

# What do we mean by Advanced Practice in HCS? Are there common themes?

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# Themes

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- What is Advanced Practice?
- Advanced Practice in Healthcare Science
- Some examples
- My reflections

# Advanced Practice

## Advanced practice

Advanced practice is a level of practice in which a practitioner has demonstrated their ability to work autonomously at a **high level (level 7/ Masters level)** across all four pillars of advanced practice. **The four pillars of advanced practice are clinical practice, leadership and management, education, and research.**

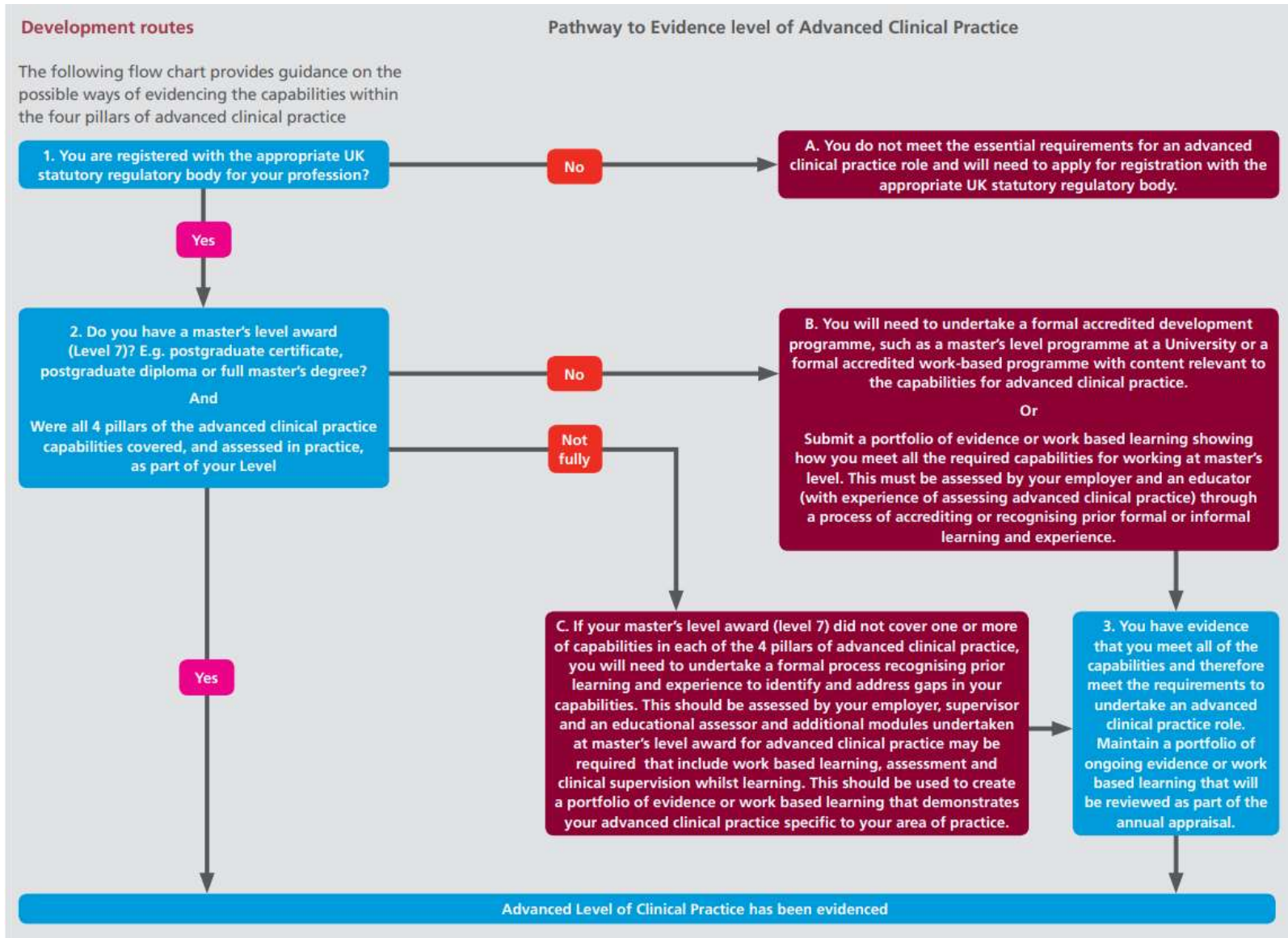
By integrating into multi-professional teams, advanced practitioners provide clinical leadership...

Advanced practitioners help to improve clinical continuity and provide high-quality care for patients. They enable workforce transformation to initiate a wider range of advanced clinical care being provided by a varied range of multi-professional clinicians **rather than focusing on medical doctors** as the sole providers of advanced clinical care.

<https://www.nhsemployers.org/articles/advanced-practice-and-enhanced-practice>

Tends to be applied to nursing, pharmacy, AHPs.

# Advanced Practice



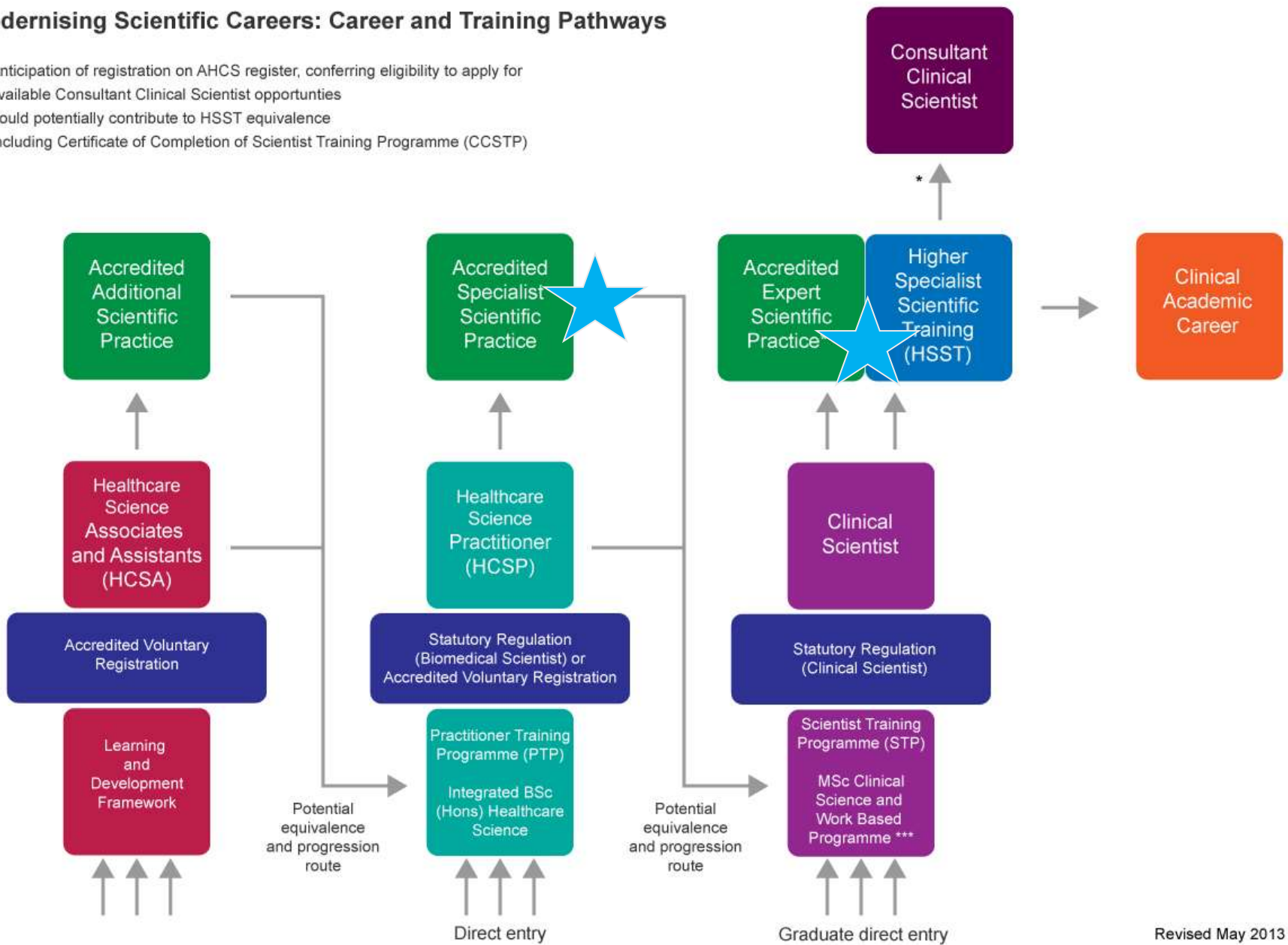
<https://healtheducationengland.sharepoint.com/:b:/s/APWC/EZDts4zgviNKgolCvyitF0ABq48nWH1C1itTDaW88TxAhA?e=70Toqb>

# Modernising Scientific Careers: Career and Training Pathways

\* Anticipation of registration on AHCS register, conferring eligibility to apply for available Consultant Clinical Scientist opportunities

\*\* Could potentially contribute to HSST equivalence

\*\*\* Including Certificate of Completion of Scientist Training Programme (CCSTP)



Revised May 2013

In some departments senior technologists have extended their roles, which involves performing duties that were **formally in the medical domain**.

For example:

- Running cardiac stress sessions
- Issuing technical reports
- Administering therapy radionuclides
- Sentinel node injections

These are just a few examples but there are many more, so there is scope for advanced practice in nuclear medicine. The British Nuclear Medicine society is currently actively trying to enhance the role of the nuclear medicine technologist.

**JNMT**  
Journal of Nuclear Medicine Technology

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Other | DEPARTMENTS

## Advanced Practice in Nuclear Medicine: A Pathway to Clinical Leadership

Martha Pickett

Journal of Nuclear Medicine Technology June 2007, 35 (2) 13A-14A



# Radiotherapy Clinical Technologists / Dosimetrists

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## FULL PAPER

### A national survey of the radiotherapy dosimetrist workforce in the UK

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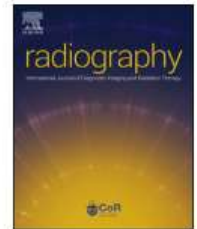
Radiography 28 (2022) 605–619



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## Radiography

journal homepage: [www.elsevier.com/locate/radi](http://www.elsevier.com/locate/radi)



Systematic Review

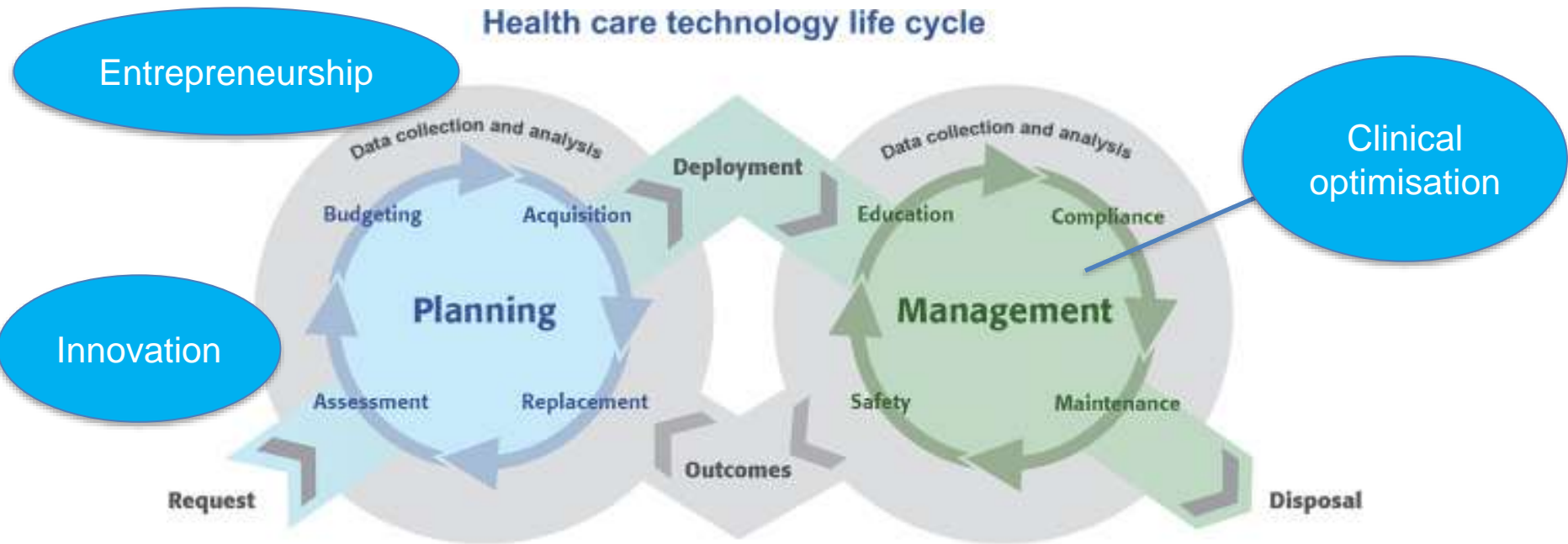
### Advanced practice roles of therapeutic radiographers/radiation therapists: A systematic literature review

C. Oliveira <sup>a, b, \*</sup>, B. Barbosa <sup>a, b, c</sup>, J.G. Couto <sup>d</sup>, I. Bravo <sup>c</sup>, R. Khine <sup>e, f</sup>, H. McNair <sup>e, g</sup>



# Medical Engineering Technologists / Equipment Management Engineers

“Medical Physics”



<https://doi.org/10.1016/B978-0-12-813467-2.00037-7>



<https://democratonline.net/2020/04/01/virus-hospital-staff-convert-ventilators/>

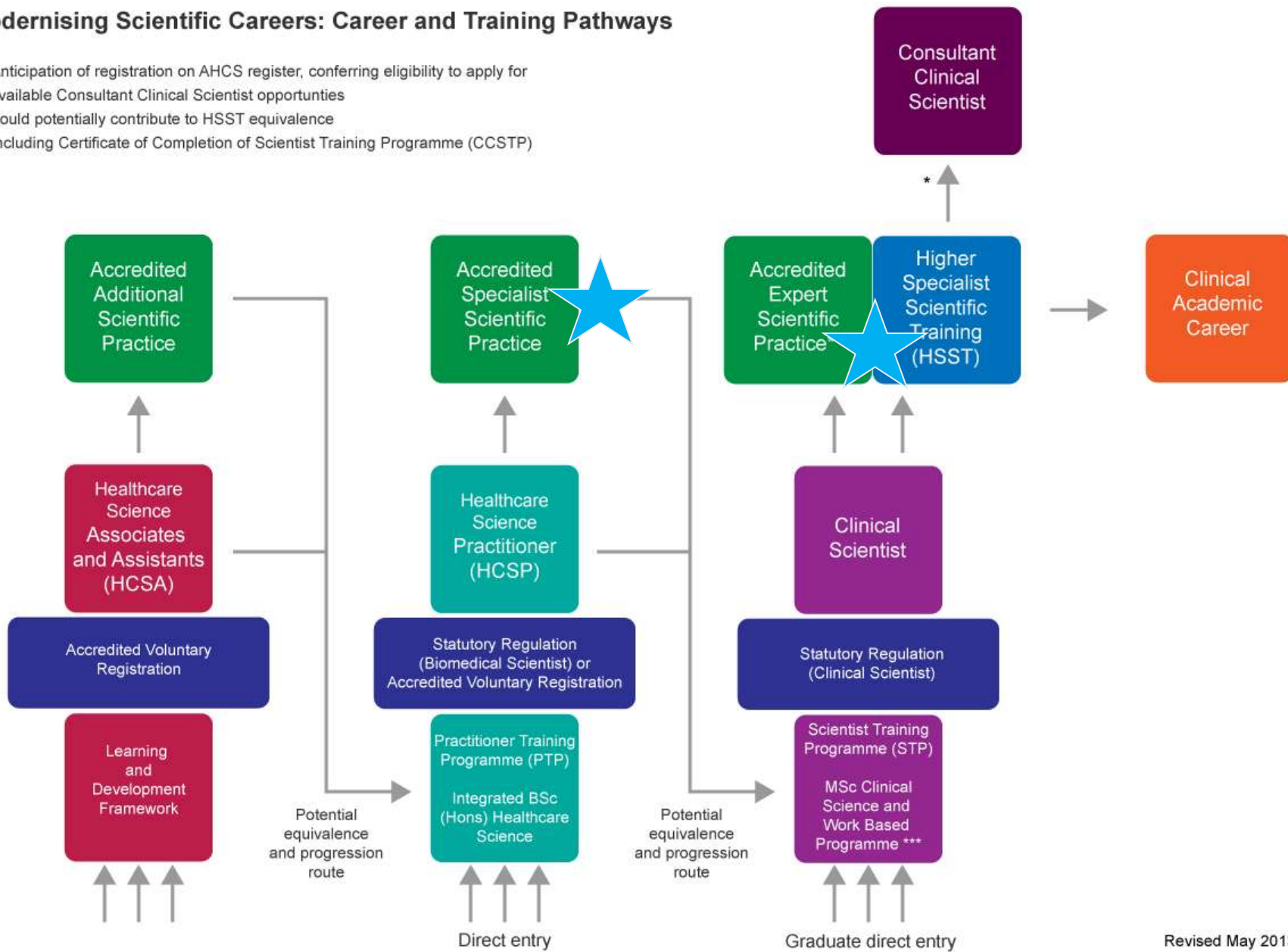


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Revised May 2013



*"Never, ever, think outside the box."*

**2000 No. 1059**

**HEALTH AND SAFETY**

**The Ionising Radiation (Medical Exposure) Regulations 2000**

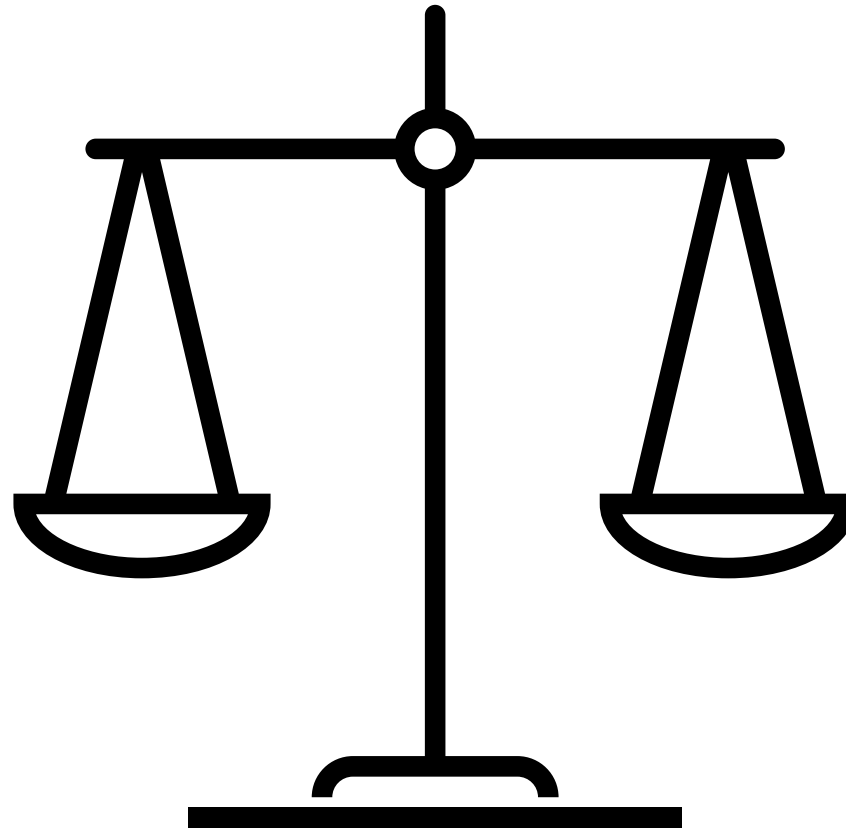
**Expert advice**

**9.**—(1) The employer shall ensure that a medical physics expert shall be involved in every medical exposure to which these Regulations apply in accordance with paragraph (2).

(2) A medical physics expert shall be—

- (a) closely involved in every radiotherapeutic practice other than standardised therapeutic nuclear medicine practices;
- (b) available in standardised therapeutic nuclear medicine practices and in diagnostic nuclear medicine practices;
- (c) involved as appropriate for consultation on **optimisation** including patient dosimetry and quality assurance, and to give advice on matters relating to radiation protection concerning medical exposure, as required, in all other radiological practices.

Patient  
Burden  
(Unwanted  
Radiation Dose)



Clinical  
Performance  
(e.g. Image  
Quality)

**Optimisation**

Radiation Dosimetry

Quality Assurance

**2000 No. 1059**

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**MPE = Experienced Physicist**

**But, experienced Physicist ≠ MPE**



## 2017 No. 1322

# HEALTH AND SAFETY

## The Ionising Radiation (Medical Exposure) Regulations 2017

### Expert advice

**14.**—(1) The employer must ensure that a suitable medical physics expert is appointed and involved, in accordance with paragraph (2), in relation to every type of exposure to which these Regulations apply.

(2) A medical physics expert must—

- (a) be closely involved in every radiotherapeutic practice other than standardised therapeutic nuclear medicine practices;
- (b) be involved in practices including standardised therapeutic nuclear medicine practices, diagnostic nuclear medicine practices and high dose interventional radiology and high dose computed tomography;
- (c) be involved as appropriate for consultation on optimisation, in all other radiological practices not mentioned in sub-paragraphs (b) and (c); and
- (d) give advice on—
  - (i) dosimetry and quality assurance matters relating to radiation protection concerning exposures;
  - (ii) physical measurements for the evaluation of dose delivered;
  - (iii) medical radiological equipment.

(3) A medical physics expert must also contribute to the following matters—

- (a) optimisation of the radiation protection of patients and other individuals subject to exposures, including the application and use of diagnostic reference levels;
- (b) the definition and performance of quality assurance of the equipment;

(c) acceptance testing of equipment;

(d) the preparation of technical specifications for equipment and installation design;

(e) the surveillance of the medical radiological installations;

(f) the analysis of events involving, or potentially involving, accidental or unintended exposures;

(g) the selection of equipment required to perform radiation protection measurements;

(h) the training of practitioners and other staff in relevant aspects of radiation protection;

(i) the provision of advice to an employer relating to compliance with these Regulations.

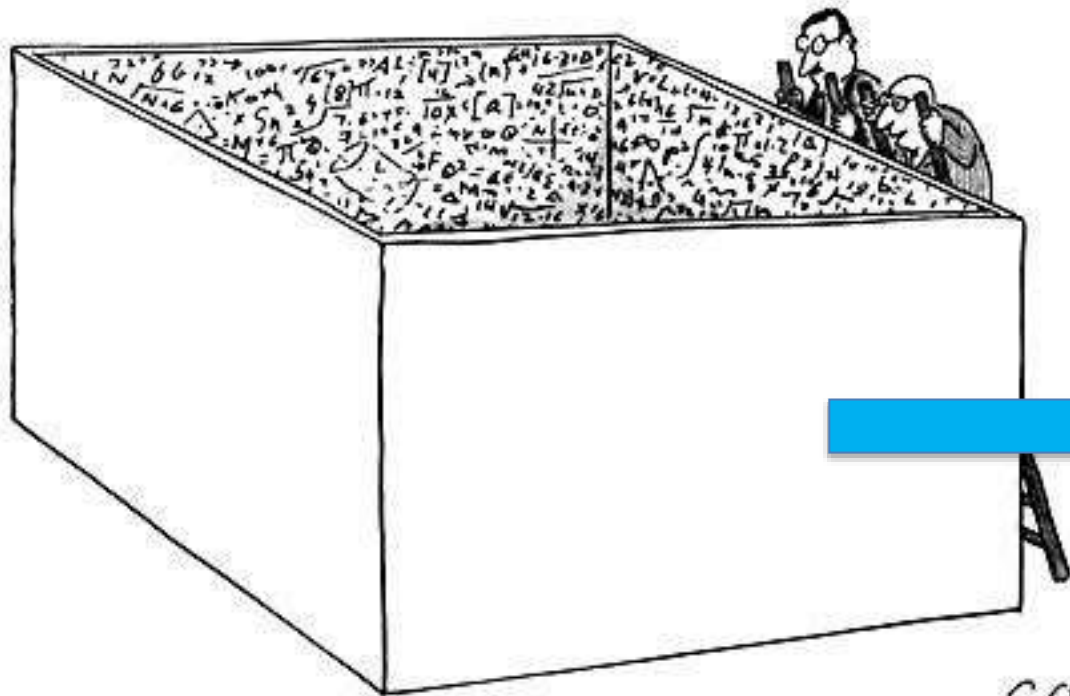
(4) The medical physics expert must, where appropriate, liaise with a radiation protection adviser and a radioactive waste adviser.

(5) In this regulation—

(a) “radiation protection adviser” means an individual who, or a body which is competent to advise on radiation protection in relation to occupational and public exposures;

(b) “radioactive waste adviser” means an individual who, or a body which is competent to provide expert advice on radioactive waste management and environmental radiation protection.

+ National Certification Scheme



Advanced  
Practice

*“Actually, I got some pretty good  
ideas when I was in the box.”*

*Thank you!*  
*Any Questions?*

