

## IPEM Statement on the Current State of the Radiotherapy Workforce in the UK

Radiotherapy Professional Standards Panel & IPEM Workforce Intelligence Unit



#### The Current Workforce

Radiotherapy is an integral component of modern cancer care with 40% that are cured of cancer having received radiotherapy as part, or the whole, of their treatment plan [1]. It also plays a critical role in palliative care. It is also a hugely innovative cancer treatment that represents the cuttingedge of medical innovation, with ground-breaking research into new technologies and techniques delivering kinder and more effective treatment for cancer patients today [2]. The radiotherapy workforce consists of clinical oncologists, therapeutic radiographers and radiotherapy physicists. Radiotherapy Physics is a healthcare science specialism within the wider field of Medical Physics. For practical purposes the Radiotherapy Physics workforce in radiotherapy has three complementary staff groups: clinical scientists, clinical practitioners, and engineering practitioners (although Radiation Engineering is a Clinical Engineering specialism from a training perspective). The clinical scientists are HCPC registered and have a minimum of a master's level qualification. The clinical and engineering practitioners are degree qualified and are eligible for the Register of Clinical Technologists (a voluntary register). The clinical practitioners have clinical roles (e.g. treatment planning, quality assurance manufacture of specialist patient immobilisation equipment), while the engineering practitioners mainly service, repair and maintain the equipment within radiotherapy, especially the linear accelerators (treatment machine with a capital cost of approx. £2M). The function of Radiotherapy Physics is to provide a variety of highly specialist services to the Radiotherapy Department ensuring the accuracy and quality of radiotherapy. These staff groups have an infrastructure support function to enable radiotherapy to happen in a legal, safe and effective manner and in addition to their clinical functions.

IPEM's Workforce Intelligence Unit has routinely surveyed and evaluated information relating to staffing levels within the MPCE workforce since 2013. Significant amounts of data have been gathered and analysed amongst all MPCE specialisms to gain a valuable insight into the current state of the workforce as a whole. From this data, the Workforce Intelligence Unit and IPEM volunteers have developed staffing calculators for multiple specialisms within MPCE to provide guidance outlining the ideal workforce requirements. These calculators have been critical to illustrate the established workforce shortfall in several areas of MPCE and emphasised the need for further improvement in the workforce establishment.

Across all Radiotherapy Physics professions surveyed in recent years, there is an 8% vacancy rate on average, ranging from 7-9% across the specialisms. Fifty nine percent of participants surveyed feel that their Clinical Scientist staffing provision is insufficient, and 69% feel that their Clinical Technologist staffing provision is insufficient. Around one in ten Clinical Scientists and Clinical Practitioners are 55 years of age or older and worryingly, approximately a third (32%) of engineering practitioners are also in this age range, with almost half of this professional group aged over 50 [3].

The latest edition of the radiotherapy workforce calculator was released in July 2024 [4]. It estimates that, to allow the current workforce to function and expand effectively, the current numbers of staff in post needs to increase by 14% for clinical scientists, 24% for clinical practitioners and 28% for engineering practitioners. It is clear that the current establishment of departments must increase to meet the current demands of the radiotherapy service.

There are established training pathways for Trainee Clinical Scientists and practitioners. However, only the Clinical Scientists have a fully funded training route. The practitioners currently lack a



nationally funded supernumerary training route. This needs to be addressed at a national level. This is a particularly acute problem for engineering practitioners given the age profile of this group. There is a summary of training routes provided in Appendix 1.

For clinical scientists, IPEM data has shown that the number of trainees entering the workforce is not sufficient to maintain the workforce. Based on the workforce models developed by IPEM's Workforce Intelligence Unit and IPEM volunteers, the total number of projected Clinical Scientists joining the radiotherapy workforce is 273 over the course of 2024-2028. This averages to 55 Clinical Scientists joining the workforce per annum. However, based on the existing 2016-2023 data, an annual injection of 66 Clinical Scientists are required to maintain the workforce and allow for normal service expansion. Furthermore, to fill the current vacancies and meet IPEM recommended staffing provision within the next 3 years, the workforce requires 75 Clinical Scientists to join the workforce every year between 2024-2026. The 55 Clinical Scientists joining the workforce every year is insufficient to fill the existing vacancies and meet IPEMs recommended levels. This will lead to an increase in vacancies at a rate of 11 WTE per year from 2024-2028. It is important to note that the relative increase from the previous census likely captures NHS-wide workforce pressures in 2021, due to the Covid-19 pandemic. For practitioners, it is difficult to perform a prediction model akin to that performed above for Clinical Scientists, as there is little data outlining the number of technologists entering the workforce due to there not being a standard training route. We urge the creation of a national workforce plan to address this lack of a training pipeline for these critical staff groups.

These figures illustrate a grim reality: the current workforce is not sustainable without effective action. An unsustainable Radiotherapy MPCE workforce could compromise patient care and safety. This may already be happening, as illustrated by the deterioration in the 31-day wait for second or subsequent treatment for radiotherapy. The operational standard for this measure is 94%. In quarter two 2022/23, 90.3% of patients waited 31 days or less for their second or subsequent treatment, compared to 91.7% in Q1 2022/23, and 96.1% in Q2 2021/22 [5].

In IPEM's view, the primary solution to redress the MPCE workforce shortage is to increase the amount of funding in two areas - create new established staff posts and expand the number of MPCE training posts. Training throughput and capacity must be considered as an essential aspect of all future cancer workforce planning. This includes promoting awareness of all available training routes as detailed in appendix 1. Without swift and decisive action, the Radiotherapy MPCE workforce will continue to decline and impact on the delivery and advancement of radiotherapy in the UK.

The reality is clear: this issue cannot be ignored. The Radiotherapy MPCE workforce shortage must be addressed immediately to ensure timely access for patients to radiotherapy.



#### References

 NHS England. Service Specification. Adult External Beam Radiotherapy Service delivered as part of a Radiotherapy Network. <u>https://www.engage.england.nhs.uk/consultation/radiotherapy-service-specification-consultation/user\_uploads/radiotherapy-service-specification.pdf</u> Accessed May 2023
CRUK policy position statements: The future of radiotherapy services in England.

https://www.cancerresearchuk.org/sites/default/files/cruk\_policy\_position\_statement\_on\_the\_futu re\_of\_radiotherapy\_services\_in\_england.pdf\_Accessed May 2023.

[3] IPEM 2023 Radiotherapy Census Summary Report, Institute of Physics and Engineering in Medicine. <u>https://www.ipem.ac.uk/resources/workforce-intelligence/radiotherapy-resources/2023-radiotherapy-workforce-census-summary-report/</u>

[4] IPEM Recommendations for the Provision of a Physics Service to Radiotherapy. (2024), Institute of Physics and Engineering in Medicine.

[5] <u>https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2023/04/Q2-Cancer-</u> Waiting-Times-Quarterly-Commentary-Provider-based-Final.pdf

[6] European guidelines on medical physics expert (Annex 2)

https://energy.ec.europa.eu/system/files/2014-11/rp174\_annex2\_1.pdf Accessed May 2023



#### Appendix 1 – Training Routes and Workforce mitigation approaches

#### **Engineering Practitioners**

The age profile of the engineering workforce means that the workforce shortage in this sector needs immediate action. When planning workforce numbers, it should be recognised that there may be attrition with some employees choosing to transfer to the manufacturers and this needs to be recognised within training numbers.

The number of engineers required will vary between departments – not only based on the equipment that is to be maintained, but also based on the level of service contract with the manufacturers. For all centres at least first line support should be available and ideally more skilled staff available to enable collaborative contracts. For departments working extended hours, the increased need for engineering cover should be acknowledged and budgeted for.

We strongly encourage manufacturers to provide specialist linac training within the UK at appropriate cost for engineers. Departments should be aware of these costs when employing engineers. This training could be integrated within many of the pathways discussed below.

All engineering trainees should be encouraged to achieve the required standard for entry to the register of clinical technologists.

In order to achieve full competence, the following elements are advised:

- Significant engineering experience (typically 3 years)
- Underpinning academic knowledge to graduate level (level 6) or equivalent experience
- Formal Healthcare Science training and assessment in radiation engineering
- Specialist formal equipment training (e.g. Linac manufacturer training courses)

Below are five possible routes from entry to achieving full competence and registration:

 RCT or AHCS Equivalence / Graduate entry: This route is applicable for those who are fully competent working as a clinical engineering technologist but have not achieved registration. It is not a training route in its own right but some centres operate their own internal training programme to bring trainees up to standard building the required portfolio as they go. Assuming graduate entry, a relevant engineering degree, and no experience, entry would be at band 5:



- Engineering experience: Mainly achieved post-employment at band 5 during participation in an in-house training scheme, typically 3 years.
- Underpinning academic knowledge: Achieved elsewhere prior to recruitment
- Healthcare Science radiation engineering training: Achieved during in-house training scheme and subsequent RCT/AHCS equivalence assessment.
- Specialist formal equipment training: manufacturers training courses attended towards the end of the internal training scheme.

PROS: Lowest departmental costs; can work in an associate role during training.

CONS: Requires establishment of an in-house structured training scheme; difficult to attract graduates into the role; graduates are usually academically strong but lack hands on experience and take longer to be useful in associate roles; significant local training and training administration burden.

- Entry from a similar profession with acceptable academic qualification (e.g. ex RAF radar technician, ex RF electronics technician, etc. with level 6 BEng degree qualification or at least a level 4 e.g. HNC): Entry grade Band 6 Annex 21. Typically experienced in relevant engineering but no clinical training.
  - Engineering experience: Achieved elsewhere prior to recruitment.
  - Underpinning academic knowledge: Achieved elsewhere prior to recruitment.
  - Healthcare Science radiation engineering training: IPEM Clinical Technologist Training Scheme which takes 2 years. Entry to the scheme requires at least a level 4 qualification (such as HNC) backed up with a training plan demonstrating how they will achieve level 6 at the end of the scheme or a level 6 (degree) qualification.
  - Specialist formal equipment training: manufacturers training courses attended towards the end of the IPEM Clinical Technologist Training Scheme.

PROS: Quickest route to full competence; low departmental costs; reduced training burden due to previous experience; can carry out supervised practice very quickly; brings new skills and experience from other engineering sectors.

CONS: Extremely difficult to recruit as most similar profession have dried up.



- 3. Entry from a similar profession, no acceptable academic qualification (e.g. ex RAF radar technician, ex RF electronics technician, etc.): Entry grade Band 5. Typically experienced in relevant engineering but no clinical training and constrained by limited academic qualifications.
  - Engineering experience: Achieved elsewhere prior to recruitment.
  - Underpinning academic knowledge: Day release for 2 years to achieve HNC. Consider apprenticeship route if has suitable academic qualifications.
  - Healthcare Science radiation engineering training: IPEM Clinical Technologist Training Scheme that takes two years. Entry to the scheme only permitted after HNC complete.
  - Specialist formal equipment training: manufacturers training courses attended towards the end of the IPEM Clinical Technologist Training Scheme.

PROS: Reduced local training burden due to previous experience; brings new skills and experience from other engineering sectors.

CONS: Extremely difficult to recruit as most similar profession have dried up; 4 years to full competence.

- 4. School leaver, no experience good relevant A levels, T level or BTEC level 3: Entry grade Band 5 Annex 21. Typically very limited relevant academic qualifications, no engineering experience and no clinical training.
  - Engineering experience: Achieved post-employment, some during degree course but primarily whilst working in an associate role for typically 2 years after level 6 degree course.
  - Underpinning academic knowledge: Level 6 Healthcare Science apprenticeship using a NSHCS accredited PTP degree. 3-year programme that involves a full-time university BSc course whilst at the same time developing clinical engineering skills in the workplace (£27k university fees covered by the apprentice levy plus typically 117 days study).
  - Healthcare Science radiation engineering training: Achieved during academic study detailed above.
  - Specialist formal equipment training: manufacturers training courses attended after the level 6 degree course whilst working in an associate role.

PROS: Qualifies for £27k apprenticeship levy funding; attractive to school leavers for recruitment; includes fully funded academic qualifications; can work in an assistant/associate capacity during training; training framework establishes the role as a career that aids retention.

CONS: Jumps into intense study without any prior experience; 4 years to full competence; engineering experience comes later; high local training burden.

5. School leaver, no experience, good GCSE's: Entry grade Band 2 for level 4 apprenticeship and Band 4 during level 6 apprenticeship progressing to Band 6 Annex 21. Few relevant academic qualifications, no engineering experience and no clinical training.



- Engineering experience: Achieved post-employment, primarily during 2-year level 4 apprenticeship and some during degree course.
- Underpinning academic knowledge: Healthcare Science Level 4 Apprenticeship in Clinical Engineering that includes a BTEC Level 4 Diploma in Healthcare Science, which is a 2-year programme that is primarily vocational in nature. This is followed by the Level 6 Healthcare Science apprenticeship using a NSHCS accredited PTP degree. This 3-year programme involving a full-time university BSc course whilst at the same time developing clinical engineering skills in the workplace.
- Healthcare Science radiation engineering training: Achieved during academic study detailed above.
- Specialist formal equipment training: manufacturers training courses attended towards the end of the level 6-degree course.

PROS: Qualifies for £36k apprenticeship levy funding; very attractive to school leavers for recruitment, includes fully funded academic qualifications; practical clinical experience prior to starting level 6 degree course; apprentice salary for first 2 years; can work in an assistant/associate capacity during level 6 degree course; training framework establishes the role as a career which aids retention.

CONS: 5 years to full competence; high local training burden, highest number of study days, high travelling expense costs. Requires access to local level 4 apprenticeship (not available in all areas).

Variation for Northern Ireland: The Regional Medical Physics Service (RMPS) hosted by the Belfast Health and Social Care Trust (BHSCT) is an IPEM accredited training centre for Clinical Technologist training to IPEM Diploma level in Nuclear Medicine, Radiation Physics, Radiation Engineering and Radiotherapy. The Workforce Policy unit at the DoH (NI) fund four trainee places (2.5 year funding) at any one time. These are shared between Nuclear Medicine, Diagnostic Radiology (Ionising/Non-Ionising), Radiopharmacy and Radiotherapy Engineering. In addition, the BHSCT funds some training posts from within the funded establishment



#### **Clinical Practitioners**

In order to achieve full competence, the following elements are required:

- Underpinning academic knowledge to graduate level (level 6)
- Formal Healthcare Science training and assessment.

There are two routes from entry to achieving full competence and registration:

- 1. Graduate entry, relevant physics degree, no experience: Entry grade Band 5. Typically, academically strong but no clinical knowledge or training.
- Clinical physics experience: Mainly achieved post-employment at band 5 during participation in the IPEM Clinical Technologist Training Scheme and typically a year preceptorship.
- Underpinning academic knowledge: Achieved either elsewhere prior to recruitment or during participation in the training scheme. Must be able to demonstrated level 6 (degree) equivalence.
- Healthcare Science radiation physics training: IPEM Clinical Technologist Training Scheme that takes two years.
- Assessment arranged via IPEM

PROS: Low departmental costs; can work in an associate role during training; training framework establishes the role as a career that aids retention.

CONS: Graduates are usually academically strong but lack hands on experience and take longer to be useful in associate roles; 3 years to full competence; significant local training burden; successful trainees may leave to join STP scheme to train as Clinical Scientist.

**Note – Wales** offers 3 places, with the University fees funded by HEIW (Health Education and Improvement Wales) per year, on the Swansea Practitioner Training Programme (BSc Clinical Science), as part of the All Wales Training Consortium. Trainees are expected to achieve RCT on graduation

**Note – Northern Ireland:** Graduates with science or radiography degrees are appointed to B5 (as Clinical Technologists) on a 2.5-year contract and follow the IPEM CT training scheme.



- 2. School leaver, no experience good relevant A levels, T level or BTEC level 3: Entry grade subject to local agreement; Band 5 Annex 21 should be used for degree apprentices. Typically very limited relevant academic qualifications, no clinical physics experience and no clinical training. (The National School for Healthcare Science still offer the practitioner training programme (PTP, https://nshcs.hee.nhs.uk/programmes/ptp/). However there are no HEIs offering a direct entry degree for clinical radiotherapy physics PTP at present. The degree can only be done via the apprenticeship route.)
- Clinical experience: Achieved post-employment, some during degree course but primarily whilst working in an associate role for typically 2 years after level 6 degree course.
- Underpinning academic knowledge: Level 6 Healthcare Science apprenticeship using a NSHCS accredited PTP degree. 3-year programme that involves completing a full-time university BSc course whilst at the same time developing clinical physics skills in the workplace (£27k university fees covered by the apprentice levy plus typically 117 days study).
- Healthcare Science clinical physics training: Achieved during academic study detailed above.

PROS: Qualifies for £27k apprenticeship levy funding; attractive to school leavers for recruitment; includes fully funded academic qualifications; can work in an assistant/associate capacity during training; training framework establishes the role as a career that aids retention; can be used to upskill current employees.

CONS: Jumps into intense study without any prior experience; 4 years to full competence; engineering experience comes later; high local training burden; no funding for salary component of apprenticeship (may need to sacrifice a post to fund this).

#### **Post Qualification Issues**

Post registration there are two routes to career progression. The first was envisaged by the Modernising Scientific Careers programme which is to progress to registration as a clinical scientist via a training programme like STP. This is equivalent to changing profession rather than progressing within the profession. Some people choose this route and become clinical scientists.

The second route would be progress via an advanced practice route, similar to therapeutic radiographers. However advanced practice in this context is yet to be clearly defined and the lack of HCPC registration is seen as a barrier to that type of progression. This career framework should be developed by IPEM in cooperation with NHSE. The type of training required is the same as that required for advanced practice therapy therapeutic radiographers in the same roles and similar education provision needs to be made for this staff group. There are some departments that have developed advanced practice / consultant dosimetrist roles where clinical practitioners outline target volumes as well as organ at risk volumes. They also attend the relevant MDT meetings.

#### **Clinical Scientists**

Newly registered Clinical Scientists and Clinical Scientists with experience to Medical Physics Expert level and beyond are in short supply with many centres reporting issues with recruiting staff.



However, advertisements for the Scientific Training Programme (STP) and trainee positions attracting many 10s of applicants per post offered. The profession is therefore popular amongst physics graduates and the shortfall in staff is primarily due to the lack of numbers on training schemes rather than the profession appearing unattractive to science graduates.

### Radiotherapy and Education Commissioners should ensure that sufficient STP and Route 2 / Equivalence posts are in place to meet the current and future demands of the service.

In order to achieve registration, the following elements are required:

- Underpinning academic knowledge to graduate level (level 6) usually achieved by a B.Sc., in Physics
- Formal Healthcare Science training to level 7. This is usually achieved by completing an appropriate M.Sc.
- Significant supervised clinical training.
- Assessment by an assessing body for registration with the HCPC. Candidates with suitable experience (e.g. those trained outside the UK) may apply for direct entry via the International Route to the HCPC register.

There are four routes from entry to achieving full competence and registration. There is a level 7 apprenticeship in development, but this is not currently open.

- 1. STP: This route is the main training route. It is for those who have (or are about to gain) a degree in Physics. The applications open in January for training to start in the following September.
- Underpinning academic knowledge: Achieved by attendance at an approved, funded M.Sc.
- Supervised clinical practice: Achieved by in-house at an approved training centre. HEE funds the salary at Band 6.
- Final assessment: this is arranged by the academy of healthcare sciences.

PROS: Lowest departmental costs; M.Sc. and salary funded by HEE.

CONS: Requires establishment of an in-house and accredited structured training scheme; significant local training and training administration burden; choice of trainees is determined centrally, so trainee may be training in a location they do not wish to remain on completion of training.

#### Note Variation in Scotland:

SMPCETS: This is the main training route in Scotland. It is for those who have (or are about to gain) a Physical Sciences degree. The scheme is commissioned and funded by NHS Education for Scotland (NES) with applications opening in January for a 3.5 year training position to start in the following September.



- Underpinning academic knowledge: In general achieved by attendance at an approved, funded M.Sc. in Glasgow or Aberdeen
- Supervised clinical practice: Achieved by in-house training at an approved training centre, which needs to be mapped to AHCS Good Scientific Practice (GSP) competencies, NES funds the salary at Band 6.
- Final assessment: this is arranged by the Academy of Healthcare Sciences.

**Note Variation in Northern Ireland:** The Regional Medical Physics Service (RMPS), hosted by the Belfast Health and Social Care Trust (BHSCT), is accredited by the National School of Healthcare Science as a work based training provider for the STP in Medical Physics. The RMPS receives funding (for 3.5 years) from the Workforce Policy unit at the DoH (NI) for five trainee places at any one time. This means there is a three-year cycle of trainees: Year 1 - 2 trainees, Year 2 - 1 trainee, Year 3 - 2 trainees. These are appointed into areas of highest need across the 4 specialties offered.

- 2. STP equivalence: This is for those with a physics degree who have done significant in-house training to demonstrated equivalence to the SPT route. It is administered by the Academy of HealthCare Science.
- Underpinning academic knowledge: Achieved by attendance at an approved M.Sc.
- Supervised clinical practice: Achieved by in-house training.
- IPEM have a supporting training scheme to aid departments and trainees in this route.
- Final assessment: this is arranged by the academy of healthcare sciences.

PROS: Department chooses trainee.

CONS: Requires funding of both salary and educational components. There is an apprenticeship being developed that would fund the education component via the apprenticeship levy. However, at the time of writing, this is not available. Requires establishment of an in-house and accredited structured training scheme; significant local training and training administration burden.



- 3. "Route 2": This is similar to "STP equivalence". It was designed as an equivalence route to the training scheme preceding STP. It is administered by the Association of Clinical Scientists (ACS).
- Underpinning academic knowledge: Achieved by attendance at an approved M.Sc. or demonstration of equivalent level 7 knowledge.
- Supervised clinical practice: Achieved by in-house training.
- Final assessment: this is arranged by the ACS. IPEM have a supporting training scheme to aid departments and trainees in this route. However trainees may submit a portfolio for assessment directly to ACS. See the ACS website for guidance on the process.

PROS: Department chooses trainee; trainee can undertake appropriate tasks during training given adequate supervision.

CONS: Requires funding of both salary and educational components. There is an apprenticeship being developed that would fund the education component via the apprenticeship levy. However, at the time of writing, this is not available. Significant local training and training administration burden.

**Note for Northern Ireland:** The Radiotherapy Physics Service at the BHSCT offers Route II trainee positions from time to time. These are funded from within the service and are generally given 3.5 year contracts. If required they are sent on the CAMPEP (Commission on Accreditation of Medical Physics Education Programs) accredited MSc in Medical Physics at University College Dublin to undertake their didactic training.





- 4. Direct application to HCPC for registration. This is only open for those with appropriate qualifications and training in another country. Application is via the International Route of the HCPC.
- Underpinning academic knowledge: Achieved already in another country. Need to prove equivalence via a ECCTIS statement of comparability.
- Supervised clinical practice: Achieved already in another country. Demonstrated by portfolio.
- English to IELTS level 7 with no elements below 6.6 or TOEFEL IBT 100/120 or greater (certificates no older than 2 years).
- Final assessment: this is arranged by the HCPC.

PROS: Department chooses trainee; trainee can start immediately similar to a member of staff being appointed from another UK department.

CONS: May have to go through visa process including sponsorship. Consult your HR department regarding current rules regarding this. At the time of writing clinical scientist in radiotherapy are on the "shortage occupations list". Consult the IPEM website for details.

**Note – Wales** offers HEIW funded places, fixed term for 3 years, via the All Wales Training Consortium for STP, Route 2 and STP Equivalence

#### Apprenticeships

There are eligibility criteria for those wishing to undertake apprenticeships. These should be checked prior to advertising and should be included in the person specification. Typically, there will be a residency requirement and the requirement that the apprenticeship must bring significant additional learning. There rules vary by country. See <u>https://www.gov.uk/become-apprentice</u> to find links to apprenticeships in the UK. At the time of writing apprenticeships are not available in NI within the Health Sector.



#### **Higher Training**

Beyond initial registration Clinical Scientists operating at Medical Physics Expert level are required to comply with the requirements of IR(ME)R 2017 and ensure that all parts of the Radiotherapy Process are delivered safely, effectively and in compliance with the regulations. There is a significant increase in experience, knowledge and responsibility of an MPE role compared to that of the registered Clinical Scientists. Those being appointed to MPE status within organisation must hold the appropriate registration.

# Radiotherapy centres should ensure that robust, funded training processes are in place for registered Clinical Scientists to ensure that sufficient numbers of appropriately trained and experienced MPEs are available for current and future needs.

Beyond MPE level, Clinical Scientists are able to gain registration on the Higher Specialist Scientist Register (HSSR), which demonstrates the knowledge and skills needed to work as a Consultant Clinical Scientist. An appropriately qualified consultant clinical scientist should act as the head of the radiotherapy physics department. This can be achieved by completion of the Higher Specialist Scientist Training scheme (HSST) or by proving equivalence via a portfolio of evidence. The required skills included advanced scientific practice and management, leadership and development skills. These roles are vital to ensure high quality services are delivered.

Radiotherapy Centres should ensure that sufficient funded training and development opportunities are available to senior staff to enable achievement of Consultant level.

Note – Wales. It is expected that applicants for Clinical Scientists posts at Band 8C or above will be on the register of Higher Scientific Specialists <u>heiw.nhs.wales/files/consultant-clinical-scientist-faqs/</u>

Note – Northern Ireland HSST is not formally commissioned in NI i.e. the Workforce Policy Unit do not currently provide funding for this and at the time of writing have no plans to do this.

#### **Training Burden**

There is a significant training burden for departments undertaking training actives for staff on STP, Route 2 / Equivalence, MPE and Consultant Clinical Scientist programmes. In a report [6] the EU recommends that 0.2 WTE of an 8A is allocated to each Clinical Scientist Trainee. Similarly, protected time for training supervision and mentoring for other programmes should be allocated.

Radiotherapy Centres should ensure sufficient staff are employed and allocated to support those undergoing training in Registered, MPE and Consultant roles.