Audit

The organisation of head and neck oncology services in the UK: The Royal College of Surgeons of England and British Association of Head and Neck Oncologists' preliminary multidisciplinary head and neck oncology audit

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This study was a collaboration between The Royal College of Surgeons of England Clinical Effectiveness Unit and the British Association of Head and Neck Oncologists (BAHNO). We created a multidisciplinary database through an enquiry to all 49 UK radiotherapy centres. A questionnaire audit identified teams and individuals in the UK involved with treatment of head and neck cancer. A questionnaire on their organisation, and intentions for change was sent to the 108 teams (90% response) and 11 sole practitioners (45% response) identified. Overall, 335 surgical consultants were involved in the treatment of 7500 cases per annum, with large variations in size of catchment populations served by teams. Mean length of time spent with each out-patient was 11 min. Of respondents, 58% were already using the BAHNO basic dataset and more indicated intention to use it, but only 32% could actually deliver information on their work-load. More computerisation of data collection is essential, and national audit may bridge the data gap.

Key words: Audit – Head and neck cancer – Organisation of services – Databases – Datasets

High quality, nationally co-ordinated audit of surgical oncology would provide information for clinicians, the facility to bench-mark practice, the basis for clinical governance, and a national resource for planning clinical trials and other forms of research. Head and neck cancer is an important target for such audit. It involves low numbers of heterogeneous tumours that are difficult to study via local audit. Head and neck cancer is urgently in need of such information as overall survival and quality-of-life of patients is poor and research to improve this scarce.

The first step in establishing such a system is to identify who and where the head and neck teams are in the UK and how they are presently collecting data. Despite teamwork and (computerised) data collection being consistently present in published guidelines,^{1,2} a survey suggests substantial deficiencies in both areas.³

The aim of this audit was to identify head and neck teams and sole practitioners in the UK. Objectives were to build a database on all clinicians managing head and neck cancer patients, identify team-working patterns and methods of data collection. 'Head and neck cancer' here

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Table 1 Respondents

ORL	55 (57%)
MFS	21 (22%)
Clinical oncology	16 (16%)
Plastic	3 (3%)
Cancer manager	1 (1%)
Not stated	1 (1%)
Total	97 (100%)

does not include thyroid cancer or skin cancer not requiring reconstruction.

Materials and Methods

This study was the result of collaboration between the British Association of Head and Neck Oncologists (BAHNO) and the Clinical Effectiveness Unit (CEU) at The Royal College of Surgeons of England. A multidisciplinary group was convened by BAHNO consisting of consultants in otolaryngology, maxillofacial surgery, plastic surgery, radiotherapy and oncology, pathology and a head and neck specialist nurse. This group used a modified expert panel method to refine the questions to be asked. This was then drafted into a questionnaire designed to establish the identity of head and neck cancer teams and sole practitioners working in head and neck cancer, and identify their structure and working practices. It was piloted and refined.

In June 2000, 47 radiotherapy centres in the UK were contacted. A letter was directed to the lead radiotherapist and oncologist for head and neck cancer at each site asking him or her to identify the lead consultants for all the head and neck teams feeding patients into their centre. They were also asked to identify any head and neck surgeons that were operating outwith teams. A total of 45 radiotherapy centres (96%) responded to the survey, identifying contacts for 108 teams and 11 sole practitioners. The contacts for identified teams were then sent a questionnaire on the composition and workings of their team. Sole practitioners were also contacted to confirm that they were working outwith teams. Reminders were sent as often as necessary until a response rate in excess of 90% was attained. Responses were collated by the CEU and descriptive analyses performed.

Results

Sole practitioners

Responses from five of the sole practitioners (45%) were received, one from Scotland and four from England. All five were confirmed as working outwith teams. No response was received from three Scottish practitioners and three English practitioners.

Teams

In all, 97 teams (90%) responded to the survey. Across the UK, the response rates for teams were respectively: England, 77/86 (90%); Scotland, 19/19 (100%); Wales, 4/4 (100%); and Northern Ireland, 2/4 (50%). The specialty of team contacts is shown in Table 1.

Responses by team contacts to specific questions were:

How many consultants in your team are involved in the diagnosis of head and neck cancer?

Median 5
Range 2–14

How many consultants in your team carry out surgery for head and neck cancer?

Median 3
Range 1–8

Overall, 335 surgical consultants are associated with the treatment of an estimated 7500 cases *per annum*, equivalent to 23 cases each. Of these, approximately 65% will receive primary surgical treatments, giving approximately 15 new cases each *per annum*.

Does your team have an agreed policy of sub-specialising within head and neck cancer?

Yes 87 (90%)
No 10 (10%)

Proportions of different medical and paramedical professions physically attending head and neck oncology clinics are presented in Table 2.

The catchment population size for head and neck referrals is shown in Figure 1.

What proportion of head and neck cancer patients presenting to your hospital trust are cross-referred to a specialist cancer team?

Median 90%
Range 0–100%

Figure 1 Catchment size of populations served by head and neck teams in the UK.

Table 2 Professions physically attending clinics

Radiotherapy	95 (98%)
ORL/H&N	93 (96%)
Oral & maxillofacial	80 (82%)
Speech therapist (at least 25% H&N)	51 (53%)
Macmillan/other specialist cancer nurse (general)	49 (51%)
Dietician	48 (49%)
Macmillan/other specialist cancer nurse (100% H&N)	43 (44%)
Plastics	36 (37%)
Speech therapist (general)	26 (27%)
Palliative care physician	18 (19%)
Prosthetist (general)	12 (12%)
Prosthetist (at least 50% H&N)	6 (6%)
Psychologist	4 (4%)

Figure 2 Proportions of teams collecting BAHNO minimum dataset.

How many head and neck cancer clinics per month do your team members attend?

1–4	67 (69%)
5–8	19 (20%)
9–12	4 (4%)
13–16	1 (1%)
> 16	6 (6%)

How long is a typical clinic for your team?

Median	3 h
Range	1.5–5 h

How many patients are seen in your clinic?

Mean	24 patients
Range	4–60 patients

Extrapolation using mean clinic duration and patients per clinic implies that the mean time for each patient consultation is 11 min.

Are you currently collecting the BAHNO minimum dataset⁴ (Fig. 2)?

Yes	56 (58%)
No	41 (42%)

If you are collecting the dataset, what format is it in?

Paper	15 (26%)
Computer	33 (58%)
Both	8 (16%)

If we asked for data tomorrow on your head and neck work-load would you be able to provide it (Fig. 3)?

Yes	32 (36%)
No	66 (64%)

Will you be able to provide head and neck work-load data in 1 year's time?

Yes	92 (95%)
No	4 (4%)
Unsure	1 (1%)

Figure 3 Proportions of teams able to deliver meaningful information on work-load at the time of the audit.

If you can provide the work-load data in 1 year's time, what format will it be in?

Paper	11 (11%)
Computer	49 (51%)
Both	7 (7%)
Not stated	30 (31%)

Discussion

This study does not address outcomes and is, therefore, limited in scope. However, it provides the necessary groundwork for a planned prospective outcomes audit. Although national prospective cancer audit has been performed effectively for a number of cancer sites in Scotland, this is the first audit to cover cancer sites for the whole UK. It attained a 90% response rate, giving it high validity.

Although the average number of cases treated by each surgical consultant is modest, this study shows a substantial shift towards multidisciplinary team-working in head and neck cancer in the UK compared to a previous

survey. The approach we took to identifying sole practitioners may be questioned, however, as the data provided by the radiotherapists were not cross-checked by the surgical teams. Nonetheless, we feel that radiotherapists generally get a pretty good feel for who is referring head and neck patients from within or without recognised teams.

The method used led to multiple responses from some teams, which were difficult to synchronise in some cases, and this could have led to error. There was a lot of free-text information added by clinicians pointing to widely differing patterns within teams, multiple teams in the same hospital, as found in an earlier audit,⁵ and overlapping teams.

We had no reason to doubt the honesty of the correspondents in this study, particularly as the results are largely consistent with those of others.^{4,5} Although it was particularly encouraging that few sole practitioners were identifiable, the relative lack of response to the second questionnaire from this group makes interpretation of their collective practice impossible.

The numbers of head and neck clinics per team was confusing. One reason for this may be the emerging pattern of having one set of clinics for new patients and separate clinics confined to one surgical speciality plus an oncologist for patient follow-up. This pattern may have distorted the average time for a consultation. However, one could argue that this time is still alarmingly short for patients with such a complex condition.

It is particularly important to compare this study with that of Edwards *et al.*³ in 1996. Questionnaires were addressed to the membership of four national specialist associations, with a 74% response rate. Of respondents, 56% routinely assessed patients in joint clinics, compared with over 90% in the present study. Only 4% were collecting standardised data in 1996, compared with 41% now.

Although Edwards *et al.* found that 60% of consultants had 'access to' nurse specialists and counselling, the study did not address how much of such persons' time was devoted to head and neck cancer work, nor whether they were actually present in the head and neck clinic. The present study shows that there is a high attendance rate of cancer nurse specialists at head and neck clinics. However, nurses working full-time in head and neck oncology are still in the minority, despite national guidelines suggesting their central role in these teams.^{1,2}

The figure of 11 min for the average patient consultation may be misleading. For many teams, the multidisciplinary consultation is surrounded by a number of related, longer consultations relating to specific parts of the care process.

This study suggests that multidisciplinary team-working is now common-place in the UK, and that this change has occurred fairly rapidly since with mid-1990s. The composition of head and neck teams varies, but more full-time

specialist head and neck nurses are required, with at least one per team. Trusts should provide information technology support to head and neck cancer teams to allow them to collect essential data. The present development of a minimum dataset, based on a well-established BAHNO precursor, as part of the NHS Information Authority cancer programme will define what this essential data is. In this context, head and neck cancer could be viewed as a model for other areas of surgery requiring effective national audit, with the development of datasets and IT strategies being fully funded in parallel.

Conclusions

This study provides an outline of head and neck cancer services in the UK. It has generated a unique database of those managing head and neck cancer which will allow further audits to clarify the present data, as well as to perform more complex audits to include outcomes. This paper suggests that local teams are ill-equipped at present to perform meaningful audits of this type for themselves.

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