National Head & Neck Cancer Audit 2010

Sixth Annual Report

National Head and Neck Cancer Audit - key findings for England and Wales for the audit period November 1 2009 to October 31 2010. 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.

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

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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 as part of the National Clinical Audit & Patient Outcomes Programme (NCAPOP).

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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 (BAHNO) 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 2010

Key findings for England and Wales for the audit period November 2009 to October 2010

Introduction to the sixth Annual Report

The format of the sixth Annual Report has been amended, endeavouring to make it more compact with an easier reading style. Given the wealth of data now collected, it provides a summation of analyses carried out, with hyperlinks in the electronic version to more in depth tabulations.

A selection of this year's detailed analyses and cumulative analyses, from the inception of the audit, more applicable to researchers will be made available to registered DAHNO users later in the year, as a data repository.

Throughout this report, comments relating to the British Association of Head and Neck Oncologists (BAHNO) Standards are shown in **grey** and for Clinical Lines of Enquiry (CLEs) in **green**. Welsh standards are shown in **blue**.

Contents

	Introduction to the sixth Annual Report	**5**
	Acknowledgements	**8**
	Foreword	**9**
1	**Executive Summary**	**11**
1.1.	What is DAHNO?	11
1.2	What DAHNO adds to existing information	11
1.3	Assurance of multi-professional care	12
1.4	The process of care delivery	12
1.5	Pathways of care	12
1.6	Where head and neck cancer care happens - submission rates	13
1.6.1	Contributing Cancer Networks in England and Wales	13
1.6.2	Overview of case ascertainment and data quality (increasing the proportion of patients who receive care)	13
1.7	Recommendations – What we need to do to improve care	13
1.8	Participation and data quality	14
2	**Background to head and neck cancer**	**15**
2.1	What is head and neck cancer and which anatomic sites does it include?	15
2.1.1	Impact and outcome of head and neck cancer	15
2.2	Measuring clinical care	15
2.3	Standards from professional bodies	15
2.4	Audit and its links to peer review	15
2.5	Joint working with the National Cancer Intelligence Network (NCIN) and lead Cancer Registry –Oxford Cancer Intelligence Unit (OCIU)	15
3	**What are the gaps in patient care and what should be done to improve care to patients?**	**16**
3.1	Commissioners	16
3.2	Networks	16
3.3	Trusts	16
3.4	MDTs	16
3.5	Improving data submission	17
4	**Findings**	**18**
4.1	Introduction	18
4.2	Analysed data	18
4.2.1	Is data quality improving?	18
4.2.2	Which subsites of head and neck cancer have been reported?	18
4.2.3	Which head and neck cancer histological diagnoses have been reported?	18
4.3	Where head and neck cancer care happens	19
4.3.1	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	19
4.3.1.1	Number of patients registered with new head and neck primaries of the larynx, oral cavity, oropharynx, hypopharynx, nasopharynx and major salivary glands in the index period by Cancer Network	20
4.3.2	Submission by Network and Provider Trust of patients with new head and neck primaries in the index period	21
4.3.2.1	Where cancer care happens – has it changed since the inception of the audit?	21
4.4	Are factors relevant to risk adjustment being recorded?	21
4.4.1	Where is the audit in recording the distribution of stage?	21
4.4.1.1	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	21
4.4.1.2	Post surgical staging	26
4.4.2	Distribution of performance status at point of treatment decision	27
4.4.3	Presence or absence of significant co-morbidity at index point of diagnosis (ACE-27)	27
4.4.4	Summary by network of records containing staging, performance status and co-morbidity for larynx and oral cavity cancer	28
4.4.5	Deprivation analysis: Distribution of diagnosis, treatment and outcome by socio-economic Lower Super Output Areas, derived from the postcode in England and Wales	28
4.4.5.1	Summary of registrations by deprivation in England and Wales	28
4.4.6	Age distribution at diagnosis by anatomic sub-site of head and neck cancer	30

Contents continued

4.5	Assurance of Multiprofessional Care Received by Patients in England	31
4.5.1	Clinical nurse specialist support along the head and neck cancer patient journey	32
4.5.1.1	What evidence has been submitted of actual clinical nurse specialist provision in trusts to head and neck cancer patients?	32
4.5.2	Clinical nurse specialist and the breaking of bad news	33
4.5.3	Clinical nurse specialist interventions	33
4.5.4	Dental health assessment in head and neck cancer care	34
4.5.5	Pre-operative / pre-treatment speech and swallowing assessment	34
4.5.6	Surgical voice restoration in laryngectomy patients	35
4.5.7	Dietetic input into patient pathway	36
4.6	Receiving timely care	37
4.6.1	Interval first symptom to referral	38
4.6.2	Interval referral to first appointment	39
4.6.3	Interval referral to diagnosis	40
4.6.4	Interval from biopsy to reporting	42
4.6.5	Imaging	44
4.6.5.1	Imaging of the chest	44
4.6.6	PET Scanning	46
4.6.7	Interval from diagnosis to MDT	46
4.6.8	The head and neck multi-disciplinary team (MDT) – are all patients discussed?	49
4.6.9	Interval from diagnosis to first treatment	53
4.6.10	Interval to adjuvant radiotherapy	55
4.7	Pathways of care	57
4.7.1	The treatment of early stage laryngeal cancer	57
4.7.2	Oral cavity – Cancer of tongue	60
4.7.3	Oropharynx cancer	60
4.8	Clinical Outcomes sixth and fifth Annual Report Cohorts	63
4.8.1	Death	63
4.8.1.1	Sixth Annual Report Cohort - Deaths recorded within trust submissions for index year after supplementation with MRIS data	63
4.8.1.2	Fifth Annual Report Cohort - Deaths recorded within one year of date of diagnosis by supplementation with MRIS data	63
4.8.1.3	Fifth Annual Report Cohort - Deaths recorded within one year of date of diagnosis by supplementation with MRIS data - crude death rate by cancer network	64
4.8.1.4	Survival analysis	65
4.8.2	Locoregional recurrence within one year and two years of diagnosis	65
4.8.3	Number of treatment-related deaths (to include death within 30 days of surgery and / or within the same admission and within 30 or 90 days of chemotherapy / radiotherapy / chemo-radiotherapy)	66
5	**Appendices**	**67**
5.1	Appendix 1: Analysis of submitted cases against estimate by anatomic group site	68
5.2	Appendix 2: Number of registered new head and neck primaries by subsite	69
5.3	Appendix 3: Head and neck cancer histologies reported	70
5.4	Appendix 4: Clinical lines of enquiry (2011) and derivation from audit data fields	71
5.5	Appendix 5: Contents list on line repository	72
6	**References**	**73**

Acknowledgements

The National Head and Neck Cancer Audit is commissioned and sponsored by the Healthcare Quality Improvement Partnership (HQIP)[1] developed in partnership with BAHNO[2] and managed by the Information Centre for health and social care (The NHS IC16050111).

The project wishes to acknowledge the following who have supported the audit project and provided guidance during the data collection period from November 1 2009 to October 31 2010 to and during the compilation of this report:

The National Head and Neck Cancer Audit project team chaired by Richard Wight and Graham Putnam with project management from Julie Michalowski and Tracie Lowe and data analysis from Arthur Yelland.

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

The following groups have supported the audit, including; the Expert Panel, the Head and Neck Clinical Reference Group (now co-terminus with the NCIN Head and Neck Site Specific 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.

The following clinicians contributed to the sixth Annual Report Expert Panel and thanks are due to the following representatives: Richard Wight (Chair), Graham Putnam (Vice Chair) ENT surgery – Mark Watson and Stuart Winter; oral and maxillofacial surgery – Cyrus Kerwala and Ceri Hughes; dietetics – Sarah Cameron; clinical nurse specialist – Kathleen Mais; speech and language therapy Anne Hurren and Jo Paterson and Simon Hodder representing Wales.

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

This sixth annual report of the National Head and Neck Cancer Audit includes a total of 6458 new cases (6133 from England and 325 from Wales) diagnosed between November 2009 and October 2010. Case ascertainment continues to improve each year and is now estimated at around 97 per cent for England. This is despite some networks falling below 70 per cent of expected numbers, with two Trusts not participating at all.

Participating Trusts and the leaders of the audit are to be congratulated on the overall level of case ascertainment and on the steady improvements in recording of staging (around 79 per cent), performance status (around 50 per cent) and co-morbidity (around 40 per cent). However, further improvement in recoding of these parameters is vital if appropriate adjustments for case mix are to be made in order to supply meaningful outcome data.

The findings from this audit provide valuable information on the timeliness of diagnosis and treatment and on the types of treatment delivered to patients with different subtypes of head and neck cancer. For example for most subtypes the median interval between first symptom and referral is 9 – 10 weeks, but for laryngeal (12 weeks) and naopharyngeal cancer (14 weeks) the intervals are longer. Importantly the graphs indicate that around 15 – 25 per cent of patients have delays of 6 months or more from first symptom to referral.

The median intervals between diagnosis and first treatment are 28 days for surgery, 30.5 days for chemotherapy and 44 days for radiotherapy, the latter almost certainly reflecting the complexity of planning intensity modulated radiotherapy.

Radiotherapy was the predominant treatment for laryngeal cancer (77 per cent), but an important minority (23 per cent) were treated by endolaryngeal resection. For cancer of the oral (anterior two thirds) tongue, surgical excision was the primary treatment for around 45 per cent of cases.

Now that case ascertainment has reached such a high level, the next important step will be to bring the data collected for this audit by multidisciplinary teams together with that available through cancer registries, Hospital Episode statistics and the Radiotherapy Dataset. This can be facilitated by the National Cancer Intelligence Network (NCIN). This should facilitate further analyses of variations in care and in important clinical outcomes such as one year survival.

While the recommendations made by the clinicians and professional bodies who lead this audit are their own, their overall thrust is in line with the direction set in 'Improving Outcomes: A strategy for cancer' (January 2011) and with the emphasis on the importance of information to enhance quality of care and to promote choice for patients.

DH Gateway reference number 16067

Professor Sir Mike Richards
National Cancer Director

Foreword continued

I am pleased to say that Wales has, once again contributed to the National Head and Neck Cancer Audit, not only with data but interpretation and analysis of the accumulated data.

The presentation of the sixth National Head and Neck Cancer Audit annual report makes this a lighter document to read, for all enthusiasts of statistics and data web links are there to access all the findings. It is good from a Welsh prospective to have data, again included with the English data, as the number of head and neck cancers in Wales make it hard to draw valid conclusions on treatment pathways and outcomes. Overall of the 6458 cases submitted 325 cases were submitted from the 3 cancer networks in Wales. It is disappointing to note that whilst the overall ascertainment for England and Wales increased to 95.7 per cent, ascertainment for Wales fell from 90 per cent (349 of 390 possible cases in Wales) recorded in the last audit to 74.4 per cent. Ascertainment needs to improve across Wales.

There is need for a drive in the Welsh networks to collect the data within CaNISC for submission and recording of the basic data: T stage, neck staging, co morbidity and functional status along with treatments etc. Currently, there are no fields with in CaNISC to collect the multiprofessional care data required. New data fields have been agreed and data will be captured as soon as possible. Data completeness and quality will improve as a result of implementation of the Cancer Quality Framework.

The 20,000 plus cases now in the head and neck cancer audit database are such that comparisons and changes in treatment can be seen. With HPV and oropharynx there is a change from surgery to radiotherapy neo-adjuvant chemotherapy. With time, as the audit continues to mature and data completeness increases, outcome data will add to the evidence base and offer further insights of best treatment. I am pleased to see Wales is contributing well to these cases, with, in the main, equal numbers to surgery radiotherapy for the networks.

Depressingly, it appears that one in five patients (4.8.1.3) with a head and neck cancer diagnosis is dead with in a year of diagnosis which is worse than for breast, but better than for colorectal cancers. Care should be taken in interpretation of the mortality data as there is considerable variation across Networks. These data will be more useful when significant differences from the mean are available. Similarly survival data are limited until data improves and allows for case mix adjustments to be made. Further analysis in time of morbidity status and T stage will shed some light on this.

In Wales we must strive to support greater public awareness with the aim for earlier presentation whilst MDTs need to increase case submission and improve data quality completeness covering all areas of diagnosis, staging and treatment.

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

1. Executive Summary

The National Head and Neck Cancer Audit - sixth Annual Report on the management of head and neck cancer in England and Wales has changed format from previous editions. This improves readability of the report and focuses directly on key issues for the head and neck community. Presentation of information has been altered with use of hyperlinks within the text to take the reader into detailed information if required, leaving the main body of the document clearer.

The report includes a brief background to head and neck cancer - Section 2. Detailed recommendations as to what the MDT and commissioners should be doing to improve care are in Section 3.

Findings of the audit can be found in Section 4 and covers outcomes. In Section 4.5 an expanded report on the input from multi-professionals, with increased reporting on these key aspects of patient care is provided. The timing of care delivery in Section 4.6 has been extensively rewritten, with an aim of delivering information more succinctly.

This year, three pathways of care have been selected for detailed analysis, early larynx cancer, cancer of the tongue and oropharyngeal cancer and these can be found in Section 4.7. This has been made possible by improvements in submitted data but there are still limitations in some of the conclusions drawn due to data quality. However we feel this is an important step forward and would encourage teams to assist us to allow expansion of this section in future reports. For the first time we are able to report in detail on the histological diagnoses submitted to the audit.

Deaths from head and neck cancer are again reported in Section 4.8 and the cohort of patients submitted for the fifth Annual Report have been reassessed, showing that overall a sobering 21 per cent of patients with a diagnosis of head and neck cancer had died within one year, with hypopharynx patients faring the worst with nearly 38 per cent dead within one year. It must be remembered that these are crude death rates and represent deaths from causes other than the presenting cancer and does not reflect cancer disease status at the time of death.

The remaining sections of the report include appendices as well as a list of data within an on-line repository, making available a lot of detailed information to be referred to, as and when required, by the reader.

The sixth Annual Report includes a wide variety of outcomes provided in 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 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. The data on over 20,000 cases of head and neck cancer are now contained within the audit and represents a significant body of information.

Throughout the document significant points for consideration are shown in boxes, where appropriate British Association of Head and Neck Oncologists (BAHNO) standards are identified by **grey** coloured boxes. The report is available on line at www.ic.nhs.uk/canceraudits. It is recommended that to benefit fully from the hyperlinked items the report should be read whilst connected to the internet.

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).

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 sixth 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 sixth Annual Report the following findings are reported in network identifiable format:
    - o Deprivation by anatomic site
    - o Crude mortality
    - o Number and per cent diagnoses registered
    - o Post surgical staging
    - o Interval – diagnosis to first definitive treatment

1.3 Assurance of multi-professional care

Multi-professional input into management of head and neck cancer patients has long been recognised as vital, reducing length of stay and complications, reducing readmission rates and improving the patient experience. This is the second year the audit has reported on the input to care from clinical nurse specialists (CNS), speech and language therapists (SALTs) and dietetics. No data has been received from Wales for CNS or SALT as this data is not collected in their centralised cancer information system (CANISC).

37.4 per cent of patients are recorded as having been seen by a CNS, with 26 per cent of patients having a CNS present at the breaking of bad news. The head and neck clinical reference group recognised the importance of these interventions and recommended that this role must be carried out by a multi-disciplinary team (MDT) CNS rather than a generic out patient nurse.

This year the threshold for assurance of CNS involvement has been raised to 70 per cent and 16 trusts provided assurance that greater than 70 per cent of their patients were seen by a CNS before or during treatment (where more than 5 cases were submitted). A further 14 trusts were able to meet this standard for the breaking of bad news. For the first time we have been able to report on the type of CNS intervention. The Head and Neck Site Specific Clinical Reference Group (H&N SSCRG) felt this was a significant improvement and urged trusts yet to submit this data to look at processes to enable them to do so.

Pre treatment SALT / swallowing were better reported this year and this is to be commended. Recording of dental assessment still has some way to go to reach comprehensive submission but 13 per cent of patients with treatment plans were recorded as having this important care carried out. The H&N SSCRG believe that more restorative dentists have been appointed to MDTs and hope this leads to an improvement in confirmation of care provided.

The reporting of dietetic interventions has also improved this year with 26 per cent of patients with a care plan having a dietetic record. The highest reporting trusts gave assurance that more than 70 per cent of their patients had a pre treatment dietetic assessment and are to be congratulated on achieving this. It is hoped that the level of reporting in this important category can be improved further next year.

1.4 The process of care delivery

The complex care pathways seen in head and neck cancer with multiple stages, interventions and assessments for patients to go through means that assessing the process of care delivery is an important part of the audit as it may reflect the internal organisation of trusts undertaking care.

The interval from first symptom to referral remains long with medians ranging from 62 days in oropharynx to 98 days in nasopharynx cancer. This may be something for the National Early Diagnosis Initiative (NAEDI) to tackle with a view to reducing these figures.

This year's report shows that overall there has been an increase of 1 day in the time from referral to first appointment, for the majority of head and neck cancers, and trusts need to look carefully at their access pathways to ensure that these do not deteriorate further.

An improvement in the number of cases where biopsy to reporting was less than 10 days was seen – a Clinical Line of Enquiry item - this is encouraging given the pressures felt by many trusts on their pathology services.

We have been able to report on the use of PET (Positron Emission Scanning)[3] scanning for the first time this year, with identification of the disease type where the technique was used. Overall imaging records increased from 61 per cent in last year's report to 75 per cent this year, but with a slight reduction in the level of chest imaging. The expert panel wondered whether this was due to a lack of use of imaging site selection in the data collection process. Trusts need to ensure that if multiple sites are imaged these are recorded correctly. 13 trusts were able to complete 100 per cent of their imaging within 15 days and are to be congratulated on this achievement.

Once again this national audit has demonstrated significant delays for patients in accessing radiotherapy either as a primary or adjuvant treatment. It is not clear whether this just represents demand upon the services or whether the introduction of more complex radiotherapy techniques such as IMRT has lengthened access times. Networks are recommended to review access pathways for radiotherapy services to see if this can be improved to more acceptable levels.

1.5 Pathways of care

In this report we have looked at three pathways of care in more detail to try and understand the treatments carried out and have chosen early laryngeal cancer, tongue cancer and oropharynx cancer for a first look at treatment detail.

In early laryngeal cancer we have looked at the differences between sites offering radiotherapy or transoral laser excision, with the anticipation that a choice of treatment options should be available for patients.

In tongue cancer the incidence of associated neck dissection has been analysed but well recognised difficulties in the coding of resection type currently makes detailed analysis difficult.

For oropharynx cancer a review of surgical or non surgical treatment, has been carried out as there is a trend for increasing non surgical management of this type of disease, but opinion is divided on the increased toxicity associated with non surgical treatment.

1.6 Where head and neck cancer care happens - submission rates

1.6.1 Contributing Cancer Networks in England and Wales

The sixth Annual Report covers the period 1 November 2009 to 31 October 2010.

All English Cancer Networks and all three Welsh Cancer Networks have submitted patient records, and the sixth Annual Report describes results for over 6400 patient records – an increase of 861 cases from the fifth report. Network returns have identified around 147 diagnosing centres, 56 surgical centres, 51 radiotherapy and 65 chemotherapy centres, giving a clearer picture where head and neck cancer care is carried out.

A number of networks increased their submission rates, 26 Networks achieved submission rates of greater than 70 per cent of estimated cases and one, South East London who only had a minimal submission last year submitted 60 per cent of their estimated number of cases. A more comprehensive picture of head and neck cancer care in England and Wales has thus been obtained and submitting networks and trusts should be congratulated for their continued efforts.

Five networks submitted less than 70 per cent of estimated cases, Pan Birmingham, North London, North West London and South East London and South East Wales.

Two trusts, Heart of England NHS Foundation Trust and Medway NHS Foundation Trust failed to submit any patients to the audit this year, which is extremely disappointing and we are therefore unable to offer any assurance or governance on the quality of care provided. It is hoped that this will be corrected for next year's audit.

1.6.2 Overview of case ascertainment and data quality

A continued improvement in case ascertainment has occurred with 95.7 per cent of estimated incident cases being recorded. In England and Wales of 6747 estimated cases 6458 were submitted. The English and Welsh Networks are to be congratulated on this level of case ascertainment.

Whilst improved case ascertainment is welcome, executive teams in organisations yet to contribute significant amounts of data should ensure prioritisation of head and neck cancer in their audit programs. Participation in the Head and Neck Cancer Audit is part of the Department of Health Quality Accounts.

An overview demonstrates a broader submission of information through the patient's journey. Staging increased to 79 per cent, performance recording improved to around 50 per cent and co-morbidity scores at 40 per cent were also improved, but the ability to risk adjust outcomes was limited by the recording of all three of these key features in only 28 per cent of patients. For the desired output of risk adjusted outcomes submitting organisations will have to look at ways of improving the submission rates of these key components.

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.

1.7 Recommendations – What we need to do to improve care

Commissioners

The care pathway for head and neck cancer is complex, often requiring multiple treatment interventions. The concentration of special senses in the head and neck mean that even minor changes in tissues can have a profound impact upon an individual's ability to function. Multi-professional input into head and neck cancer care can help alleviate some of the impact of treatment and allow patients to develop coping strategies with improved outcomes and improved quality of life. Multi-professional care should include input from Clinical Nurse Specialists, Speech and Language Therapists, dieticians, psychologists and dental services.

Commissioners should look for evidence of multi-professional care when commissioning services and ensure this is available for all patients on the head and neck cancer pathway.

Networks

Successive national audit reports have identified difficulties with access to radiotherapy services for head and neck patients. Radiotherapy may be used as a primary treatment, an adjuvant treatment after surgery or in combination with chemotherapy. In this, the sixth Annual Report, access times have again deteriorated slightly for some treatments leading to concerns that head and neck patients may be deprived of timely access to this treatment modality.

With the increase of techniques such as Intensity Modulated Radiotherapy (IMRT), which are more time consuming than conventional treatment it remains a significant challenge to maintain access even at the current level.

Networks should look critically at the access pathways for radiotherapy services and develop strategies that allow timely access for head and neck patients to primary, adjuvant and chemo-radiotherapy to try and improve access times.

Trusts

Key parameters such as staging, timeliness of access and care plans are well recorded but there are data items such as co-morbidity and performance status that are less well collected, but which are essential if we are to reach our goal of publishing risk adjusted outcomes. Trusts should continue to improve the quality of information provided.

The sixth report has a major section reporting the activities of allied health professionals who contribute to the multi-professional input of the audit. Their contributions, whilst improving greatly this year need to be developed further. Anecdotally concerns have been expressed that access to data collection systems may be limited for some health care professionals.

Trusts should ensure that all members of the head and neck MDT are adequately supported to allow them to collect, collate and submit their dataset items to the audit.

MDTs

It is both an IOG and BAHNO standard that all head and neck cancer patients have their care discussed in a MDT to ensure that appropriate care plans are constructed for patients who are adequately supported through their care pathway.

MDTs should ensure that they have a mechanism in place to capture any patients whose treatment is carried out outside of the MDT. These exceptions should be audited and action taken to ensure that all patients treatment decisions are discussed through the MDT.

1.8 Participation and data quality

A detailed analysis of case ascertainment by submitting trust can be found here.

The following organisations failed to reach submission of 60 per cent of the estimated case number of head and neck cancers:

Data completeness by trust for a number of key data items can be found here.

Trusts failing to reach submission of 60 per cent of estimated cases
Barnsley Hospital NHS Foundation Trust
Cardiff and Vale University Health Board
Central Manchester University Hospitals NHS Foundation Trust
City Hospitals Sunderland NHS Foundation Trust
East and North Hertfordshire NHS Trust
East Sussex Hospitals NHS trust
Heatherwood and Wexham Park Hospitals NHS Foundation Trust
Royal Marsden Hospital NHS Foundation Trust
Stockport NHS Foundation Trust
The Princess Alexandra Hospitals NHS Trust
University College London Hospitals NHS Foundation Trust
University Hospital of South Manchester NHS Foundation Trust
University Hospitals of Leicester NHS Trust
Warrington and Halton Hospitals NHS Foundation Trust
Western Sussex Hospitals NHS Trust
Whipps Cross University Hospital NHS Trust

2. 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 each year[4,5] 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 see Appendix 2.

2.1.1 Impact and outcome of head and neck cancer

The 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 eating, drinking, speech, swallowing, smell, breathing, social interaction and work capabilities.

Head and neck cancers have significant mortality, for example, five year relative survival for larynx cancer is around 65 per cent.[6] 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 head and neck cancer to assess in more detail, care provided by specialist nurses, dieticians and speech and language therapists.

2.3 Standards from professional bodies

The British Association of Head and Neck Oncologists, a multi-professional organisation, with facilitation by The NHS IC, has published standards for the delivery of head and neck cancer care in 2009.[2] The standards are referred to in this report and highlighted in **grey**. These standards can be accessed from the BAHNO website through the following link: http://www.bahno.org.uk/docs/BAHNO%20STANDARDS%20DOC09.pdf

2.4 Audit and its links to peer review

The National Institute for Health and Clinical Excellence (NICE) guidance on head and neck cancer[7] in England and Wales was published in 2005,[8] with subsequent measures[9]. It provides recommendations for good practice and areas addressed, include head and neck cancer network and multidisciplinary teams (MDTs), referral, diagnosis and assessment, treatment services, post-treatment follow-up and care, prevention, patient centred care and palliative care. In Wales,[8] National Standards for Head and Neck Cancer Services 2005 define core aspects of service that should be provided for cancer patients.

A further round of peer review visits will occur in England in 2011 and will be supported by Clinical Lines of Enquiry[10]. These aim to provide a greater focus within peer review on clinical issues, and to span different professional contributions along the patient pathway.

There are two sections National and Local. The five National indicators chosen are taken from this report, with a further three Local indicators supplemented by local audit data. A list of the indicators can be found in Appendix 4 and they are shown throughout the report in **green**.

The National Cancer Patients Experience Survey[39] (which is referred to in the report) acts as a further source of information and will be used as a comparator more diverse patient outcomes in future reports.

2.5 Joint working with the National Cancer Intelligence Network (NCIN) and lead Cancer Registry – Oxford Cancer Intelligence Unit (OCIU)

The previous head and neck site specific group for this national audit has joined with that of the NCIN[11] to form a single Head and Neck Site Specific Clinical Reference Group (SSCRG) providing clinical expertise. Each SSCRG is funded by the NCIN and is supported by a lead cancer registry which for head and neck is Oxford.

The SSCRG acts both as professional linkage to the audit, but also assists in development of a programme to gain more value from combining different data sources into a common repository. This so far has combined data from the audit with registry data and hospital episode statistics (HES). During 2011 information will be joined on radiotherapy episode statistics to allow, for the first time, an in depth assessment of radiotherapy treatment in head and neck cancer. It is hoped that in the seventh Annual Report this can be a focus in pathways of care.

OCIU provides long term cumulative analysis of information from the National Head and Neck cancer audit and provides leadership for the audit analysis in conjunction with the Welsh Cancer Intelligence and Surveillance Unit.

A number of publications under the NCIN[6] banner have been made and current work programme studies are looking into operative coding in HES, impact of proximity to treatment centres, relative survival rates by age and stage and the impact of deprivation.

3. What are the gaps in patient care and what should be done to improve care to patients?

3.1 Commissioners

The care pathway for head and neck cancer is complex, often requiring multiple treatment interventions. The concentration of special senses in the head and neck mean that even minor changes in tissues can have a profound impact upon an individual's ability to function. Multi-professional input into head and neck cancer care can help alleviate some of the impact of treatment and allow patients to develop coping strategies with improved outcomes and improved quality of life. Multi-professional care should include input from Clinical Nurse Specialists, Speech and Language Therapists, dieticians, psychologists and dental services.

Assurance of care has been provided by a number of organisations of multi-professional care delivery and all teams should seek to provide this.

Commissioners should look for evidence of multi-professional care when commissioning services and ensure this is available for all patients on the head and neck cancer pathway.

3.2 Networks

Successive reports have identified difficulties with access to radiotherapy services for head and neck patients. Radiotherapy may be used as a primary treatment, an adjuvant treatment after surgery or in combination with chemotherapy. In this, the sixth Annual Report, access times have again deteriorated slightly leading to concerns that head and neck patients may be deprived of timely access to this treatment modality.

With the increase of techniques such as Intensity Modulated Radiotherapy (IMRT), which are more time consuming than conventional treatment it remains a significant challenge to maintain access even at the current level.

For the seventh report the audit plans to combine information from radiotherapy episode statistics to focus also on the range of therapies delivered.

Networks should look critically at the access pathways for radiotherapy services and develop strategies that allow timely access for head and neck patients to primary, adjuvant and chemoradiotherapy to try and improve access times.

3.3 Trusts

The sixth report has a major section reporting the activities of allied health professionals who contribute to the multi-professional input of the audit. Their contributions, whilst improving greatly this year need to be developed further. Anecdotally, concerns have been expressed that access to data collection systems may be limited for some health care professionals. All healthcare professionals have a responsibility to perform audit to demonstrate the care provided is of a high quality.

Medical Directors, Directors of Nursing and AHP Leads should seek assurance that head and neck professionals and head and neck teams are contributing to National audit as well as acting upon the results in this report.

Local teams should share their performance with local patient groups to celebrate success but also to evolve and complete action plans to deliver improvement.

Trusts should ensure that all members of the head and neck MDT are adequately supported to allow them to collect, collate and submit their dataset items to the audit.

3.4 MDTs

The MDT is the key focal point in the patient pathway, and offers an opportunity to regularly assess both the standard of delivery of care and planning actions to improve it.

With Peer review, National Audit and Clinical Lines of Enquiry, the building blocks to engender self-assessment are provided and from this, teams should be supported to make change to enable improved care.

It is both an IOG and BAHNO standard that all head and neck cancer patients have their care discussed in a MDT to ensure that appropriate care plans are constructed for patients who are adequately supported through their care pathway.

MDTs should ensure that they have a mechanism in place to capture any patients whose treatment is carried out outside of the MDT. These exceptions should be audited and action taken to ensure that all patients treatment decisions are discussed through the MDT.

With the pathways of care presented MDTs should examine whether the treatment guidelines are adhered to and for example in early laryngeal cancer whether appropriate cases are truly offered a choice of treatment between transoral resection and radiotherapy. If the necessary skills or access are not available then consideration should be made to onward refer to meet the necessary standard of care.

3.5 Improving data submission

We have identified in this report that data submission rates are improving, not only for the total number of cases submitted but also the depth and quality of information contained within each patient record.

Data quality is available by Trust in the data repository, and Trusts are encouraged to carefully assess their performance and look to attain the highest possible level of both submission and completeness particularly in the areas of importance to risk adjustment. Key parameters such as staging, timeliness of access and care plans are well recorded but there are data items such as co-morbidity and performance status that are less well collected, but which are essential if we are to reach our goal of publishing risk adjusted outcomes. In progressing assurance of care given it is equally important that entry occurs across the whole patient pathway, with an increased focus on treatment delivered as well as completion of current status. The latter is an important step to report disease specific survival.

With better treatment data additional pathways of care can be examined and variations in the patterns of care delivered can be critically assessed.

4. Findings

4.1 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 2009 and 31 October 2010. Comparative information presented from previous reports uses published information and tables, and is not from cumulative or updated files unless stated.

4.2 Analysed data

6458 patient diagnoses have been included in the analysis, representing data on 6416 patients. This represents 6133 cases from England (97.2 per cent of the estimated case number) and 325 cases from Wales (74.4 per cent of the estimated case number). Overall submissions have increased by 15 per cent with 861 additional cases compared to the fifth Annual Report giving an overall 95.7 per cent of the case load estimate of 6747 in England and Wales. This report, therefore, represents a comprehensive overview of head and neck cancer care.

The calculation of estimates of cases is based on historic registry submission, the rapid rise in recorded cases of oropharynx cancer means that recorded cases are likely to exceed the case load estimate at this anatomic site. Incidence information from the National Cancer Intelligence Network shows year-on-year, a steady increase in incidence of oropharynx cancers, which reflect a rise in cases caused by human papilloma virus.

The level of case ascertainment in salivary gland cancer is 80 per cent and whilst this may reflect differences in the patient pathway, (where definitive diagnosis frequently occurs following resective surgery rather than in the diagnostic workup) colleagues are encouraged to submit all cases.

A more detailed analysis by anatomic sub-site group and of the 47 patients with more than one tumour in the index period can be found in Appendix 1.

4.2.1 Is data quality improving?

This year's data confirms a continued trend of a 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 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 94 and 100 per cent of patients have a care plan record.

Of those cases with a care plan, 89.7 per cent have a record of first intended treatment (which is 84.2 per cent of the total cases submitted). Adjusting for cases that have not progressed through the patient journey to reach a point of care planning, between 84 and 92 per cent have an intended treatment.

Thus, by this sixth report, around 85 per cent of submitted cases have entries up to and including treatment intent, whilst 66.4 per cent of cases with care plans have actual treatment start dates recorded.

4.2.2 Which subsites of head and neck cancer have been reported?

6458 cases were presented for analysis, with a date of diagnosis between 1 November 2009 and 31 October 2010. These comprised 1641 (88.4 per cent of estimate) laryngeal cancers, 1902 (84.5 per cent) oral cavity cancers, 1897 (127.8 per cent) oropharyngeal cancers, 382 (98.1 per cent) hypopharyngeal cancers, 191 (91.5 per cent) nasopharyngeal cancers and 415 (80 per cent) salivary gland cancers.

Overall cumulative submissions have now exceeded 20,000 from all six annual reports.

A detailed breakdown of registrations by anatomic sub-site is included in the data repository.

In larynx, as expected, glottic cancers predominate, (54 per cent), with 22 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 remains 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 2.2 per cent, consistent with the previous report averages.

In oral cavity, tumours of the lateral border of the tongue are the most common cancer site, (28 per cent), with a more even distribution amongst the remaining subsites. The hard palate (5.2 per cent compared to 2 per cent of all ONS registrations) again appears to be over represented as in earlier years. In this year's data collection tumours of the floor of mouth have become the second most common subsite (17.1 per cent).

In oropharynx, tonsil is the commonest site (46 per cent) and in combination with base of tongue making up 77 per cent of cases.

In hypopharyngeal cancer, piriform sinus predominates (49 per cent) with a more even distribution amongst the remaining subsites.

4.2.3 Which head and neck cancer histological diagnoses have been reported?

For the first time a significant submission of histological diagnoses has been made. 78.5 per cent of total cases had histology recorded.

An overview of pathological diagnoses submitted is summarised in Table 4.2.2.

Fuller details by site group can be found in Appendix 3, and by anatomic site code in the repository.

Review of the SNOMED codes to describe the cancer histology shows a wide variety of cancer types. In the current dataset, it seems likely that a few primary carcinomas were miscoded as metastases. Pathologists and data entry staff are encouraged to ensure accurate coding to facilitate subsequent analysis.

As expected in larynx, oral cavity, oropharynx and hypopharynx, squamous cell carcinoma not otherwise specified (M80703) predominates making up 72 per cent of cases at these sites and 91 per cent of histology recorded.

In nasopharynx, whilst squamous cell carcinoma not otherwise specified was again the commonest pathology, non-keratinising tumours contributed 24 per cent of submitted histological diagnoses.

In oral cavity, a range of salivary pathologies were present with 22 cases of muco-epidermoid carcinoma, 20 cases of adenocarcinoma and 16 cases of adenoidcystic carcinoma.

Major salivary gland cancers showed a wide diversity of histological diagnoses including tumours arising from glandular tissue and a number of cases of squamous cell carcinoma NOS suggesting metastasis to the parotid from skin disease.

4.3 Where head and neck cancer care happens

4.3.1 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

Figure 4.3.1a 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 2006 - 2008.

Table 4.2.2
Histological diagnosis by morphology

	Miscellaneous Carcinoma*	Carcinoma Undifferentiated NOS	Verrucous Carcinoma	SCC NOS	SCC NOS Metastatic	SCC Keratinising NOS	SCC Non Keratinising NOS	Squamous Cell Carcinoma Variants^	SCC Microinvasive	Adenocarcinoma NOS	Basal Cell Adeocarcinoma	Adenoidcystic Carcinoma
	MISC	M8020/3	M8051/3	M8070/3	M8070/6	M8071/3	M8072/3	SCC VAR	M8076/3	M8140/3	M8147/3	M8200/3
Number of diagnoses	31	28	17	4372	25	187	43	15	2	83	9	69

Table 4.2.2 (continued)
Histological diagnosis by morphology

	Papillary Adenocarcinoma	Mucoepidermoid Carcinoma	Mucinous Adenocarcinoma	Infiltrating Duct Carcinoma NOS	Polymorphous Low Grade Adenocarcinoma	Acinic Cell Carcinoma	Adenosquamous Carcinoma	Epithelial Myo-Epithelial Carcinoma	Sarcoma NOS	Carcinoma Ex Pleomorphic Adenoma		Percentage Blank
	M8260/3	M8430/3	M8480/3	M8500/3	M8525/3	M8550/3	M8560/3	M8562/3	M8800/3	M8941/3	(blank)	
Number of diagnoses	1	67	2	5	5	48	6	17	1	13	1390	21.5

Miscellaneous * includes

Neoplasm malignant **M8000/3**
Carcinoma NOS **M8010/3**
Carcinoma NOS secondary site **M8010/6**
Spindle cell carcinoma **M8032/3**
Small cell carcinoma NOS **M8041/3**
Non small cell carcinoma **M8046/3**

Squamous Cell Carcinoma Variants ^ includes

SCC Spindle cell **M8074/3**
Adenoid squamous carcinoma **M8075/3**
Basaloid squamous carcinoma **M8083/3**
Baso squamous carcinoma **M8094/3**
Basaloid carcinoma **M8123/3**

Figure 4.3.1a
Estimate of total number of patients with new head and neck primaries of the in the index period

Submitting Network	DAHNO Registrations	Estimate	%
East Midlands	437	470	92.9
Greater Manchester and Cheshire	410	351	116.7
Merseyside and Cheshire	379	343	110.5
North of England	372	467	79.7
Yorkshire	359	333	107.9
Anglia	341	333	102.5
Greater Midlands	299	208	143.5
Peninsular	257	233	110.5
Lancashire and South Cumbria	252	223	113.0
Thames Valley	249	244	102.0
North Trent	220	226	97.5
North East London	209	168	124.2
3 Counties	205	158	129.2
Central South Coast	197	240	82.1
Avon, Somerset and Wiltshire	175	209	83.5
Pan Birmingham	164	274	59.8
Essex	163	154	105.4
Sussex	161	138	116.7
Kent and Medway	156	186	83.9
Surrey West Sussex and Hants	154	100	153.5
Humber and Yorkshire Coast	144	147	97.8
South West London	141	196	72.1
North West London	122	206	59.2
Dorset	119	93	128.4
South East London	119	196	60.6
North London	116	172	67.4
Arden	113	104	108.7
Mount Vernon	100	129	77.1
England	**6133**	**6304**	**97.3**
South East Wales	128	192	66.8
South West Wales	116	140	82.9
North Wales	81	105	77.1
Wales	**325**	**437**	**74.4**
England and Wales	**6458**	**6740**	**95.8**

Estimate based on cancer registry data in England and Wales for the period 2006-2008

Cancer registry data provides an 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.

4.3.1.1 Number of patients registered with new head and neck primaries of the larynx, oral cavity, oropharynx, hypopharynx, nasopharynx and major salivary glands in the index period by cancer network.

Networks are shown as defined at the start of the index period November 2009. In the index period the East Midlands Cancer Network formed from the previous Derby Burton Cancer Network, Leicestershire, Northamptonshire and Rutland Cancer Network and Mid Trent Cancer Network.

Five networks submitted less than 70 per cent of estimated cases, Pan Birmingham, North, North West and South East London and South East Wales.

20 English networks increased their case submission, with the greatest rise occurring in Greater Manchester and Cheshire and Humber and Yorkshire Coast who are to be congratulated for their efforts, and South East London who had only minimal submission in the fifth Annual Report, submitted 60 per cent of their estimate for this report.

Of the remaining English networks some had no change but North of England and Pan Birmingham showed a significant fall in case submission.

A number of high performing networks showed submissions significantly higher than estimate. The reasons for this remain unclear. Whilst cross boundary migration can elevate numbers of cases, in those with the highest levels above estimate adjacent networks also show high levels.

Cases submitted by network ranged from 100 in Mount Vernon (estimate 130 cases) to a high of 437 in East Midlands (estimate 470 cases).

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

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

Details of submission by trust and anatomic site can be seen here.

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 to CASU (Clinical Audit Support Unit within the NHS IC) as providing head and neck cancer care, failed to submit any cases in the index period.

Trusts who did not submit data to the sixth Annual Report:
- **Heart of England NHS Foundation Trust**
- **Medway NHS Foundation Trust**

It is very disappointing that these organisations, despite the audit running for over five years, 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.

4.3.2.1 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 an aspect of head and neck cancer care by surveying cancer networks. Since the first annual report 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, and there has been a rationalisation of trusts providing major head and neck cancer surgery.

The current number of trusts identified by networks as delivering an aspect of head and neck cancer care is 149. These comprise from the Network information, 147 Trusts involved in the diagnostic pathway, 56 delivering major head and neck cancer surgery, 51 delivering radiotherapy and 65 delivering chemotherapy [as of February 2011]. For access to detail of centre and their activities click here.

4.4 Are factors relevant to risk adjustment being recorded?

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

- Recording of staging has improved significantly with a record 79 per cent of registered cases having a T and N category recorded, but this is partly offset by increased use of Tx and Nx.
- The 5079 cases with T and N recorded equates to 91 per cent of cases with a recorded care plan.
- The absence of staging remains a key factor in preventing risk adjusted outcomes being produced but it is encouraging that ever more teams are submitting this key information.
- 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.

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. (BAHNO Standard)

4.4.1.1 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:

Figure 4.4.1
Submitted diagnoses by year where T and N recorded

	04-05*	05-06	06-07	07-08	08-09	**09-10**
Diagnoses submitted	1042	1443	2035	4038	5597	**6458**
Cases with T and N staging recorded	673	776	1550	2936	3942	**5079**
Percent (%) of staging	64.8	53.8	76.2	72.7	70.4	**79.0**

* England only

Key for Figure 4.4.1.1
● = 85 per cent or more T and N recorded
■ = 50 per cent to 84 per cent T and N recorded
▲ = Less than 50 per cent T and N recorded

Figure 4.4.1.1
Submission by Cancer Network and Contact Trust of patients with new head and neck primaries in the index period, where cases had recorded T and N staging category

Contact Network	Contact Trust	Recorded				
		Yes	TX	NX	Total	% Recorded
3 Counties	Gloucestershire Hospitals NHS Foundation Trust	88	0	15	101	87 ●
	Hereford Hospitals NHS Trust	12	0	2	20	60 ■
	Worcestershire Acute Hospitals NHS Trust	77	8	9	84	92 ●
3 Counties Total		**177**	**8**	**26**	**205**	**86** ●
Anglia	Cambridge University Hospitals NHS Foundation Trust	95	0	3	115	83 ■
	Ipswich Hospital NHS Trust	19	0	0	22	86 ●
	James Paget University Hospitals NHS Foundation Trust	23	0	1	24	96 ●
	Norfolk and Norwich University Hospitals NHS Foundation Trust	114	2	2	126	90 ●
	Peterborough and Stamford Hospitals NHS Foundation Trust	45	0	4	50	90 ●
	West Suffolk Hospitals NHS Trust	4	0	0	4	100 ●
Anglia Total		**300**	**2**	**10**	**341**	**88** ●
Arden	University Hospitals Coventry and Warwickshire NHS Trust	48	0	1	113	42 ▲
Arden Total		**48**	**0**	**1**	**113**	**42** ▲
Avon, Somerset and Wiltshire	North Bristol NHS Trust	75	24	30	97	77 ■
	Royal United Hospital Bath NHS Trust	11	0	2	24	46 ▲
	Taunton and Somerset NHS Foundation Trust	8	0	3	30	27 ▲
	University Hospitals Bristol NHS Foundation Trust	9	0	3	23	39 ▲
Avon, Somerset and Wiltshire Total		**103**	**24**	**38**	**174**	**59** ■
Central South Coast	Isle of Wight Healthcare NHS Trust	3	0	0	5	60 ■
	Portsmouth Hospitals NHS Trust	65	0	3	93	70 ■
	Salisbury NHS Foundation Trust	10	2	0	19	53 ■
	Southampton University Hospitals NHS Trust	44	10	0	80	55 ■
Central South Coast Total		**122**	**12**	**3**	**197**	**62** ■
Dorset	Dorset County Hospital NHS Foundation Trust	23	0	0	24	96 ●
	Poole Hospital NHS Foundation Trust	83	0	2	94	88 ●
	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	2	0	0	2	100 ●
Dorset Total		**108**	**0**	**2**	**120**	**90** ●
East Midlands	Burton Hospitals NHS Foundation Trust	23	0	0	27	85 ●
	Derby Hospitals NHS Foundation Trust	62	1	0	81	77 ■
	Kettering General Hospital NHS Foundation Trust	0	0	0	3	0 ▲
	Northampton General Hospital NHS Trust	51	1	1	66	77 ■
	Queen's Medical Centre, Nottingham University Hospitals NHS Trust	138	0	0	150	92 ●
	United Lincolnshire Hospitals NHS Trust	61	3	9	62	98 ●
	University Hospitals of Leicester NHS Trust	44	0	0	47	94 ●
East Midlands Total		**379**	**5**	**10**	**436**	**87** ●
Essex	Basildon and Thurrock University Hospitals NHS Foundation Trust	27	2	0	29	93 ●
	Colchester Hospital University NHS Foundation Trust	40	0	1	40	100 ●
	Mid Essex Hospital Services NHS Trust	26	1	0	28	93 ●
	Southend University Hospital NHS Foundation Trust	55	0	1	66	83 ■
Essex Total		**148**	**3**	**2**	**163**	**91** ●

Figure 4.4.1.1 (continued)
Submission by Cancer Network and Contact Trust of patients with new head and neck primaries in the index period, where cases had recorded T and N staging category

Contact Network	Contact Trust	Recorded				
		Yes	TX	NX	Total	% Recorded
Greater Manchester and Cheshire	Central Manchester University Hospitals NHS Foundation Trust	22	3	1	28	79
	East Cheshire NHS Trust	3	0	1	8	38
	Mid Cheshire Hospitals NHS Foundation Trust	8	0	0	20	40
	Pennine Acute Hospitals NHS Trust	114	2	7	157	73
	Royal Bolton Hospital NHS Foundation Trust	20	0	2	43	47
	Salford Royal NHS Foundation Trust	12	0	0	24	50
	Stockport NHS Foundation Trust	3	0	0	11	27
	Tameside Hospital NHS Foundation Trust	8	1	0	39	21
	Trafford Healthcare NHS Trust	16	0	0	21	76
	University Hospital of South Manchester NHS Foundation Trust	6	3	1	19	32
	Wrightington, Wigan and Leigh NHS Foundation Trust	2	0	0	38	5
Greater Manchester and Cheshire Total		**214**	**9**	**12**	**408**	**52**
Greater Midlands	Mid Staffordshire NHS Foundation Trust	14	0	1	20	70
	Royal Shrewsbury Hospitals NHS Trust	46	2	3	57	81
	The Royal Wolverhampton Hospitals NHS Trust	89	1	1	93	96
	University Hospital of North Staffordshire NHS Trust	10	0	2	81	12
Greater Midlands Total		**159**	**3**	**7**	**251**	**63**
Humber and Yorkshire Coast	Hull and East Yorkshire Hospitals NHS Trust	90	1	1	101	89
	Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	24	0	1	43	56
Humber and Yorkshire Coast Total		**114**	**1**	**2**	**144**	**79**
Kent and Medway	East Kent Hospitals University NHS Foundation Trust	1	0	0	81	1
	Maidstone and Tunbridge Wells NHS Trust	55	2	0	57	96
	Queen Victoria Hospital NHS Foundation Trust	20	0	3	28	71
Kent and Medway Total		**76**	**2**	**3**	**166**	**46**
Lancashire and South Cumbria	Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	30	0	0	31	97
	East Lancashire Hospitals NHS Trust	67	2	8	82	82
	Lancashire Teaching Hospitals NHS Foundation Trust	98	3	11	112	88
	University Hospitals of Morecambe Bay NHS Trust	16	3	2	27	59
Lancashire and South Cumbria Total		**211**	**8**	**21**	**252**	**84**
Merseyside and Cheshire	Aintree University Hospitals NHS Foundation Trust	274	7	28	282	97
	Countess of Chester Hospital NHS Foundation Trust	12	1	0	14	86
	Royal Liverpool and Broadgreen University Hospitals NHS Trust	36	0	1	36	100
	Southport and Ormskirk Hospital NHS Trust	10	0	1	11	91
	St Helens and Knowsley Hospitals NHS Trust	2	0	0	4	50
	Warrington and Halton Hospitals NHS Foundation Trust	1	0	0	2	50
	Wirral University Teaching Hospital NHS Foundation Trust	32	1	0	32	100
Merseyside and Cheshire Total		**367**	**9**	**30**	**381**	**96**
Mount Vernon	East and North Hertfordshire NHS Trust	23	1	1	31	74
	Luton and Dunstable Hospital NHS Foundation Trust	62	1	0	67	93
Mount Vernon Total		**85**	**2**	**1**	**98**	**87**
North East London	Barking, Havering and Redbridge University Hospitals NHS Trust	43	6	8	51	84
	Barts and The London NHS Trust	108	12	17	125	86
	Newham University Hospital NHS Trust	2	0	1	2	100
	Homerton University Hospital NHS Trust	2	0	0	2	100
	Whipps Cross University Hospital NHS Trust	26	1	2	27	96
North East London Total		**181**	**19**	**28**	**207**	**87**
North London	Barnet and Chase Farm Hospitals NHS Trust	71	5	0	73	97
	The Princess Alexandra Hospital NHS Trust	9	0	0	9	100
	University College London Hospitals NHS Foundation Trust	27	2	1	36	75
North London Total		**107**	**7**	**1**	**118**	**91**
North of England	City Hospitals Sunderland NHS Foundation Trust	33	1	1	48	69
	County Durham and Darlington NHS Foundation Trust	37	1	1	38	97
	North Cumbria University Hospitals NHS Trust	38	0	0	40	95
	South Tees Hospital NHS Foundation Trust	107	3	3	113	95
	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	129	0	1	133	97
North of England Total		**344**	**5**	**6**	**372**	**92**

Figure 4.4.1.1 (continued)
Submission by Cancer Network and Contact Trust of patients with new head and neck primaries in the index period, where cases had recorded T and N staging category

Contact Network	Contact Trust	Recorded				
		Yes	TX	NX	Total	% Recorded
North Trent	Barnsley Hospital NHS Foundation Trust	5	0	0	5	100
	Chesterfield Royal Hospital NHS Foundation Trust	33	3	2	35	94
	Doncaster and Bassetlaw Hospitals NHS Foundation Trust	55	0	0	56	98
	Sheffield Teaching Hospitals NHS Foundation Trust	96	0	1	98	98
	The Rotherham NHS Foundation Trust	25	0	0	26	96
North Trent Total		**214**	**3**	**3**	**220**	**97**
North West London	Imperial College Healthcare NHS Trust	45	0	9	82	55
	North West London Hospitals NHS Trust	33	1	4	42	79
North West London Total		**78**	**1**	**13**	**124**	**63**
Pan Birmingham	Sandwell and West Birmingham Hospitals NHS Trust	34	1	2	39	87
	The Dudley Group of Hospitals NHS Foundation Trust	42	0	0	42	100
	University Hospital Birmingham NHS Foundation Trust	126	1	0	126	100
	Walsall Hospitals NHS Trust	4	0	0	5	80
Pan Birmingham Total		**206**	**2**	**2**	**212**	**97**
Peninsula	Northern Devon Healthcare NHS Trust	8	0	0	13	62
	Plymouth Hospitals NHS Trust	49	2	13	79	62
	Royal Cornwall Hospitals NHS Trust	42	0	7	70	60
	Royal Devon and Exeter NHS Foundation Trust	54	4	4	58	93
	South Devon Healthcare NHS Foundation Trust	37	3	5	37	100
Peninsula Total		**190**	**9**	**29**	**257**	**74**
South East London	Guy's and St Thomas' NHS Foundation Trust	118	0	0	119	99
South East London Total		**118**	**0**	**0**	**119**	**99**
South West London	Kingston Hospital NHS Trust	1	0	0	1	100
	St George's Healthcare NHS Trust	116	0	9	120	97
	The Royal Marsden NHS Foundation Trust	18	0	0	20	90
South West London Total		**135**	**0**	**9**	**141**	**96**
Surrey, West Sussex and Hants	Ashford and St Peter's Hospitals NHS Trust	5	0	2	9	56
	Basingstoke and North Hampshire NHS Foundation Trust	2	0	0	14	14
	Frimley Park Hospital NHS Foundation Trust	11	0	2	31	35
	Royal Surrey County Hospital NHS Trust	26	0	5	76	34
	Surrey and Sussex Healthcare NHS Trust	7	0	1	18	39
Surrey West Sussex and Hants Total		**51**	**0**	**10**	**148**	**34**
Sussex	Brighton and Sussex University Hospitals NHS Trust	54	3	6	61	89
	East Sussex Hospitals NHS Trust	53	5	0	60	88
	Western Sussex Hospitals NHS Trust	20	1	1	36	56
Sussex Total		**127**	**9**	**7**	**157**	**81**
Thames Valley	Great Western Hospitals NHS Foundation Trust	7	0	0	15	47
	Heatherwood and Wexham Park Hospitals NHS Foundation Trust	1	0	0	10	10
	Milton Keynes Hospital NHS Foundation Trust	6	0	0	36	17
	Oxford Radcliffe Hospitals NHS Trust	84	0	0	134	63
	Royal Berkshire NHS Foundation Trust	53	4	3	55	96
Thames Valley Total		**151**	**4**	**3**	**250**	**60**
Yorkshire	Bradford Teaching Hospitals NHS Foundation Trust	82	11	8	83	99
	Calderdale and Huddersfield NHS Foundation Trust	15	1	0	16	94
	Harrogate and District NHS Foundation Trust	0	0	0	1	0
	Leeds Teaching Hospitals NHS Trust	100	0	0	106	94
	Mid Yorkshire Hospitals NHS Trust	33	0	1	69	48
	York Hospitals NHS Foundation Trust	71	0	0	84	85
Yorkshire Total		**301**	**12**	**9**	**359**	**84**

Figure 4.4.1.1 (continued)
Submission by Cancer Network and Contact Trust of patients with new head and neck primaries in the index period, where cases had recorded T and N staging category

Contact Network	Contact Trust	Recorded				
		Yes	TX	NX	Total	% Recorded
England		**4814**	**159**	**288**	**6133**	**78**
North Wales	Betsi Cadwaladr University Health Board	71	0	1	81	88
North Wales Total		**71**	**0**	**1**	**81**	**88**
South East Wales	Aneurin Bevan Health Board	37	0	2	39	95
	Cardiff and Vale University Health Board	39	0	3	50	78
	Cwm Taf Health Board	30	0	1	34	88
	Velindre NHS Trust	5	0	0	5	100
South East Wales Total		**111**	**0**	**6**	**128**	**87**
South West Wales	Abertawe Bro Morgannwg University Health Board	62	1	11	94	66
	Hywel Dda Health Board	21	0	1	22	95
South West Wales Total		**83**	**1**	**12**	**116**	**72**
Wales		**265**	**1**	**19**	**325**	**82**
England and Wales		**5079**	**160**	**307**	**6458**	**79**

- In this year's report the colour banding requirements have been upgraded, with red representing poor return with less than 50 per cent of submitted cases staged and green representing 85 per cent of cases or greater staged.
- In 14 English Networks, 85 per cent or greater recording of TNM category was achieved with a number of trusts obtaining 100 per cent. One Welsh Network achieved 87 per cent, and 4 trusts exceeded this level.
- 3 Cancer Networks had poor recording of staging:-
  - Arden
  - Kent and Medway
  - Surrey, West Sussex and Hants
- Of 6458 patients who have been registered to the audit, 5079 (79 per cent) contained T and N category pre-treatment staging information.
- In the last two years there has been a significant improvement in staging in Welsh data now reaching 82 per cent and they should be encouraged to improve this further.
- In England, a significant improvement in staging submission has occurred with 78 per cent of cases (4814 cases) having a T and N value recorded compared to 70 per cent (3668 cases) in the preceding year.
- 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 seventh Annual Report collection year, now in progress.
- In this annual report it is noted that in 16 trusts a significant number of cases are recorded as Tx or Nx (primary tumour and regional lymph nodes cannot be assessed). All organisations are encouraged to reduce cases where Tx Nx is utilised to improve data quality. In the fifth Annual Report 275 cases were recorded Tx Nx. This has increased to 467 cases this year (7.2 per cent of those patients with a care plan) and efforts need to be applied to reduce this to a more appropriate level.

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. It is important that the use of Tx and Nx be avoided wherever possible. 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.

Percentage of new cases of head and neck cancer discussed at MDT where recorded T, N, M staging category is evident. (CLE 2 National)

4.4.1.2 Post surgical staging

Figure 4.4.1.2
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	T and N recorded post surgery
3 Counties	81	45	26
Anglia	158	21	12
Arden	27	32	20
Avon, Somerset and Wiltshire	38	21	6
Central South Coast	6	49	6
Dorset	56	29	29
East Midlands	189	95	36
Essex	59	26	14
Greater Manchester and Cheshire	101	74	41
Greater Midlands	80	25	10
Humber and Yorkshire Coast	61	39	19
Kent and Medway	31	31	12
Lancashire and South Cumbria	82	28	15
Merseyside and Cheshire	143	96	36
Mount Vernon	25	37	8
North East London	85	43	30
North London	29	26	4
North of England	187	97	72
North Trent	122	65	54
North West London	27	48	14
Pan Birmingham	125	62	55
Peninsula	65	53	26
South East London	66	19	1
South West London	66	40	39
Surrey West Sussex and Hants	14	16	10
Sussex	68	24	18
Thames Valley	31	69	39
Yorkshire	159	140	40
England Total	**2181**	**1350**	**692**
North Wales	49	48	20
South East Wales	60	50	16
South West Wales	48	56	16
Wales Total	**157**	**154**	**52**
England and Wales Total	**2338**	**1504**	**744**

Three networks are to be congratulated by having exceeded over 85 per cent of surgical cases having post-surgery T and N categories recorded – Dorset, Pan Birmingham and South West London. Whilst three Networks failed to achieve 16 per cent of T and N recording post-surgery – North London, South East London, and Central South Coast.

Trust level data is available here.

MDTs should discuss pathological staging in all cases that have undergone surgery. This is both important to accurately define stage as well as identifying if adjunctive treatment is required. The MDT provides an ideal environment to capture this key information and recording of accurate stage is a key medical responsibility. Staging remains a key influence on outcome. (CLE local 3)

4.4.2 Distribution of performance status at point of treatment decision

- Assessment of performance status continues its slow improvement.
- 6061 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).
- 4635 patients had a record of performance status. Excluding those with a value of 5 (not recorded), 3104 patients had a performance status assessment which is 48.1 per cent of the total registrations of all subsites. This equates to 52.1 per cent of patients with a recorded care plan (compared to 44 per cent in the fifth Annual Report).
- To facilitate risk adjustment further training on performance status and improved completeness is required. The figures for the first six 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 tend to impact upon different population groups. Co-morbidity data recording may be a more sensitive mechanism to identify the impact of other conditions on outcomes.

4.4.3 Presence or absence of significant co-morbidity at index point of diagnosis (ACE-27)[12]

- Of the 6061 patients with at least one recorded care plan, 2400 had co-morbidity values recorded. This is 39.5 per cent of patients with a care plan.
- Co-morbidity recording has improved slowly in successive reports, rising a further 7 per cent this year.

Figure 4.4.2
Larynx; Oral cavity; Oropharynx; Hypopharynx; Nasopharynx; Major Salivary Gland Distribution of performance status at point of treatment decision.

Performance status	Percentage of 4635 recorded values
0. Able to carry out all normal activity without restriction	34.9
1. Restricted in physically strenuous activity	19.3
2. Able to walk and capable of all self care but unable to carry out any work	8.7
3. Capable of only limited self care	3.5
4. Completely disabled	0.6
5. Not recorded	33.0
Total	**100.0**

Figure 4.4.3
Summary of recorded co-morbidity-all subsites.

Grade	Percentage of 2400 recorded values
Grade 0 - No co-morbidity	48.9
Grade 1 - Mild decompensation	29.1
Grade 2 - Moderate decompensation	15.7
Grade 3 - Severe decompensation	6.3
Total	**100**

Co-morbidity has been shown to have an important impact in assessing risk and to be an important predictor of outcome. All MDTs are encouraged to collect co-morbidity data. The ACE 27 proforma can be found in the repository.

The figures in this year's report demonstrate again that predominantly head and neck cancer patients show no or mild decompensation (78 per cent).

However, the percentage of those with moderate or severe decompensation in larynx, oral cavity, oropharynx and hypopharynx varies from 19.6 per cent in oropharynx to 27.5 per cent in hypopharynx. Previously a much higher proportion of severe and moderate decompensation (43 per cent) was reported in hypopharynx, but with the qualification of being from a small sample. This variation has reduced with better data quality this year. The Expert Panels noted last year that in oropharynx, a sub-population of patients has a different causation via HPV infection and these generally present younger, have fewer co-morbidities and are of better performance status. The latter is supported in oropharynx where 80 per cent of patients have no or mild decompensation.

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

- Of 3543 cases of larynx and oral cavity cancer submitted this year, only 1047 cases (29.6 per cent) cases contained the three values of staging, performance status and co-morbidity.
- For all anatomic sites 28.1 per cent contained these three values.
- Significant variation exists between networks in their ability to provide this information. The highest submission was South West London (89.4 percent), whilst Arden, Avon, Somerset and Wiltshire, Kent and Medway, South East London, Surrey, Sussex and Hants had minimal or zero submission. In Wales, no network achieved above a minimal return. Only half of the cancer networks in the sixth Annual Report have at least 100 cases with these three indicators completed. Additional information can be found in the data repository within the data quality report.
- 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 MDTs are strongly encouraged to collect these dataset items to facilitate future risk adjustment.

4.4.5 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.[13] Thus deprivation analysis is an important part of the head and neck audit.

The Index of Multiple Deprivation 2007 (IMD 2007)[14] was used as a measure of socio-economic deprivation and is applicable in England. The Welsh Index of Multiple Deprivation (WIMD 2008)15 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.

4.4.5.1 Summary of registrations by deprivation in England and Wales

- A gradient of deprivation is evident in England for larynx and hypopharynx with a greater number of larynx and hypopharynx registrations residing in areas of relative deprivation (Quintiles 1 and 2), and this is also again demonstrated in Wales.
- The distribution of cases is more even across the deprivation quintiles for oral cavity and a slight gradient is evident in oropharynx.
- The point difference in deprivation quintile by network for different head and neck cancers can be found in the data repository.
- The following commentary has been adapted from a paper written by Graham Putnam and published in the head and neck section of the 2010 Annual Evidence Update. The full text can be found here http://www.library.nhs.uk/cancer/viewResource.aspx?resid=393309&code=b48662a752e6ca3a6edadb930e6cbbb9
- Socio-economic deprivation has long been attributed to an increasing incidence of cancer with particular associations related to "life style" cancers such as squamous cell carcinoma of the oral cavity. The incidence of oral cavity and oropharyngeal cancer appears to be increasing and although HPV infection may account for some of this rise, traditional associations with tobacco and alcohol consumption remain important aetiological factors.

Figure 4.4.5.1a
Summary of registrations by deprivation quintile in England

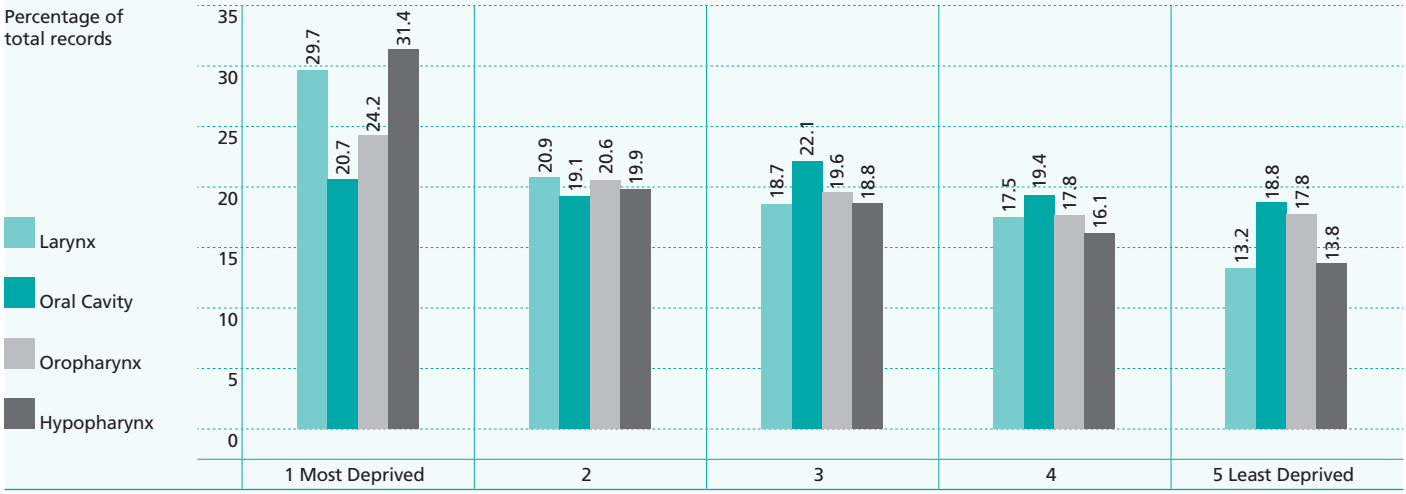
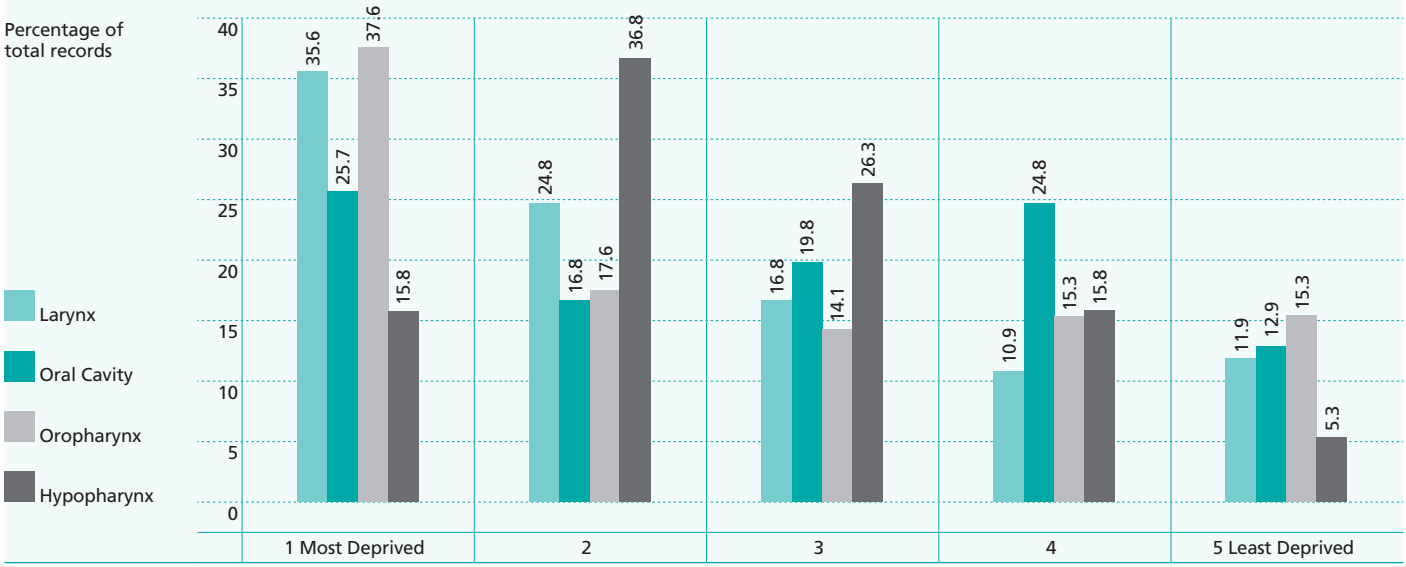


Figure 4.4.5.1b
Summary of registrations by deprivation quintile in Wales



- Deprivation may be defined as a demonstrable disadvantage to others and consists of material disadvantage, diet, income, housing etc. and social disadvantage, relationships in family life, work and the community.

- The direct link between social deprivation and oral cancer remains unclear. A systematic review of studies quantifying socioe-conomic status and risk of oral cancer by Conway et al[16] which carried out a meta analysis of 41 eligible studies, concluded that low socio-economic status was associated with a significantly increased risk of oral cancer in both high and low income countries world wide which persisted when confounders for behaviours such as smoking were included. They stated that low socio-economic status was an equivalent risk to well established aetiological behaviours such as tobacco use in the development of oral cancer.

- A high level of education appeared to have a protective effect whereas lifetime experience of unemployment was associated with a high risk of head and neck cancer. Other measures of socio-economic status did not reach levels of significance for risk but an association was seen between manual work and low socio-economic class and high risk of head and neck cancer. When adjustment for smoking was carried out, no significant socio-economic factors remained, but again a trend was seen towards higher risk with low educational attainment, lower social class and unemployment. After multivariate analysis only smoking remained as a significant causative factor. The authors suggest that to try and understand the complex relationship between socio-economic status and risk of developing oral cancer a lifetime socio-economic profile may help define this further.[17]

- The pernicious impact of deprivation may also influence outcome in terms of survival and quality of life, community support mechanisms, isolation, bereavement and withdrawal from family or other support mechanisms may significantly effect quality of life and outcome, deprivation therefore becomes an important casemix adjustment measure when reporting outcomes.[18]

- The role of deprivation in head and neck cancer is a complex one that requires further research to try and unravel the complex relationships between material and social deprivation, the disease itself and outcomes of treatment. The National Audit for Head and Neck Cancer collects ward based deprivation data from the post code, this allows reference to an index of multiple deprivation calculated on seven domains, including employment deprivation, health deprivation and disability, education, skills and training deprivation, barriers to housing and services, living environment deprivation and crime.[19] Analysis was carried out against over 32000 LSOA (Lower Super Output Areas) in England with the Welsh Index of Multiple Deprivation used for Welsh postcodes.

- Successive reports from the audit have demonstrated a greater number of larynx and hypopharynx registrations resided in areas of relative deprivation and this was also demonstrated in the Welsh data. 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. 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.

- In the audit data the influence of deprivation on oral cancer was less clear cut than for larynx and hypopharynx cancer. The distribution of the most deprived was greater than the general contributory population by less percentage points than in larynx, with 3 cancer networks having over 10 percentage points most deprived patients than the general population. The England and Wales distribution for oral cavity cancer is 4 per cent above the general population for the most deprived quintile.

- The audit wants to look in more detail at the complex relationship between deprivation, disease incidence and outcomes. The association of deprivation with outcomes additionally means that it becomes an important measure for casemix adjustment, as a high quality clinical database it also has the potential to answer more questions in this area to help define not only health policy but to help identify groups of patients at greatest risk of poorer outcomes from their head and neck cancer.

4.4.6 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. An updated analysis on cumulative data to 31 October 2010 is available in the data repository.

Figure 4.4.6
Median age at diagnosis by cancer site

	Median Age at Diagnosis (years)
Larynx	66
Oral Cavity	65
Oropharynx	60
Hypopharynx	64
Nasopharynx	61
Major Salivary Glands	66

- Data accumulated since the inception of the audit has confirmed a consistent median age in each of these cancer sites in England and Wales.
- 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 five subsequent reports have failed to demonstrate this trend, which should now be discounted.
- Oropharynx and nasopharynx cancer have a lower median age at diagnosis reflecting the impact of HPV infection in oropharynx and EBV infection in nasopharynx as causative factors in a younger population. This is different to the alcohol and tobacco induction of tumours in older oropharynx cancer patients.
- In major salivary gland 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 (further 24 cases this year), 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 Site Specific Group studies portfolio.

4.5 Assurance of Multiprofessional Care Received by Patients in England

The introduction of phase II of data items for the fourth Annual Report collection year allowed for the first time an 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[21], and BAHNO Standards, as well as being highlighted by lay membership of the audit's and NCIN Clinical Reference Group. The findings of the 2010 National Cancer Patients Experience Survey[39] corroborate elements of support to cancer patients along the patient pathway and includes returns from 2856 head and neck cancer patients.

At the inception of the audit it was noted that there was a wide geographic variation in the provision of Allied Health Professionals to support head and neck cancer patients. A previous mapping exercise continued to show these deficiencies.[22]

In this, the third year of collecting this information, submissions have been extended across all eligible head and neck cancer anatomic sites.

It should be noted that no submissions on nurse, or speech and language are included from Wales as these items are not included in the CANISC system from which data is uploaded. All analyses in those sections therefore refer to cases submitted from England only. Data was received from Wales on dietetic assessment.

A number of common themes across speech and language, dietetics, and clinical nurse specialist support are evident:-

- Speech and language therapists, 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. That a number of teams have contributed across all aspects of multi-professional care challenges others to match this commitment.
- Submissions have risen this year across all areas particularly in information on activities by clinical nurse specialists but with a very variable uptake across different trusts.
- From the submissions received, assurance of the quality of these important aspects of care can be made in a greater 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 highlights 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 of the fifth Annual Report

Phase II of the National Head and Neck Cancer Audit provided an opportunity for all MDTs to provide assurance on swallowing, surgical voice restoration, dietetic and clinical nurse specialist care provision. It is now time for non-submitters to match the commitment of teams who have active involvement of all health professionals in the audit process and to deliver a comprehensive record of the multi-professional care provided.

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

- The number of units with a head and neck clinical nurse specialist (CNS) has grown since publication of Improving Outcomes Guidance (IOG) in Head and Neck Cancers (NICE, 2004). The document recommends that the CNS should play a constant role along the treatment journey, starting at diagnosis. Anecdotally, patients value very highly their contact with and support of their CNS. This is borne out by several patient surveys.
- In the 2010 National Cancer Patients Experience Survey[39] 77 per cent of patients of the total head and neck responders (2196 of 2856 patients) confirmed that they had been given the name of a CNS during their care pathway. This is comparable with other non-head and neck cancers reported in the survey.

4.5.1.1 What evidence has been submitted of actual clinical nurse specialist provision in trusts to head and neck cancer patients?

- 2295 patients were recorded as having been seen by a CNS, representing 37.4 per cent of total patients in England. This is a significant rise in the number of clinical nurse specialist patient contacts in comparison to the fourth Annual Report (595 patients).
- 69 trusts in England provided confirmation that at least some patients had been seen by a CNS. No information was available for Wales.
- In these 69 trusts, of 2295 patients recorded as having seen a CNS, 1611 (26.2 per cent) had pre-treatment clinical nurse specialist input, whilst a further 314 had input during and after treatment, a total of 1925 patients (31.4 per cent).
- The following 14 organisations, which submitted more than five cases of cancer with CNS information, provided assurance that at least 70 per cent of patients having care were assessed by a CNS before or during treatment. 13 organisations were able to provide assurance that at least 70 per cent of patients had input from a clinical nurse specialist at the breaking of bad news. *[note that in the fifth Annual Report assurance was set at 40 per cent and has been raised to 70 per cent this year to reflect improved submission]:-*

Figure 4.5.1
Submission of clinical nurse specialist data

Trusts where greater than 70 per cent of the sum of cases of head and neck cancer cases were confirmed as having been seen by a Clinical Nurse Specialist before or during treatment [where total is greater than 5 cases of head and neck cancer]	Trusts where greater than 70 per cent of the sum of cases of head and neck cancer cases were confirmed as having been seen by a Clinical Nurse Specialist had a Clinical Nurse Specialist present at breaking of bad news
NHS Trust	**NHS Trust**
Colchester Hospital University NHS Foundation Trust	Colchester Hospital University NHS Foundation Trust
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	East and North Hertfordshire NHS Trust
Dorset County Hospital NHS Foundation Trust	Great Western Hospitals NHS Foundation Trust
East and North Hertfordshire NHS Trust	Guy's and St Thomas' NHS Foundation Trust
Guy's and St Thomas' NHS Foundation Trust	Mid Essex Hospital Services NHS Trust
Leeds Teaching Hospitals NHS Trust	Oxford Radcliffe Hospitals NHS Trust
Mid Essex Hospital Services NHS Trust	Poole Hospital NHS Foundation Trust
Oxford Radcliffe Hospitals NHS Trust	Queen's Medical Centre, Nottingham University Hospitals NHS Trust
Pennine Acute Hospitals NHS Trust	Royal Cornwall Hospitals NHS Trust
Poole Hospital NHS Foundation Trust	South Devon Healthcare NHS Foundation Trust
Queen's Medical Centre, Nottingham University Hospitals NHS Trust	Southend University Hospital NHS Foundation Trust
Tameside Hospital NHS Foundation Trust	Tameside Hospital NHS Foundation Trust
The Royal Wolverhampton Hospitals NHS Trust	The Royal Wolverhampton Hospitals NHS Trust
University Hospital Birmingham NHS Foundation Trust	Whipps Cross University Hospital NHS Trust
Walsall Hospitals NHS Trust	
Whipps Cross University Hospital NHS Trust	

- The highest reporting organisations provided assurance in both groups in over 80 per cent of patients.
- More detail on submission by organisation can be found here, including per cent of cases submitted seen by a CNS prior to commencement of treatment.
- The reason for referral to a CNS was predominantly entered as new diagnosis (81.5 per cent) with 12.8 per cent for treatment decision support, with only a small number as other or complex problems. Better completion of this item has helped provide a better understanding of CNS interactions with patients.

The date each new head and neck cancer patient first has contact with a clinical nurse specialist should be routinely recorded. (CLE National 4)

Patients diagnosed with head and neck cancer should be offered a consultation with the head and neck specialist nurse within one week of diagnosis. (Welsh Standard)

4.5.2 Clinical nurse specialist and the breaking of bad news

- 1589 of the 2295 (69.2 per cent) with a clinical nurse specialist record, identified a CNS, or designate, being present at the breaking of bad news. This represents 25.9 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 CNS or designate in this process.[23,21]
- Patient representatives feel it is imperative that a CNS 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 CNS plays an important role in supporting choice of treatment.

4.5.3 Clinical nurse specialist interventions

The CNS acts as a source of both support and information for patients and their carers, both at initial consultation, when bad news of the diagnosis is broken and throughout the course of their treatment. Head and neck cancer patients often come from the lower socio-economic strata of society with a concomitantly low level of social support and education. Their understanding of complex treatment options and their ability to cope during treatment is often poor. These patients often rely on the CNS to provide further explanations of the implications of their disease and the treatment options.

Interactions between the patient (and/or their carers) and the CNS are complex and multifactorial, including activities such as information giving, practical support, benefits advice, psychological support and help with decision making. Defining, categorising and recording these interactions can be difficult and time consuming; many consultations are ad hoc, often taking place as a result of a chance meeting in a hospital corridor or a phone call. Remembering and recording these consultations can be difficult.

- Of 2326 referrals to a CNS, 80 per cent were initiated by members of the head and neck MDT. 87 per cent of first referrals to a CNS were seen on the same day, with 96 per cent seen within 7 days of referral. This confirms close liaison within the head and neck MDT.
- Continued support during and beyond treatment is evidenced by the distribution of the interval from first referral to date of discharge, with similar numbers being discharged per week up to 22 weeks and a smaller but similar number being then discharged out to 52 weeks.
- The types of intervention as outlined above are complex and frequently multiple. The five commonest interventions comprise singly or in combination, assessment, information and advice, decision making support, psychological support, and liaison/referral.

Figure 4.5.3
Clinical nurse specialist interventions

Intervention - either singly or in combination with other events recorded	Number recorded
Assessment	2103
Information and advice	1168
Decision making support	327
Psychological support	884
Liaison/referral	311

Under current financial constraints, the role of the CNS is under scrutiny and it is therefore important that their daily activity is recorded and accessible to all, including managers and commissioners as well as patient groups. The DAHNO database can facilitate this by acting as a record of the activities performed by the CNS. Particular relevance should be given to interactions with patients at key stages during their disease pathway, for example the initial 'bad news' consultation, the post-operative period and during and after radiotherapy.

100 per cent of patients should be seen by a specialist head and neck liaison nurse (e.g. Macmillan), whose contact details should be provided to all patients at the earliest opportunity in all cases

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

4.5.4 Dental health assessment in head and neck cancer care

The Expert Panel members recognise that it is important to maintain good dental health throughout treatment for all anatomic subsites to reduce the incidence of post treatment complications such as osteoradionecrosis and accelerated dental decay. A restorative dentist is a core member of the head and neck team and should be involved in care prior to the first definitive treatment.

- A dental assessment is recorded in 8.5 per cent of the 6458 patient registrations (551 patients), and 12.8 per cent of the 4297 of patients with treatment plans. This represents a slight improvement compared to the fifth Annual Report.
- The percentage of patients receiving dental assessment varies by anatomic subsite, from 15.7 per cent in oropharynx to 5.8 per cent in major salivary gland.
- It is disappointing, that again, the volume of data has not increased significantly 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 and BAHNO Standards.

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. 100 per cent of patients should be assessed by a suitably qualified dental practitioner before and after their main treatment. (BAHNO Standard)

Percentage of cases of head and neck cancer confirmed as having any pre-operative/pre-treatment dental assessment. (CLE Local 3)

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

- A pre-treatment speech and swallowing assessment is recorded for 10.2 per cent of the registrations with treatment records (438 of 4297 patients).
- 27 trusts in England provided confirmation that at least 5 patients had been seen by a speech and language therapist. No information was available for Wales.
- Pre-treatment input in speech and swallowing varied by anatomic site, being highest in hypopharynx (19.3 per cent) and oral cavity (11.9 per cent).
- The highest reporting organisations provided assurance in over 80 per cent of patients.
- The following five organisations (who submitted more than five cases with speech and swallowing information), provided assurance that at least 60 per cent of patients having treatment received a pre-treatment speech and swallowing assessment:

Figure 4.5.5
Trusts reporting speech and swallowing assessment data

Trusts (where greater than 5 cases submitted) with treatment records having more than 60% of patients with a speech and swallowing assessment
Salisbury NHS Foundation Trust
Sandwell and West Birmingham NHS Trust
South Devon Healthcare NHS Foundation Trust
Southend University Hospital NHS Foundation Trust
University Hospitals Bristol, NHS Foundation Trust

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

4.5.6 Surgical voice restoration in laryngectomy patients

- For those undergoing laryngectomy the speech therapist plays an important role in supporting choice in the method of restored speech.[24,25]
- The introduction of Phase II data items offered collection on surgical voice restoration (SVR). The SVR dataset includes 11 fields; the aim for the sixth collection year was for speech and language therapists (SALTs) to prioritise data collection on pre-operative SALT assessment.
- 189 patients had an entry in the surgical procedure field recorded as having a laryngectomy or laryngectomy and pharyngectomy, for laryngeal and hypopharyngeal cancer, 176 were total laryngectomy (157 for larynx cancer and 32 for hypopharynx cancer) 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.
- In considering the total number of laryngectomies performed by centres across England and Wales it should be remembered that at present the audit only collects first treatment, and thus does not include salvage laryngectomy after failed other treatments. Thus only a proportion of laryngectomy patients are considered currently in the report.
- 201 patients from 35 Trusts have entries in the SVR section with a contact date. The input from these organisations is welcomed. 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.
- Only 13 patients are recorded as having seen a SALT pre-operatively for counselling from a total of at least 189 total laryngectomy surgical procedures recorded by DAHNO. 7 are recorded as SALT intervention post-operatively there were 923 entries altogether relating to laryngectomy i.e. including post-operative input. The number of primary laryngectomy operations still appears under recorded. Similarly the surgery section of DAHNO recorded only 1.6 per cent of laryngectomy patients underwent primary SVR. This finding will be analysed further as it appears to be anomalous and may be coding related.
- It is difficult to determine why there appear to be such low returns from SALTs regarding laryngectomy. Pre-treatment speech and swallow assessments for non laryngectomy patients were better recorded for 11% of head and neck cancer patients. This suggests a higher rate of input compared to SVR but is still unlikely to be representative of the true picture of what is occurring clinically with these patients. A project data analyst will liaise with Anne Hurren and a further update will be sent to all lead SALTs for laryngectomy in England and Wales with requests for further information and opinions as appropriate.
- Preliminary suggestions from the Expert Panel meeting highlighted the following potential explanations for such low figures:
    - Data entry may fail to register after input if certain fields are not already completed in other areas of the database. These are: a) date of surgery. b) surgery must be correctly coded as total laryngectomy (as mentioned above), c) the date inputted by the SALT must be a date prior to the recorded date of surgery.
    - Somerset Cancer Registry (SCR) software is now used by a third of NHS trusts. It is important that collection within SCR is compatible with the national audit requirements.
    - SALTs are too busy to input into the audit. This explanation is not likely to explain such low figures as a single large centre alone would potentially account for more than 13 laryngectomy patients receiving pre-operative assessment.
- If SALTs are unable to contribute to the audit due to training, computer access or time constraints it is important to identify such shortfalls within the head and neck cancer MDT. NALC (National Association of Laryngectomy Clubs) have raised issues around SVR accessibility at a national level and this national audit will provide evidence that pre-operative counselling, primary SVR and SVR troubleshooting services are being offered to patients at each unit. It is possible for SALTs and other staff to record onto the paper proforma SVR and laryngectomy data for later entry into DAHNO. Sample proformas can be obtained from the website.

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.

All patients undergoing total laryngectomy are counselled and offered the choice of primary surgical voice restoration prior to surgery being undertaken. (CLE Local 1)

4.5.7 Dietetic input into patient pathway.

- Dietetic assessment is a key part of patient care and impacts on complications following treatment.[26] it aims to encompass both pre-treatment nutritional status as well as types of nutritional support provided.
- 1364 patients had a dietetic assessment (21.1 per cent of 6458 total registrations, 26.0 per cent of 5247 cases with a care plan and treatment record).
- 52 trusts in England and Wales provided confirmation that at least 5 patients had a pre treatment dietetic assessment. Details on the percentage of new cases of head and neck cancer by trust confirmed as having any pre-operative/pre-treatment dietetic assessment can be found in the data repository.
- In these 52 trusts, of 4297 patients with a recorded first date of treatment, 563 had pre-treatment dietetic assessment (13.1 per cent) The highest reporting organisations provided assurance of pre-treatment in over 70 per cent of patients.
- The following 12 Trusts in England and Wales who submitted more than five cases with dietetic information, provided assurance that at least 60 per cent of patients having treatment received a dietetic assessment:-

Figure 4.5.7
Trusts reporting dietetic assessment data

Trusts (who submitted more than 5 cases) providing assurance that more than 60 per cent of patients received dietetic assessment during their care pathway
Aneurin Bevan Health Board
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust
Central Manchester University Hospitals NHS Foundation Trust
Colchester Hospital University NHS Foundation Trust
County Durham and Darlington NHS Foundation Trust
Sandwell and West Birmingham Hospitals NHS Trust
South Devon Healthcare NHS Foundation Trust
Southend University Hospital NHS Foundation Trust
The Dudley Group of Hospitals NHS Foundation Trust
The Royal Wolverhampton Hospitals NHS Trust
Western Sussex Hospitals NHS Trust
York Hospital NHS Foundation Trust

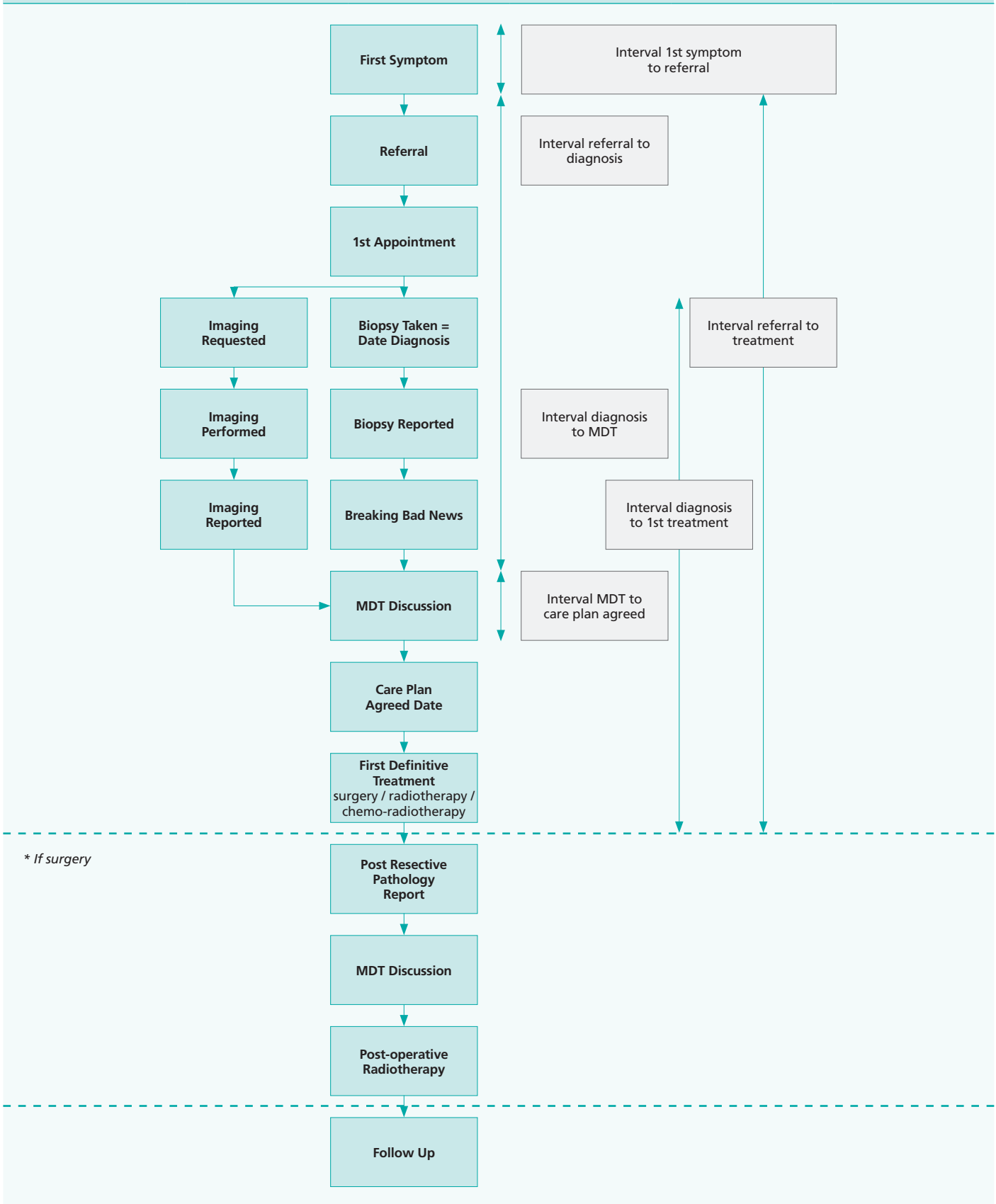
- 537 events in 468 patients (7.7 per cent of patients with care plans) were recorded as having artificial nutritional support. Treatment intervention in head and neck cancer frequently requires enteral feeding support and thus the data provided is only a snapshot of what occurs during and following treatment. However it is encouraging that this information is starting to flow and MDTs are encouraged to further pursue this.
- The most common interventional procedure was gastrostomy (287 episodes), with percutaneous placement PEG (211) being the commonest, with smaller numbers of radiologically placed RIG (41), open (12) and laparoscopically placed (11) being less frequent. There were 60 episodes of naso-enteral tube placement.
- 619 patients (9.6 per cent of patients) were recorded as having seen a dietician after completion of treatment.
- Information on weight loss during and pre-treatment was too small to undergo analysis and teams are encouraged to submit data in the current seventh 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. 100 per cent of patients should be seen by a dietician prior to the commencement of treatment (BAHNO Standard).

The date each new head and neck cancer patient first has contact with a dietician should be routinely recorded. (CLE National 5)

4.6 Receiving timely care

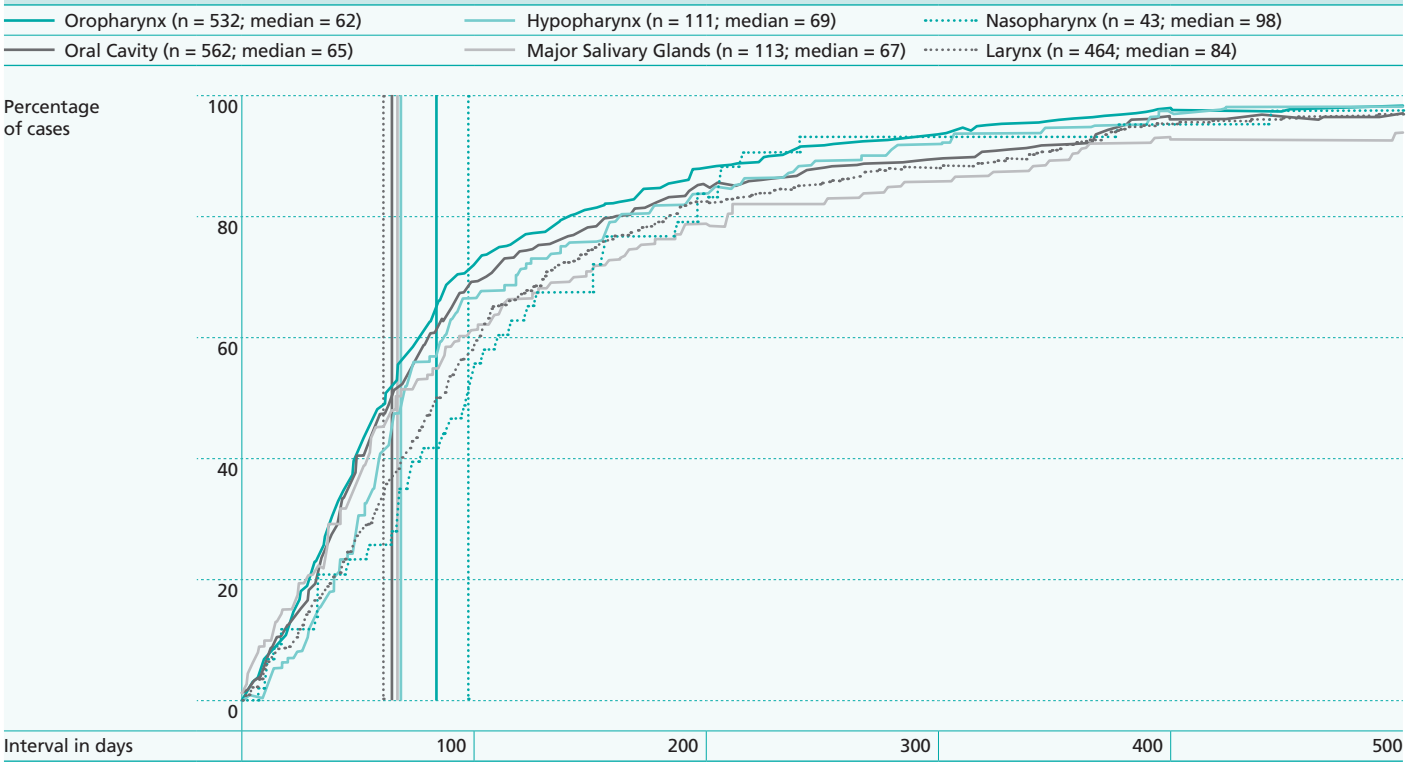
Figure 4.6
Is care getting more timely? The patient journey in head and neck cancer Analysed Data



4.6.1 Interval first symptom to referral

- The pathway of care for head and neck cancer includes the interval from the patient first being aware of symptoms to referral to a specialist team. By definition the period of patient symptoms may be varied and poorly recalled by some.
- The median time from first symptom to referral for oropharynx, oral cavity hypopharynx and major salivary gland cancer is around two months, with nasopharynx and larynx nearer three months. It is interesting that these latter two subgroups of patients seem to put up with symptoms for 50 per cent longer than those patients in other anatomical sub sites.
- Information from the 2010 National Cancer Patients Experience Survey[39] showed that 25 per cent of patients saw a GP more than twice before being referred to a hospital doctor. Head and neck lies in the mid range across all cancers for this aspect. The audit has previously reported on the need to increase awareness in General Dental Practitioners of the two week wait pathway and of increasing its utilisation.
- Early cancer diagnosis is a key aspect of the Cancer Reform Strategy and is supported by the National Awareness and Early Diagnosis Initiative (NAEDI)[27]. The overall goal of NAEDI is to promote earlier diagnosis of cancer, and, through doing so, improve cancer survival rates and to reduce cancer mortality.

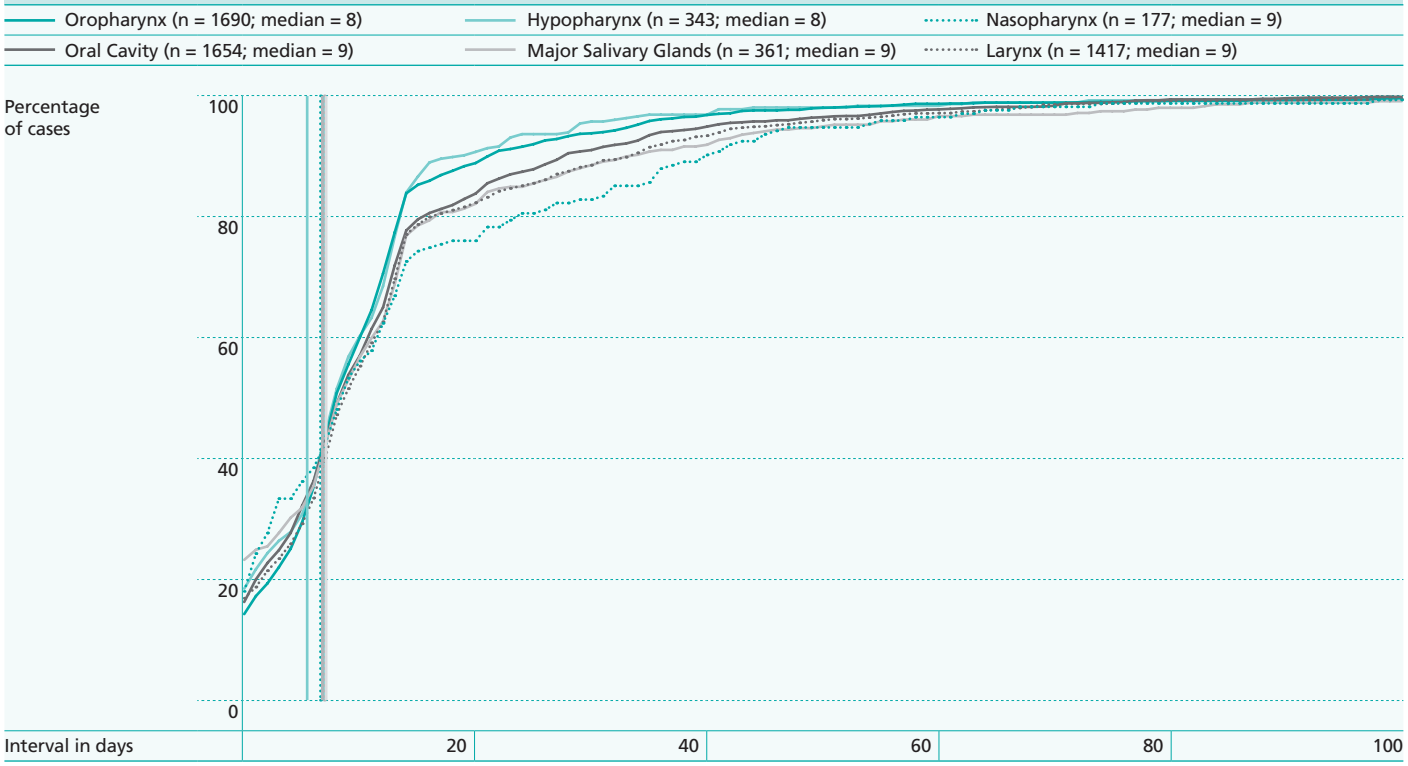
Figure 4.6.1
Interval from first symptom to referral to specialist team in England



4.6.2 Interval referral to first appointment

- The interval from referral to diagnosis provides a key indicator of internal management of referrals in trusts and may be indicative of processes around patient distribution to appropriately experienced teams.
- All patients have similar medians for access suggesting that trust internal processes are working.
- With the exception of salivary gland cancers there has been a lengthening of the medians by one day when compared to the fifth Annual Report but with a more representative submission of cases.
- For patients referred in urgently (cancer two week wait) there were fractionally longer median waits from referral to first appointment than for those referred in routinely. More detail can be found in the data repository. Trusts and Networks should ensure that access for patients on this pathway is maintained.

Figure 4.6.2
Interval from referral to first appointment in England



4.6.3 Interval referral to diagnosis

- The percentage of patients with an interval from referral to diagnosis of 21 days or less by trust can be seen in the chart below.
- This is a key part of the work up of a patient and trusts should strive to increase their percentages in this category.

Figure 4.6.3
Interval from referral to diagnosis by contact trust in England and Wales

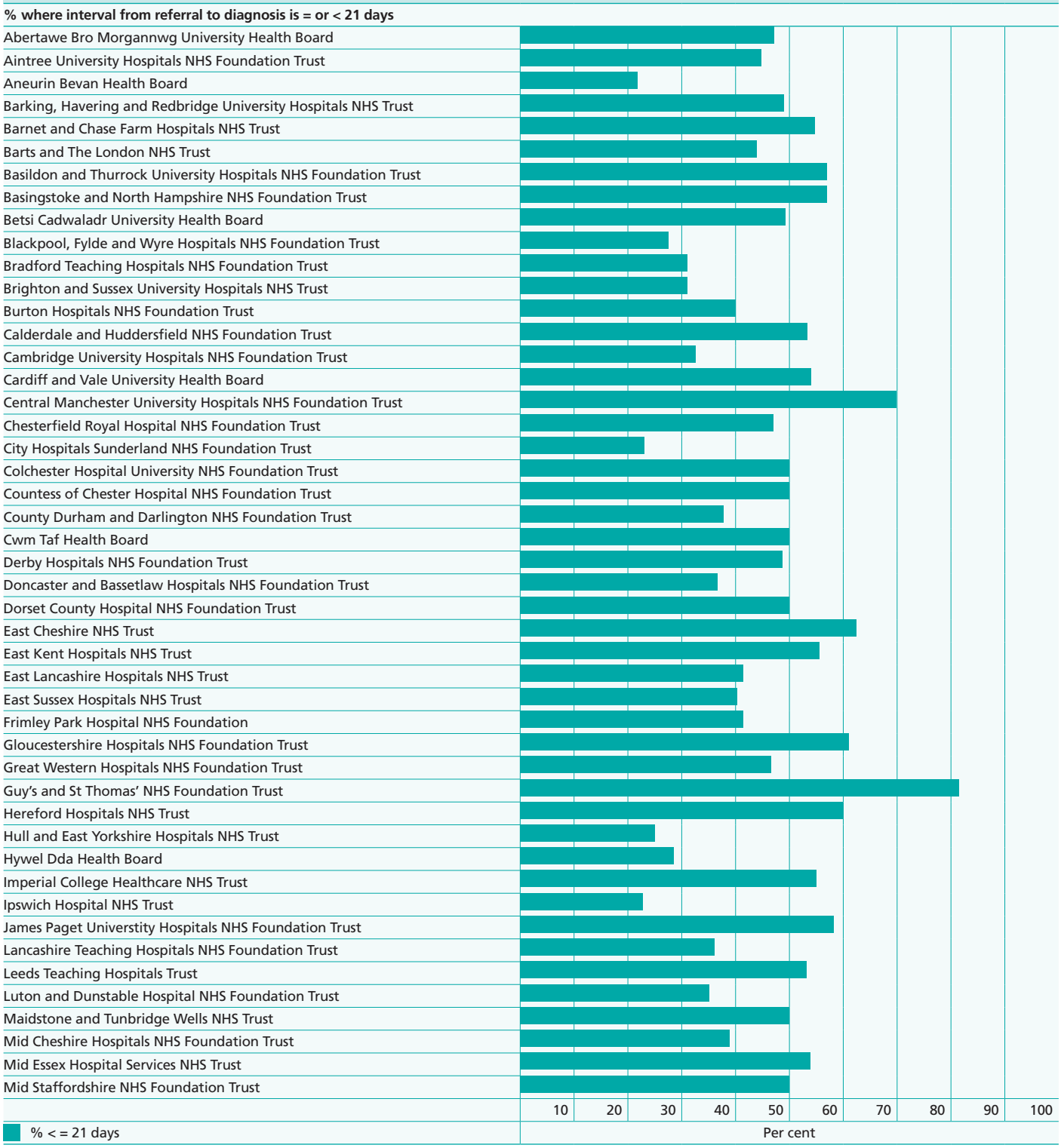
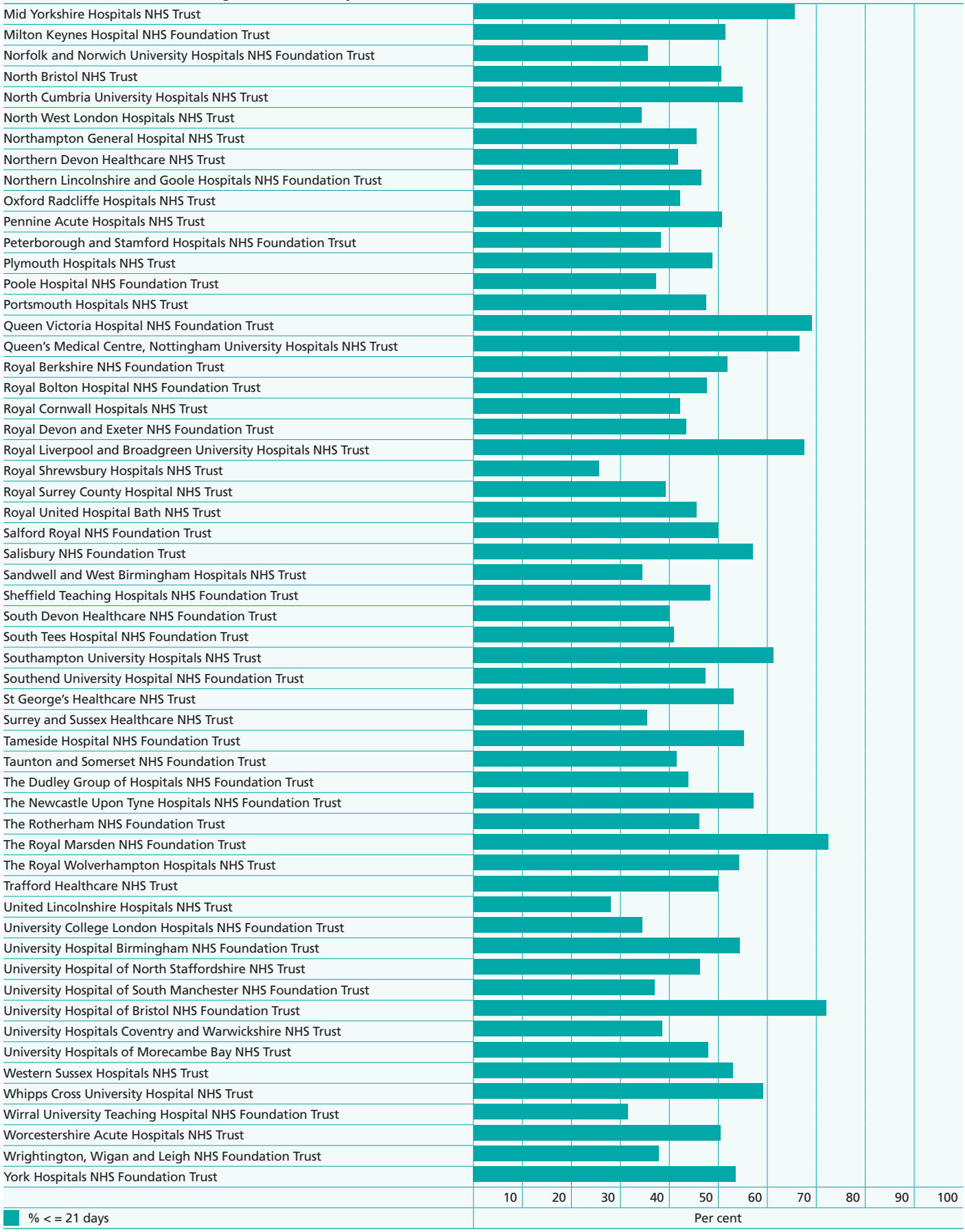


Figure 4.6.3 (continued)
Interval from referral to diagnosis by contact trust in England and Wales



4.6.4 Interval from biopsy to reporting

- 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.
- This item was not reported as well in this year's audit with 2588 records submitted, against 2794 last year. However, there was a further small improvement in percentage terms with the number of biopsies reported in under 10 days, increasing from 82.5 per cent last year to 83.8 per cent this year.
- The chart below demonstrates submissions by trust and 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.
- It is recognised that in many trusts pathology services are under strain, but trusts and networks should be encouraged to look at innovative methods for improving the time to reporting, as it can be a key enabler to facilitate early treatment.

Timely submission and reporting of biopsy specimens are key contributors to the diagnostic patient pathway. Percentage of cases of head and neck cancer where the interval from biopsy to reporting is less than 10 days should be measured. (CLE National 3)

Figure 4.6.4
Interval from biopsy to reporting

NHS Contact Trust	Time to report (days)				
	<=10		>10		Total
	N	%	N	%	N
Abertawe Bro Morgannwg University Health Board	66	86.8	10	13.2	76
Aintree University Hospitals NHS Foundation Trust	36	83.7	7	16.3	43
Aneurin Bevan Health Board	29	82.9	6	17.1	35
Barking, Havering and Redbridge University Hospitals NHS Trust	36	83.7	7	16.3	43
Barnet and Chase Farm Hospitals NHS Trust	46	78	13	22	59
Barnsley Hospital NHS Foundation Trust	4	80	1	20	5
Barts and The London NHS Trust	16	94.1	1	5.9	17
Basildon and Thurrock University Hospitals NHS Foundation Trust	2	100		0	2
Betsi Cadwaladr University Health Board	68	91.9	6	8.1	74
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	17	81	4	19	21
Bradford Teaching Hospitals NHS Foundation Trust	4	100		0	4
Brighton and Sussex University Hospitals NHS Trust	11	78.6	3	21.4	14
Burton Hospitals NHS Foundation Trust	20	87	3	13	23
Calderdale and Huddersfield NHS Foundation Trust	2	100		0	2
Cambridge University Hospitals NHS Foundation Trust	3	100		0	3
Cardiff and Vale University Health Board	33	75	11	25	44
Central Manchester University Hospitals NHS Foundation Trust	25	89.3	3	10.7	28
Chesterfield Royal Hospital NHS Foundation Trust	26	81.3	6	18.8	32
City Hospitals Sunderland NHS Foundation Trust	21	80.8	5	19.2	26
Colchester Hospital University NHS Foundation Trust	38	100		0	38
Countess of Chester Hospital NHS Foundation Trust	1	33.3	2	66.7	3
County Durham and Darlington NHS Foundation Trust	32	86.5	5	13.5	37
Cwm Taf Health Board	27	93.1	2	6.9	29
Derby Hospitals NHS Foundation Trust	42	91.3	4	8.7	46
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	3	100		0	3
Dorset County Hospital NHS Foundation Trust	20	90.9	2	9.1	22
East and North Hertfordshire NHS Trust	25	86.2	4	13.8	29
East Cheshire NHS Trust	4	66.7	2	33.3	6
East Lancashire Hospitals NHS Trust	6	85.7	1	14.3	7
East Sussex Hospitals NHS Trust	31	83.8	6	16.2	37

Figure 4.6.4 (continued)
Interval from biopsy to reporting

NHS Contact Trust	Time to report (days)				
	<=10		>10		Total
	N	%	N	%	N
Guy's and St Thomas' NHS Foundation Trust	3	75	1	25	4
Harrogate and District NHS Foundation Trust		0	1	100	1
Hereford Hospitals NHS Trust	16	100		0	16
Hull and East Yorkshire Hospitals NHS Trust	73	76	23	24	96
Hywel Dda Health Board	18	85.7	3	14.3	21
Imperial College Healthcare NHS Trust	34	87.2	5	12.8	39
Kingston Hospital NHS Trust	1	100		0	1
Lancashire Teaching Hospitals NHS Foundation Trust	31	79.5	8	20.5	39
Luton and Dunstable Hospital NHS Foundation Trust	4	80	1	20	5
Maidstone and Tunbridge Wells NHS Trust	2	100		0	2
Mid Cheshire Hospitals NHS Foundation Trust	4	80	1	20	5
Mid Essex Hospital Services NHS Trust		0	1	100	1
Mid Yorkshire Hospitals NHS Trust	54	81.8	12	18.2	66
Milton Keynes Hospital NHS Foundation Trust	2	50	2	50	4
Newham University Hospital NHS Trust	2	100		0	2
Norfolk and Norwich University Hospitals NHS Foundation Trust	1	100		0	1
North Bristol NHS Trust	9	75	3	25	12
North Cumbria University Hospitals NHS Trust	2	9.1	20	90.9	22
North West London Hospitals NHS Trust	25	86.2	4	13.8	29
Northampton General Hospital NHS Trust	3	75	1	25	4
Northern Devon Healthcare NHS Trust	6	85.7	1	14.3	7
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	38	90.5	4	9.5	42
Oxford Radcliffe Hospitals NHS Trust	2	100		0	2
Pennine Acute Hospitals NHS Trust	40	97.6	1	2.4	41
Plymouth Hospitals NHS Trust	1	100		0	1
Poole Hospital NHS Foundation Trust	49	66.2	25	33.8	74
Portsmouth Hospitals NHS Trust	47	87	7	13	54
Queen Victoria Hospital NHS Foundation Trust	12	70.6	5	29.4	17
Queen's Medical Centre, Nottingham University Hospitals NHS Trust	62	91.2	6	8.8	68
Royal Berkshire NHS Foundation Trust	48	96	2	4	50
Royal Bolton Hospital NHS Foundation Trust	30	90.9	3	9.1	33
Royal Cornwall Hospitals NHS Trust	4	100		0	4
Royal Devon and Exeter NHS Foundation Trust	33	70.2	14	29.8	47
Royal Liverpool and Broadgreen University Hospitals NHS Trust	32	94.1	2	5.9	34
Royal Shrewsbury Hospitals NHS Trust	1	100		0	1
Royal Surrey County Hospital NHS Trust		0	1	100	1
Royal United Hospital Bath NHS Trust	2	100		0	2
Salford Royal NHS Foundation Trust	20	95.2	1	4.8	21
Salisbury NHS Foundation Trust	8	72.7	3	27.3	11
Sandwell and West Birmingham Hospitals NHS Trust	12	85.7	2	14.3	14
Sheffield Teaching Hospitals NHS Foundation Trust	78	87.6	11	12.4	89
South Devon Healthcare NHS Foundation Trust	33	94.3	2	5.7	35
South Tees Hospital NHS Foundation Trust	92	94.8	5	5.2	97
Southampton University Hospitals NHS Trust	7	63.6	4	36.4	11
Southend University Hospital NHS Foundation Trust	5	83.3	1	16.7	6
St George's Healthcare NHS Trust	105	89	13	11	118
St Helens and Knowsley Hospitals NHS Trust	2	100		0	2
Stockport NHS Foundation Trust	9	90	1	10	10
Tameside Hospital NHS Foundation Trust	6	85.7	1	14.3	7
Taunton and Somerset NHS Foundation Trust		0	1	100	1
The Dudley Group of Hospitals NHS Foundation Trust	5	55.6	4	44.4	9
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	101	89.4	12	10.6	113
The Princess Alexandra Hospital NHS Trust	1	100		0	1
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	1	50	1	50	2
The Royal Marsden NHS Foundation Trust	12	80	3	20	15
The Royal Wolverhampton Hospitals NHS Trust	3	75	1	25	4
Trafford Healthcare NHS Trust	1	100		0	1

Figure 4.6.4 (continued)
Interval from biopsy to reporting

NHS Contact Trust	Time to report (days)				
	<=10		>10		Total
	N	%	N	%	N
United Lincolnshire Hospitals NHS Trust	15	60	10	40	25
University College London Hospitals NHS Foundation Trust	27	93.1	2	6.9	29
University Hospital Birmingham NHS Foundation Trust	5	10.6	42	89.4	47
University Hospital of South Manchester NHS Foundation Trust	5	100		0	5
University Hospitals Coventry and Warwickshire NHS Trust	12	63.2	7	36.8	19
University Hospitals of Morecambe Bay NHS Trust		0	2	100	2
Velindre NHS Trust	5	100		0	5
Warrington and Halton Hospitals NHS Foundation Trust	1	100		0	1
Western Sussex Hospitals NHS Trust	21	87.5	3	12.5	24
Whipps Cross University Hospital NHS Trust	24	92.3	2	7.7	26
Wirral University Teaching Hospital NHS Foundation Trust	25	89.3	3	10.7	28
Worcestershire Acute Hospitals NHS Trust	66	93	5	7	71
Wrightington, Wigan and Leigh NHS Foundation Trust	2	100		0	2
York Hospitals NHS Foundation Trust	76	93.8	5	6.2	81
Total	**2170**	**83.8**	**418**	**16.2**	**2588**

4.6.5 Imaging

4.6.5.1 Imaging of the chest

- This year over 10,000 imaging records have been recorded, with 3,177 chest imaging records, but this 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. A further 583 records had missing dates meaning that the timing of the imaging could not be identified.

- There has been an increase from 61 per cent (fifth Annual Report) to 75 per cent of patients recorded as having an imaging record but of those patients having an imaging carried out has fallen slightly from 52 per cent to 51 per cent. The Expert Panel did wonder whether some of this difference in recording was due to teams not taking advantage of the multiple site option in the imaging record fields.

- Whilst the incidence of synchronous malignancies and metastatic chest disease may be low, their detection prior to the production of a care plan is an imperative and teams should be encouraged to identify that chest imaging has been carried out and reported prior to the agreement of a care plan.

- Reporting of imaging by the time of the MDT discussion is a key requirement in the assurance pathway for quality care; a chart showing the percentage of trusts achieving this standard can be found in the repository.

- This output was intended to reflect best practice where due to the recognised incidence of second primary lung cancers chest imaging should occur prior to a cancer care plan in all patients. The role of chest CT scanning is less clear in early disease as well as in some anatomic subsites.

- 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.

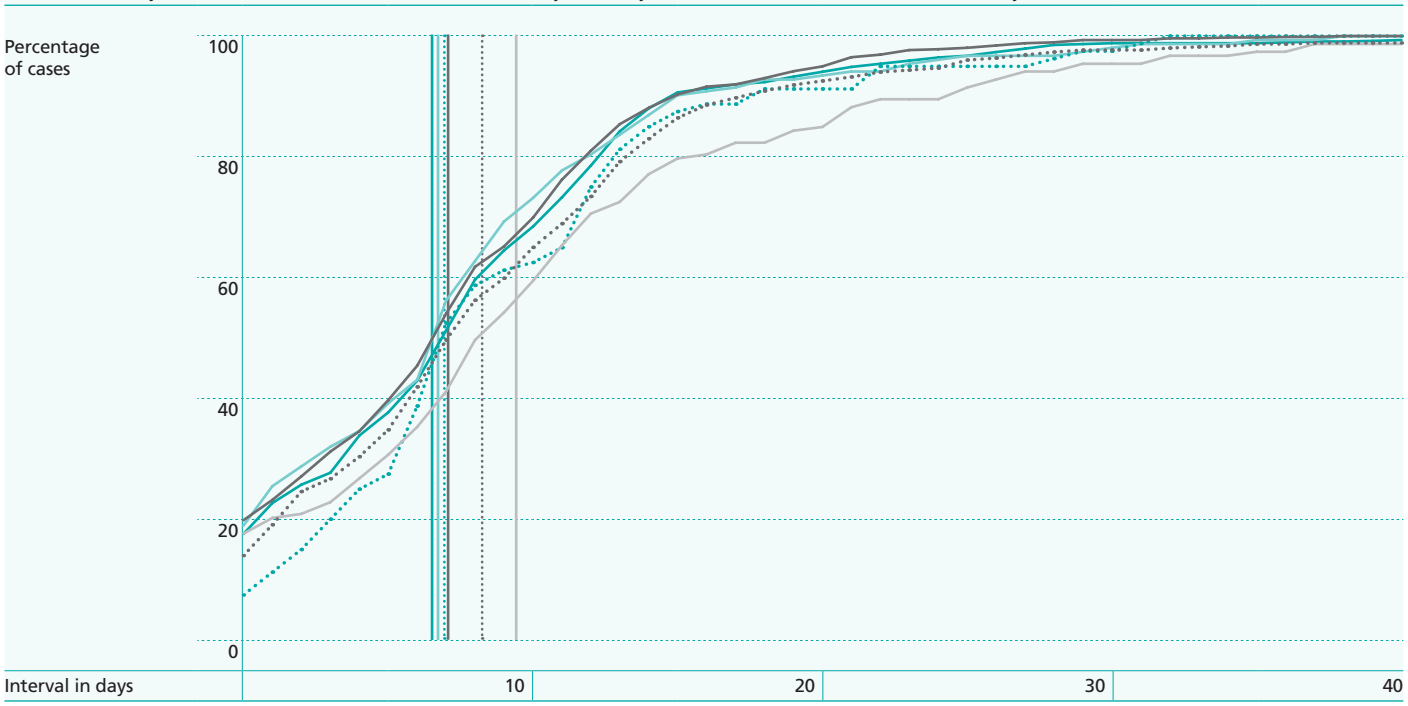
- The interval from imaging request to date imaging performed represents another key time limiting step in the work up of a patient with head and neck cancer. It is encouraging to see that there has been a further small reduction in this interval, reducing from an average across all subsites of 8 days last year to 7.5 days this year.

- By trust this data can be seen here. Where more than 5 imaging requests were submitted the percentage of imaging requests completed in less than 15 days ranged from 54.2 per cent at Dudley Group of Hospitals Foundation Trust to 100 per cent in 13 trusts who are to be congratulated in achieving this target. A special mention should be made of Aintree University Hospitals NHS Foundation Trust, who had the highest number of submitted imaging requests 154, and managed to deliver a highly credible 85.7 per cent of them in 15 days or less.

Figure 4.6.5.1a
Trusts achieving 100 per cent of imaging in less than or equal to 15 days

Trust Name	Number of imaging requests
Barnet and Chase Farm Hospitals NHS Trust	14
Countess of Chester Hospital NHS Foundation Trust	10
East Cheshire NHS Trust	5
Hereford Hospitals NHS Trust	19
Ipswich Hospital NHS Trust	5
James Paget University Hospitals NHS Foundation Trust	6
Mid Cheshire Hospitals NHS Foundation Trust	12
Mid Yorkshire Hospitals NHS Trust	11
North Bristol NHS Trust	10
North West London Hospitals NHS Trust	12
University Hospitals Bristol NHS Foundation Trust	5
University Hospitals Coventry and Warwickshire NHS Trust	10
Whipps Cross University Hospital NHS Trust	25

Figure 4.6.5.1b
Interval from imaging request to date imaging performed (CT/MRI)



4.6.6 PET Scanning

- PET (Positron Emission Scanning)[3] 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 taken up by rapidly metabolising cells such as 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.
- This year a total of 63 trusts submitted records on PET scanning for their patients with a total of 337 scans being carried out. The largest anatomical group by far receiving PET scans was in oropharynx. This is most likely to be related to the type of disease, as many patients with oropharyngeal cancer may present with neck disease and an occult primary, which a PET scan may reveal.
- It is reassuring that trusts seem able to access PET CT when required.

Figure 4.6.6
Table showing PET scans by anatomical subsite

Hypopharynx	34
Larynx	46
Major Salivary Glands	17
Nasopharynx	19
Oral Cavity	30
Oropharynx	191
Total	337

4.6.7 Interval from diagnosis to MDT

- The interval from diagnosis to MDT review represents the period from the date a biopsy was taken to the time a patient is first seen in a MDT. In the patient pathway this represents a critical time period where a significant number of processes need to be completed and therefore is a marker of organisational efficiency.
- There have been improvements in interval between diagnosis and MDT in all sites compared with the fifth Annual Report with the exception of oral cavity, which remained the same as last year. The reasons for this have previously postulated that specialist pathology referral may increase the time to reporting of biopsies. The most marked improvement was seen in major salivary gland cancer, which reduced from 22 to 16 days.
- Trusts are to be congratulated on continuing to improve the timeliness of cancer care delivery.
- The percentage of cases by trust with an interval of less than 30 days for diagnosis to MDT can be seen below:-

Figure 4.6.7
Interval from diagnosis to MDT by contact trust of less than 30 days

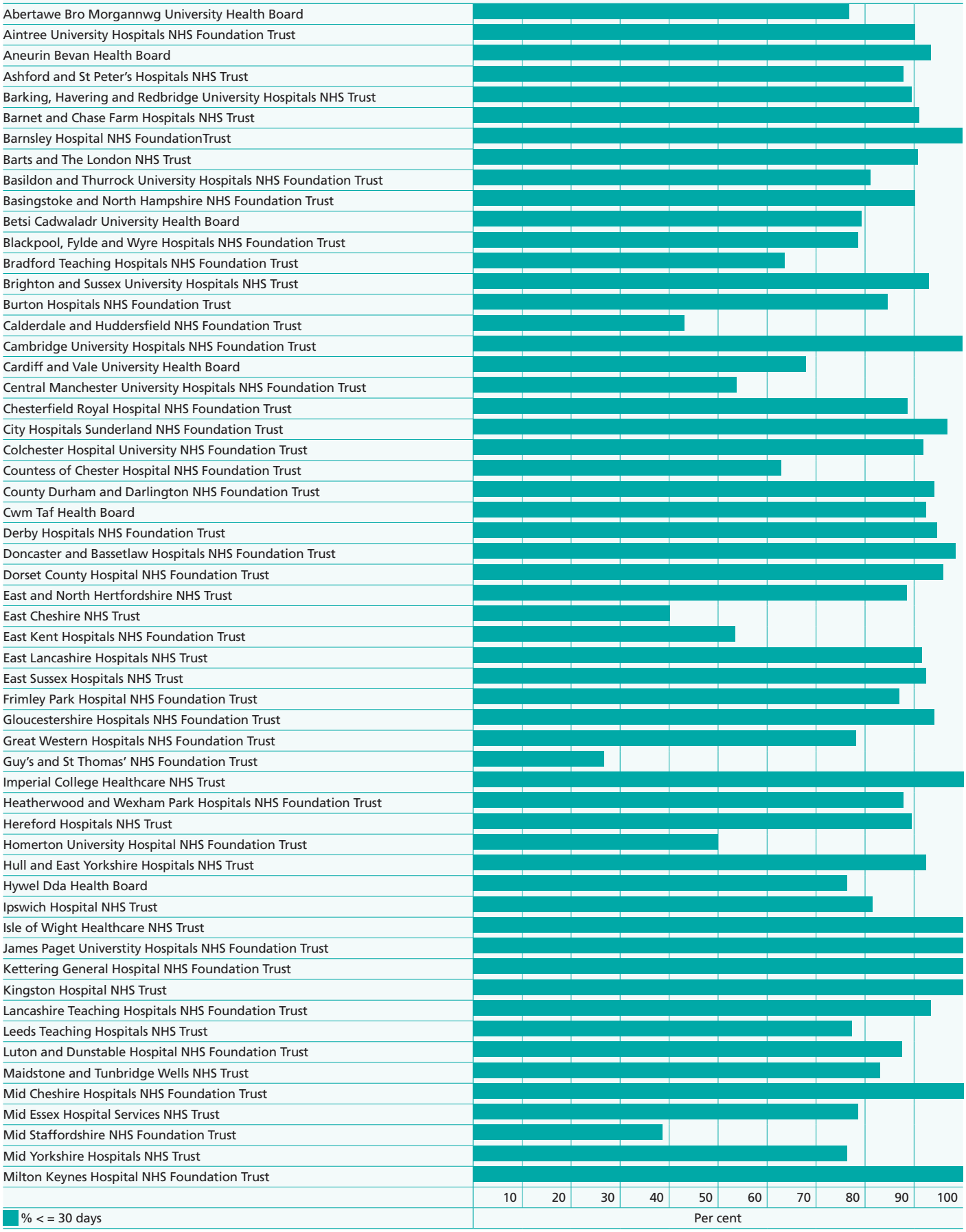


Figure 4.6.7 (continued)
Interval from diagnosis to MDT by contact trust of less than 30 days

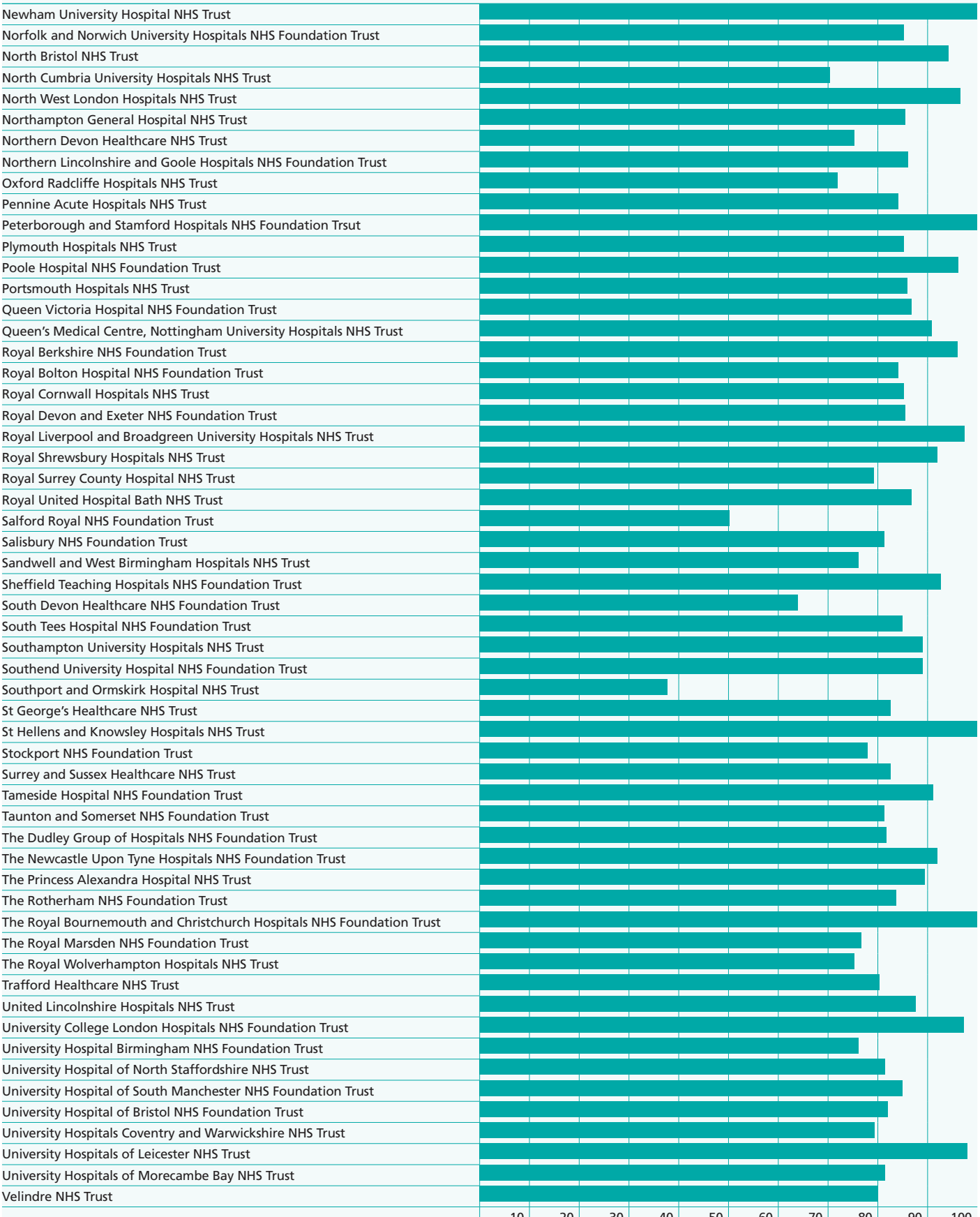
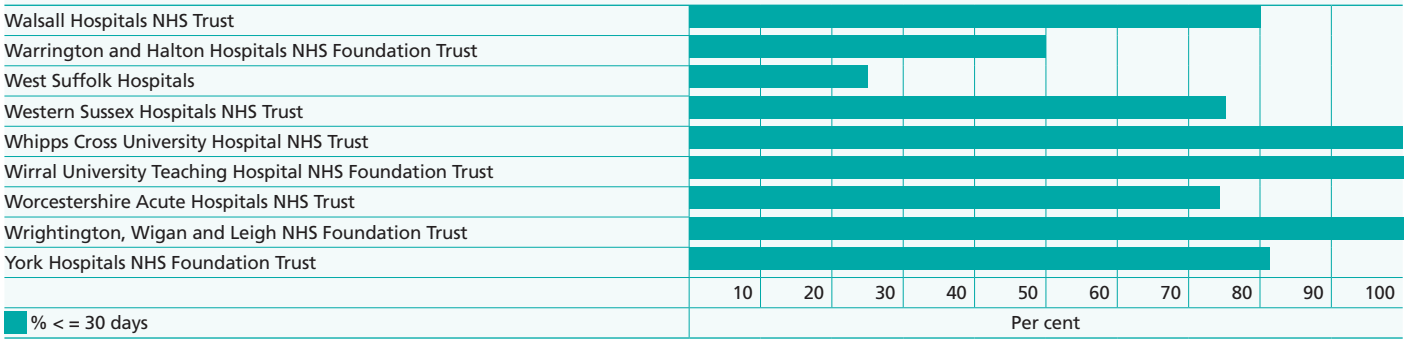


Figure 4.6.7 (continued)
Interval from diagnosis to MDT by contact trust of less than 30 days



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

- In the fifth Annual Report 95 per cent of patients were recorded as being discussed in a MDT with 5 per cent recording that they were not. This represented an improvement not only in the recording of this item but also the positive discussion percentages achieved.
- In this report, overall 87.5 per cent of patients with a cancer care plan were confirmed as having been discussed at an MDT meeting, with 5.6 per cent recording that they were not discussed and 6.9 per cent where there was no record. It is disappointing that this figure has fallen from last years level and concerning that potentially nearly 13 per cent of patients are having their care determined outside of an MDT. The expected standard (proposed in the SWAHN audit 1997-1999) suggested this should reach 100 per cent.
- It is both a BAHNO standard and an Improving Outcomes Guidance standard that all patients are discussed in an MDT.
- These results show there remains a significant group of patients whose management has been planned outside of an MDT – 5.6 per cent this year recorded as not discussed at MDT. (5 per cent in the fifth Annual Report, 7 per cent in the fourth Annual Report, 5.8 per cent in the third Annual Report and 3.8 per cent in the second Annual Report).
- Of those 6022 patients with a care plan in this year's audit this represents 366 patients whose treatment was determined outside of a MDT. This raises concerns not only about the assurance and governance of that treatment but also the access those patients had to the complete services of a head and neck MDT.
- For major salivary cancer this remains higher at 11.9 per cent (last year 9 per cent) and this may reflect failure to capture discussion following surgical intervention and the acquisition of definitive histology.
- It is also a concern that there has been an increase from zero to 6.9 per cent of cases where this item was unrecorded.

Figure 4.6.8a
The multidisciplinary team and its functions by anatomical site

	Larynx		Oral Cavity		Oropharynx		Hypopharynx		Nasopharynx		Major Salivary Glands		All sites	
Discussed	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	1424	86.8	1705	89.6	1667	87.9	338	88.5	161	84.3	355	79.8	5650	87.5
No	84	5.1	89	4.7	103	5.4	19	5.0	12	6.3	53	11.9	360	5.6
Not recorded	133	8.1	108	5.7	127	6.7	25	6.5	18	9.4	37	8.3	448	6.9
Total	**1641**	**100.0**	**1902**	**100.0**	**1897**	**100.0**	**382**	**100.0**	**191**	**100.0**	**445**	**100.0**	**6458**	**100.0**

100 per cent of diagnoses should be discussed at a MDT, currently in England and Wales only 87.5 per cent are recorded as having been discussed.

Percentage of new cases of head and neck cancer discussed at MDT. (CLE National 1)

All head and neck cancer patients should be managed by the MDT. (Welsh standard)

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.

Figure 4.6.8b
Analysis of multi disciplinary discussion by contact trust

Analysis of multi-disciplinary discussion for index year by contact trust							
NHS Trust	**Discussed**						
	No		**Yes**		**Unknown**		**Total**
	N	%	N	%	N	%	N
Abertawe Bro Morgannwg University Health Board	2	2.1	77	81.9	15	16.0	94
Aintree University Hospitals NHS Foundation Trust	45	16.0	228	80.9	9	3.2	282
Aneurin Bevan Health Board		0.0	32	82.1	7	17.9	39
Ashford and St Peter's Hospitals NHS Trust		0.0	8	88.9	1	11.1	9
Barking, Havering and Redbridge University Hospitals NHS Trust	6	11.8	45	88.2		0.0	51
Barnet and Chase Farm Hospitals NHS Trust		0.0	73	100.0		0.0	73
Barnsley Hospital NHS Foundation Trust		0.0	5	100.0		0.0	5
Barts and The London NHS Trust	8	6.4	105	84.0	12	9.6	125
Basildon and Thurrock University Hospitals NHS Foundation Trust		0.0	26	89.7	3	10.3	29
Basingstoke and North Hampshire NHS Foundation Trust		0.0	12	85.7	2	14.3	14
Betsi Cadwaladr University Health Board		0.0	75	92.6	6	7.4	81
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	1	3.2	29	93.5	1	3.2	31
Bradford Teaching Hospitals NHS Foundation Trust	1	1.2	81	97.6	1	1.2	83
Brighton and Sussex University Hospitals NHS Trust	1	1.6	57	93.4	3	4.9	61
Burton Hospitals NHS Foundation Trust		0.0	26	96.3	1	3.7	27
Calderdale and Huddersfield NHS Foundation Trust		0.0	16	100.0		0.0	16
Cambridge University Hospitals NHS Foundation Trust		0.0	109	94.8	6	5.2	115
Cardiff and Vale University Health Board		0.0	36	72.0	14	28.0	50
Central Manchester University Hospitals NHS Foundation Trust		0.0	28	100.0		0.0	28
Chesterfield Royal Hospital NHS Foundation Trust		0.0	35	100.0		0.0	35
City Hospitals Sunderland NHS Foundation Trust	13	27.1	35	72.9		0.0	48
Colchester Hospital University NHS Foundation Trust	1	2.5	38	95.0	1	2.5	40
Countess of Chester Hospital NHS Foundation Trust	5	35.7	9	64.3		0.0	14
County Durham and Darlington NHS Foundation Trust		0.0	38	100.0		0.0	38
Cwm Taf Health Board		0.0	26	76.5	8	23.5	34
Derby Hospitals NHS Foundation Trust	1	1.2	74	91.4	6	7.4	81
Doncaster and Bassetlaw Hospitals NHS Foundation Trust		0.0	56	100.0		0.0	56
Dorset County Hospital NHS Foundation Trust		0.0	23	95.8	1	4.2	24
East and North Hertfordshire NHS Trust		0.0	31	100.0		0.0	31
East Cheshire NHS Trust	1	12.5	7	87.5		0.0	8
East Kent Hospitals University NHS Foundation Trust	5	6.2	76	93.8		0.0	81
East Lancashire Hospitals NHS Trust	11	13.4	60	73.2	11	13.4	82
East Sussex Hospitals NHS Trust	1	1.7	54	90.0	5	8.3	60
Frimley Park Hospital NHS Foundation Trust		0.0	31	100.0		0.0	31
Gloucestershire Hospitals NHS Foundation Trust		0.0	98	97.0	3	3.0	101
Great Western Hospitals NHS Foundation Trust	1	6.7	9	60.0	5	33.3	15
Guy's and St Thomas' NHS Foundation Trust	42	35.3	77	64.7		0.0	119
Harrogate and District NHS Foundation Trust		0.0	1	100.0		0.0	1
Heatherwood and Wexham Park Hospitals NHS Foundation Trust		0.0	10	100.0		0.0	10
Hereford Hospitals NHS Trust		0.0	19	95.0	1	5.0	20
Homerton University Hospital NHS Foundation Trust		0.0	2	100.0		0.0	2
Hull and East Yorkshire Hospitals NHS Trust		0.0	101	100.0		0.0	101

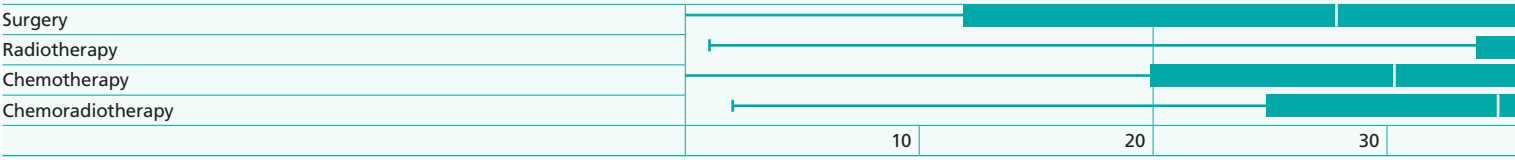
Figure 4.6.8b (continued)
Analysis of multi disciplinary discussion by contact trust

Analysis of multi-disciplinary discussion for index year by contact trust							
NHS Trust	**Discussed**						
	No		**Yes**		**Unknown**		**Total**
	N	%	N	%	N	%	N
Hywel Dda Health Board		0.0	22	100.0		0.0	22
Imperial College Healthcare NHS Trust	3	3.7	79	96.3		0.0	82
Ipswich Hospital NHS Trust	2	9.1	18	81.8	2	9.1	22
Isle of Wight Healthcare NHS Trust		0.0	2	40.0	3	60.0	5
James Paget University Hospitals NHS Foundation Trust	1	4.2	22	91.7	1	4.2	24
Kettering General Hospital NHS Foundation Trust		0.0	3	100.0		0.0	3
Kingston Hospital NHS Trust		0.0	1	100.0		0.0	1
Lancashire Teaching Hospitals NHS Foundation Trust	10	8.9	93	83.0	9	8.0	112
Leeds Teaching Hospitals NHS Trust	8	7.5	98	92.5		0.0	106
Luton and Dunstable Hospital NHS Foundation Trust		0.0	67	100.0		0.0	67
Maidstone and Tunbridge Wells NHS Trust		0.0	57	100.0		0.0	57
Mid Cheshire Hospitals NHS Foundation Trust	1	5.0	12	60.0	7	35.0	20
Mid Essex Hospital Services NHS Trust	1	3.6	25	89.3	2	7.1	28
Mid Staffordshire NHS Foundation Trust		0.0	13	65.0	7	35.0	20
Mid Yorkshire Hospitals NHS Trust	2	2.9	66	95.7	1	1.4	69
Milton Keynes Hospital NHS Foundation Trust	19	52.8	9	25.0	8	22.2	36
Newham University Hospital NHS Trust		0.0	2	100.0		0.0	2
Norfolk and Norwich University Hospitals NHS Foundation Trust	3	2.4	115	91.3	8	6.3	126
North Bristol NHS Trust	53	54.6	41	42.3	3	3.1	97
North Cumbria University Hospitals NHS Trust		0.0	40	100.0		0.0	40
North West London Hospitals NHS Trust		0.0	42	100.0		0.0	42
Northampton General Hospital NHS Trust	7	10.6	58	87.9	1	1.5	66
Northern Devon Healthcare NHS Trust		0.0	9	69.2	4	30.8	13
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust		0.0	23	53.5	20	46.5	43
Oxford Radcliffe Hospitals NHS Trust		0.0	131	97.8	3	2.2	134
Pennine Acute Hospitals NHS Trust		0.0	130	82.8	27	17.2	157
Peterborough and Stamford Hospitals NHS Foundation Trust		0.0	50	100.0		0.0	50
Plymouth Hospitals NHS Trust	1	1.3	60	75.9	18	22.8	79
Poole Hospital NHS Foundation Trust		0.0	78	83.0	16	17.0	94
Portsmouth Hospitals NHS Trust	14	15.1	79	84.9		0.0	93
Queen Victoria Hospital NHS Foundation Trust	3	10.7	23	82.1	2	7.1	28
Queen's Medical Centre, Nottingham University Hospitals NHS Trust	7	4.7	134	89.3	9	6.0	150
Royal Berkshire NHS Foundation Trust		0.0	55	100.0		0.0	55
Royal Bolton Hospital NHS Foundation Trust	7	16.3	26	60.5	10	23.3	43
Royal Cornwall Hospitals NHS Trust	4	5.7	65	92.9	1	1.4	70
Royal Devon and Exeter NHS Foundation Trust	5	8.6	52	89.7	1	1.7	58
Royal Liverpool and Broadgreen University Hospitals NHS Trust	2	5.6	34	94.4		0.0	36
Royal Shrewsbury Hospitals NHS Trust		0.0	42	73.7	15	26.3	57
Royal Surrey County Hospital NHS Trust	5	6.6	67	88.2	4	5.3	76
Royal United Hospital Bath NHS Trust	2	8.3	16	66.7	6	25.0	24
Salford Royal NHS Foundation Trust	1	4.2	4	16.7	19	79.2	24
Salisbury NHS Foundation Trust		0.0	19	100.0		0.0	19
Sandwell and West Birmingham Hospitals NHS Trust		0.0	34	87.2	5	12.8	39
Sheffield Teaching Hospitals NHS Foundation Trust		0.0	97	99.0	1	1.0	98
South Devon Healthcare NHS Foundation Trust		0.0	37	100.0		0.0	37
South Tees Hospital NHS Foundation Trust	11	9.7	100	88.5	2	1.8	113
Southampton University Hospitals NHS Trust		0.0	80	100.0		0.0	80
Southend University Hospital NHS Foundation Trust	5	7.6	60	90.9	1	1.5	66
Southport and Ormskirk Hospital NHS Trust	2	18.2	9	81.8		0.0	11
St George's Healthcare NHS Trust		0.0	119	99.2	1	0.8	120
St Helens and Knowsley Hospitals NHS Trust		0.0	3	75.0	1	25.0	4
Stockport NHS Foundation Trust	1	9.1	9	81.8	1	9.1	11
Surrey and Sussex Healthcare NHS Trust		0.0	18	100.0		0.0	18
Tameside Hospital NHS Foundation Trust		0.0	34	87.2	5	12.8	39
Taunton and Somerset NHS Foundation Trust	1	3.3	23	76.7	6	20.0	30
The Dudley Group of Hospitals NHS Foundation Trust		0.0	42	100.0		0.0	42

Figure 4.6.8b (continued)
Analysis of multi disciplinary discussion by contact trust

Analysis of multi-disciplinary discussion for index year by contact trust							
NHS Trust	**Discussed**						
	No		**Yes**		**Unknown**		**Total**
	N	%	N	%	N	%	N
The Newcastle Upon Tyne Hospitals NHS Foundation Trust		0.0	133	100.0		0.0	133
The Princess Alexandra Hospital NHS Trust		0.0	9	100.0		0.0	9
The Rotherham NHS Foundation Trust		0.0	26	100.0		0.0	26
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust		0.0	2	100.0		0.0	2
The Royal Marsden NHS Foundation Trust		0.0	20	100.0		0.0	20
The Royal Wolverhampton Hospitals NHS Trust	6	6.5	85	91.4	2	2.2	93
Trafford Healthcare NHS Trust		0.0	18	85.7	3	14.3	21
United Lincolnshire Hospitals NHS Trust		0.0	62	100.0		0.0	62
University College London Hospitals NHS Foundation Trust		0.0	33	91.7	3	8.3	36
University Hospital Birmingham NHS Foundation Trust		0.0	118	93.7	8	6.3	126
University Hospital of North Staffordshire NHS Trust		0.0	78	96.3	3	3.7	81
University Hospital of South Manchester NHS Foundation Trust	1	5.3	15	78.9	3	15.8	19
University Hospitals Bristol NHS Foundation Trust	9	39.1	14	60.9		0.0	23
University Hospitals Coventry and Warwickshire NHS Trust	2	1.8	111	98.2		0.0	113
University Hospitals of Leicester NHS Trust		0.0	47	100.0		0.0	47
University Hospitals of Morecambe Bay NHS Trust		0.0	17	63.0	10	37.0	27
Velindre NHS Trust		0.0	5	100.0		0.0	5
Walsall Hospitals NHS Trust		0.0	5	100.0		0.0	5
Warrington and Halton Hospitals NHS Foundation Trust		0.0	2	100.0		0.0	2
West Suffolk Hospitals NHS Trust		0.0	4	100.0		0.0	4
Western Sussex Hospitals NHS Trust	1	2.8	22	61.1	13	36.1	36
Whipps Cross University Hospital NHS Trust	1	3.7	26	96.3		0.0	27
Wirral University Teaching Hospital NHS Foundation Trust	4	12.5	8	25.0	20	62.5	32
Worcestershire Acute Hospitals NHS Trust	1	1.2	81	96.4	2	2.4	84
Wrightington, Wigan and Leigh NHS Foundation Trust	6	15.8	4	10.5	28	73.7	38
York Hospitals NHS Foundation Trust	3	3.6	80	95.2	1	1.2	84
Total	**360**	**5.6**	**5650**	**87.5**	**448**	**6.9**	**6458**

Figure 4.6.9a
Interval from diagnosis to first definitive treatment (days) in England

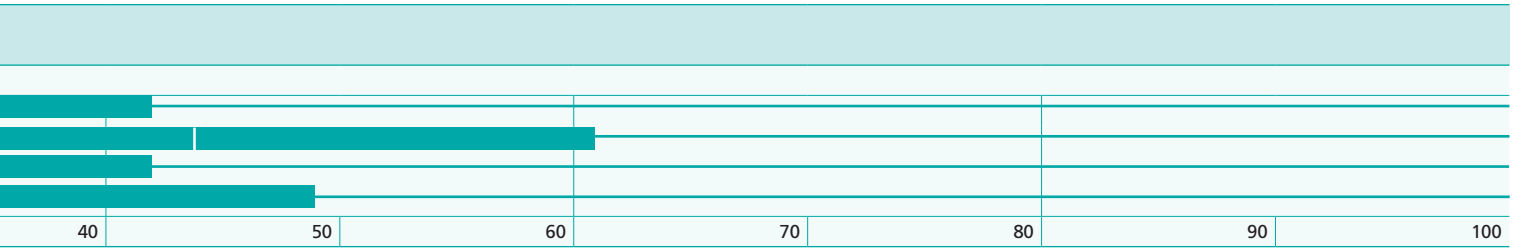


- 26 organisations who submitted over 10 cases to the audit discussed 100 per cent of cases (unadjusted for dates of diagnosis after 1.10.10) at MDT providing assurance of an aspect of their patient care and should be commended.
- 15 organisations who submitted over 10 diagnoses stated significant numbers 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. 26 organisations have provided this.

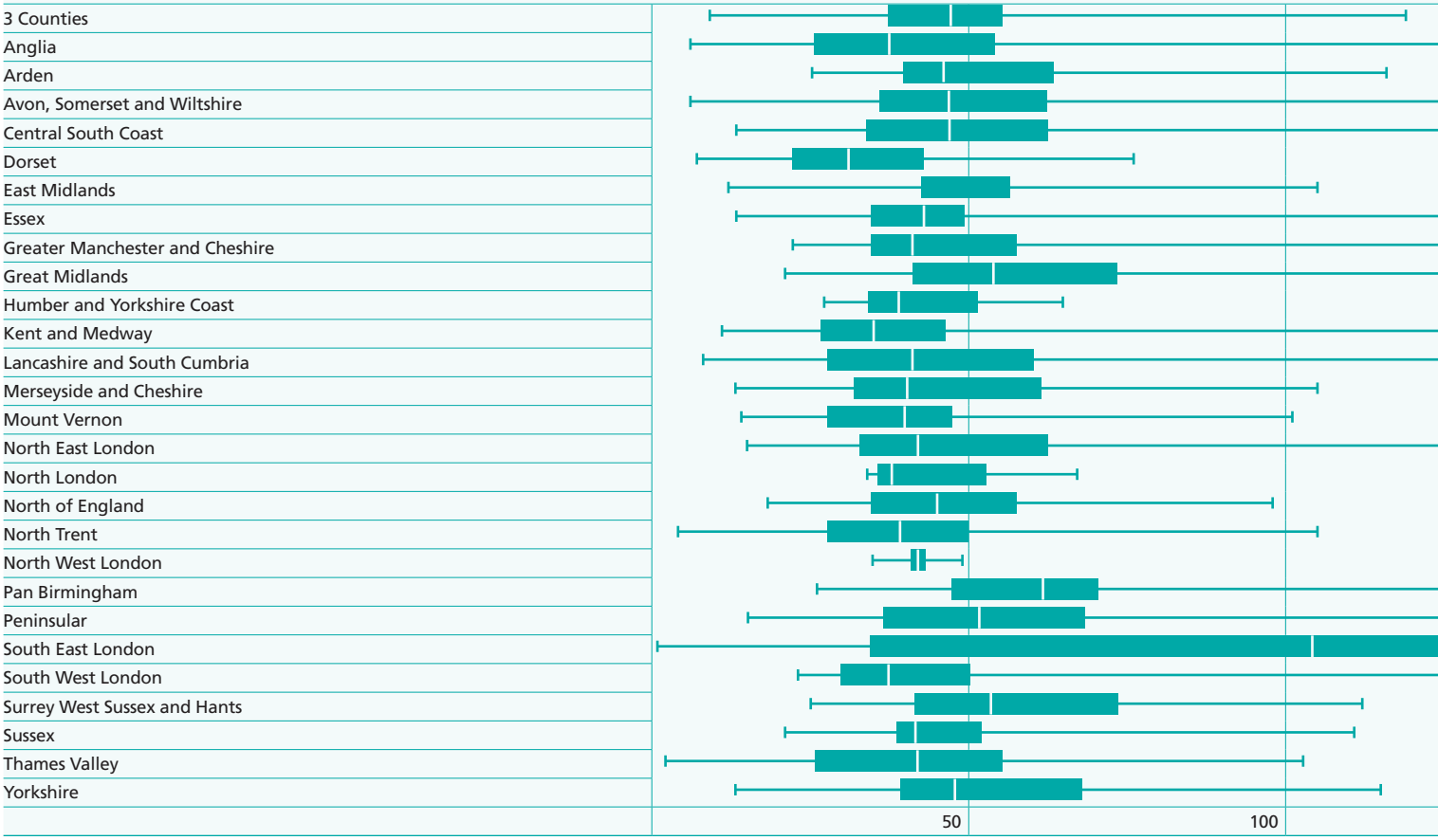
4.6.9 Interval from diagnosis to first treatment

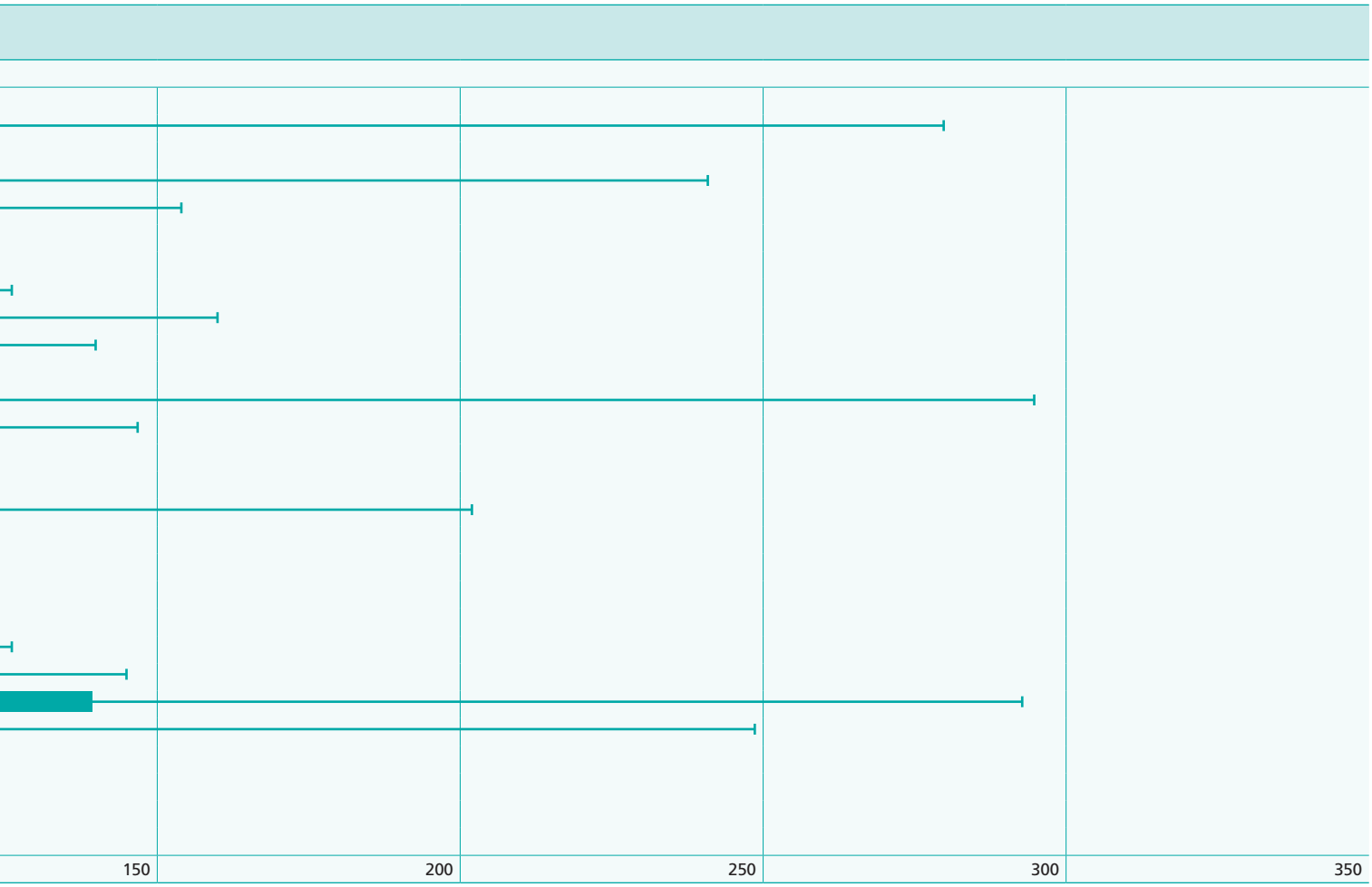
- The interval from diagnosis to treatment – surgery, radiotherapy, chemotherapy or chemoradiotherapy – remains variable but with delays still apparent in the delivery of radiotherapy treatments.
- The medians for surgery (28 days) and chemotherapy (30.5 days) remain within the 50 per cent time limits of the 62 day target, but chemoradiotherapy (35 days) and radiotherapy (44 days) exceed this by some margin and over the period of the audit there has been no significant improvement in this value.
- Networks should review the provision of radiotherapy services to ensure patients are not disadvantaged by difficulties in accessing radiotherapy services in particular.
- By trust, considerable variation is seen in the time to surgery, radiotherapy, chemotherapy and chemoradiotherapy. More information by Trust for each modality of treatment can be found here.



- The variation in time to radiotherapy is shown in the chart below by cancer network and demonstrates that the majority of networks appear to have difficulties accessing radiotherapy services in as timely a fashion as for other treatment modalities. The medians remain essentially unchanged from last years report.

Figure 4.6.9b
Interval from diagnosis to first definitive treatment (days) by cancer network in England for radiotherapy





4.6.10 Interval to adjuvant radiotherapy

- Adjuvant radiotherapy is a key part of many head and neck treatment plans and ideally should be started within 6 weeks of surgery. It has been repeatedly identified in previous annual reports that there are identifiable delays in accessing radiotherapy services. Where adjuvant radiotherapy is required it can commonly be determined prior to surgery and therefore to minimise delays the forward planning of adjuvant radiotherapy can be helpful.
- The median of 54 days for all sites has increased by three days from the last annual report and whilst it is tempting to suggest this is due to increased data submission it is a worrying trend and at nearly 8 weeks is considerably longer than the recommended maximum wait of 6 weeks.
- Looking at this data by anatomical subsite oral cavity has the highest median (63 days) followed by major salivary gland (57 days) with oropharynx and larynx at 49 days. It is unclear why oral cavity patients should have significantly increased delays to adjuvant radiotherapy and trusts and networks should aim to investigate the pathway to minimise delays and bring these times into line with recommended time limits.

Figure 4.6.10a
Interval from date of surgery to post operative radiotherapy – all sites

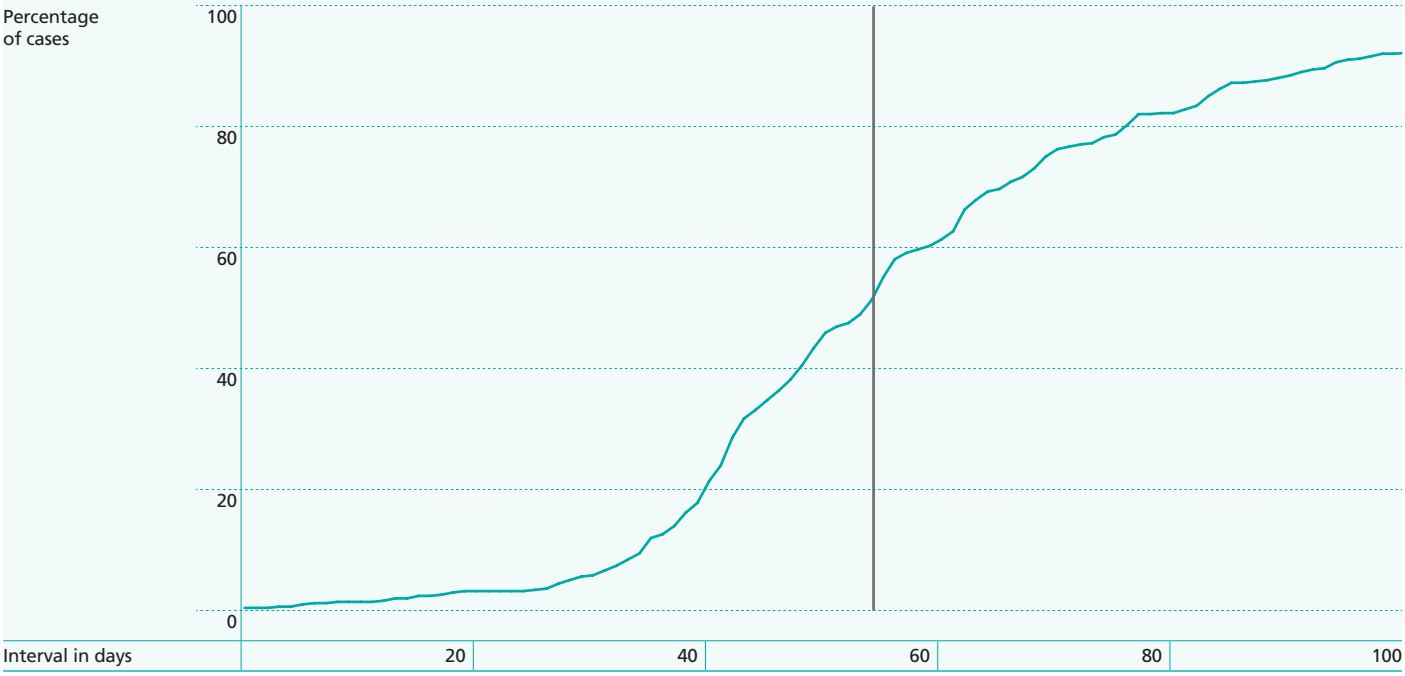
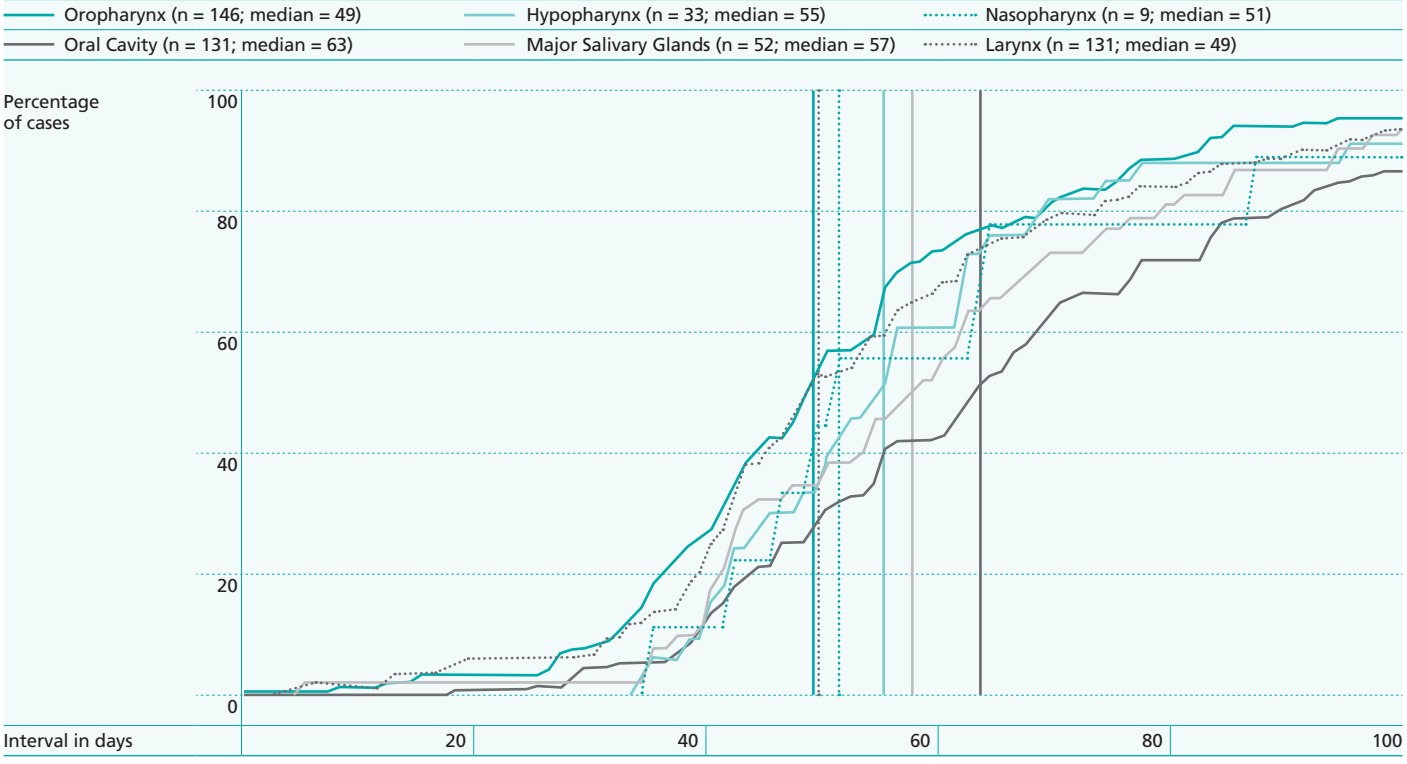


Figure 4.6.10b
Interval from date of surgery to post operative radiotherapy – by site



4.7 Pathways of care

This year a selection of pathways have been studied in more detail and are presented below. Additional information on care provided in other anatomic sites can be found in the data repository.

4.7.1 The treatment of early stage laryngeal cancer

Early larynx cancer encompasses T1 N0 and T2 N0 squamous carcinoma. Radiotherapy, microlaryngeal endoscopic excision (with or without laser) and open surgery are all accepted treatments, though the latter is rarely performed in the UK. For early stage larynx cancer many clinicians consider that from published results radiotherapy and endoscopic surgery have similar survival and voice outcomes and that treatment choice has been driven by individual clinical preference with variation across specialty discipline and geographic location both within and between countries.

The treatments differ in their duration and impact. Radiotherapy has been the "gold standard treatment" in the UK for many years. It is typically given as an out-patient, with daily fractions given on weekdays over 4 to 6 weeks. Side effects are frequent with mucositis and dysphagia but resolve rapidly after treatment. Nutritional support is essential. Patients maintain good voice and have the option of surgical salvage by laryngectomy if local recurrence occurs.

Microlaryngeal endoscopic excision has increased in popularity in the last 20 years across Europe and more recently in the UK as a viable alternative to radiotherapy. Specialist equipment and surgical training is required. It can frequently be performed as a day case depending on the extent of resection and patient co-morbidities. The treatment is also voice sparing but may have a longer term impact on voice with more extensive resections. If local recurrence occurs, salvage treatment choices include both radiotherapy and surgery. Many experts select cases and limit therapy to patients with small tumours without anterior commissure involvement.

A previous UK trial to compare the two treatments (Easter study)[28] unfortunately failed to recruit adequate numbers and has now closed.

ENT-UK Head and Neck believe that all patients with early larynx cancer in the UK should be given the choice of radiotherapy or endoscopic surgery for suitable cancers.

For the sixth Annual Report an examination has been made of the use of microlaryngeal resection by cancer centre across England in Wales.

- Of the 631 cases of early laryngeal cancer submitted, radiotherapy was the predominant treatment (77.3 per cent) compared to endolaryngeal resection (22.7 per cent).
- A wide variation is noted between trusts in the distribution of cases recorded as receiving radiotherapy or endolaryngeal resection. In a number of centres all early larynx cases are recorded as having received radiotherapy as the first definitive treatment, whilst a small number had a similar greater number treated by endolaryngeal surgery. 10 centres treated 5 or more patients by endolaryngeal resection.
- The audit cannot examine whether the cases submitted were suitable for either treatment modality.
- However MDTs should examine whether patients are given the choice of either treatment modality in appropriate circumstances, and that local facilities and training are in place to facilitate this.
- The audit will re-examine this topic in future reports.

Figure 4.7.1
Larynx cases where the first treatment was microlaryngeal resection or radiotherapy

Larynx cases where the first treatment was microlaryngeal resection or radiotherapy			
Trust	**Total cases**	**Radiotherapy**	**ML resection**
Abertawe Bro Morgannwg University Health Board	<5	<5	
Aintree University Hospitals NHS Foundation Trust	31	17	14
Aneurin Bevan Health Board	<5	<5	<5
Ashford and St Peter's Hospitals NHS Trust	<5	<5	
Barking, Havering and Redbridge University Hospitals NHS Trust	6	<5	<5
Barnet and Chase Farm Hospitals NHS Trust	<5		<5
Barnsley Hospital NHS Foundation Trust	<5	<5	
Barts and The London NHS Trust	9	9	
Basingstoke and North Hampshire NHS Foundation Trust		<5	
Betsi Cadwaladr University Health Board	<5		<5
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	5	<5	<5
Bradford Teaching Hospitals NHS Foundation Trust	8	7	<5
Brighton and Sussex University Hospitals NHS Trust	<5	<5	
Burton Hospitals NHS Foundation Trust	<5		<5
Calderdale and Huddersfield NHS Foundation Trust	<5	<5	
Cambridge University Hospitals NHS Foundation Trust	14	14	
Cardiff and Vale University Health Board	<5	<5	
Central Manchester University Hospitals NHS Foundation Trust	<5		<5
City Hospitals Sunderland NHS Foundation Trust	6	<5	<5
Colchester Hospital University NHS Foundation Trust	<5	<5	<5
Countess of Chester Hospital NHS Foundation Trust	<5	<5	<5
County Durham and Darlington NHS Foundation Trust	9	8	<5
Cwm Taf Health Board	<5	<5	
Derby Hospitals NHS Foundation Trust	<5	<5	<5
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	11	6	5
Dorset County Hospital NHS Foundation Trust	<5	<5	
East and North Hertfordshire NHS Trust	7	<5	6
East Kent Hospitals University NHS Foundation Trust	<5	<5	
East Lancashire Hospitals NHS Trust	8	8	
East Sussex Hospitals NHS Trust	5	5	
Frimley Park Hospital NHS Foundation Trust	9	9	
Gloucestershire Hospitals NHS Foundation Trust	10	5	5
Guy's and St Thomas' NHS Foundation Trust	15	14	<5
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	<5	<5	<5
Hull and East Yorkshire Hospitals NHS Trust	13	5	8
Imperial College Healthcare NHS Trust	14	<5	10
Ipswich Hospital NHS Trust	<5	<5	
James Paget University Hospitals NHS Foundation Trust	8	8	
Kettering General Hospital NHS Foundation Trust	<5	<5	
Lancashire Teaching Hospitals NHS Foundation Trust	9	9	
Leeds Teaching Hospitals NHS Trust	5	<5	<5
Luton and Dunstable Hospital NHS Foundation Trust	8	7	<5
Maidstone and Tunbridge Wells NHS Trust	12	12	
Mid Cheshire Hospitals NHS Foundation Trust	<5	<5	
Mid Essex Hospital Services NHS Trust	<5	<5	
Mid Staffordshire NHS Foundation Trust	<5	<5	
Mid Yorkshire Hospitals NHS Trust	7	5	<5
Milton Keynes Hospital NHS Foundation Trust	<5	<5	
Norfolk and Norwich University Hospitals NHS Foundation Trust	17	17	
North Bristol NHS Trust	12	5	7
North Cumbria University Hospitals NHS Trust	5	<5	<5
North West London Hospitals NHS Trust	<5		<5
Northampton General Hospital NHS Trust	13	12	<5
Northern Devon Healthcare NHS Trust	<5	<5	
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	<5		<5
Oxford Radcliffe Hospitals NHS Trust	13	10	<5
Pennine Acute Hospitals NHS Trust	12	12	
Peterborough and Stamford Hospitals NHS Foundation Trust	5	5	

Figure 4.7.1 (continued)
Larynx cases where the first treatment was microlaryngeal resection or radiotherapy

Larynx cases where the first treatment was microlaryngeal resection or radiotherapy			
Trust	**Total cases**	**Radiotherapy**	**ML resection**
Plymouth Hospitals NHS Trust	6	6	
Poole Hospital NHS Foundation Trust	15	14	<5
Portsmouth Hospitals NHS Trust	<5	<5	
Queen's Medical Centre, Nottingham University Hospitals NHS Trust	31	26	5
Royal Berkshire NHS Foundation Trust	8	8	
Royal Bolton Hospital NHS Foundation Trust	<5	<5	<5
Royal Cornwall Hospitals NHS Trust	10	8	<5
Royal Devon and Exeter NHS Foundation Trust	11	8	<5
Royal Liverpool and Broadgreen University Hospitals NHS Trust	6	<5	<5
Royal Shrewsbury Hospitals NHS Trust	<5	<5	
Royal Surrey County Hospital NHS Trust	5	5	
Royal United Hospital Bath NHS Trust	<5	<5	
Salisbury NHS Foundation Trust	<5		<5
Sandwell and West Birmingham Hospitals NHS Trust	<5	<5	
Sheffield Teaching Hospitals NHS Foundation Trust	7	7	
South Devon Healthcare NHS Foundation Trust	6	<5	<5
South Tees Hospital NHS Foundation Trust	16	8	8
Southampton University Hospitals NHS Trust	5	5	
Southend University Hospital NHS Foundation Trust	9	8	<5
Southport and Ormskirk Hospital NHS Trust	<5	<5	
St George's Healthcare NHS Trust	9	9	
St Helens and Knowsley Hospitals NHS Trust	<5	<5	
Surrey and Sussex Healthcare NHS Trust	<5	<5	
Tameside Hospital NHS Foundation Trust	6	6	
The Dudley Group of Hospitals NHS Foundation Trus	9	9	
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	15	12	<5
The Royal Marsden NHS Foundation Trust	<5	<5	<5
The Royal Wolverhampton Hospitals NHS Trust	18	17	<5
United Lincolnshire Hospitals NHS Trust	<5		<5
University College London Hospitals NHS Foundation Trust	<5	<5	<5
University Hospital Birmingham NHS Foundation Trust	7	7	
University Hospital of North Staffordshire NHS Trust	6	<5	<5
University Hospitals Coventry and Warwickshire NHS Trust	8	7	<5
University Hospitals of Morecambe Bay NHS Trust	<5	<5	
Velindre NHS Trust	<5	<5	
Wirral University Teaching Hospital NHS Foundation Trust	<5	<5	
Worcestershire Acute Hospitals NHS Trust	5	<5	<5
Wrightington, Wigan and Leigh NHS Foundation Trust	<5	<5	
York Hospitals NHS Foundation Trust	9	<5	7
Total	631	488	143

4.7.2 Oral cavity – Cancer of tongue

The oral tongue is the most common oral subsite for squamous cell cancer to develop. Of the 1902 cases of oral cancer submitted this year 798 were identified in the oral tongue (42 per cent of oral cavity total) with a further 596 cases in the tongue base (defined anatomically in the oropharynx). Overall cancer of the tongue as an organ accounted for 1394 cases, 21.6 per cent of the total number of tumours submitted.

This section relates to those 798 cases of cancer affecting the oral tongue (anterior 2/3) In recent years the management of these tumours has largely been surgical, but there is anecdotal evidence that surgical techniques have been subtly changing with an increased use of laser excision, felt to be associated with better functional outcomes, which when combined with an operating microscope provides good control of margins. Where tumours involve the floor of mouth in addition to the tongue a through and through excision may be carried out requiring reconstruction often with a free tissue transfer.

A further issue is how to manage the neck, with the incidence of occult metastasis felt to be around 20 per cent in clinically and radiographically negative necks, many teams prefer to carry out a prophylactic staging neck dissection. If a micro-vascular reconstruction is planned then this is easy to achieve as there is a requirement to expose the neck blood vessels prior to anastomosis of the flap.

In those patients where micro-vascular reconstruction is not required the pros and cons of carrying out a neck dissection are more difficult to balance. A MRC funded trial (SEND)[29] is currently trying to identify whether it is possible to define criteria to select patients for elective neck dissection.

With good quality data it should be possible for the National Head and Neck Cancer audit to inform this debate and thus this topic is worthy of a Clinical Line of Enquiry. In this report we have looked at the data submitted for cancer of the oral tongue as a first attempt to explore this clinical area.

- Of the 798 cases of cancer affecting the oral tongue there are 362 records of surgical excision representing 45.4 per cent of cases. 361 had a care plan record.
- Of those 362 patients having resection there are 183 recorded neck dissections. Looking at the final integrated stage, 92 of these were N0 and 49 were N1 or N2. In 42 patients the status of the neck is not recorded. In those patients who were N0 it is not possible to know whether the neck dissection was carried out on prophylactic grounds or as part of a microvascular reconstruction.
- There are 45 records of a reconstructive procedure of which 4 were closed primarily, 1 with a pectoralis major flap, 13 recorded as closure with flap and 27 with a radial forearm free flap.

From the current data it has not been possible to make a clear assessment of the procedures used to resect tongue lesions. There are recognised coding issues in OPCS, with regard to the coding of laser excisions. There is currently no direct code to code a laser excision lesion of tongue, but any excision code can be made a laser excision by a prefix code, but this increases the complexity of trying to record operative data for audit purposes.

To try and understand this problem further the National Cancer Intelligence Network along with others is currently looking at OPCS coding issues in an attempt to produce a set of codes more representative of current clinical practice.

Therefore at present this audit is only able to look in a very superficial fashion at this interesting topic, but we would hope that in future we could analyse it in more detail.

4.7.3 Oropharynx cancer

The management of oropharynx cancer has traditionally been by radiotherapy or by extensive surgery. A number of research findings have altered the management perspective for this disease.

A sub group of patients have been identified where human papilloma virus (HPV) is linked as a causative factor[30,31,32] and treatment protocols are being adjusted in light of this.

Improved outcomes by use of chemoradiotherapy have been suggested in American and, more recently, British studies, but opinion remains divided on the impact of increased toxicities associated with this treatment course against the purported survival gains.

The role of transoral laser surgery for selected oropharyngeal tumours is also increasing in popularity as a surgical alternative to extensive open surgery.[33]

As identified in the fifth Annual Report, treatment for patients with oropharynx cancer in England and Wales has seen a shift in some centres away from open surgery towards chemoradiotherapy. There was a suggestion that geographical variation in treatment provided existed and this has been further studied in more detail in this sixth Annual Report cohort.

- Of the 914 cases of oropharynx cancer with treatment information submitted, similar numbers were treated by surgical (50 per cent) and non surgical means. This is reduction in non surgical treatments from previous reports but may reflect better treatment data quality particularly on surgical interventions.
- Further study is needed of whether surgery reflected open and reconstructive surgery or transoral resection, or whether this represented initial neck dissection as a prelude to chemoradiotherapy. The latter is less common in the UK with neck surgery normally occurring as a planned procedure following non surgical therapy for significant neck disease.

- The Expert Panel noted that the on going PET-NECK trial may have impacted on the distribution of treatments with centres proposing more chemoradiotherapy as well as instigating neck surgery prior to this.
- A wide variation is noted between trusts in the distribution of cases recorded as receiving surgery or non surgical treatment. In a number of networks non surgical therapy dominates, and of those centres submitting over 10 oropharynx cancer cases 15 centres gave predominantly non surgical treatment.
- Again in centres submitting over 10 cases of oropharynx cancer 17 centres gave predominantly surgery as the first definitive treatment.
- The audit cannot at this stage examine whether the cases submitted were suitable for either treatment modality.
- The audit will re-examine this topic in future reports as well as looking at what factors influence the geographic variation noted.

Figure 4.7.3
Oropharynx cases where the first treatment was surgery, radiotherapy or chemoradiotherapy

Oropharynx cases where the first treatment was surgery, radiotherapy or chemoradiotherapy				
Trust	First treatment			
	Total	Surgery	Radiotherapy	Chemoradiotherapy
Abertawe Bro Morgannwg University Health Board	15	15		
Aintree University Hospitals NHS Foundation Trust	50	29	16	5
Aneurin Bevan Health Board	5	<5	<5	
Ashford and St Peter's Hospitals NHS Trust	<5	<5		
Barking, Havering and Redbridge University Hospitals NHS Trust	7	5	<5	<5
Barnet and Chase Farm Hospitals NHS Trust	17	7		10
Barnsley Hospital NHS Foundation Trust	<5		<5	
Barts and The London NHS Trust	19	16	<5	
Basingstoke and North Hampshire NHS Foundation Trust	<5	<5	<5	
Betsi Cadwaladr University Health Board	13	12		<5
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	7	<5	<5	<5
Bradford Teaching Hospitals NHS Foundation Trust	<5	<5	<5	<5
Brighton and Sussex University Hospitals NHS Trust	7	<5	<5	<5
Calderdale and Huddersfield NHS Foundation Trust	<5			<5
Cambridge University Hospitals NHS Foundation Trust	17	<5	16	
Cardiff and Vale University Health Board	9	6	<5	
Central Manchester University Hospitals NHS Foundation Trust	6	6		
Chesterfield Royal Hospital NHS Foundation Trust	<5	<5		
City Hospitals Sunderland NHS Foundation Trust	8	<5	<5	<5
Colchester Hospital University NHS Foundation Trust	6	5	<5	
Countess of Chester Hospital NHS Foundation Trust	<5	<5	<5	
County Durham and Darlington NHS Foundation Trust	7	<5	<5	<5
Cwm Taf Health Board	5	<5	<5	
Derby Hospitals NHS Foundation Trust	9	8	<5	
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	12	<5	8	
Dorset County Hospital NHS Foundation Trust	<5	<5	<5	
East and North Hertfordshire NHS Trust	<5	<5	<5	
East Cheshire NHS Trust	<5		<5	
East Kent Hospitals University NHS Foundation Trust	17	15	<5	
East Lancashire Hospitals NHS Trust	13	10	<5	
East Sussex Hospitals NHS Trust	10		8	<5
Frimley Park Hospital NHS Foundation Trust	<5	<5	<5	
Gloucestershire Hospitals NHS Foundation Trust	6	<5	<5	

Figure 4.7.3 (continued)
Oropharynx cases where the first treatment was surgery, radiotherapy or chemoradiotherapy

Oropharynx cases where the first treatment was surgery, radiotherapy or chemoradiotherapy				
Trust	First treatment			
	Total	Surgery	Radiotherapy	Chemoradiotherapy
Great Western Hospitals NHS Foundation Trust	<5	<5	<5	
Guy's and St Thomas' NHS Foundation Trust	24	<5	20	
Imperial College Healthcare NHS Trust	7	7		
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	<5	<5		
Hereford Hospitals NHS Trust	<5	<5	<5	
Hull and East Yorkshire Hospitals NHS Trust	28	22	<5	<5
Hywel Dda Health Board	<5	<5	<5	
Ipswich Hospital NHS Trust	<5		<5	
Isle of Wight Healthcare NHS Trust	<5		<5	
James Paget University Hospitals NHS Foundation Trust	<5		<5	
Lancashire Teaching Hospitals NHS Foundation Trust	9	<5	8	
Leeds Teaching Hospitals NHS Trust	28	17	<5	8
Luton and Dunstable Hospital NHS Foundation Trust	10	<5	8	
Maidstone and Tunbridge Wells NHS Trust	18	5	13	
Mid Cheshire Hospitals NHS Foundation Trust	<5	<5	<5	
Mid Essex Hospital Services NHS Trust	<5	<5	<5	
Mid Staffordshire NHS Foundation Trust	<5	<5		<5
Mid Yorkshire Hospitals NHS Trust	7	<5	<5	<5
Milton Keynes Hospital NHS Foundation Trust	5	<5	<5	
Norfolk and Norwich University Hospitals NHS Foundation Trust	12	<5	10	
North Bristol NHS Trust	20	15	<5	<5
North Cumbria University Hospitals NHS Trust	8	5	<5	<5
North West London Hospitals NHS Trust	7	5	<5	
Northampton General Hospital NHS Trust	14	7	5	<5
Oxford Radcliffe Hospitals NHS Trust	28	22	5	<5
Pennine Acute Hospitals NHS Trust	9	6	<5	<5
Peterborough and Stamford Hospitals NHS Foundation Trust	7		7	
Plymouth Hospitals NHS Trust	10	5	5	
Poole Hospital NHS Foundation Trust	9	<5	7	
Portsmouth Hospitals NHS Trust	12	6	5	<5
Queen Victoria Hospital NHS Foundation Trust	<5	<5		
Queen's Medical Centre, Nottingham University Hospitals NHS Trust	24	12	11	<5
Royal Berkshire NHS Foundation Trust	8	<5	<5	<5
Royal Bolton Hospital NHS Foundation Trust	<5	<5	<5	
Royal Cornwall Hospitals NHS Trust	14	7	6	<5
Royal Devon and Exeter NHS Foundation Trust	8	7		<5
Royal Liverpool and Broadgreen University Hospitals NHS Trust	10	<5	8	<5
Royal Shrewsbury Hospitals NHS Trust	9	<5	5	<5
Royal Surrey County Hospital NHS Trust	6	<5	5	<5
Royal United Hospital Bath NHS Trust	5	<5	<5	
Salisbury NHS Foundation Trust	<5			
Sandwell and West Birmingham Hospitals NHS Trust	<5		<5	<5
Sheffield Teaching Hospitals NHS Foundation Trust	14	<5	10	<5
South Devon Healthcare NHS Foundation Trust	7	<5	<5	
South Tees Hospital NHS Foundation Trust	27	<5	9	17
Southampton University Hospitals NHS Trust	18	10	6	<5
Southend University Hospital NHS Foundation Trust	10	<5	6	<5
Southport and Ormskirk Hospital NHS Trust	<5	<5		<5
St George's Healthcare NHS Trust	8	<5	5	
St Helens and Knowsley Hospitals NHS Trust	<5	<5		
Stockport NHS Foundation Trust	<5	<5		
Surrey and Sussex Healthcare NHS Trust	<5	<5		
Tameside Hospital NHS Foundation Trust	<5	<5	<5	
Taunton and Somerset NHS Foundation Trust	<5		<5	
The Dudley Group of Hospitals NHS Foundation Trus	<5		<5	
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	25	<5	5	16
The Princess Alexandra Hospital NHS Trust	<5	<5		

Figure 4.7.3 (continued)
Oropharynx cases where the first treatment was surgery, radiotherapy or chemoradiotherapy

Oropharynx cases where the first treatment was surgery, radiotherapy or chemoradiotherapy				
Trust	**First treatment**			
	Total	**Surgery**	**Radiotherapy**	**Chemoradiotherapy**
The Rotherham NHS Foundation Trust	<5		<5	
The Royal Marsden NHS Foundation Trust	<5		<5	<5
The Royal Wolverhampton Hospitals NHS Trust	13		9	<5
Trafford Healthcare NHS Trust	<5		<5	
United Lincolnshire Hospitals NHS Trust	7		6	<5
University College London Hospitals NHS Foundation Trust	<5	<5	<5	<5
University Hospital Birmingham NHS Foundation Trust	12	7	5	
University Hospital of North Staffordshire NHS Trust	<5	<5	<5	
University Hospital of South Manchester NHS Foundation Trust	<5	<5		
University Hospitals Bristol NHS Foundation Trust	8	5	<5	<5
University Hospitals Coventry and Warwickshire NHS Trust	17	9	<5	<5
University Hospitals of Morecambe Bay NHS Trust	<5		<5	
Velindre NHS Trust	<5		<5	
Western Sussex Hospitals NHS Trust	<5		<5	
Whipps Cross University Hospital NHS Trust	5	<5	<5	
Wirral University Teaching Hospital NHS Foundation Trust	5	<5	<5	<5
Worcestershire Acute Hospitals NHS Trust	20	15	5	
Wrightington, Wigan and Leigh NHS Foundation Trust	<5		<5	
York Hospitals NHS Foundation Trust	6		5	<5
Total	**914**	**458**	**339**	**116**

4.8 Clinical Outcomes sixth and fifth Annual Report Cohorts

4.8.1 Death

4.8.1.1 Sixth Annual Report Cohort - Deaths recorded within trust submissions for index year after supplementation with MRIS data

A case file was obtained from the Medical Research Information Service (MRIS) of patients registered in the audit for which MRIS had evidence, from death certification, of the registrant having died.

The audit is working to provide data for survival analyses.

Overall, of the 6458 cases submitted a 1006 cases were identified as deceased, (15.6 per cent) within the index year. This includes deaths from all causes i.e. crude death rate. This is consistent with outcomes data in the fifth Annual Report.

Of the 1641 larynx cancers recorded, 199 (12.1 per cent) were deceased within the period and of the subsites had the lowest death rates, and of the 1902 oral cavity registrants 318 (16.7 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 30.6 per cent as the disease predominantly presents late in individuals with significant other smoking and alcohol related co-morbidities.

4.8.1.2 Fifth Annual Report Cohort - Deaths recorded within one year of date of diagnosis by supplementation with MRIS data

- The crude death rate of the 5597 patients submitted in the fifth Annual Report at one year is 21.4 per cent overall. This confirms both the significant mortality of head and neck cancer and the impact of co-morbidities in this patient population.
- Comparative one year crude death rates for breast cancer (7.5 per cent) , lung cancer (73.9 per cent) and colorectal cancer (31.6 per cent) set the figure above in context
- This means that one in five head and neck cancer patients on average will be deceased from all causes by one year and is a sober reminder of the impact of this disease.
- In most anatomic sites, the analysis of crude mortality of all cases at a year from diagnosis has increased the crude death rate by 6 to 7 per cent apart from in hypopharynx cancer, where a 50 per cent increase is evident and where over one in three patients will be deceased within a year.
- The lowest crude death rate is in larynx cancer at 16.9 per cent.

Figure 4.8.1.1
Number of deaths in the index period within one year of diagnosis supplemented by MRIS data to January 27 2011 (date of MRIS extraction)

	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Salivary Glands	Total
Number of deaths	199	318	279	117	25	68	1006
Total number of cases	1641	1902	1897	382	191	445	6458
Proportion died	12.1	16.7	14.7	30.6	13.1	15.3	15.6

Figure 4.8.1.2
Updated number of deaths (crude death rate) within one year of diagnosis using data from fifth Annual Report, cohort with a date of diagnosis November 2008 - October 2009

	Larynx	Oral cavity	Oropharynx	Hypopharynx	Nasopharynx	Salivary Glands	Total
Number of deaths	257	369	313	133	39	86	1197
Total number of cases	1522	1635	1491	352	179	418	5597
Proportion died	**16.9**	**22.6**	**21.0**	**37.8**	**21.8**	**20.6**	**21.4**
Previously reported proportion deceased in 5th report at close extraction	12.5	16.1	14.5	24.7	16.2	13.9	15.1

4.8.1.3 Fifth Annual Report Cohort - Deaths recorded within one year of date of diagnosis by supplementation with MRIS data - crude death rate by cancer network

A case file was obtained from the MRIS of patients registered in the audit for which there was MRIS evidence, from death certification, of the registrant having died. This was then compared with the network at registration to the National Head and Neck Cancer Audit 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 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 made 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, 1197 (21.4 per cent) had died from all causes in less than 14 months from diagnosis. Similar percentages had died in England and Wales.
- Networks vary in crude death rate from 11.8 per cent to 28.9 per cent. Examining the three commonest anatomic sites larynx, oral cavity and oropharynx, there was again considerable variation between networks. In larynx, cancer crude mortality ranged from 4.0 per cent to 38.5 per cent, in oral cavity from 10 per cent to 36.4 per cent and in oropharynx from 7.5 per cent to 31.2 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.

Figure 4.8.1.3
Fifth Annual Report Cohort - Deaths recorded within one year of date of diagnosis by supplementation with MRIS data - crude death rate by cancer network

Contact network	Deaths of cases diagnosed in index year	Per cent of total cases	Total number of cases
3 Counties	31	17.9	173
Anglia	66	21.6	305
Arden	19	27.5	69
Avon Somerset and Wiltshire	26	21.8	119
Central South Coast	44	18.6	236
Dorset	24	21.1	114
East Midlands	78	17.3	451
Essex	23	22.5	102
Greater Manchester and Cheshire	51	21.9	233
Greater Midlands	50	21.3	235
Humber and Yorkshire Coast	7	12.1	58
Kent and Medway	31	25.4	122
Lancashire and South Cumbria	51	24.1	212
Merseyside and Cheshire	54	19	284
Mount Vernon	8	13.6	59
North East London	37	26.4	140
North London	41	28.9	142
North of England	130	25.5	510
North Trent	40	21.6	185
North West London	32	20.9	153
Pan Birmingham	51	23.7	215
Peninsula	52	21.8	238
South East London	0	n/a	4
South West London	22	18.2	121
Surrey, West Sussex and Hants	19	13.5	141
Sussex	25	18.8	133
Thames Valley	44	17.9	246
Yorkshire	56	22.6	248
England	**1114**	**21.2**	**5248**
North Wales	17	23.9	71
South East Wales	45	24.3	185
South West Wales	21	22.6	93
Wales	**83**	**23.8**	**349**
England and Wales	**1197**	**21.4**	**5597**

4.8.1.4 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, and this has been referred to earlier in Section 4.4.4. Networks are encouraged to improve submission levels in these key areas. 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.

4.8.2 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 16.4 per cent of records contain current status information and it is strongly encouraged for trusts to collect and submit this information for the seventh Annual Report.

4.8.3 Number of treatment-related deaths (to include death within 30 days of surgery and / or within the same admission and within 30 or 90 days of chemotherapy / radiotherapy / chemo-radiotherapy)

- Overall, head and neck surgery appears a safe procedure, with 25 peri operative deaths in some 1900 surgical procedures (1.3 per cent). This has been consistently identified throughout each of the six 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.
- For non surgical treatment similar caveats apply in relation to the complexity of treatment and its impact on a co-morbid population. A rising trend in the use of chemoradiotherapy in comparison to radiotherapy alone, inevitably involves a trade-off of the potential to improve survival against a greater risk of complications and in some cases a toxicity induced death.
- Death after 30 and 90 days has been calculated to reflect both the initial impact of non-surgical treatment and with prolonged treatment courses, the impact of the whole treatment course. Within 90 days some patients treated with palliative intent may have succumbed to their disease.
- For future more meaningful interpretation it is important that treatment intent as to whether applied with a curative intent or palliative intent is recorded.
- 31 deaths occurred within 30 days of first treatment and post operative radiotherapy commencing, in some 1500 patients (2.1 per cent), with 87 deaths occurring within 90 days of radiotherapy commencing (5.8 per cent).

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

- At the outset of the audit it was proposed that "If we could match the outcomes from the districts with the lowest rates to those of the highest, we would probably be able to improve long-term survival rates without any therapeutic development". Recent publications[35] have identified the concept of "unnecessary deaths" referring to the impact of complications of treatment or sub-standard care. It has been suggested that this could amount to 170 deaths per year in head and neck cancer.
- The audit will seek to focus in the seventh Annual Report on this topic further.

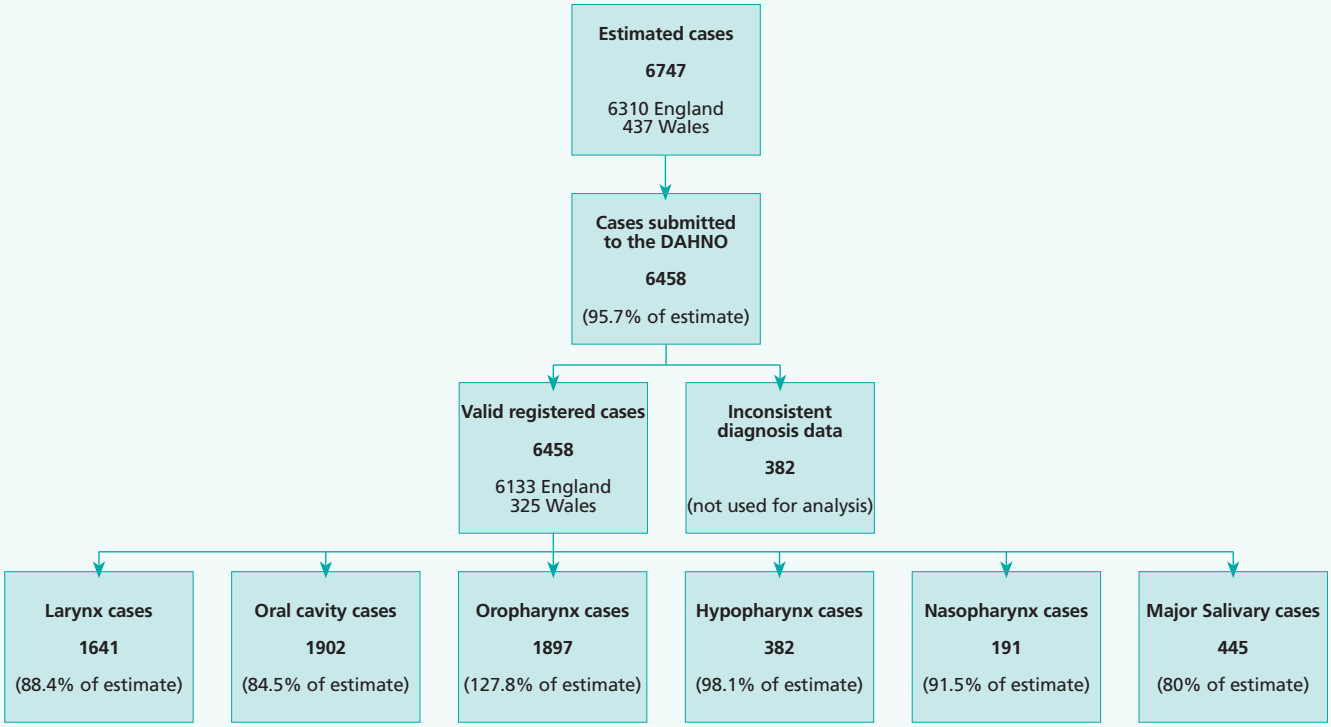
Figure 4.8.3
Number of treatment-related deaths (to include death within 30 days of surgery and / or within the same admission and within 30 or 90 days of chemotherapy/radiotherapy/chemo-radiotherapy)

Description	Total
Deaths within 30 days of diagnosis	
Number of reported deaths within 30 days of diagnosis or with discharge destination 'death' after any admission	108
Deaths following surgical treatment	
Number of reported deaths within 30 days of surgery or with discharge destination 'death' after surgery	25
Of these patients, the number whose death followed diagnostic surgery	5
Of these patients, the number whose death followed recorded surgery with curative intent	13
Of these patients, the number whose death followed recorded surgery with palliative intent	3
Of the others, the number whose death followed recorded surgery with no treatment intent recorded	4
Deaths following non surgical treatment	
Number of reported deaths within 30 days of radiotherapy or with discharge destination 'death' after radiotherapy	31
Number of reported deaths within 90 days of radiotherapy or with discharge destination 'death' after radiotherapy	87
Number of reported deaths within 30 days of chemotherapy or with discharge destination 'death' after chemotherapy	9
Number of reported deaths within 90 days of chemotherapy or with discharge destination 'death' after chemotherapy	25
Number of reported deaths within 30 days of chemoradiotherapy or with discharge destination 'death' after chemo-radiotherapy	2
Number of reported deaths within 90 days of chemoradiotherapy or with discharge destination 'death' after chemo-radiotherapy	19

Appendices

Appendix 1: Analysis of submitted cases against estimate by anatomic group site

Appendix 1a
Analysed data



Appendix 1b
Details of 47 patients with multiple tumours in index period

Site combinations	Patients
Oropharynx, Oral Cavity	11
Oropharynx, Hypopharynx	1
Oral Cavity, Oral Cavity	8
Oropharynx, Larynx	1
Hypopharynx, Larynx	4
Larynx, Larynx	4
Oropharynx, Oropharynx	8
Larynx, Oral Cavity	2
Oropharynx, Salivary Glands	2
Salivary Glands, Salivary Glands	1

Appendix 2: Number of registered new head and neck primaries by subsite

Site	Subsite	Total	Cumluative cases
Larynx	Anterior commissure	18	
	Anterior surface of epiglottis	18	56
	Aryepiglottic fold - laryngeal aspect	21	
	Arytenoid	6	
	Cricoid cartilage	10	
	False cords	14	
	Glottis	413	3706
	Infrahyoid epiglottis	8	
	Laryngeal cartilage	7	27
	Larynx, unspecified	304	1254
	Subglottis	37	153
	Supraglottis	300	1512
	Suprahyoid epiglottis	16	
	Vocal cords	469	
	Total	**1641**	**6708**
Oral Cavity	Anterior 2/3 of tongue	77	77
	Border of tongue	455	1844
	Cheek mucosa	184	627
	Dorsal surface of tongue	39	306
	Floor of mouth	325	1070
	Hard palate	99	384
	Lingual tonsil	50	111
	Lip, inner aspect	117	362
	Mouth unspecified	40	153
	Overlapping lesion of anterior 2/3 tongue	63	118
	Overlapping lesion palate	13	79
	Retromolar area	140	481
	Upper and lower gingivae	151	568
	Ventral surface of tongue	114	420
	Vestibule of mouth	35	161
	Overlapping lesion on floor of mouth		83
	Lateral floor of mouth		62
	Total	**1902**	**6906**
Oropharynx	Base of tongue	596	1395
	Lateral wall	22	60
	Oropharynx unspecified	148	148
	Overlapping lesion oropharynx	22	176
	Posterior wall	25	80
	Soft palate	160	365
	Tonsil	872	2061
	Uvula	33	60
	Vallecula	19	45
	Total	**1897**	**4390**
Hypopharynx	Aryepiglottic fold	10	35
	Hypopharynx unspecified	91	91
	Overlapping lesion hypopharynx	12	168
	Piriform sinus	186	476
	Postcricoid region	50	152
	Posterior wall	33	80
	Total	**382**	**1002**
Nasopharynx	**Total**	**191**	**481**
Major Salivary Glands	**Total**	**445**	**1122**
Total		**6458**	**20609**

Appendix 3: Head and neck cancer histologies reported

Histological diagnosis by site group summation

	Miscellaneous Carcinoma*	Carcinoma Undifferentiated NOS	Verrucous Carcinoma	SCC NOS	SCC NOS Metastatic	SCC Keratinising NOS	SCC NON Keratinising NOS	Squamous Cell Carcinoma Variants^	Adenocarcinoma NOS
	MISC	M8020/3	M8051/3	M8070/3	M8070/6	M8071/3	M8072/3	SCC VAR	M8140/3
Larynx	10	3	3	1232	4	49	4	6	3
Hypopharynx	2	1		278	1	9	1	2	1
Oral Cavity	5	1	13	1338	3	81	7		20
Oropharynx	10	3	1	1363	17	46	15	5	6
Nasopharynx	4	18		81			13		6
Major Salivary Glands		2		80		2	3	4	47
Overall	31	28	17	4372	25	187	43	17	83

Histological diagnosis by site group summation (continued)

	Basal Cell Adeocarcinoma	Adenoid-cystic Carcinoma	Mucoepidermoid Carcinoma	Sarcoma NOS	Carcinoma Ex Pleomorphic Adenoma	Other Salivary Variants		Percentage Blank
	M8147/3	M8200/3	M8430/3	M8800/3	M8941/3	SAL VAR	(Blank)	
Larynx			2		1	1	321	19.6
Hypopharynx							87	22.8
Oral Cavity	1	16	22	1		9	376	19.8
Oropharynx		7	5		1	3	409	21.6
Nasopharynx		5	2		1	1	60	31.4
Major Salivary Glands	8	41	38		10	7	137	30.8
Overall	9	69	67	1	13	19	1390	21.5

Miscellaneous * includes

Neoplasm Malignant **M8000/3**
Carcinoma Nos **M8010/3**
Carcinoma Nos Secondary Site **M8010/6**
Spindle Cell Carcinoma **M8032/3**
Small Cell Carcinoma Nos **M8041/3**
Non Small Cell Carcinoma **M8046/3**

Squamous Cell Carcinoma Variants ^ includes

Scc Spindle Cell **M8074/3**
Adenoid Squamous Carcinoma **M8075/3**
Basaloid Squamous Carcinoma **M8083/3**
Baso Squamous Carcinoma **M8094/3**
Basaloid Carcinoma **M8123/3**
Scc Microinvasive **M8076/3**

Other Salivary Type Variants includes

Papillary Adenocarcinoma **M8260/3**
Mucinous Adenocarcinoma **M8480/3**
Infiltrating Duct Adenocarcinoma **M8500/3**
Polymorphous Low Grade Adenocarcinoma **M8525/3**
Adenosquamous Carcinoma **M8560/3**

Appendix 4: Clinical Lines of Enquiry (2011) and derivation from audit data fields

CLE national indicators	Refer to report page	DAHNO event	Fields to be completed
1. Percentage of new cases of head and neck cancer discussed at MDT*		Careplan	MDT discussion indicator YES or NO
2. Percentage of new cases of head and neck cancer discussed at MDT* where recorded T, N, M staging category is evident		Careplan	MDT discussion indicator YES or NO
3. Percentage of cases of head and neck cancer* where the interval from biopsy to reporting is less than 10 days		Diagnosis procedure	MDT discussion indicator YES or NO Pre-treatment tumour site t category, pre-treatment tumour site n category
4. Percentage of new cases of head and neck cancer* where confirmed seen by a clinical nurse specialist (CNS) prior to commencement of treatment		Nursing **Treatment:-** Surgery Chemotherapy Teletherapy Brachytherapy	Contact date CNS initial **Treatment:-** Procedure date Chemotherapy start date Teletherapy start date Brachytherapy start date
5. Percentage of new cases of head and neck cancer* confirmed as having any pre -operative/ pre-treatment (includes radio and chemotherapy) dietetic assessment		Nutrition **Treatment:-** Surgery Chemotherapy Teletherapy Brachytherapy	Contact date dietitian initial **Treatment:-** Procedure date Chemotherapy start date Teletherapy start date Brachytherapy start date
New cases* as denominator are calculated from the Trust submissions with a date of diagnosis in the index period, and where an included anatomic site are entered.			

Local Indicators requiring additional local audit

1. **Percentage of cases undergoing laryngectomy who are offered choice of primary surgical voice restoration by a speech and language therapist prior to laryngectomy being undertaken.**
   Refer to Section 4.4.6 in the report but poor data quality in submission. Centres are encouraged to submit data to the National audit and review event capture and resources to support this.

2. **Percentage of cases of head and neck cancer* confirmed as having any pre-operative/pre treatment dental assessment.**
   Refer to Section 4.5.4 in the report but poor data quality in submission. Centres are encouraged to submit data to the National audit and review event capture and resources to support this.

3. **Percentage of cases of head and neck cancer* that have undergone surgery Where resective pathology is discussed in the MDT.**
   Not currently collected in DAHNO.

* relates to cancers of the larynx, oral cavity, oropharynx,nasopharynx, hypopharynx and major salivary glands matching to DAHNO inclusion criteria.

Appendix 5: Contents list - hyperlinked document

Case ascertainment

Data completeness

Post resective staging

Per cent seen pre treatment by the clinical nurse specialist

Reporting of imaging by the time of the MDT discussion

Percentage of imaging requests completed in less than 15 days (<5 cases submitted)

Interval to surgery, chemotherapy, radiotherapy and chemoradiotherapy

Submissions by trust

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