

CPD profile

1.1 Full name: **Medical Physicist**

1.2 Profession: **Clinical scientist**

1.3 Registration number: **CSXXXX**

2. Summary of recent work/practice

I am Clinical Director of the medical physics directorate at a large, acute teaching hospital. The department provides a broad range of scientific and technical services to the Trust including medical equipment maintenance, radiation safety services, and scientific support to diagnostic radiology, nuclear medicine and ultrasound, radiotherapy physics, support to the renal dialysis service and research and development. At present there are over 60 staff and a budget of approximately £2.2m

As well as strategic management of the department, I lead on major service developments for the Trust. This has included acting as Project Director for the PET imaging project which is bringing a positron emission tomography/computerised tomography (PET/CT) scanner and cyclotron to the Trust to benefit cancer patients across the Strategic Health Authority (SHA).

I have acted as a Radiation Protection Adviser since 1989. I gained certification as an RPA under the IPEM scheme and currently hold an RPA2000 certificate. I chair the corporate RPA committee for the hospital and report regularly to the Medical Director on matters relating to radiation safety, as well as undertaking routine RPA duties. I have contributed nationally to the debate on audit and risk assessment in Radiation Protection.

Professionally, I take a lead on professional issues for my professional body. This involves leading for the institute at a national level on modernisation of clinical scientist and technologist training, regulation and workforce issues. I sit as a representative on the Board of the Association of Clinical Scientists.

My research interests are in the measurement of bone density, quantitative indices in nuclear medicine. I am involved in a major project investigating the risk of spinal injury in fast jet pilots following ejection.

I am involved in teaching and training. I am the team leader for the course module on Instrumentation in bone mineral density for a university diploma in osteoporosis and teach radiology registrars preparing for the FRCR exam. I have acted as an external examiner for M.Phil and Ph.D. students and I have acted as external examiner the University of Surrey MSc in Medical Physics. I

have acted as an Associate Editor for Medical Physics and as a referee for a number of scientific journals.

Total words: 352
(Maximum 500 words)

3. Personal statement

Standard 1: A registrant must maintain a continuous, up-to-date and accurate record of their CPD activity

I participate in the IPEM CPD scheme and the RPA2000 CPD scheme and keep a portfolio of evidence for each. The IPEM CPD scheme required, until December 2005, that I maintain a rolling average of 50 CPD points per year split between a number of activities: educational attachment, scientific meetings, directed private study, publication, local activities (such as seminars, journal clubs) and professional activities. In 2006 the scheme has changed to broaden the activities that can be included as CPD, e.g. work activity that leads directly to personal development. The RPA2000 scheme is specifically aimed at allowing recertification as a Radiation Protection Adviser (RPA), and allows a similar range of activities as the new IPEM scheme. The new IPEM scheme links CPD to work based personal development planning/review cycle. My CPD plan is approved by my line manager and discussed with another senior colleague in the department.

With regard to management competence, I have participated in 360 degree feedback exercise to identify my leadership qualities. This has identified development areas that I have addressed through changing my management practice.

Standard 2: A registrant must identify that their CPD activities are a mixture of learning activities relevant to current or future practice

I identify my learning needs via the appraisal and objective setting process within the Trust. For example the building of a new PET imaging centre on site has required me, as part of my personal objective setting, to ensure that I am up date with current advances in PET imaging, and in the radiological impact assessment of the facility. In terms of developing my management skills, the centre has required that I learn about the business planning process and the commissioning process. This has required me to plan a mix of CPD activities, from attendance at categorical seminars on PET to literature review and structured private study.

My CPD is also driven by my ongoing involvement in bone density and bone imaging research. The direction of this research is agreed with peers and is subject to peer review as part of the Trust research and development management and ethics approval process (evidence 6).

I am also required to maintain my competence as an RPA, which involved routine and developmental activities as an RPA. This is achieved by developmental practice, attendance at update sessions and structured private study.

My professional activity is driven by local and national professional issues related to registration, training and development and is discussed with peers.

The categories within the CPD schemes in which I participate also ensure that I achieve a mix of CPD activity.

Standard 3: A registrant must seek to ensure that their CPD has contributed to the quality of their practice and service delivery

The range of activities linked to PET imaging have inform my practice in a number of ways. Attendance at scientific meetings and structured private study (evidence 1) has enabled me to work with commissioners to develop referral guidelines for PET imaging (evidence 7), to plan the commissioning of equipment within the PET centre, to design the radiation protection in the centre to meet current regulatory requirements and undertake the radiological impact assessment for the PET centre to ensure that the centre meets regulatory compliance and develop ideas for future research and development opportunities in PET imaging.

My research in bone imaging and bone density has ensured that patient measurements in the bone density service are consistent and have eased the introduction of new equipment. It has informed the role of peripheral measurements in the referral pathway and contributed to the debate on the changes in bone during pregnancy.

As a practising RPA, I have developed programmes of radiation protection training that allow physicians and nurses in Endoscopy to undertake X-ray screening, and participate in the training of hand surgeons and radiologists. I have attended update sessions and structured private study to support these activities

My professional activities in training and statutory registration have informed the development of national training schemes for clinical technologists and have supported the construction and delivery of training for clinical scientists and technologists locally.

Standard 4: A registrant must seek to ensure that their CPD benefits the service user

The introduction of PET imaging in a safe environment, using evidence based clinical referral guidelines will reduce morbidity in cancer patients. For example, monitoring the outcome to chemotherapy in lymphoma patients will allow patients to be treated appropriately, reducing the morbidity associated with expensive chemotherapy.

The safe introduction of nurse-led Endoscopy X-ray imaging will reduce the pressure on over-stretched staff for radiology, potentially reduce waiting lists and improve job roles for nursing staff without loss of clinical quality

My research in bone imaging and bone density measurement has meant the safe introduction of new technology and the development of appropriate, evidence based referral criteria for bone density measurements.

My professional activity has enhanced training standards for clinical scientists and clinical technologists nationally (see VRCT published degree structure). This contributes to ensuring that Medical Physics and Clinical Engineering services have a supply of adequately trained staff and can provide a safe and effective service for their users.

Total words: 879
(Maximum 1500 words)

4. Summary of supporting evidence submitted

Evidence number	Brief description of evidence	Number of pages, or description of evidence format	CPD Standards that this evidence relates to
Example	Eg: 'Case studies' or 'Critical literature reviews'	Eg: '3 pages', 'photographs', or 'video tape'	Eg: Standards 2 and 4
1	IPEM CPD summary	6 pages	1
2	RPA 2000 CPD summary	20 pages	1
3	Guidelines for PET imaging	4 pages	2,3,4
4	RPA design PET centre	6 pages	2,3
5	Radiological assessment PET centre	40 pages	2,3
6	Publications	27 pages	2,3
7	PET guidelines	5 pages	3