Approval and Accreditation Board

Annual Report September 2012-August 2013

Contents

1 Introduction

The College of Radiographers (CoR) is pleased to publish the 2012-2013 Approval and Accreditation Board (AAB) Report.

The purpose of the report is to draw together the activity of the AAB by including data on the approval and accreditation work of the Board. Data and statistics from the Education Institution Annual Monitoring Survey constitute a significant proportion of the report. These statistics provide a mainly quantitative overview of the position of radiographic education within the UK. This will enable education providers, including providers of clinical imaging and radiotherapy services, to compare their own data with national data and to extract key areas where they may have further work to do or areas where they can share their good practice with the rest of the radiographic community.

Elements of the report will look to the future. As the NHS changes in the coming years, so must the data the SCoR collects and presents. In order to maintain currency and relevance, new elements have been added to this report. Pre-registration commissioning has been expanded, drawing on raw data collected in this and previous years. There is still room for further enhancement in the coming years.

For the first time, information has been collected regarding research topics in universities with pre-registration programmes. This shows the diversity of research being carried out and the potential for inter-university collaboration.

The number of accredited practice educators has also been included in the data collection. This data will not be collected every year but perhaps every five years in order to draw some comparisons. The College of Radiographers acknowledges that it was problematic for some education providers to gather this data and is grateful for the level of detail included in the responses. However, it is essential that educators are aware of the educational qualifications and experience that those with responsibility for training students during the clinical part of their programme have.

As with any data gathering exercise, there are limitations to the conclusions which can be drawn. However, in the interest of clarity and transparency, the limitations have been highlighted with the intention of improving comprehensive data gathering in future years.

Once again all education providers have returned data for inclusion within this report. The Approval and Accreditation Board and the education team at the College of Radiographers wish to thank all educational institution colleagues for their help and co-operation in supporting the production of this report. Without their continued support the data presented would offer less of a complete overview of national radiographic education. Thank you especially to the vast majority who returned the data by the deadline and without prompting. Timely and accurate responses save the administration team a significant amount of work when collecting and collating the data.

The Approval and Accreditation Board hopes that this year's report will provide much food for thought and ideas for the future.

2 Annual monitoring data collection

The Approval and Accreditation Board continues to play a crucial role in collecting, collating and analysing data related to radiography education and training. This report incorporates the data

collected for the education provision for clinical imaging and radiotherapy during the 2012-2013 academic year from 1st September 2012 – 31st August 2013.

The data was collected via an online survey system, Survey Monkey®. Prior to sending each education institution (EI) an email with the link to access the survey, a copy of the questions were sent in PDF format. This enabled the EI leads to collect the relevant data prior to filling in the survey.

The recruitment, retention and award data presented in this report deals with pre-registration programmes only. There are a number of programmes which can lead to CoR accreditation as an assistant practitioner but these will not be considered in this report other than as overview of the programmes approved.

Comparisons have been made, where possible, with previous years' data but discussion of previous data and data collection is outwith the scope of this report.

Students and newly qualified radiographers are surveyed by the College of Radiographers and the data from that survey is published in the *Analysis of students and recent graduates survey 2012* (Society and College of Radiographers, 2012). Comparisons and discussion around similarities and differences between that survey's results and those presented here are also outwith the scope of this report.

3 Services to education institutions and students

The College of Radiographers provides a number of services to both education institutions and students. The majority of education provider services are dealt with by the Professional and Education team while students initially fall under the remit of the Membership team but may be directed to relevant members of other teams as necessary.

This section will highlight the services delivered to education providers and will consider services to students provided through those education providers. The Membership team has also contributed an overview of services they provide to students in section 3.2.

3.1 Education institutions

No change was made to the range of services provided to education providers this year. For the fourth year running there were no fee increases. The annual letter to education providers detailing the fees suggested that modest increases may have to be implemented in the future.

There are three options that education providers may choose from when considering the College of Radiographers' fees for education services:

1. Annual Inclusive Package. Key benefits include all programme approvals, 10 CPD Now endorsements, access to the Society and College of Radiographers' document library for all staff and access to consultancy and advice on education provision and curriculum development.
2. Student Membership Package. Includes the Annual Inclusive Package as well as membership for every student.
3. Individual services. Education providers pay individually for the services they require.

3.2 Students

Student membership fees have been held at previous levels with the first year of membership (irrespective of programme duration) at no charge. Analysis of student membership data indicates that year one is crucial to student membership as there is relatively little attrition following the first two semesters, although recruitment activity is maintained throughout the whole programme. The use of the University and Colleges Admissions Service (UCAS) contacts service is of proven benefit in the recruitment of students embarking on undergraduate programmes and approximately 30% of new student members sign up this way. This exercise is inexpensive and cost effective and consideration is being given to further engagement with UCAS to glean and manage student membership data.

Work has been done over the past year to consider enhancements to the student recruitment strategy. It is possible that focus group or similar qualitative research may be useful to identify reasons for non-membership. Data suggests that non-membership is more of a problem with younger undergraduates than with their senior colleagues and this is currently being explored. It is also fair to say that the centrally co-ordinated aspects of student recruitment have focused on university visits and it is probably time to consider a more consistent approach by national councils, regional committees and workplace representatives. This is not to say that outstanding examples of good practice are not found here, but that improved co-ordination of recruitment via the clinical placement sites could complement the current approach.

Student engagement remains good, with interest in prizes and awards and participation at regional and national level. A number of universities are establishing student-led radiography societies and we are approached for advice and support.

In September 2013 the total number of undergraduate membership was 2,952 against 2,821 in September 2012. This shows modest growth of 4.6%, although this information takes no account of any variations in commission numbers/cohort sizes.

4 Education programmes

Statistics collected this year mostly mirrors that of previous years. However, there were some differences in the questions asked. Where data is not directly comparable to previous years this has been indicated in the relevant section. Further changes to the wording of questions will be implemented in future reports in order to improve the reliability and validity of the data presented.

4.1 Assistant practitioner programmes

The AAB continues to approve programmes that lead to voluntary registration and accreditation as assistant practitioners, however, demand for approval has decreased. Anecdotal evidence suggests that there is still demand for such programmes but supply of the programmes is falling. There may be an opportunity for an education institution to provide an innovative programme in the future that addresses the demand in both radiotherapy and clinical imaging.

4.1.1 Approval/re-approval of Assistant Practitioner programmes

During the year 2012-2013 the approval of programmes leading to College of Radiographers' voluntary accreditation and registration was as shown in Table 1 and Table 2

Speciality	Number of programmes approved	Number of programmes approved

	2011-2012	2012-2013
Clinical imaging	2	1
Therapeutic radiography	1	1
Breast screening	1	0
Others	0	0

Table 1 Table showing the number of programmes approved during the years 2011-2012 and 2012-2013 that lead to College of Radiographers' voluntary accreditation and registration as accredited assistant practitioners.

Education Institution	Award
London South Bank University	Diploma of Higher Education – Diagnostic Imaging
	Diploma of Higher Education – Radiotherapy Practice

Table 2 Table showing the education institution that had programmes approved that lead to College of Radiographers' voluntary accreditation and registration as accredited assistant practitioners during 2012-2013.

4.1.2 Annual monitoring of Assistant Practitioner programmes

The annual monitoring survey does not currently include programmes leading to College of Radiographers' voluntary accreditation and registration as accredited assistant practitioners.

4.2 Pre-registration programmes

The majority of the data collected via the annual monitoring survey relates to pre-registration programmes. These programmes also constitute the majority of the work undertaken by Approval and Accreditation Board Assessors.

4.2.1 Approvals/re-approvals of pre-registration programmes

The Approval and Accreditation Board considered fewer pre-registration programmes this year than last. This is a reflection of the approval cycle rather than an indication of decreasing numbers of pre-registration programmes. Comparisons are shown in Table 3 and the education institutions and awards are in Table 4.

Speciality	Number of programmes approved 2011-2012	Number of programmes approved 2012-2013
Clinical imaging	10	6
Therapeutic radiography	7	3

Table 3 Table comparing pre-registration approvals during the years 2011-2012 and 2012-2013.

Education Institution	Award
University of Salford	BSc (Hons) Diagnostic Radiography
University Campus Suffolk	BSc (Hons) Diagnostic Radiography

	BSc (Hons) Radiotherapy and Oncology
University of Liverpool	BSc (Hons) Diagnostic Radiography
	BSc (Hons) Radiotherapy
Kingston University and St George's Hospital Medical School	BSc (Hons) Diagnostic Radiography
	BSc (Hons) Therapeutic Radiography
University of Leeds	BSc (Hons) Diagnostic Radiography
University of Cumbria	BSc (Hons) Diagnostic Radiography

Table 4 Table showing education institutions that had programmes approved that lead to registration as a radiographer.

4.2.2 Duration of pre-registration radiography programmes

Currently 24 education providers are accredited by The College of Radiographers to offer pre-registration programmes in clinical imaging. There are 14 for radiotherapy. Some institutions offer both under- and postgraduate pre-registration programmes. Table 5 shows the number of pre-registration education programmes of 2, 3 and 4 years' duration that are currently approved.

Programme duration	Number of pre-registration programmes in clinical imaging	Number of pre-registration programmes in radiotherapy
2 years (postgraduate)	1	3
3 years (undergraduate)	22	13
4 years (undergraduate – Scotland)	3	2
4 years (undergraduate – part time)	0	0

Table 5 Number of clinical imaging and radiotherapy pre-registration programmes of 2, 3 and 4 years' duration.

4.2.3 Commissioned, funded or allocated students

The commissioning or allocation of students remained a hot topic during this period. Many education institutions saw the funded number of students decrease, despite evidence that this may lead to a workforce shortage in the near future.

A variety of different students were commissioned by the Strategic Health Authorities (England), the Workforce and Education Development Service (Wales) and Department of Health, Social Services and Public Safety (Northern Ireland), or were funded and allocated by the Scottish Funding Council during the 2012-2013 year. These were:

- BSc (Hons) pre-registration students
- PgDip/MSc pre-registration students

A number of radiotherapy and clinical imaging trainee assistant practitioners were funded by SHAs or directly by radiotherapy and clinical imaging departments. Reporting and evaluation of this funding is currently outwith the scope of this report.

4.2.4 Approved places, commissioned/allocated numbers and admissions onto pre-registration programmes

Once again this year all education institutions submitted their admissions data for inclusion in this report. This is very much appreciated as it imperative that the CoR collects all the relevant data from each education provider in order to produce information for use as evidence to support students and universities in the future.

When a pre-registration programme is approved by the CoR a specific number of clinical placements are approved at the same time. It is often necessary for education institutions to place fewer or more students in a placement either on a temporary or permanent basis due to the inexact nature of student admissions.

The number of [1]commissioned or allocated students varies from year to year. If commissioned/ allocated numbers are below the placement capacity education institutions may supplement their intake with international students or fee paying home/EU students. However, it should be noted that the data collected does not allow any inference to be made regarding the status of excess students, i.e., it is not possible to tell if they were international students or home/EU students.

4.2.4.1 Clinical imaging commissioned/allocated students

As can be seen from Figure 1, the number of College of Radiographer approved places appears to have dropped, especially in the past two years. This data is collected from the Annual Monitoring Survey as it rarely appears on Assessors' report forms. The Approval and Accreditation Board minutes from previous years do not mention any reason for this decrease. Therefore, the reliability of this set of data may be questioned. The College of Radiographers has taken steps to enhance this element of our own data intelligence but it has not been possible to implement this yet.

The number of clinical imaging commissioned/allocated places has decreased significantly since the 2010 intake.

It is difficult to apply accurate, quantitative techniques to student admissions. Therefore, it is unsurprising that actual numbers of students vary from both the commissioned and even College of Radiographers' approved places.

[1] It has been noted that one Scottish EI commented that their students are neither commissioned nor funded. The use of terminology inappropriate to Scottish education institutions has been noted and after discussion with the Professional Officer for Scotland the term "allocated" has been used in the text of this document. This term will be used in next year's Annual Monitoring Survey.

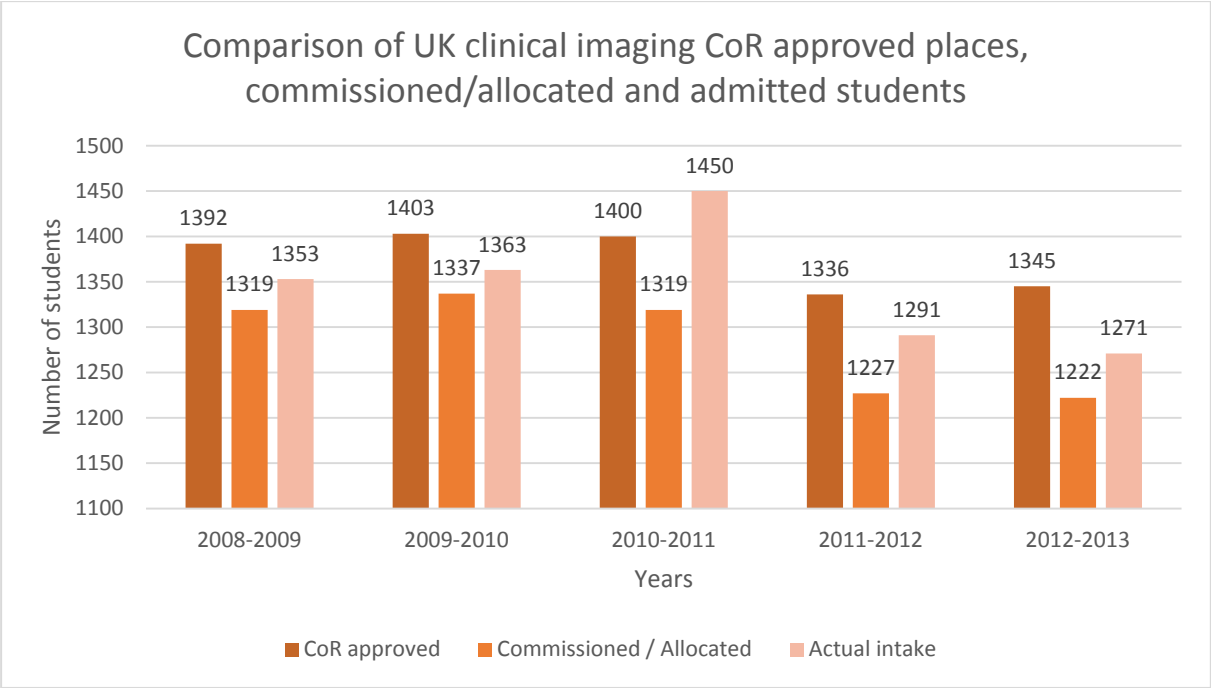

Figure 1 Comparison of UK clinical imaging CoR approved places, commissioned/allocated and admitted students.

4.2.4.2 Radiotherapy

The same caveats apply to College of Radiographers' approved placements in radiotherapy.

In contrast to the clinical imaging commissioned/allocated numbers the radiotherapy commissions/allocations have been increasing over the past five years, as shown in Figure 2.

It is interesting to note that all three sets of figures correlate more closely than the clinical imaging ones, perhaps due to lower student numbers.

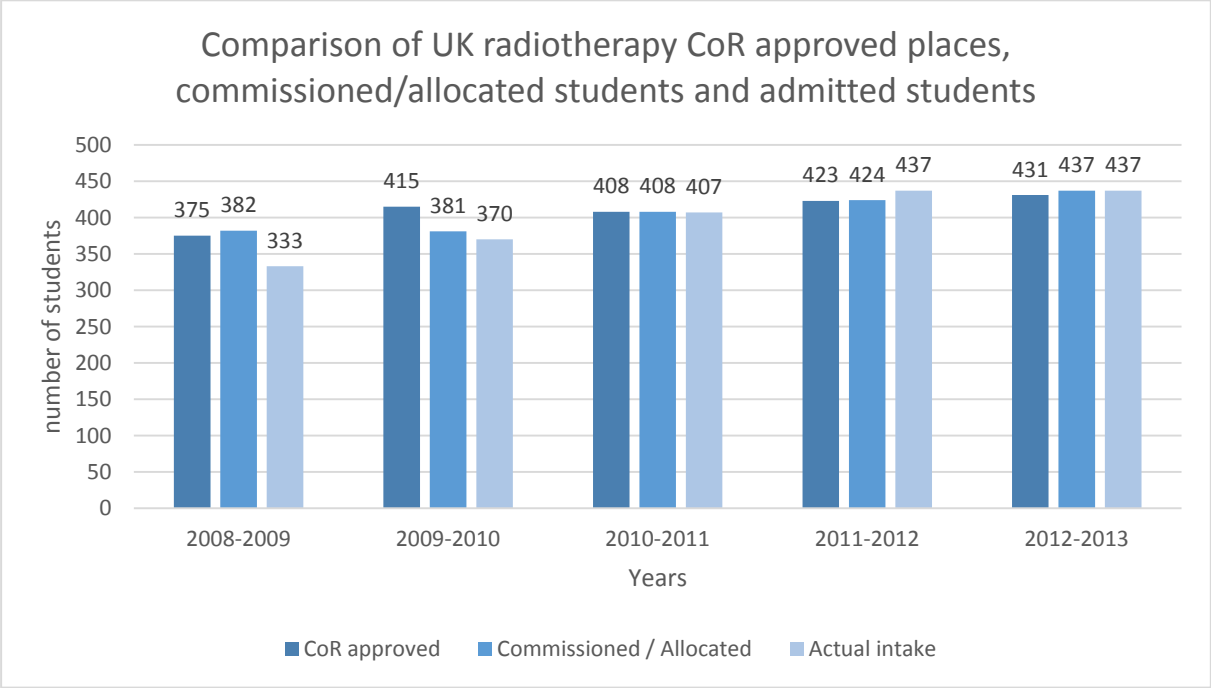

Figure 2 Comparison of UK radiotherapy CoR approved places, commissioned/allocated and admitted students.

4.2.5 Student attrition from pre-registration programmes

Attrition from pre-registration undergraduate programmes continues to be a concern. Both radiotherapy and clinical imaging education providers are taking the recommendations of the National Cancer Action Team funded report into radiotherapy student attrition (The College of Radiographers, 2013) seriously and are implementing recommendations. Innovative support strategies were described by respondents and these appear in Appendix A. In summary, there are seven broad themes of support which emerged from the responses:

- Course team / personal tutor support including assessment preparation
- Course and assessment structure and timing
- Placement support in the form of clinical lecturers / practice educators
- EI provided support services e.g., financial advice, generic academic skills, counselling etc.
- Robust selection criteria and interviewing.
- Monitoring students for attendance and identifying personal/social problems at an early stage
- Information given to prospective students at open events and interviews.

Few of the respondents gave specific details of the type of support the students received while on placement and most concentrated on support mechanisms while students were on campus. As students spend in the region of 50 % of their time away from campus, practice support is, perhaps, the next area which needs addressing by both education institutions and placement departments.

The annual monitoring survey collected data to determine pre-registration attrition from the following cohorts of students:

- 4 year BSc (Hons) starting in the academic year 2009-2010 in Scotland
- 3 year BSc(Hons) starting in the academic year 2010-2011 in the rest of the UK
- 2 year PgD starting in the academic year 2011-2012
- 3 year MSc starting in the academic year 2010-2011

Owing to small numbers of pre-registration postgraduate programmes, and some anomalies in the data returned in this and previous years, it is not possible to accurately determine completion and attrition figures for post graduate pre-registration programmes. This report will consequently consider undergraduate pre-registration figures only.

Attrition has been calculated using the following formula:

$$Attrition = \frac{S_o - (S_c + S_r)}{S_o} \times 100\%$$

S_o = Number of students starting the programme
S_c = Number of students who have completed the programme in 2012-2013
S_r = Number of students who were referred/deferred at the qualifying assessment board but are still due to complete.

Comparison between this year's attrition figures and previous should be treated with a degree of caution. The questions asked this year to gain the data required for the attrition calculation were different from previous years. The intention behind the change was to simplify the data collection and attrition calculation. Other changes will be made to next year's survey to further ease data

analysis and to enhance accuracy of data collected. However, despite the different questions broad, comparisons can be made.

4.2.5.1 Diagnostic radiography attrition

Intake	Total started	Total completed	Total still to complete	Total attrition
BSc (Hons)	1426	934	244	17.39%

Table 6 Number of students that started, completed and are still to complete Clinical Imaging BSc (Hons) programmes in the UK as of 31st August 2013.

One EI indicated that they were not able to confirm the number of students who were still to complete as of 31st August 2013. It is not known if students who have been referred have been included in the completed data or are missing from the submitted data completely. If they are missing from the data then the clinical imaging attrition data will be higher than it might otherwise have been reported. If this anomalous programme is removed completely then clinical imaging attrition is only 0.1 % higher so the anomaly is not significant.

4.2.5.2 Therapeutic radiography attrition

Intake	Total started	Total completed	Total still to complete	Total attrition
BSc (Hons)	369	221	57	24.66%

Table 7 Number of students that started, completed and are still to complete Radiotherapy BSc (Hons) programmes in the UK as of 31st August 2013.

There were no anomalies detected in the BSc (Hons) radiotherapy data submitted.

4.2.5.3 Comparison of attrition data – diagnostic and therapeutic radiography

Attrition data can be broadly compared with previous years, though analysis of previous data anomalies is outwith the scope of this report.

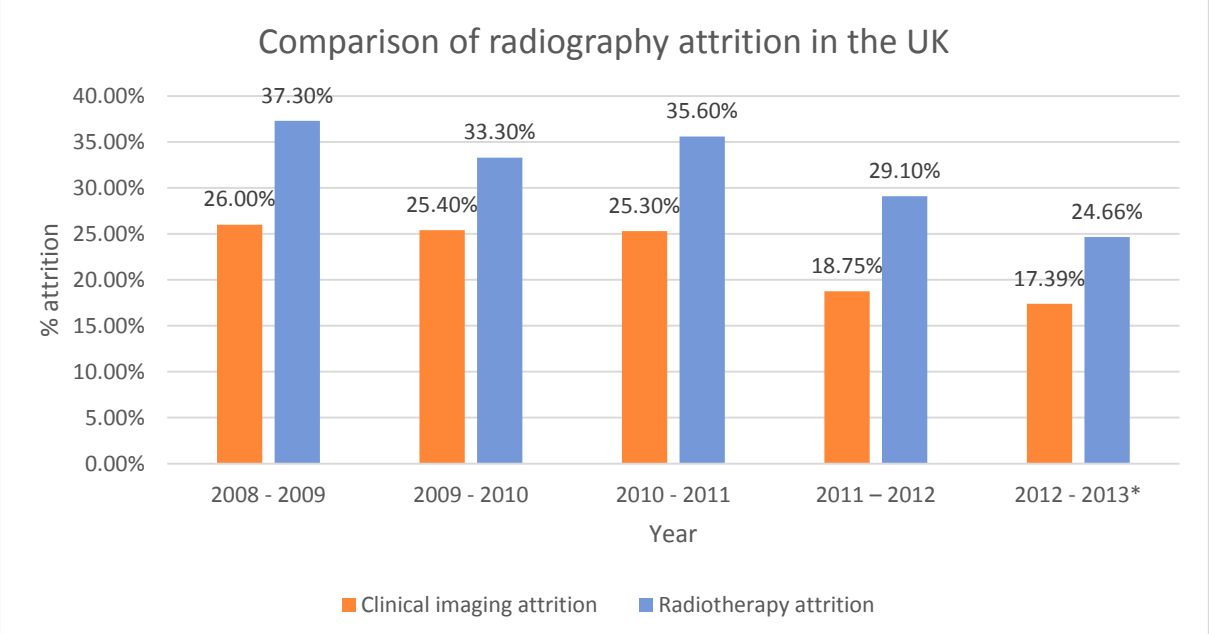

Figure 3 Chart showing comparison of radiography attrition. *BSc (Hons) data only.

4.2.5.4 Anonymised comparison of education institutions' attrition

This year, in response to requests from CoR officers and NHS clinical service-managers, an anonymised table of attrition by programme has been produced. This can be found in Appendix B.

4.2.5.5 Reasons students did not complete pre-registration programmes.

All data presented in this section comes from the Annual Monitoring Survey. The Society and College of Radiographers also surveys students and recent graduates and asks them why other students left the programme. Analysis and comparison of the two surveys is outwith the scope of this report and only the annual monitoring data will be considered.

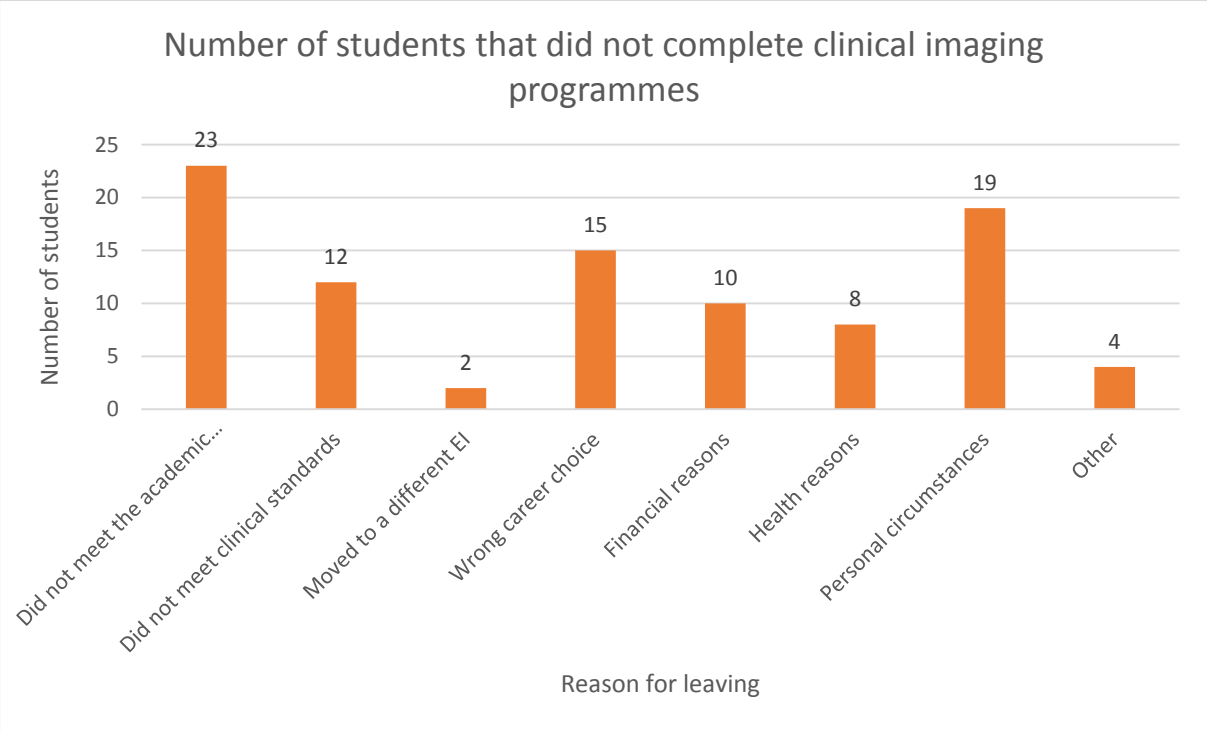

Figure 4 Chart showing the number and reasons students did not complete CI programmes

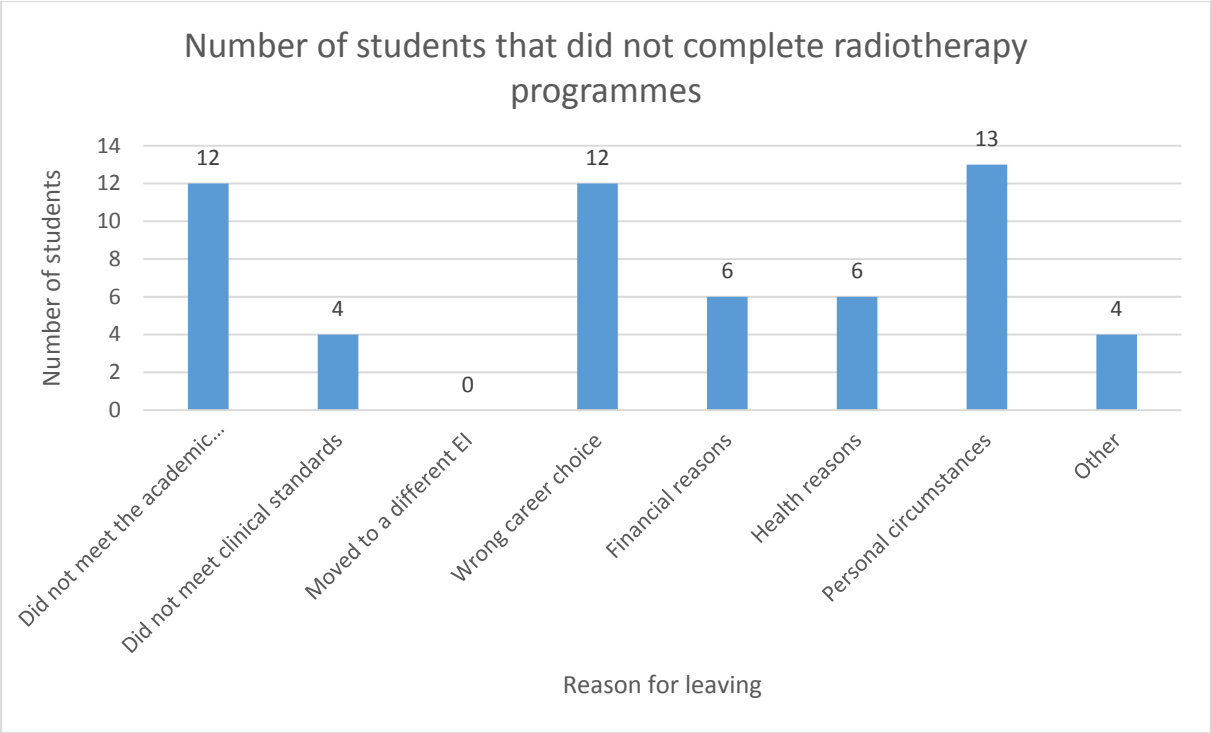

Figure 5 Chart showing number and reasons students did not complete RT programmes

There are several points to note regarding this data:

- It is tertiary information. It would be very challenging to obtain the primary reason students have left from the ex-students themselves. Obtaining the data from the course leader via the Annual Monitoring Survey provides us with the best alternative.
- The Annual Monitoring Survey does not ask specifically about clinical placement experience and it was not mentioned in any of the "other" responses. However, anecdotal, second hand, evidence suggests that real or perceived bullying and placement experience *is* a problem. Future annual monitoring surveys will address this issue.
- It is recognised that students *very rarely* leave due to one single reason. It is usually a combination of issues that eventually make students decide to leave the programme.
- "Other" responses include CRB issues, fitness to practise and professional unsuitability issues.

4.2.6 Completion from pre-registration programmes

Each year education providers inform The College of Radiographers of the number of students successfully completing pre-registration radiography programme and the students' degree classifications.

4.2.7 Degree classifications 2012-2013

Once again only the figures from BSc (Hons) programmes are presented. Only students who successfully completed prior to 31st August 2013 are included.

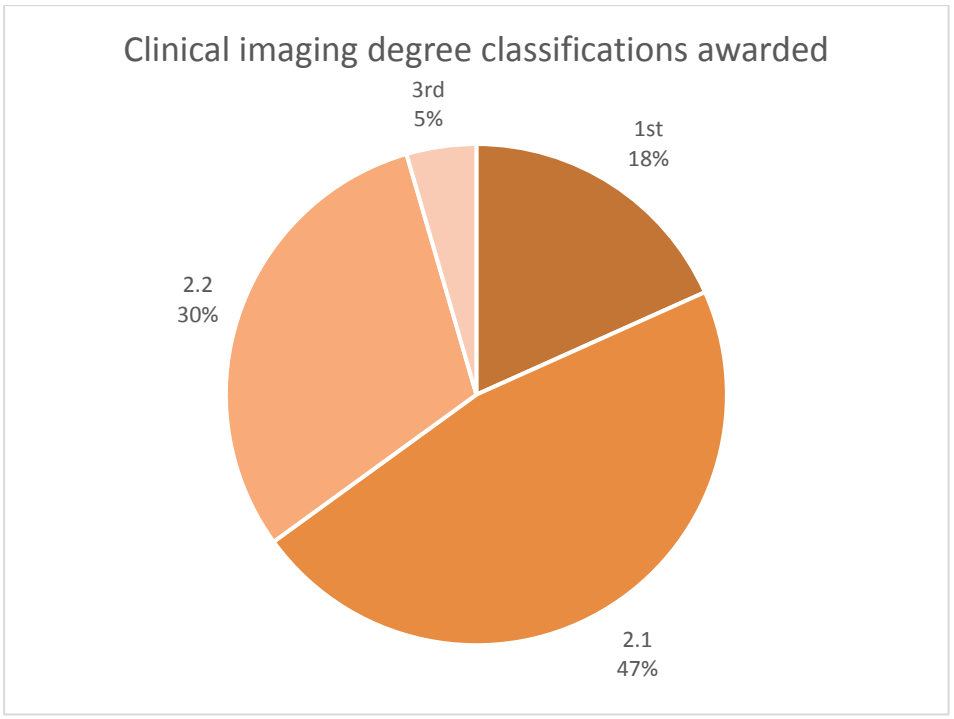

Figure 6 Chart showing clinical imaging UK percentages of each degree classification awarded in year 2012-2013.

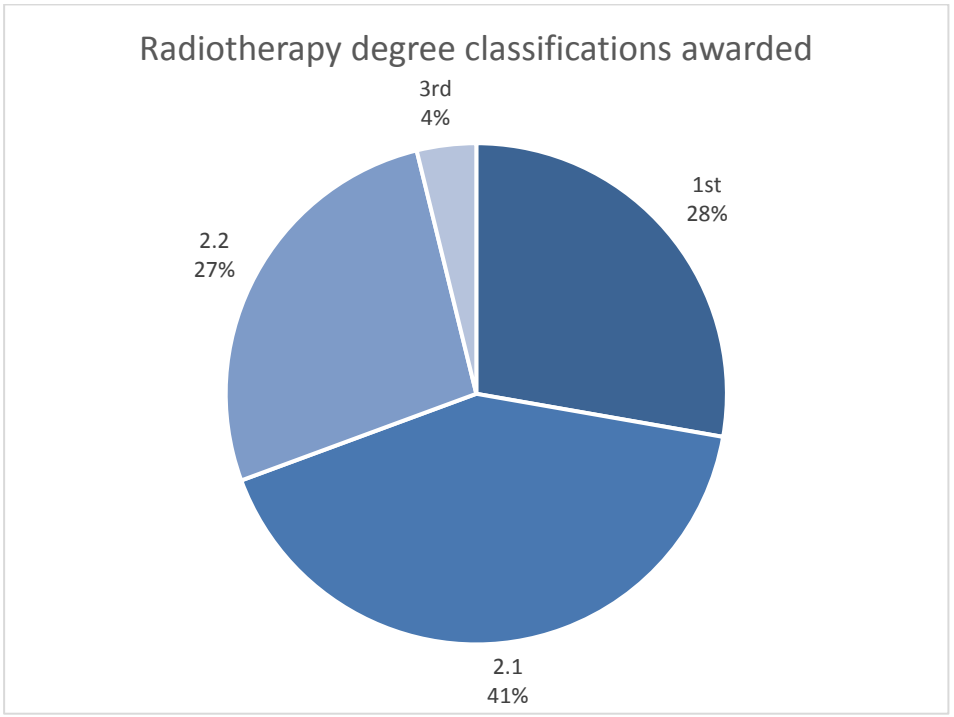

Figure 7 Chart showing radiotherapy UK percentages of each degree classification awarded in year 2012-2013

4.2.7.1 Comparison of degree classifications with previous years

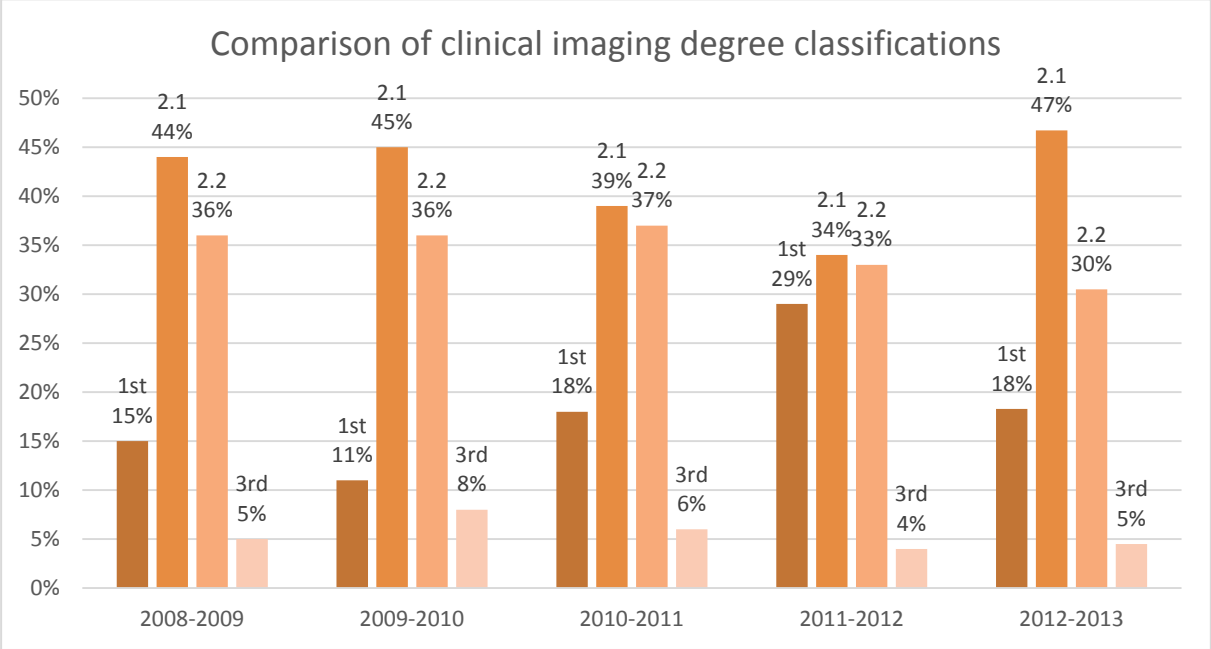

Figure 8 Chart comparing clinical imaging degree classifications from last 5 years

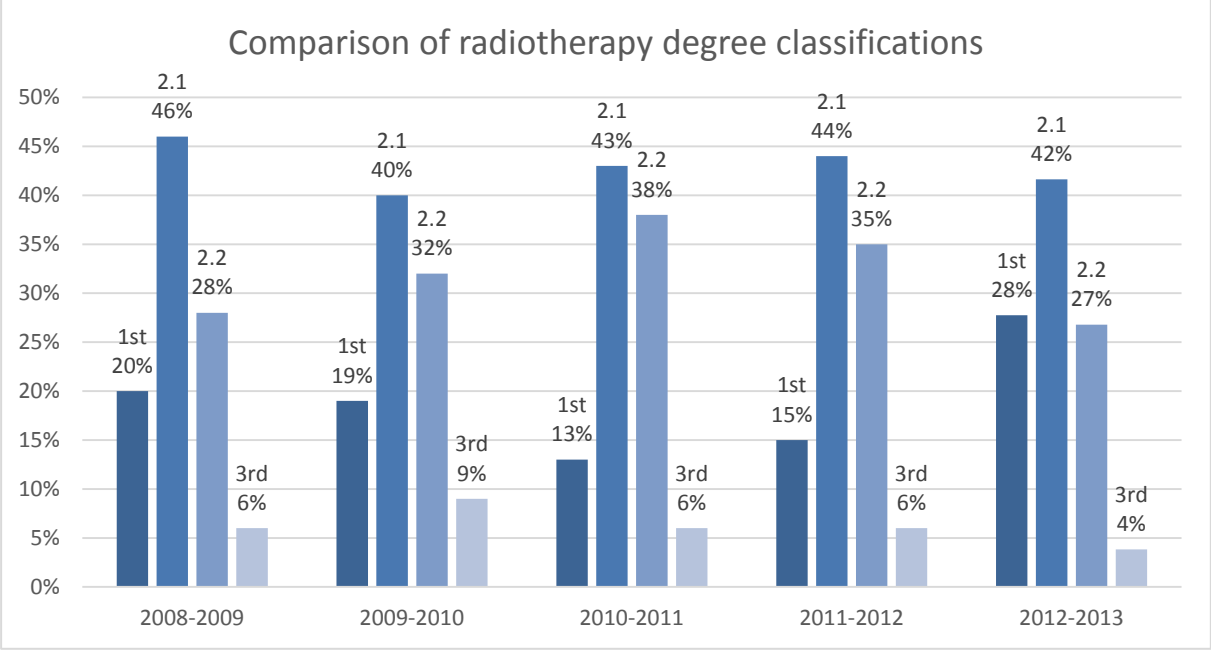

Figure 9 Chart comparing radiotherapy degree classifications from last 5 years.

4.3 Post-registration programmes

The Approval and Accreditation Board considered a variety of post-registration programmes. The figures in Table 8 are programmes which lead to qualifications at Qualifications and Credit Framework (QCF) level 7, i.e., Postgraduate Certificate/Diploma and MSc.

Speciality	Number of approvals/re-approvals
Clinical imaging	7

Therapeutic radiography	4
Breast imaging	0
Practice Educator Accreditation Scheme	3
Others including interprofessional provision	0

Table 8 Table showing number of post-registration, post graduate programmes approved in 2012-2013.

4.4 Short courses

Short courses are designed to provide opportunities for individuals to update their knowledge and skills and may also assess or confirm competence. It is likely that a short course will have wide general appeal but it cannot be tailored to the learning or developmental needs of an individual. Additionally, it is unlikely that a short course would attract academic credit and as such is unlikely to make a significant contribution to a postgraduate award.

The short courses considered by the Approval and Accreditation board have been mainly post-registration programmes. However, some programmes are suitable for the unregistered workforce, such as assistant practitioners or dental nurses.

The approval period for short courses is two years.

The number and variety of short courses approved in 2012-2013 is shown in Table 9.

4.4.1 Approvals/re-approvals of short courses

Speciality	Number of approvals/re-approvals
Clinical imaging	1
Therapeutic radiography	0
Breast screening	0
IV administration	5
Dental radiography	2
Others including interprofessional provision	0

Table 9 Table showing number of short courses approved in 2012-2013.

5 Educational institution and clinical education staffing and staff development

This section of the Annual Monitoring Survey included some extra questions designed to gain a baseline measure of campus and practice educators' qualifications, accreditation and research interests. Some of this data may have been problematic for the responder to acquire and it is very much appreciated that every respondent filled in as much information as they could in this section.

The Approval and Accreditation Board do not envisage asking all of these questions each year. They will be repeated in five years' time in order to ascertain changes.

5.1 Staff establishments

Different education institutions have different numbers of students and so require different numbers of teaching staff, both on campus and in practice. A staff/student ratio can be calculated by considering the staffing numbers related to the numbers of students. This is of course a very broad measure and does not take into account the many different programme delivery models that exist.

The College of Radiographers makes no recommendations about the staff/student ratio. Rather, we encourage education institutions and course teams to ensure that they have a suitable number of appropriate staff to deliver their programmes in the appropriate location.

The following data considers full time equivalent (FTE) numbers rather than individual numbers. Discrepancies were noticed in the practice placement staff numbers due perhaps to different definitions of "practice educator", "mentor", "supervisor" etc. This will be clarified in next year's survey.

The data does not take into account mentors or supervisors, only practice educators. It is, therefore, only possible to report campus based staff/student ratios in this report. A full table of randomised and anonymised data can be found in Appendix C.

5.1.1 Campus staff

The Annual Monitoring Survey asked about both radiography trained staff and non-radiography trained staff that delivered the programmes. The vast majority of staff are radiography trained. Those education institutions with large numbers of students were the most likely to have more non-radiography trained staff delivering the programme. Clinical imaging programmes were more likely to have non-radiography trained staff involved in the teaching than radiotherapy programmes.

The same randomised and anonymised numbers have been used as in the student attrition table in Appendix B. Three out of the top five clinical imaging education institutions for student retention also appear in the top five list of staff/student ratios, i.e., they have fewer students per staff member.

The data in Figure 9 and Figure 10 has been calculated from the full time equivalent campus-based staff.

5.1.1.1 Clinical imaging staff/student ratios

One institution reported a large number of FTE non-radiography staff involved in the delivery of the programme. It may be that these staff are involved in teaching interprofessional modules or are specialist lecturers in subjects included within the core clinical imaging modules. The outlying data has been removed from the following chart and the data required will be clarified next time this data is collected.

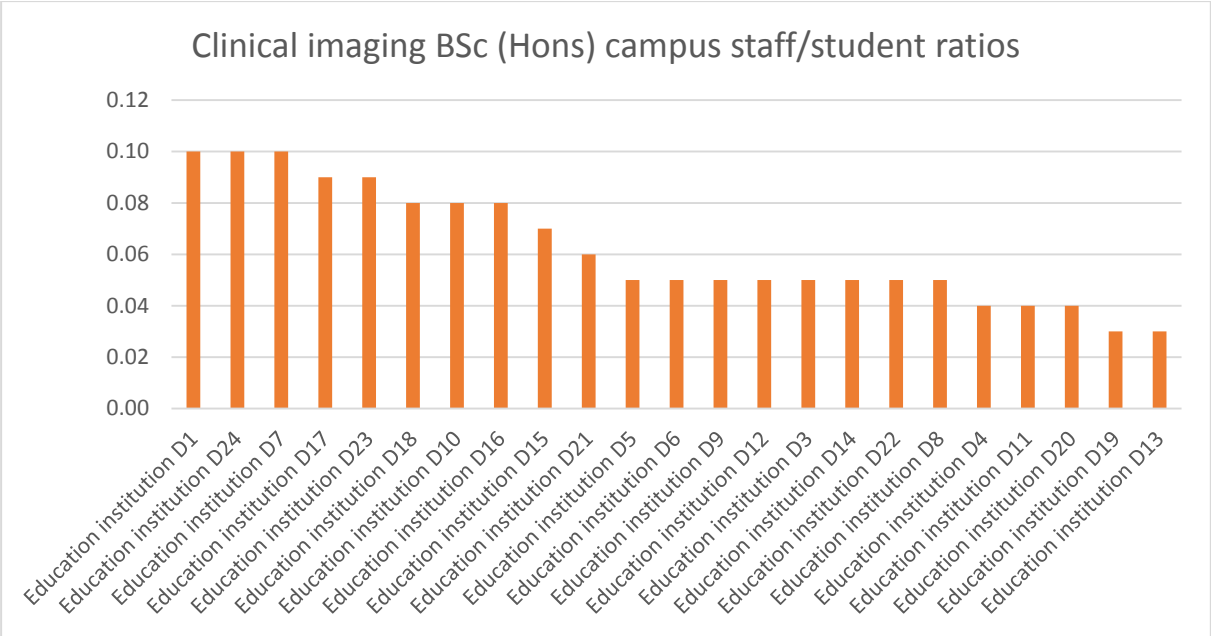

Figure 10 Chart showing campus staff/student ratios for clinical imaging BSc (Hons) programmes in the UK.

5.1.1.2 Radiotherapy staff/student ratios

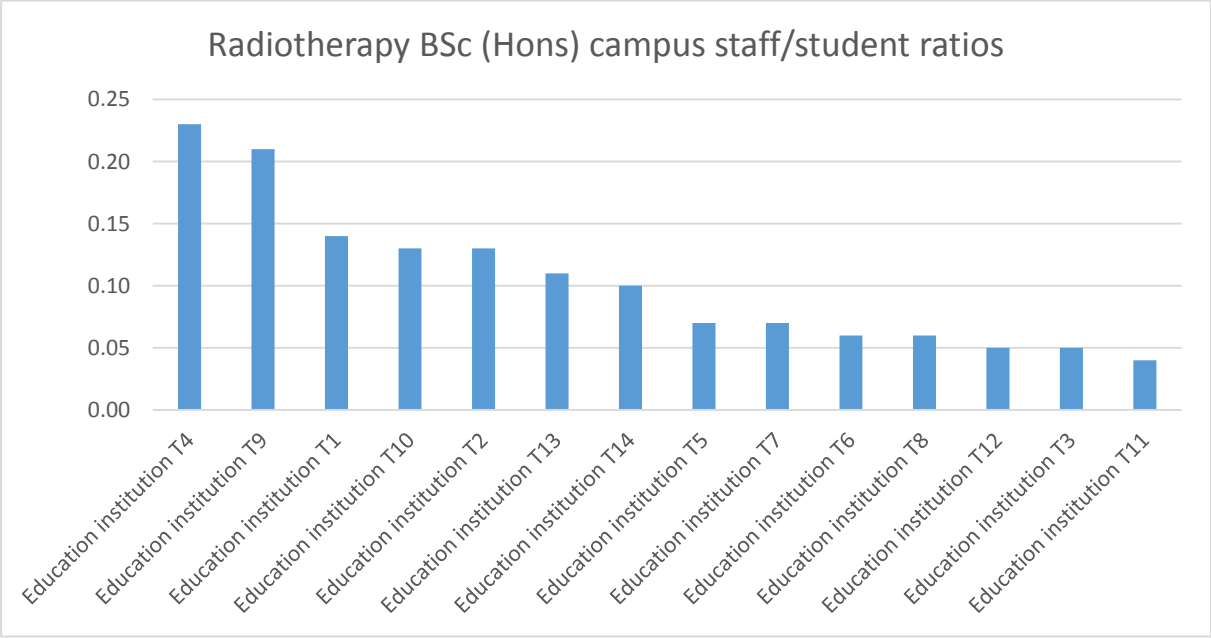

Figure 11 Chart showing campus staff/student ratios for radiotherapy BSc (Hons) programmes in the UK.

5.1.2 Clinical placement staff

The data returned for clinical placement staff showed several anomalies perhaps due to differing definitions used by the education institutions and the survey and will not, consequently, be presented in this report.

5.2 Staff qualifications

The Annual Monitoring Survey asked about the qualification of the campus-based teaching staff and for the first time the qualification of practice-based staff. Some respondents indicated that they had

difficulty obtaining some of this information. This indicates that in some education institutions' data, intelligence about staff teaching and assessing their students in practice could be improved.

5.2.1 Campus staff teaching qualification or Practice Educator Accreditation Scheme accreditation

The figures in Table 10 show actual educator numbers, not full time equivalents.

Speciality	Number of campus educators with teaching qualifications or PEAS accreditation
Clinical imaging	237
Therapeutic radiography	136

Table 10 Table comparing the number of campus based educators with teaching qualifications or PEAS accreditation in clinical imaging and radiotherapy.

5.2.2 Practice staff teaching qualification or Practice Educator Accreditation Scheme accreditation

Neither the College of Radiographers nor the Health and Care Professions Council require a teaching/mentoring qualification to mentor or assess students in practice. The Nursing and Midwifery Council requires those signing off nursing students to be assessed themselves (Nursing and Midwifery Council, 2008). The College of Radiographers has a Practice Educator Accreditation Scheme (PEAS) which mentors and supervisors can use to demonstrate that they have the knowledge and skills necessary to teach and assess learners to a high standard.

The Annual Monitoring Survey asked respondents to indicate how many practice-based lecturers/educators/supervisors had a teaching qualification or were PEAS accredited. For ease of presenting the data, practice staff who are either PEAS accredited or hold a teaching qualification are termed "practice educators". The results are presented in Table 11 below.

Speciality	Number of practice educators with teaching qualifications or PEAS accreditation
Clinical imaging	81
Therapeutic radiography	117

Table 11 Table comparing the number of practice educators in clinical imaging and radiotherapy departments.

Despite therapeutic radiographers making up only of 10% of radiographers, there are significantly more therapeutic radiographers with an education qualification or PEAS accreditation supervising students.

EIs who reported large numbers of accredited practice educators were questioned and their reported numbers were confirmed. They reported having placement departments where it is mandatory for those involved in teaching and training students to be PEAS accredited as a minimum.

The College of Radiographers will be reviewing the PEAS scheme during 2014 with a view to aligning accreditation processes with the other practitioner accreditation schemes.

5.2.3 Educators holding postgraduate qualifications

5.2.3.1 Master's degrees

The number of educators with, or working towards, master's degrees is encouraging.

Speciality (campus)	Number of campus educators *with* Master's degree	Number of campus educators *studying* at Master's level
Clinical imaging	178	35
Therapeutic radiography	116	30

Table 12 Table showing numbers of clinical imaging and radiotherapy campus teaching staff who have a Master's degree or who are studying at that level.

Speciality (practice)	Number of practice educators *with* Master's Degree	Number of placement educators *studying* at Master's level
Clinical imaging	87	23
Therapeutic radiography	42	38

Table 13 Table showing numbers of clinical imaging and radiotherapy practice teaching and supervising staff who have a Master's degree or who are studying at that level.

5.2.3.2 Doctorates

The number of campus-based educators studying for doctorates is almost equal to the numbers studying for master's degrees in clinical imaging. In therapeutic radiography, the number of those currently studying for Master's degrees remains higher than those studying for a doctorate.

Speciality (campus)	Number of campus educators *with* doctorates (number of education institutions)	Number of campus educators *studying* at doctorate level (number of education institutions)
Clinical imaging	35 (16 education institutions)	32 (17 education intuitions)
Therapeutic radiography	12 (8 education institutions)	20 (7 education institutions)

Table 14 Table showing numbers of clinical imaging and radiotherapy campus teaching staff who have a doctorate or who are studying at that level.

The number of practice staff with doctorates and who are involved in the teaching and supervision of students on placement is low.

Speciality (practice)	Number of practice educators *with* doctorates (number of education institutions)	Number of placement educators *studying* at doctorate level (number of education institutions)

Clinical imaging	3 (1 education institution)	4 (3 education institutions)
Therapeutic radiography	1 (1 education institution)	0

Table 15 Table showing of clinical imaging and radiotherapy practice teaching and supervising staff who have a doctorate or who are studying at that level.

5.3 Staff development

Good diversity was demonstrated in the way academic educators develop professionally and academically, especially with regard to international travel, teaching and learning.

5.3.1 International travel, teaching and learning

The majority of clinical imaging respondents were able to evidence international travel and/or teaching by their staff. Conversely, the majority of radiotherapy education institutions answered "none" to this question. A summary of international work reported is shown in Table 16.

International travel, teaching and learning
Delivering programme overseas (undergraduate and post graduate)
Conference attendance and presentation
External validator/examiner for overseas programme
Undertaking education programme
Erasmus programme meetings and networking
Video conferencing to students overseas
Visiting/contracted lecturer on overseas programmes
Sharing knowledge and experience

Table 16 Summary of clinical imaging and radiotherapy international travel, teaching and learning in the UK

5.3.2 Promotions

Responses show that more clinical imaging programmes could demonstrate teaching staff promotions than in radiotherapy. The majority of respondents did not indicate if a pay award accompanied the promotions, though for several this was inherent within the description of the promotion e.g., lecturer to senior lecturer. However, some did comment that there was no commensurate pay award for taking on further responsibilities. A summary of promotions is shown in Table 17.

Promotions
Lecturer to senior lecturer
Senior lecturer to principle lecturer
Reader
Acting or interim subject lead/programme leader
Return to clinical practice to take up enhanced/advanced role
Enhanced role within subject area

Enhanced role outside subject area
Discretionary pay award
Completion of teaching qualification

Table 17 Summary of clinical imaging and radiotherapy promotions

5.4 Areas of active research

A wide variety of research is being carried out in the surveyed education institutions. Several respondents mentioned research that included students.

Only two clinical imaging returns reported no area of active research. Four radiotherapy respondents reported no research area. However, one indicated that this was being addressed in the coming year.

Areas of active research
Attrition and retention of students
Audio feedback
Communication
Dosimetry (clinical imaging)
Education, teaching, learning and assessment (including technology enhanced education)
Emotional intelligence
Human science
Image interpretation assessment tools
Imaging and treatment technology including use and optimisation
Imaging techniques and interpretation (including intervention toxicities)
Interprofessional education
Muscular skeletal (including ultrasound), bones
Oral history
Pathologies (various)
Patient reported outcome measures and patient experience
Practitioners (all tiers)
Professionalism and employability
Radiobiology and the effects of radiation
Radiography information management and technology
Radiotherapy treatment techniques including side effects
Risk assessment
Service users and carers
Student experiences pre- and post-registration

Transition from education to employment

5.5 Significant changes to programme management

During this period there were a range of changes to the management of programmes. Several of these changes required College of Radiographers' review and re-approval. Details of pre-registration programme approvals can be found in section 4.2.1.

Significant changes to programme management
Change of programme director/leader
Change of module credits
Change of university year structure
Changes/additions and subtractions of placement weeks and areas
Programme/module restructuring
Lecturing staff changes
Placement changes, including placement sharing
Revalidation and College of Radiographers Approval

6 Accreditation schemes

The College of Radiographers runs five accreditation schemes:

- Assistant Practitioner Accreditation
- Continuing professional development accreditation (CPD Now Accreditation)
- Practice Educator Accreditation Scheme
- Advanced Practitioner Accreditation
- Consultant Practitioner Accreditation

6.1 Assistant practitioner accreditation

During this year, a significant amount of work was carried out on the assistant practitioner accreditation scheme in preparation for assistant practitioners submitting solely through CPD Now. This involved a complete refresh of the CPD Now user interface and creation of an application and review system.

The number of assistant practitioners accredited prior to CPD Now applications were not presented to the Approval and Accreditation Board.

6.2 Continuing professional development accreditation (CPD Now Accreditation)

This is a completely automatic process whereby practitioners of all tiers can gain accreditation if they complete twelve pieces of CPD over the course of two years which meet at least six CPD Now framework outcomes. Members' CPD Now records are not reviewed by The College of Radiographers but we reserve the right to audit the records of those who have gained this accreditation.

6.3 Practice educator accreditation scheme

The data collected regarding the number of accredited practice educators has been discussed in section 5.2.2.

6.4 Advanced practitioner accreditation

Prior to this year, advanced practitioners applied for accreditation through CPD Now but it was not *easily* possible to pass applications to College of Radiographers' Assessors to review and approve. However, this year applications *were* sent to Assessors to review. During this period three advanced practitioners were accredited.

6.5 Consultant practitioner accreditation

As with advanced practitioner accreditations, consultant applications were also sent to Assessors for the first time. During this period one consultant practitioner was accredited.

7 Continuing professional development event/resource endorsement

Events and resources are endorsed against one or more of the twenty-three CPD Now framework outcomes. All applications could be endorsed against at least two outcomes and most of them against more.

Applications were received from a variety of education providers including universities, equipment manufacturers, NHS and independent providers of healthcare and private companies. Eighty-seven applications were received and endorsed for events held within this period.

8 Other activities

8.1 Review of College of Radiographers' Assessors

In June 2013, all College of Radiographers' assessors were contacted and asked to provide an up-to-date CV and to specify the date they last attended update training. The majority of assessors responded as required. Collection of this data enabled a record of training dates to be added to assessors' membership records and ensured that areas of specialism were updated. The College of Radiographers can now record assessors' update training against their membership record which enables a report to be easily created to show which assessors need to attend the next training day.

8.2 eLearning opportunities

A variety of eLearning opportunities exist for members. These are accessible via the Society and College of Radiographers website (Society and College of Radiographers, n.d.).

The relationship with Philips Healthcare has been maintained and members receive reduced price access to CORe-Learning modules. New relationships have been created with Educare for Health (Society and College of Radiographers, n.d.)and Nelson Croom, both of whom will provide discounted eLearning programmes to members. Nelson Croom modules are still to be published.

8.3 CPD Now

CPD Now has been available to members for about ten years. It enables practitioners of all tiers to plan, record, evaluate and review CPD activities. A complete user interface refresh was planned and carried out during this period. The aims of the refresh project were to:

Phase 1

- Enhance the look and feel including enhanced CPD action planning.
- Integrate all tiers of accreditation including PEAS.
- Improve HCPC audit tool.

Phase 2

- Upgrade the endorsement process.
- Develop and introduce “expert CPD plans”.
- Enable links between CPD plans and opportunities.
- Make improvements to data intelligence.

The new user interface and the majority of the functionality went live in September 2013.

8.4 Health and Care Professions Council

The relationship with the Health and Care Professions Council (HCPC) continued to be maintained and productive. During this period, new Standards of Proficiency were published following a wide ranging consultation last year. The HCPC implemented most of SCoR’s comments to the consultation.

8.5 Interprofessional engagement

The College of Radiographers continues to engage with interprofessional organisations, including the Allied Health Professions Education Leads, Professional Associations Research Network and UK Interprofessional Group CPD Forum. These relationships are a valuable source of information and provide excellent networking opportunities for the organisation.

Appendices

Appendix A Successful strategies developed by education institutions for improving retention of pre-registration students

The strategies listed below are quoted verbatim from the annual monitoring survey responses.

- Extensive personal tutor support plus an opportunity to interrupt and return to their studies at a later date.
- Personal tutor support. Student support services from central university. Financial support for eligible students.
- Excellent pastoral care and learning support. Robust personal tutoring system overseen by appointed Senior Personal tutor. Assessment preparation and revision sessions.
- Student support including pastoral, academic etc.
- Increased formative assessment to identify issues earlier, improved occupational health provision to assess any additional support required in placement, earlier referral to DDS assessment. All students meet with personal tutor within first 8 weeks to identify any issues early.
- Student monitoring 'traffic light system' which enables early intervention. Introduction of a cause for concern form and action planning for any students with poor performance. Introduction of academic advisors allocated to all students who support students both in the academic and placement setting.
- Our attrition rate is currently very low and those who have left the course recently have been from England and been homesick. We make sure that students are aware right from the Open Day/Selection Visit stages how remote some of our placement sites are, that any one of them might have to go to an R&R centre, and that they may go alone, just to help them prepare.
- We are next year going to look at the timing of our final assessments.
- Revised recruitment procedure to include interviews, maths and literacy test. We believe selection of high quality students is the key to ensuring successful course outcomes.
- Excellent student support.
- Improved admissions process.
- We aim to recruit the right students onto the programme through robust academic qualifications and we interview all students, rejecting those who do not know about radiography or demonstrate the skills required to become a radiographer at interview. We also support the students well when they are at our institution, with a personal tutor assigned to every student and additional support for difficult subjects like anatomy and physiology and physics. We have an open door policy for access to staff, which the students like. We actively engage students in decisions made about the programme. However, we know we will always lose some students through personal circumstances or illness. Some struggle academically as well, so we are looking to implement an entrance test to try to screen these students on entry to either be provided with pre-reading or not to be offered a place if their performance is too poor.
- Each student is allocated a personal tutor- this strategy is to enable the identification of issues early so that support measures can be put into place to deal with them.

- Greater use of personal tutoring, with a target to meet students early in the programme to identify any issues. High level of academic support. Redistribution of academic workload to spread the students' burden over the year. When on placement students are supported by lecturer practitioners / clinical tutors. We have improved communication with our students via the student portal.
- Personal tutors for each student. School support for pastoral and financial needs. Effective recruitment strategies which attract high calibre applicants.
- Monitoring academic attendance highlights potential emerging issues. This is followed up with a counselling meeting with personal tutor and year lead / course lead / professional lead as appropriate and action plans / further support facilitated.
- These remain the same as last year, i.e. strong support systems particularly in year one. Excellent clinical support through the clinical tutors. Listening events every year helps us to manage expectations.
- Strong support mechanisms particularly in year one. Academic personal tutor also visits students whilst on placement.
- Students can either step off with a PgD in November or continue to full MSc qualifying in March. The PgD students have the opportunity of returning and completing their MSc as CPD part time over a year. We have good student support mechanisms including e(mail) buddies from students in the above cohort. Strong personal tutor support with visits to clinical placement.
- Open & education evenings prior to students selecting their subjects at school. University Staff (and sometimes clinical staff) attend careers conventions across the province. Ongoing student induction & transition support. Each student is allocated a studies advisor in their first year who remains with them throughout their course.
- Interviewing to reduce the numbers of students making wrong career choice Raising UCAS point tariff to hopefully improve the academic standards of the applicants Requesting a visit to clinical practice prior to interview/commencement to reduce poor career choice and failure on placement due to poor communication skills. Trying to intermit or refer to wellbeing services/occupational health to assist with personal/financial/health reasons.
- Personal tutor meetings and support. Module leader academic support. University Student Support Services offered when relevant.
- Very focussed on good student support from pastoral through to academic. Assessment feedback is detailed. Flexibility as far is possible e.g. breaks in study and clinical placement location.
- Trying to manage student expectations and increased number of clinical tutorials for level 1 students in preparation for the clinical environment.
- Identifying students 'at risk' at an early stage; academic and pastoral support.
- Personal tutor identification of students at risk - referral to University Student Support Centre, opened in November 2012. Follow up and support. Formative assessment and feedback.
- We have a Professional Development Facilitator/ Academic Advisor role, this is an academic member of staff that oversees the students' progression. We have detailed monitoring of attendance in clinical and academic and a system to contact students that can escalate the level of non-attendance. We have a very hands on approach to student support and we have

year course leaders who will meet with students and tailor support and if necessary academic aspects to meet the individual's needs. We have improved communication routes with students to ensure that they feel informed and part of the programme.

- The university has a strong student support team (admin and support) who work closely with module leaders and the course leaders to ensure support is in place if students require this. They monitor attendance and flag with the course leader if necessary. Many support groups in place at the university for students to drop in. Regular course leader forums are held with students. The Practice Development facilitators visit students regularly on placement to support students clinically.
- Personal tutor role. Clinical lecturers in all departments. The traffic light system to highlight at risk students and signpost personal tutors to potential problems. Utilising Student Support staff to do assessment tutorials – enable the students to become familiar with then and thus use them more. Increasing the amount of study skills tutorials within module timetables. Group tutorials as well as individual tutorials concentrating on study and personal skills, journal articles and student chosen topics. Linking university to practice by using advanced and experienced practitioners to deliver speciality lectures.
- Exit interviews which include exploration of why students do not progress; increase in points tariff; addition of group interviews and admissions English and mathematics tests.
- There is a newly approved programme commencing 2013/14 academic year. This aims to enhance the student experience with more integration between academic and clinical components and lessen the assessment burden. The support mechanisms for students are constantly reviewed at both programme and school level and new mechanisms of support will be in place for September 2013.
- Good quality academic and pastoral support responding to module evaluations to support students studying. Clinical tutors. Use of 'link' tutors - academic staff who visit students on placement. Good communication links with students and a history of responding to these.
- Monitoring academic attendance identifies potential emerging issues, counselling interview with personal tutor & year / course / professional lead as appropriate offers opportunity to put in place action plans / additional support.
- We hold an 'insight' event and information evening at the University and encourage all potential applicants to arrange a visit to a radiotherapy centre.
- Student support in practice from practice educators and link lecturers. Peer assisted learning leaders in university. Use of VERT and planning at University. Use of VERT for tutorials in placement. Referral to University Wellbeing Service and disability services.

Appendix B Randomised and anonymised attrition data figures – BSc (Hons)

Data based on responses to annual monitoring survey 2012-2013. Negative attrition indicates programmes who have indicated more students completing than originally started; e.g., students joining the programme in the continuing years.

Education institution	Attrition
Education institution T7	-33.33%
Education institution T13	-17.65%
Education institution T8	-6.67%
Education institution D23	-1.82%
Education institution D1	1.64%
Education institution D12	5.56%
Education institution D3	7.69%
Education institution D7	8.57%
Education institution D20	9.09%
Education institution D24	9.76%
Education institution D17	9.84%
Education institution D4	10.94%
Education institution D9	13.33%
Education institution D19	13.46%
Education institution D13	14.29%
Education institution T4	15.00%
Education institution D21	19.67%
Education institution T2	20.41%
Education institution D16	21.05%
Education institution T1	21.43%
Education institution D18	21.74%
Education institution D5	21.94%
Education institution D8	25.40%
Education institution D2	26.67%
Education institution D15	26.79%
Education institution D22	27.27%
Education institution T3	27.27%
Education institution D14	27.66%
Education institution D6	28.13%
Education institution T14	29.41%
Education institution D11	30.77%
Education institution T5	33.33%
Education institution T9	35.29%
Education institution T12	42.42%
Education institution T6	42.50%
Education institution T11	44.00%
Education institution T10	53.85%
Education institution D10	63.33%

D = Diagnostic radiography programme

T = Therapeutic radiography programme

Diagnostic and radiotherapy programmes at the same EI have been allocated different numbers; e.g., T8 and D8 are *not* the same EI.

Appendix C Randomised and anonymised staff/student ratios

Data based on responses to annual monitoring survey 2012-2013. Education institutions have been allocated the same codes as in Appendix B. Data is presented for the main presentation of BSc (Hons) programmes only.

Education institution	Staff/student ratio
Education institution D2	0.47*
Education institution T4	0.23
Education institution T9	0.21
Education institution T1	0.14
Education institution T10	0.13
Education institution T2	0.13
Education institution T13	0.11
Education institution D1	0.10
Education institution D24	0.10
Education institution T14	0.10
Education institution D7	0.10
Education institution D17	0.09
Education institution D23	0.09
Education institution D18	0.08
Education institution D10	0.08
Education institution D16	0.08
Education institution D15	0.07
Education institution T5	0.07
Education institution T7	0.07
Education institution D21	0.06
Education institution T6	0.06
Education institution T8	0.06
Education institution D5	0.05
Education institution T12	0.05
Education institution T3	0.05
Education institution D6	0.05
Education institution D9	0.05
Education institution D12	0.05
Education institution D3	0.05
Education institution D14	0.05
Education institution D22	0.05
Education institution D8	0.05
Education institution D4	0.04
Education institution D11	0.04
Education institution D20	0.04
Education institution T11	0.04
Education institution D19	0.03
Education institution D13	0.03

D = Diagnostic radiography programme

T = Therapeutic radiography programme

* = Possible discrepancy in data submitted

Diagnostic and radiotherapy programmes at the same EI have been allocated different numbers; e.g. T8 and D8 are *not* the same EI.

Staff/student ratios have been calculated and expressed in decimal format, i.e., 0.10 represents a staff/student ratio of 10:100 or $\frac{10}{100}$.

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