent of patients.

- The following five organisations (who submitted more than five cases with speech and swallowing information), provided assurance that at least 40 per cent of patients having treatment received a pre-treatment speech and swallowing assessment (where greater than 5 cases submitted):

- Chesterfield Royal Hospital NHS Foundation Trust
- Heart Of England NHS Foundation Trust
- Royal Cornwall Hospitals NHS Trust
- Sandwell and West Birmingham Hospitals NHS Trust
- York Hospitals NHS Foundation Trust

- The submission of this item needs to be encouraged by all MDTs to more accurately reflect the care being provided

9.2.1 Surgical voice restoration in laryngectomy patients

- The introduction of Phase II data items has allowed a more comprehensive data collection on surgical voice restoration (SVR)
- Of the 115 patients reported as having a laryngectomy, 111 were total laryngectomy and potentially eligible for surgical voice restoration. It would be expected that over 80 per cent of patients undergoing total laryngectomy would be eligible for SVR
- 30 patients (26 per cent) have entries in the SVR section. This is the start of a process of audit and awareness of these items needs to be increased. It is expected that this would reflect all patients undergoing laryngectomy
- Of the 20 entries 11 are recorded as having seen a SALT pre-operatively for counselling on SVR, and, 9 are recorded as SALT intervention post-operatively
- Patient representatives feel it is imperative that speech and swallowing and dietetic support is available to all patients with laryngeal cancer from diagnosis. Addressing the lack of appropriate professional support should be seen as a priority requirement. For those undergoing laryngectomy the speech therapist plays an important role in supporting choice in the method of restored speech[50,51]

Introduction of comprehensive collection of information on surgical voice restoration provides an opportunity to give assurance to patients and commissioners that appropriate speech and language support is being delivered to patients undergoing laryngectomy.

Active involvement of speech and language colleagues in the audit process is to be encouraged by all MDTs

9.3 Percentage having any dietetic assessment and pre-operative / pre-treatment (includes radio and chemotherapy) dietetic assessment.

- Dietetic assessment is a key part of patient care and impacts on complications following treatment.[52]
- Phase II data items allow a broader assessment of dietary support provided to head and neck cancer patients. It aims to encompass both pre-treatment nutritional status as well as types of nutritional support provided.
- In the fourth Annual Report data submissions were too small for analysis and the position has significantly improved this year.
- 792 patients had a dietetic assessment (14 per cent of 5597 total registrations, 17 per cent of 3606 cases with a treatment record)
- 34 trusts in England provided confirmation that at least some patients had a pre-treatment dietetic assessment. No information was received from Wales.
- In these 34 trusts, of 1501 patients with a recorded first date of treatment, 395 had pre-treatment dietetic assessment and removing those with an early glottic carcinoma treated by microsurgical excision 385 patients (25.6 per cent) had confirmed pre-treatment assessment. The highest reporting organisations provided assurance in over 75 per cent of patients.
- The following nine organisations who submitted more than five cases with dietetic information, provided assurance that at least 40 per cent of patients having treatment received a pre-treatment dietetic assessment:-

- Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust
- Heart Of England NHS Foundation Trust
- Queen Victoria Hospital NHS Foundation Trust
- Royal Cornwall Hospitals NHS Trust
- Sandwell and West Birmingham Hospitals NHS Trust
- South Devon Healthcare NHS Foundation Trust
- South Tees Hospital NHS Foundation Trust
- Southend University Hospital NHS Foundation Trust
- University Hospitals Coventry and Warwickshire NHS Trust

- **Information on weight loss during and pre-treatment was too small to undergo analysis and teams are encouraged to submit data in the current sixth Annual Report data collection year**

Dietetic support is important through all parts of the patient pathway, particularly in those undergoing any form of treatment where the morbidity of the treatment can be reduced by appropriate intervention. MDTs are encouraged to confirm the dietetic care provided.

9.4 Clinical Nurse Specialist

The introduction of Phase II data items has allowed, for the first time, an assessment of care provided by clinical nurse specialists in larynx and oral cavity. Submissions this year have provided data over a wider group of subsites. Based on the enthusiasm to submit data over all patients the following is advised:-

- For the sixth Annual Report data collection year now in progress, teams are requested to submit data across all included subsites, not just for some items in larynx and oral cavity to improve the breadth of knowledge and provision.

9.4.1 Clinical nurse specialist support along the head and neck cancer patient journey

- 1572 patients were recorded as having been seen by a clinical nurse specialist, representing 37.4 per cent of patients with a treatment intent and 29.9 per cent of total patients. This is a significant rise in the number of clinical nurse specialist patient contacts in comparison to the fourth Annual Report (595 cases).
- 63 trusts in England provided confirmation that at least some patients had been seen by a clinical nurse specialist. No information was available for Wales.
- In these 63 trusts, of 1572 patients recorded as having seen a clinical nurse specialist, 955 (61 per cent) had pre-treatment clinical nurse specialist input, whilst a further 617 had input during and after treatment. (39 per cent).
- The following 29 organisations, who submitted more than five cases of larynx, oral cavity and oropharynx cancer with clinical nurse specialist information, provided assurance that at least 40 per cent of patients having care were assessed by a clinical nurse specialist. Of these 29 organisations, 19 were also able to provide assurance that at least 40 per cent had input from a clinical nurse specialist at the breaking of bad news:-
- The highest reporting organisations provided assurance in both groups in over 80 per cent of patients.

Figure 9.4.1
Submission of clinical nurse specialist data.

Trusts where greater than 40 per cent of the sum of cases of larynx, oral cavity and oropharynx cancer cases were confirmed as having been seen by a Clinical Nurse Specialist (where total is greater than 5 cases of larynx, oral cavity and oropharynx cancer)	Of those Trusts where greater than 40 per cent of the sum of cases of larynx, oral cavity and oropharynx cancer cases were confirmed as having been seen by a Clinical Nurse Specialist, who also confirmed over 40 per cent of cases had a Clinical Nurse Specialist present at breaking of bad news
NHS Trust	**NHS Trust**
Aintree University Hospitals NHS Foundation Trust	
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust
Brighton and Sussex University Hospitals NHS Trust	
Colchester Hospital University NHS Foundation Trust	Colchester Hospital University NHS Foundation Trust
East Lancashire Hospitals NHS Trust	East Lancashire Hospitals NHS Trust
East Sussex Hospitals NHS Trust	
Gloucestershire Hospitals NHS Foundation Trust	
Heart Of England NHS Foundation Trust	Heart Of England NHS Foundation Trust
Lancashire Teaching Hospitals NHS Foundation Trust	
Leeds Teaching Hospitals NHS Trust	
North Bristol NHS Trust	North Bristol NHS Trust
Nottingham University Hospitals NHS Trust	Nottingham University Hospitals NHS Trust
Plymouth Hospitals NHS Trust	
Poole Hospital NHS Foundation Trust	Poole Hospital NHS Foundation Trust
Queen Victoria Hospital NHS Foundation Trust	Queen Victoria Hospital NHS Foundation Trust
Royal Berkshire NHS Foundation Trust	Royal Berkshire NHS Foundation Trust
Royal Cornwall Hospitals NHS Trust	Royal Cornwall Hospitals NHS Trust
Royal Surrey County Hospital NHS Trust	
Royal West Sussex NHS Trust	Royal West Sussex NHS Trust
Sandwell and West Birmingham Hospitals NHS Trust	Sandwell and West Birmingham Hospitals NHS Trust
South Devon Healthcare NHS Foundation Trust	South Devon Healthcare NHS Foundation Trust
South Tees Hospital NHS Foundation Trust	South Tees Hospital NHS Foundation Trust
Southend University Hospital NHS Foundation Trust	Southend University Hospital NHS Foundation Trust
Surrey and Sussex Healthcare NHS Trust	
The Royal Marsden NHS Foundation Trust	The Royal Marsden NHS Foundation Trust
The Royal Wolverhampton Hospitals NHS Trust	The Royal Wolverhampton Hospitals NHS Trust
United Lincolnshire Hospitals NHS Trust	
University Hospital Birmingham NHS Foundation Trust	University Hospital Birmingham NHS Foundation Trust
University Hospitals Of Morecambe Bay NHS Trust	
Worthing and Southlands Hospitals NHS Trust	Worthing and Southlands Hospitals NHS Trust

9.4.1.1 Clinical nurse specialist support in larynx, oral cavity and oropharynx cancer

- Of the 1522 patients with larynx cancer 436 were confirmed as having been referred to a clinical nurse specialist, which is 28.6 per cent of all registrations. In oral cavity cancer 430 of 1635 were confirmed which is 26.3 per cent of all registrations. It would be expected ultimately this would be all patients
- Of the 1572 patients recorded as having seen a clinical nurse specialist, 955 (61 per cent) had pre-treatment clinical nurse specialist input, whilst a further 617 had input during and after treatment. (39 per cent).
- Where completed in 646 records, the reason for referral to a clinical nurse specialist was predominantly entered as new diagnosis (94.3 per cent) with only a small number as other or treatment decision support. More comprehensive completion of this item may allow a better understanding of resource provision

9.4.2.1 Clinical nurse specialist and the breaking of bad news

- 885 of the 1572 (56.3 per cent) with a clinical nurse specialist record identified a clinical Nurse Specialist or designate being present at the breaking of bad news. This represents 15.9 per cent of all new patient diagnoses. This is a key point in the commencement of the cancer journey, and best practice supports the involvement of a clinical nurse specialist or designate in this process[53].
- Patient representatives feel it is imperative that a clinical nurse specialist is available from diagnosis to all patients with cancer. Addressing the issue of the lack of appropriate professional support should be seen as a priority requirement. For all patients and particularly those undergoing treatment (curative or palliative) the clinical nurse specialist plays an important role in supporting choice of treatment.

The collection of information on care by clinical nurse specialists is an opportunity to give assurance to patients and commissioners that appropriate clinical nurse specialist support is being provided.

Active involvement of clinical nurse specialists in the audit process is to be encouraged and supported by all MDTs

10. Casemix adjustment

In the fourth Annual Report the initial focus for assessment of the ability to undertake casemix adjustment was on whether age impacted on the timeliness of care delivery This work concluded that from the large confidence intervals in the analysis and the large changes in results by just having one extra patient having a delay between diagnosis and treatment, that it is recommended not to pursue casemix adjustment at present until further treatment information is available to enable robust calculations.

A further assessment has been made from more recently submitted data by Ceri White from the Welsh Cancer Intelligence and Surveillance Unit. He examined the number of cases that have a stage at diagnosis, a value for performance status and a value for co-morbidity by network. There were many networks with very small numbers of eligible cases to enter into a risk model, and thus he again concluded that data quality of key items needed to improve to allow casemix adjustment to be a viable proposition.

Many clinicians have expressed a desire to see casemix adjustment applied to outcome data from the audit. This can only be achieved if a significant number of organisations in each network submit data on these casemix factors.

This year, for the first time, crude mortality data has been published by network. To further understand the reasons for variation, casemix adjustment is a requirement.

The audit wishes to deliver casemix adjusted outcomes, but is unable to achieve this until a significant number organisation in each network submits data on key casemix factors - staging, performance status and co-morbidity. This year crude survival information by network has been published

11. New anatomic sites - nasopharynx and salivary

11.1 Background

Nasopharyngeal carcinoma and major salivary gland cancer are rare cancers in the head and neck[4]. They have different causations[54,55] and behaviours in comparison to larynx, oral cavity, oropharynx and hypopharynx where smoking and alcohol are known significant causative factors

As they are both rare tumours, cumulative information will be required to reach conclusions on their treatment and outcome and to date the audit has received 290 nasopharynx cancers and 677 major salivary gland cancers.

From this cumulative information a wealth of information can be provided to researchers as it is unlikely that randomised controlled trials can be concluded in England and Wales due to the small case volume, but deductive studies can be made from treatment and outcome studies.

11.1.2.1 Distribution by site

In nasopharynx, overlapping lesions predominate, as it is frequently difficult to determine the site of origin.

In major salivary gland cancer 77 per cent of cases were identified in the parotid salivary gland this year and 78 per cent cumulatively.

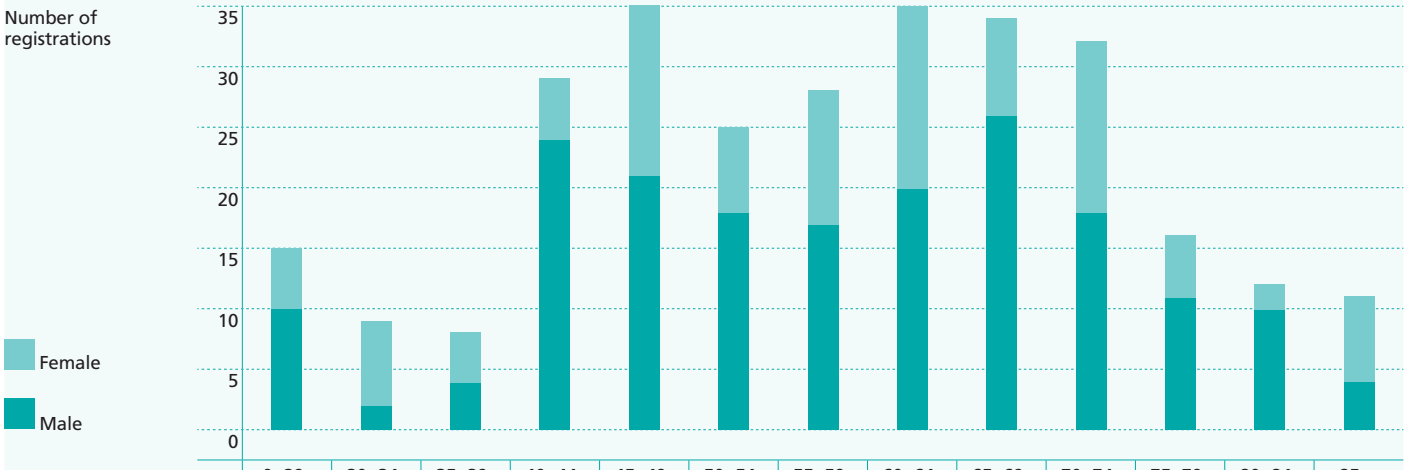
11.1.2.2 Age and sex profile in nasopharynx cancer summated from fourth and fifth Annual Reports

- The cumulative findings from the fourth and fifth Annual Reports show a trimodal distribution is noted with peaks in the 0-29 age group, 40-44 age group and the 60-64 age group
- 63 per cent of nasopharynx cancer patients were male
- 36.8 per cent were under 50 years of age.
- 15 cases (10 male, 5 female) were under the age of 30
- National Head and Neck Cancer Audit registrations are broadly in line with CIS which reports the highest number of cases in the 55 to 59 age group and the rate of nasopharynx cancer peaking in the 65 to 69 and 70 to 74 age group.

Figure 11.1.2.1a
Number of registered new head and neck primaries.

Site	Subsite	4th report	5th report	Total to date
Nasopharynx	Overlapping lesion nasopharynx	51	16	67
	Posterior wall	30	11	41
	Lateral wall	18	10	28
	Roof	10	7	17
	Inferior-upper surface soft palate	2	5	7
Nasopharynx Total		**111**	**179**	**290**
Major salivary glands	Parotid	207	322	529
	Submandibular	49	88	137
	Sublingual	3	8	11
Major Salivary Glands Total		**259**	**418**	**677**

Figure 11.1.2.2
Age and sex distribution; Nasopharynx fourth and fifth Annual Reports



	0–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
Female	5	7	4	5	14	7	11	15	8	14	5	2	7
Male	10	2	4	24	21	18	17	20	26	18	11	10	4

11.2.2.1 Age and sex profile in major salivary gland cancer from fourth and fifth Annual Reports

- The cumulative findings from the fourth and fifth reports show an early peak in the 0-29 age group, but then a slowly rising trend slope through each band which is a very different pattern to other cancers presented. Age plays a clear role in the development of this cancer[56].
- 60 per cent of major salivary cancer patients were male
- 17 per cent were under 50 years of age.
- 24 cases (8 male, 16 female) were under the age of 30. This group represents an important area for future study and may represent a group with a different aetiology and behaviour. Following treatment this group also forms an important group to assess aspects of survivorship in.
- National Head and Neck Cancer Audit registrations are broadly in line with CIS which reports the highest number of cases in the 80-85, 85+ age groups and the rate of major salivary gland cancer peaking in the 85+ age group.

11.1.3 Extent of disease at presentation

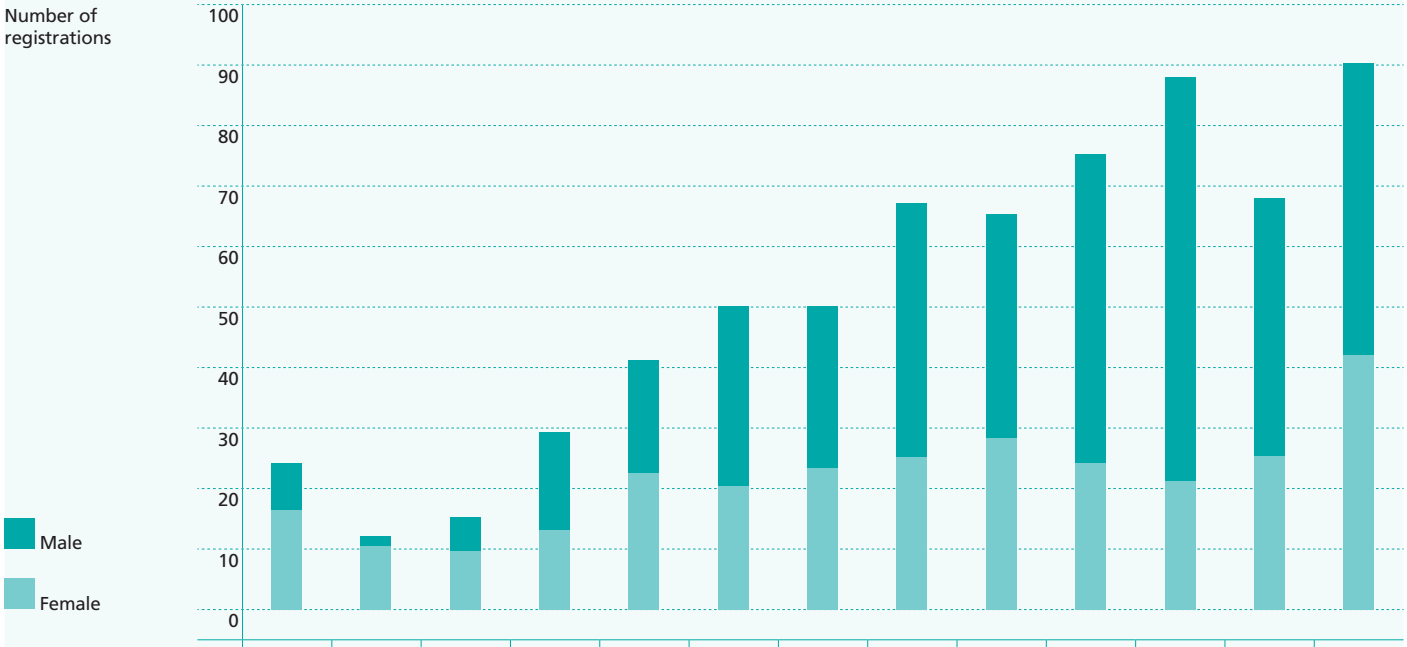
11.1.3.1 Nasopharynx

- 44.1 per cent had T and N category recorded to allow categorisation into early and late, with as previously late stage predominating as the characteristic presentation is a neck lump with the primary being diagnosed on examination in secondary care
- As expected by the Expert Panels a high percentage 25 per cent were N positive at diagnosis
- 4.5 per cent were M1, suggesting a low propensity for nasopharynx cancers to present with distant metastatic disease.

11.1.3.2 Major salivary gland

- 36.1 per cent had T and N category recorded. This is poor recording of staging though in many cases a diagnosis is reached following removal of a parotid mass. Teams are encouraged to record integrated stage which identifies the pathological staging
- 16 were N positive at diagnosis
- 2.9 per cent were M1, suggesting a low propensity for salivary gland cancers to present with distant metastatic disease.

Figure 12.2.2.1
Age and sex distribution; Major Salivary Glands fourth and fifth Annual Reports



	0–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
Male	8	2	6	16	19	30	27	42	37	51	67	43	48
Female	16	10	9	13	22	20	23	25	28	24	21	25	42

11.1.4 Co-morbidity in nasopharynx and major salivary gland cancer

- In nasopharynx cancer again the majority showed no or mild decompensation though the numbers were small. A recent publication has identified that co-morbidity is not a factor in risk adjustment in this cancer site[57].
- In major salivary gland cancer this year the majority showed no or mild decompensation though with smaller numbers last year a more even distribution across decompensation grades was seen.

11.1.5 Care provided – what treatment is given for cancer of the nasopharynx?

- The management of squamous carcinoma of the nasopharynx differs from other head and neck sites, with radiotherapy, often given in conjunction with chemotherapy being the recognised treatment modality[58].
- Of the 179 cases of nasopharynx cancer registered, 155 (86.6 per cent) have a recorded careplan, and 122 (79.4 per cent of those with a careplan) have a recorded treatment (either recorded treatment or a recorded palliative or supportive care)

11.1.5.1 Percentage receiving each category of treatment

11.1.5.2 Percentage having palliative treatment by type (i.e. radiotherapy, chemotherapy)

- 11 patients have initial or subsequent recorded palliative treatment, 5.6 per cent of the total 179 registrations
- The 11 cases break down as: 6 cases of palliative radiotherapy, 2 cases with palliative chemotherapy and 3 cases palliative surgery
- There were 11 referrals to specialist palliative care. 2 cases have 'supportive' as their care plan intent.

11.1.6 Care provided – what treatment is given for major salivary gland cancer?

- Of the 418 cases of major salivary gland cancer registered, 382 cases (91.4 per cent of total registered) have a care plan, and 275 (72 per cent) have a recorded treatment (either recorded treatment or a recorded palliative or supportive care)
- The majority of patients with both early and late stage salivary gland cancer first treatment is by surgery.

Figure 11.1.5.1 a
Recorded treatment in nasopharynx cancer

Initial treatment by type	Number	Per cent of total cases
Radiotherapy	30	16.8
Chemotherapy	25	14.0
Chemoradiotherapy	28	15.6
Surgery	33	18.4
Palliative treatment	4	2.2
Supportive care	2	1.1
No treatment recorded	57	31.8

11.1.6.1 Percentage receiving each category of treatment

11.1.6.2 Percentage receiving each category of surgical procedure (including surgery to neck)

11.1.6.3 Percentage having palliative treatment by type (i.e. radiotherapy, chemotherapy, surgery)

- 17 patients have initial or subsequent recorded palliative treatment, 4.1 per cent of the total 418 registrations
- The 17 cases break down as: 15 cases of palliative radiotherapy, 1 cases with palliative chemotherapy and 1 cases palliative surgery
- There were 8 referrals to specialist palliative care. 4 cases have 'supportive' as their care plan intent.

Figure 11.1.6.1 a
Recorded treatment in major salivary cancer

Initial treatment by type	Number	Per cent of total cases
Radiotherapy	70	16.7
Chemotherapy	11	26.3
Chemoradiotherapy	1	0.2
Surgery	187	44.7
Palliative treatment	4	1
Supportive care	4	1
No treatment recorded	139	33.3

Figure: 11.1.6.2.a.
Percentage receiving each category of surgical procedure (including surgery to neck).

Major salivary gland patients - surgery summary	Count	Percentage of 125 patients with surgical procedure recorded
Total parotidectomy	61	48.8
— of these 61, the number having neck dissection	25	
Partial parotidectomy (superficial)	47	37.6
— of these 47, the number having neck dissection	7	
Submandibular gland excision	13	10.4
— of these 13, the number having neck dissection	5	
		Per cent of neck dissections
All neck dissections (includes those listed previously)	61	
Comprehensive neck dissection (includes those listed previously)	15	24.6
Modified neck dissection (includes those listed previously)	9	14.8
Selective neck dissection (includes those listed previously)	37	60.6

12. National Comparative Head and Neck Cancer Audit and the future

12.1 What do trusts / networks need to do to improve care / assure of care delivery?

- The Head and Neck Cancer Audit should continue to be a priority for trusts and cancer networks in 2010-2011, to promote clinical governance and provide assurance to patients and carers of the quality of services provided. It should be triangulated as part of the Peer Review Process both for internal and external validation.
- In response to the fifth Annual Report each cancer network should oversee annual reviews of case ascertainment in contributing trusts and completeness of submission of key items required for risk adjustment, to facilitate improvement plans for the sixth Annual Report submission year now in progress.
- With the stimulus of the fifth Annual Report, cancer networks should reflect on variation in access and examine cancer pathways and their components that underpin these to improve timely pathways for all head and neck cancer patients.
- Following receipt of the local trust report, each trust should develop a local action plan, particularly focusing on any areas of continuing weak performance compared to previous reports.
- Each trust should facilitate non-medical personnel to contribute to the audit process in head and neck cancer, and ensure that adequate administrative support to achieve this is available.

12.2 Building cumulative knowledge in head and neck cancer

Just under 13,000 head and neck cancer cases have been submitted since the inception of the audit.

Cumulative information on age and sex distribution on larynx and oral cavity can be found in section 8.6.5.1of this report, and this now acts as a further authoritative source of information of the incident population.

In the rarer sites of nasopharynx and major salivary gland cancer over 250 and 650 cases respectively have been accumulated within a short time interval proving a key and growing resource for future study in these rare sites.

Head and neck cancer is a relatively uncommon cancer when compared to the incidence of tumours such as lung, colon and breast. It is now some time since the concept of evidence based medicine became an accepted paradigm, but the traditional research model of ad hoc studies persists despite well recognised limitations.

High quality clinical databases offer an alternative approach, with the potential to bring research closer to practice and audit, and to use it in a manner that allows complex questions about the delivery of head and neck cancer care to be answered for the benefit of our patients. This accumulated data could be used either for non-randomised analyses or to generate hypotheses and provide ready access to clinicians prepared to participate in randomised trials.

A proposal is being developed to allow this, and the National Head and Neck Cancer Audit team would welcome ideas and suggestions to develop this concept further.

12.3 Future direction for the National Head and Neck Cancer Audit and links to the National Cancer Intelligence Network (NCIN) agenda

The National Head and Neck Cancer Audit is working closely with the evolving NCIN Head and Neck Site Specific Clinical Reference Group (HaNSSCRG), with common membership across a number of groups.

The NCIN, launched in 2008, brings together cancer registries, clinical champions, researchers and other interested parties (including the Office for National Statistics; National Clinical Audit Support Programme; NHS Information Centre) under the auspices of the National Cancer Research Institute (NCRI). Collection, analysis and publication of high quality data on clinical outcomes will be one of the key drivers for implementation of the Cancer Reform Strategy.

More information on the NCIN can be found at www.ncin.org.uk

12.4 Incidence and mortality rates from cancer registry data

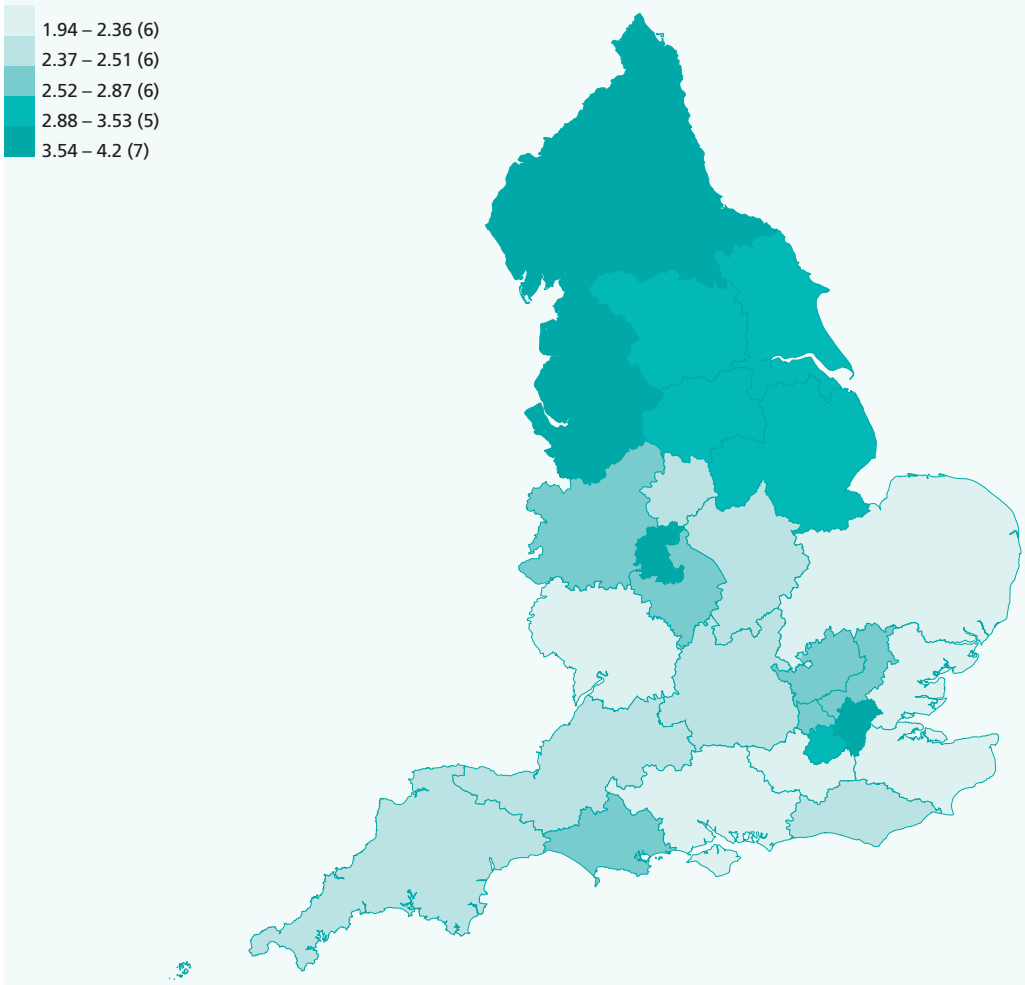
The recently published e-atlas for cancer[59], showed only an overview of head and neck cancer for a summation of selected anatomic sites. At the request of the National Head and Neck Cancer Audit team the Oxford Cancer Intelligence Unit (OICU) has used a similar methodology and developed by English cancer network maps for head and neck cancer rates at the 3 digit level (eg C32 to describe larynx) for both age standardised incidence and age standardised mortality.

Two maps are presented as samples below. For a wider number of sites please refer to the National Cancer Intelligence report which can be found at www.ncin.org.uk.

- Across English cancer networks in the five year period 2002 to 2006, age standardised incidence of larynx cancer (all sites) varied from 1.94 to 4.2 per 100,000 of the population
- The incidence was in general higher in the North and Central London and lower in the South East
- Across English cancer networks in the five year period 2001 to 2005, age standardised mortality of oral cavity cancer (ICD sites C02, C03, C04 and C06 excludes mucosal aspect of lip and hard palate) varied from 0.73 to 1.52 per 100,000 of the population
- Mortality was in general higher in the North East, Cumbria and Lancashire and lower in the South East

Figure 12.4.a
Age standardised incidence rates for larynx cancer by English cancer network 2002-2006

Persons diagnosed with cancer of the larynx (Age standardised rate per 100,000 population)



Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

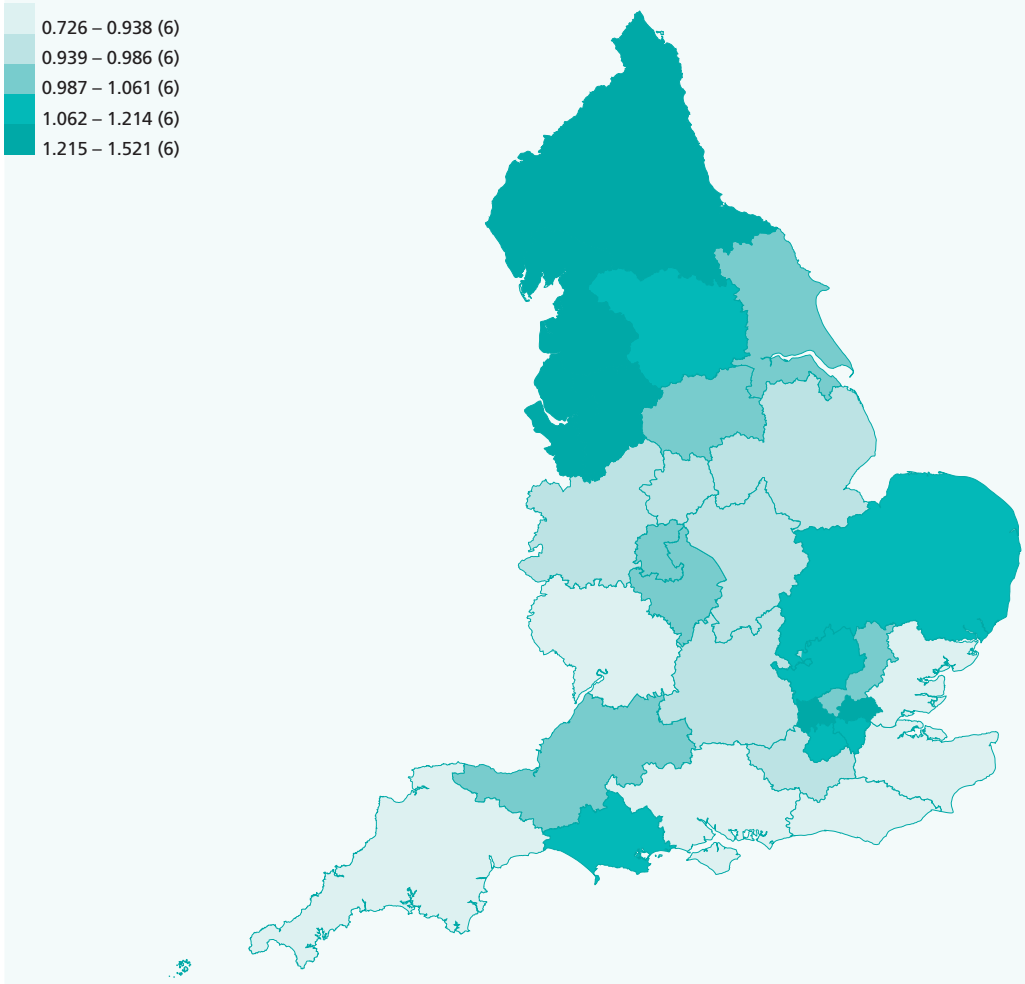
The integration of information from a variety of sources to increase the knowledge base on head and neck cancer remains a common goal of the National Head and Neck Cancer Audit and the NCIN Head and Neck Site Specific Clinical Reference Group.

National Cancer e-Atlas National Cancer Intelligence Network

http://www.ncin.org.uk/index_files/eatlas.htm

Figure 12.4.b
Age standardised mortality rates for oral cavity cancer by English cancer network 2001-2005

Persons mortality rate for patients diagnosed with cancer of the oral cavity excluding inner part of lip and hard palate (Age standardised rate per 100,000 population)



Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

Appendices

Appendix 1
Data set for DAHNO phase II

1a Phase II data set

The full dataset can be found at the following web page:-
www.ic.nhs.uk/canceraudits

1b Items in Speech and Language and Swallowing, Surgical Voice Restoration (SVR), Dietetic and Clinical Nurse Specialist care

The following items are those required for phase II of for the National Head and Neck Cancer Audit for care provided by the above professionals:-

Dietetics, Speech and Language Therapy and Clinical Nurse Specialist dataset items

	Data Item
HN 11	Symptoms first noted date
HN 20	Primary care communication sent date
HN 22	Cancer dental assessment date
HN 23	Speech and swallowing assessment date
S	Swallowing
S2	Normalcy of diet
SVR	Surgical Voice Restoration
SVR1	Contact date
SVR3	SVR Contact professional involvement
SVR5	SVR Contact purpose
SVR6	Functional swallowing ability
SVR8	SVR Communication post operative method
SVR9	SVR Communication primary method
SVR10	SVR Communication other method
SVR 11	SVR Post operative voicing
SVR 12	SVR Valve removal reason
HN 19	Contact date
D	Nutritional Support
D10	Patient estimated weight
D1	Person observation (weight)
D2	Date weight measured
D3	Person observation (height)
D4	Date height measured
D5	Contact date (post treatment)
D6	Date nutrition support instigated
D7	Type nutrition support instigated
D8	Date nutrition support remains in place
D9	Date nutrition support withdrawn
CNS	Clinical Nurse Specialist
CNS 1	Source of referral
CNS 2	Cancer referral decision date
CNS 3	Reason for referral
CNS 4	Contact date
CNS 5	Date patient advised of cancer diagnosis
CNS 6	Professionals present at breaking of bad news
CNS 7	Date of CNS intervention
CNS 8	Type of CNS intervention
CNS 9	Date of discharge from CNS

Appendix 2
Adult Co-morbidity Evaluation (ACE-27) UK Values

The following form was developed as an extract from the National Cancer Dataset v4.0. We acknowledge that the intellectual property rights remain with Washington University in St. Louis, Campus Box 8013, 660 So. Euclid Avenue, St Louis MO 63110. It originates from and was developed with the permission of Washington University in St Louis.

Cogent comorbid ailment	Grade 3 Severe Decompensation	Grade 2 Moderate Decompensation	Grade 1 Mild Decompensation
Cardiovascular System			
Myocardial Infarct	• MI ≤ 6 months	• MI > 6 months ago	• Old MI by ECG only, age undetermined
Angina / Coronary Artery Disease	• Unstable angina	• Chronic exertional angina • Recent (≤ 6 months) Coronary Artery Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA) • Recent (≤ 6 months) coronary stent	• ECG or stress test evidence or catheterization evidence of coronary disease without symptoms • Angina pectoris not requiring hospitalization • CABG or PTCA (>6 mos.) • Coronary stent (>6 mos.)
Congestive Heart Failure (CHF)	• Hospitalized for CHF within past 6 months • Ejection fraction < 20 per cent	• Hospitalized for CHF >6 months prior • CHF with dyspnea which limits activities	• CHF with dyspnea which has responded to treatment • Exertional dyspnea • Paroxysmal Nocturnal Dyspnea (PND)
Arrhythmias	• Ventricular arrhythmia ≤ 6 months	• Ventricular arrhythmia > 6 months • Chronic atrial fibrillation or flutter • Pacemaker	• Sick Sinus Syndrome
Hypertension	• DBP>130 mm Hg • Severe malignant papilledema or other eye changes • Encephalopathy	• DBP 115-129 mm Hg • DBP 90-114 mm Hg while taking antihypertensive medications • Secondary cardiovascular symptoms: vertigo, epistaxis, headaches	• DBP 90-114 mm Hg while not taking antihypertensive medications • DBP <90 mm Hg while taking antihypertensive medications • Hypertension, not otherwise specified
Venous Disease	• Recent PE (≤ 6 mos.) • Use of venous filter for PE's	• DVT controlled with Coumadin or heparin • Old PE > 6 months	• Old DVT no longer treated with Coumadin or Heparin
Peripheral Arterial Disease	• Bypass or amputation for gangrene or arterial insufficiency < 6 months ago • Untreated thoracic or abdominal aneurysm (>6 cm)	• Bypass or amputation for gangrene or arterial insufficiency > 6 months ago • Chronic insufficiency	• Intermittent claudication • Untreated thoracic or abdominal aneurysm (< 6 cm) • s/p abdominal or thoracic aortic aneurysm repair
Respiratory System			
	• Marked pulmonary insufficiency • Restrictive Lung Disease or COPD with dyspnea at rest despite treatment • Chronic supplemental O2 • CO2 retention (pCO2 > 6.7 kPa) • Baseline pO2 < 6.7 kPa • FEV1 (< 50 per cent)	• Restrictive Lung Disease or COPD (chronic bronchitis, emphysema, or asthma) with dyspnea which limits activities • FEV1 (51 per cent-65 per cent)	• Restrictive Lung Disease or COPD (chronic bronchitis, emphysema, or asthma) with dyspnea which has responded to treatment • FEV1 (66 per cent-80 per cent)
Gastrointestinal System			
Hepatic	• Portal hypertension and/or esophageal bleeding ≤ 6 mos. (Encephalopathy, Ascites, Jaundice with Total Bilirubin > 34mmol/l)	• Chronic hepatitis, cirrhosis, portal hypertension with moderate symptoms "compensated hepatic failure"	• Chronic hepatitis or cirrhosis without portal hypertension • Acute hepatitis without cirrhosis • Chronic liver disease manifested on biopsy or persistently elevated bilirubin (>51mmol/l)
Stomach / Intestine	• Recent ulcers ≤ 6 months requiring ≥ 6 units of blood transfusion	• Ulcers requiring surgery or transfusion of < 6 units of blood	• Diagnosis of ulcers treated with meds • Chronic malabsorption syndrome • Inflammatory bowel disease (IBD) on meds or h/o with complications and/or surgery
Pancreas	• Acute or chronic pancreatitis with major complications (phlegmon, abscess, or pseudocyst)	• Uncomplicated acute pancreatitis • Chronic pancreatitis with minor complications (malabsorption, impaired glucose tolerance, or GI bleeding)	• Chronic pancreatitis w/o complications

Cogent comorbid ailment	Grade 3 Severe Decompensation	Grade 2 Moderate Decompensation	Grade 1 Mild Decompensation
Renal System			
End-stage renal disease	• Creatinine > 265 umol/l with multi-organ failure, shock, or sepsis • Acute dialysis	• Chronic Renal Insufficiency with creatinine > 265 umol/l • Chronic dialysis	• Chronic Renal Insufficiency with creatinine 177-265umol/l.
Endocrine System (Code the comorbid ailments with the (*) in both the Endocrine system and other organ systems if applicable)			

Diabetes Mellitus	• Hospitalization ≤ 6 months for DKA
	• Diabetes causing end-organ failure
	  • retinopathy
	  • neuropathy
	  • nephropathy*
	  • coronary disease*
	• peripheral arterial disease*
		• IDDM without complications
		• Poorly controlled AODM
			• AODM controlled by oral agents only

Neurological System			
Stroke	• Acute stroke with significant neurologic deficit	• Old stroke with neurologic residual	• Stroke with no residual • Past or recent TIA
Dementia	• Severe dementia requiring full support for activities of daily living	• Moderate dementia (not completely self-sufficient, needs supervising)	• Mild dementia (can take care of self)
Paralysis	• Paraplegia or hemiplegia requiring full support for activities of daily living	• Paraplegia or hemiplegia requiring wheelchair, able to do some self care	• Paraplegia or hemiplegia, ambulatory and providing most of self care
Neuromuscular	• MS, Parkinson's, Myasthenia Gravis, or other chronic neuromuscular disorder and requiring full support for activities of daily living	• MS, Parkinson's, Myasthenia Gravis, or other chronic neuromuscular disorder, but able to do some self care	• MS, Parkinson's, Myasthenia Gravis, or other chronic neuromuscular disorder, but ambulatory and providing most of self care
Psychiatric			
	• Recent suicidal attempt • Active schizophrenia	• Major depression or bipolar disorder uncontrolled • Schizophrenia controlled w/ meds	• Major depression or bipolar disorder controlled w/ medication
Rheumatologic (Incl. Rheumatoid Arthritis, Systemic Lupus, Mixed Connective Tissue Disorder, Polymyositis, Rheumatic Polymyositis)			
	• Connective Tissue Disorder with secondary end-organ failure (renal, cardiac, CNS)	• Connective Tissue Disorder on steroids or immunosuppressant medications	• Connective Tissue Disorder on NSAIDS or no treatment
Immunological System (AIDS should not be considered a co-morbidity for Kaposi's Sarcoma or Non-Hodgkin's Lymphoma)			
AIDS	• Fulminant AIDS w/KS, MAI, PCP (AIDS defining illness)	• HIV+ with h/o defining illness. CD4+ < 200/µL	• Asymptomatic HIV+ patient. • HIV+ w/o h/o AIDS defining illness. CD4+ > 200µL
Malignancy (Excluding Cutaneous Basal Cell Ca., Cutaneous SCCA, Carcinoma in-situ, and Intraepithelial Neoplasm)			
Solid Tumor including melanoma	• Uncontrolled cancer • Newly diagnosed but not yet treated • Metastatic solid tumor	• Any controlled solid tumor without documented metastases, but initially diagnosed and treated within the last 5 years	• Any controlled solid tumor without documented metastases, but initially diagnosed and treated > 5 years ago
Leukemia and Myeloma	• Relapse • Disease out of control	• 1st remission or new dx <1yr • Chronic suppressive therapy	• H/o leukemia or myeloma with last Rx > 1 yr prior
Lymphoma	• Relapse	• 1st remission or new dx <1yr • Chronic suppressive therapy	• H/o lymphoma w/ last Rx >1 yr prior
Substance Abuse (Must be accompanied by social, behavioral, or medical complications)			
Alcohol	• Delirium tremens	• Active alcohol abuse with social, behavioral, or medical complications	• H/o alcohol abuse but not presently drinking
Illicit Drugs	• Acute Withdrawal Syndrome	• Active substance abuse with social, behavioral, or medical complications	• H/o substance abuse but not presently using
Body Weight			
Obesity		• Morbid (ie., BMI>38)	

Overall co-morbidity score (circle one)				
0	1	2	3	9
None	Mild	Moderate	Severe	Unknown

Appendix 3
DAHNO Data Quality Measures

No	Definition
1	Percentage of diagnosis records with date of imaging recorded
2	Percentage of diagnosis records with histology recorded
3	Percentage of diagnosis records with care plan information recorded
4	Percentage of diagnosis records with co-morbidity recorded
5	Percentage of diagnosis records with performance status recorded
6	Percentage of diagnosis records with pre-treatment T stage recorded (excludes Tx)
7	Percentage of diagnosis records with pre-treatment N stage recorded (excludes Nx)
8	Percentage of diagnosis records with clinical nurse specialist contact date recorded
9	Percentage of diagnosis records with speech and language contact date recorded
10	Percentage of diagnosis records with dietitian contact date recorded
11	Percentage of diagnosis records with date of assessment at or greater than six months after date of diagnosis (4th Report cohort only)
12	Percentage of diagnosis records with treatment recorded
Data quality is calculated at cancer network level to take into account movement between diagnosing and treating units.	

Glossary

2WW	Two Week Wait
Adjuvant	a treatment given in concert with another to boost its activity
Aetiology	part of medical science dealing with the causes of disease
Alveolus	the portion of the jaw containing the teeth
Aspiration	withdrawal of fluids or gases from a cavity
BAHNO	British Association of Head and Neck Oncologists
Barium	a metallic element (in barium sulphate form) used in diagnostic imaging due to its propensity to absorb X-rays
Biopsy	removal and examination of tissue for diagnostic purposes
Brachytherapy	treatment modality using implantation of radioactive material
Buccal mucosa	mucous membrane of the mouth or inside of cheek
Cancer centre	specialised unit within a single or multiple hospitals that refers, diagnoses and treats cancer patients
Cancer site	area where cancer is located
CaNISC	Cancer Network Information System Cymru.
Careplan	represents the point in the patient pathway where a plan of treatment is proposed and thus an appropriate point to assess and record a patient's fitness
Casemix	a means of classifying hospital patients to provide a common basis for comparing cost effectiveness and quality of care across hospitals.
CASU	Clinical Audit Support Unit
CCAD	Central Cardiac Audit Database
CDS	Community Dental Service
CEU	Clinical Effectiveness Unit
CHART	continuous hyper fractionated accelerated radiotherapy
Chemoradiation	a combination of chemotherapy and radiotherapy
Chemotherapy	drugs used in the treatment of cancer
Child document	sub-document of a parent (top level) document
Co-morbidity	co existent illness(es) to the disease under consideration
Cordectomy	removal of the vocal cords
CSV	Comma Separated value
CT scan	computerised tomography scan - a radiological investigation
Curative	intending to cure
CXR	chest X-ray
Cytologist	medically qualified specialist who undertakes diagnosis by the microscopy of preparations of dispersed cells from the surface of the body or aspirated from deeper tissues
Cytology	study of cells and disease by microscopy of preparations of dispersed cells from the surface of the body or aspirated from deeper tissues
DAHNO	Data for Head and Neck Oncology
DAHNO application	software used to collate national, comparative head and neck cancer data
Dataset	collection of data items
Decompensation	the functional deterioration of a previously working structure or system. Decompensation may occur due to fatigue, stress, illness, or old age. When a system is "compensated", it is able to function despite stressors or defects. Decompensation describes an inability to compensate for these deficiencies
Demographic	a statistic characterizing human populations (or segments of human populations) broken down by age or sex or income etc.
Deprivation	absence of expected level of social provision
DH	Department of Health
Diagnosis	confirming the presence of a disease
Dietician	Allied Health Professional specialising in aspects of nutrition
Dorsal	top surface
DSCN	Data Set Change Notification
Early adopter	team or individual taking up a new idea ahead of majority
Endolaryngeal	describing treatment of the larynx via a hollow endoscope
Endoscopy	visualisation of hollow organs
ENT	Ear, Nose and Throat
Epidemiologist	specialist in the study of prevalence of disease
Excision	removal of an area of tissue
Extensive resection	extension of surgical procedure to remove greater volume of tissue than normally required for named procedure
Flap repair	reconstructive surgery utilising a flap of tissue
GDP	General Dental Practitioner
Gingiva	mucosal tissue between and around teeth
Glossectomy	removal of the tongue
Glottis	the vocal apparatus of the larynx; the true vocal folds and the space between them where the voice tone is generated
GMP	General Medical Practitioner
GP	General Practitioner
Healthcare Commission	an independent body, to promote and drive improvement in the quality of healthcare and public health in England and Wales.
Hemimandibulectomy	removal of half the mandible

Histology	The study of tissues, cells and disease by microscopy of intact pieces of tissue (biopsies and resections)
Histopathologist	medically qualified specialist who undertakes diagnosis by microscope of intact pieces of tissue (biopsies and resections)
HNCRG	Head and Neck Clinical Reference Group
Homogeneous	of similar consistency
Hypopharynx	the lowest section of the pharynx
IBM Lotus Domino®	the server architecture upon which the central DAHNO application database replica resides
IBM Lotus Notes®	the client software that renders the functionality of the DAHNO database to its users
IC	The Information Centre for health and social care (NHS body)
ICD-10	International Classification of Diseases version 10 (a coding nomenclature prepared by the World Health Organisation).
IMD	Index of Multiple Deprivation
IOG	Improving Outcomes Guidance - issued by NICE
ISB	Information Standards Board
Laryngeal	of the larynx
Laryngectomy	removal of larynx (voice box)
Larynx	voice box - anatomic cartilage and soft tissue structure
LDP	local delivery plans
Lesion	abnormal area of tissue
Linear accelerator	radiotherapy machine to deliver high energy beam to treat cancer
Locoregional	area surrounding tumour and its expected lymph node drainage
Lymph node	a bean shaped focus of lymphoid tissue present in many areas of the body forming part of the immune system
Malignant	cancerous
Mandibulectomy	removal of mandible
Mandibulotomy	division of mandible - usually for surgical access
Maxillectomy	removal of maxilla
Maxillofacial	of the face and jaws
MDT	Multi Disciplinary Team – a team of clinical specialists assembled to discuss and agree the appropriate care for a patient
Meta analysis	statistical technique to summate separate statistical analyses
Metastasis	distant spread of tumour
MRI scan	Magnetic Resonance Imaging – a scanning technique using magnetic and radio-waves
Mucosa	mucous membrane
Multimodality	combination of treatments
NCDS	National Cancer Dataset – the standardised set of data items used in the collection of cancer data
NCIN	National Cancer Intelligence Network
Neo-adjuvant	a substance given ahead of another treatment to boost its effect
Neoplasm	new growth of tissue in part of body
NHSIA	NHS Information Authority – the name of the NHS body now known as 'The Information Centre'
NICE	National Institute for Health and Clinical Excellence - an independent organisation responsible for providing national guidance on promoting good health and preventing and treating ill health
NOS	Not Otherwise Specified
NSF	National Service Framework – Dept. of Health long term strategies for improving specific areas of care. They set measurable goals within set time frames.
Oncologists	medically qualified non surgical specialists in cancer management
ONS	Office for National Statistics
Oral cavity	the mouth: anatomic area bounded by the lips palate and pharynx
Oropharyngeal	anatomical subsite the oropharynx e.g. a tumour arising in the oropharynx
Osteoradionecrosis	breakdown of bone as a consequence of previous radiotherapy
Palate	'roof of the mouth' comprising bony anterior portion and soft tissue portion posteriorly
Palliative care	care to alleviate a disease without intent of cure
Parent document	top level document that has subdocuments beneath it
PAS	Patient Administration System
Pathology	Scientific study of disease as it affects organs, tissues, cells and molecules
Pathway	describes stages in the journey of care for a disease
PCT	Primary Care Trust
PET scan	Positron Emission Tomography - a nuclear medicine technique which produces a three-dimensional image or map of functional processes in the body.
Pharynx	anatomical area from back of nose to start of oesophagus (gullet)
PIAG	Patient Information Advisory Group - PIAG was established to provide advice on issues of national significance involving the use of patient information and to oversee arrangements created under Section 60 of the Health and Social Care Act 2001. Its membership is drawn from patient groups, healthcare professionals and regulatory bodies.
Prognosis	predicted outcome of a disease
Radiologist	medically qualified imaging specialist
Radiotherapy (RT)	cancer treatment using high energy beams
RCT	Randomised Control Trial - the essential characteristics of a RCT are that there will be a comparison between a treatment and placebo group. Great care is taken to avoid bias when collecting the data and assigning subjects (randomly) to their respective groups.

Resective pathology	pathology of a surgically removed specimen
Retromolar area	the area directly behind the molar teeth
SALT	Speech and Language Therapists
Squamous cell carcinoma (SCC)	the commonest cancer of mucous membranes in the head and neck
Stage certainty	validation of diagnostic method used to derive stage of cancer
Subglottis	area of voice box below vocal cords
Supraglottis	upper portion of voice box above vocal cords
SUS	Secondary Uses Services
Surgeon	medically qualified specialist who performs diagnostic assessments and operative procedures
SWAHN	South West Audit of Head and Neck Cancer
Teletherapy	high energy external beam used in the treatment of cancer
Thorax	chest cavity
TNM	Tumour, Node, Metastasis. Clinical Classification of anatomical extent of cancer
Tomography	multiple slice x-ray
Triage	preliminary assessment to determine future pathway of care
Tuberculosis	An infectious disease due to a specific organism (Mycobacterium tuberculosis)
Tumour	swelling or abnormal growth
Voice Restoration	means of achieving voice in a patient who has had a laryngectomy
UICC	International Union Against Cancer (French Acronym - Union Internationale Contre le Cancer)
Ulceration	erosion of a mucosal lining
Ultrasonography	technique of high frequency sound scans to visualise body structures
Upper aero- digestive tract	anatomic area from nose and mouth to start of gullet, includes both respiratory passages (nose and voice box) as well as mouth and pharynx

Contributing professional organisations

There are many organisations that have contributed and continue to contribute to the audit. They are listed below.

British Association of Head and Neck Oncologists

British Association of Head and Neck Oncology Nurses

British Association of Oto-larynologists - Head and Neck Surgeons (ENT UK)

British Association of Oral and Maxillofacial Surgeons

British Association of Plastic Surgeons

British Dental Association

British Dietetic Association

British Society for Oral and Maxillofacial Pathology

National Association of Laryngectomee Clubs

Royal College of Surgeons

Royal College of General Practitioners

Royal College of Radiologists

Royal College of Pathologists

Royal College of Speech and Language Therapists

Palliative Care Association

Let's Face It

UK Association of Cancer Registries

Representatives from clinical oncology

Representatives from clinical psychology

Trent Cancer Registry

Welsh Cancer Intelligence and Surveillance Unit

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Notes

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