

## enclosure3c.xls: Overview

Part	Number	Criteria	Score	Comments
A		At least 1 of invasive procedures, clinical intervention with potential for harm, exercise of judgement by unsupervised professionals	Met	The profession meets the criterion: performing clinical interventions that can harm and exercising professional judgment
B	1	Discrete area of activity displaying some homogeneity	Failed to meet	
B	2	Defined body of knowledge	Failed to meet	There is insufficient evidence to meet the criterion.
B	3	Evidence of efficacy	Met	The practice of the applicant occupation is evidence-based
B	4	At least 1 established professional body a/c for significant proportion of occupation	Partly met	The VRCT Register was opened in August 2000.
B	5	Voluntary register(s)	Met	A voluntary register opened in August 2000
B	6	Defined routes of entry to the profession	Partly met	There are defined routes of entry to the profession but no evidence that all are adequately externally quality assured.
B	7	Independently assessed entry qualifications	Partly met	This exists for the academic qualifications with the training component being assessed by the IPEM
B	8	Conduct, performance and ethics standards	Met	These standards are in place.
B	9	Disciplinary procedures to enforce those standards	Met	The VRCT has structures and procedures in place to enforce its standards
B	10	Commitment to continuous professional development (CPD)	Met	There is commitment to CPD but VRCT does not operate its own scheme.
Overall		The applicant occupation presents a moderate case for regulation. The recommendation is that the applicant occupation should be regulated but Council must determine which part of the Register members would be entered onto. There are several letters of support from a number of the Royal Colleges (Physicians, Surgeons of England, Nursing & Radiologists), other professional Bodies e.g. RCCP, the Institution of Incorporated Engineers, ART amongst others. A number of organisations/individuals felt unable to support the application at this stage.		

# enclosure3c.xls: A

<b>CRITERIA:</b> <i>Either invasive procedures or clinical intervention with the potential for harm or exercise of judgment by unsupervised professionals which can substantially impact on patient health or welfare</i>	<b>SCORE:</b> Met
<b>Summary comments (10 words max.)</b> The profession meets the criterion: performing clinical interventions that can harm and exercising professional judgment	
<b>Detailed comments</b> Clinical technologists exercise professional judgment by unsupervised practitioners and perform invasive procedures There is a potential for harm through the use of physiological equipment, technology and instrumentation. The majority of Clinical technologists are employed in healthcare, universities and the medical devices industry.	
<b>Matter for information: -</b> (1) HPC currently regulates clinical scientists involved in the modalities of medical physics and clinical engineering	



enclosure3c.xls: 2

CRITERIA:	SCORE:
<i>Defined body of knowledge</i>	Failed to meet
<b>Summary comments (10 words max.)</b>	
There is insufficient evidence to meet the criterion.	
<b>Detailed comments</b>	
The body of knowledge is based on the principles developed by physicists and put into practice by technologists	
It is stated that the educational pathways have delineated the role of the clinical technologist evidenced in the training scheme for clinical technologists specialising in physics and engineering in medicine.	
It is intended that the Training Scheme should form the basis for the Standards of Proficiency for practitioners.	
It is not clear what body of knowledge is truly unique to clinical technologists that is not currently shared by a profession currently regulated by HPC.	
Is the applicant profession suggesting that the body of knowledge is solely defined by the IPEM training scheme?	
It is recognised by VRCT that there is overlap with the clinical scientists (CSc); the differences being in relation to academic levels, vocational skills and competences required.	
The minimum entry level for the CSc is at Masters level whilst for the clinical technologist this is a degree or HNC/HND.	
The vocational skills for a clinical technologist are based on practical scientific and engineering activities whilst for clinical scientists these are based on the application and development of scientific methods and practice.	
There may also be overlap in terms of practice and the level of knowledge required to understand the principles of the discipline with radiographers and clinical physiologists. The former are currently regulated and the latter have been recommended for regulation.	

enclosure3c.xls: 3

<b>CRITERIA:</b>	<b>SCORE:</b>
<i>Evidence of efficacy</i>	Met
<b>Summary comments (10 words max.)</b>	
The practice of the applicant occupation is evidence-based	
<b>Detailed comments</b>	
Evidence was submitted of evidence based improvements (as opposed to initiation of evidence based practice) in radiotherapy physics for cancer patients.	
There does not appear from the documents submitted of innovation in this area, rather, an improvement in applied practice.	
Not clear as to the autonomy that a clinical technologist would have in the implementation of evidence based practice. It may be that this must	
be overseen by a registered practitioner.	
Some documentary evidence was submitted of research undertaken and published in journals such as the British Journal of Radiology.	
It is evident that the practice of clinical technology is based on national and international standards set by professional bodies e.g. IPEM and ART	
and international standards institutions	
Numerous references were submitted of involvement by members presenting evidence of research into clinical technology practice at national and	
international presentations and of publications.	
Examples of extracts were also submitted.	

enclosure3c.xls: 4

CRITERIA:	SCORE:
<i>At least 1 established professional body a/c for significant proportion of occupation</i>	Partly met
<b>Summary comments (10 words max.)</b>	
The VRCT Register was opened in August 2000.	
<b>Detailed comments</b>	
The VRCT was formed as a result of support from the Institute of Physics & Medicine in Engineering (IPEM), The Association of Renal Technologists (ART), and the Institution of Incorporated Engineers (IEE).	
VRCT exists as a sub-committee of IPEM, ART and IEE.	
Management of VRCT is through the VRCT Assessors' Panel, membership of which comprises representatives from each of the constituent bodies.	
The Assessors' Panel is responsible for assessing & approving applications to join the Register; reviewing and updating the criteria for membership of the Register, including registration documentation; implementation of the code of professional conduct; and promotion of the profession amongst stakeholders and Government.	
Documentary evidence was submitted of the organisation's Standing Orders.	
A ballot held amongst members on the issue of seeking statutory regulation was held in March 2004.	
The outcome of the ballot was reported as:	
No. of ballots distributed: 1477	
No. of returned ballots: 775 (51% return)	
No. of YES votes returned: 722	
No. of NO votes returned: 53	

enclosure3c.xls: 5

CRITERIA:	SCORE:
<b>Voluntary register(s)</b>	Met
<b>Summary comments (10 words max.)</b>	
A voluntary register opened in August 2000	
<b>Detailed comments</b>	
There are 1,526 members (as at March 2004) on the register	
The figures are not independently audited.	
The Department of Health estimates that there are some 2,700 practitioners thus the register accounts for 50% of the workforce.	
There are two routes of entry onto the Register:	
(i) successful completion of the IPEM Training Scheme for clinical technologists (specialising in physics & engineering in healthcare)	
and (ii) the grandparenting provision.	
The grandparenting route offers a means of registration for experienced practitioners involved in not less than 3 years work in a technical role including	
at least 2 years in-service training or in lieu of that, not less than 4 years work in a technical role.	
Those applying thorough grandparenting are required to provide evidence of training and experience; provide a reference from a regulated professional	
and attend an interview.	

enclosure3c.xls: 6

CRITERIA:	SCORE:
<b>Defined routes of entry to the profession</b>	Partly met
<b>Summary comments (10 words max.)</b>	
There are defined routes of entry to the profession but no evidence that all are adequately externally quality assured.	
<b>Detailed comments</b>	
Historically entry to the profession was via a national certificate in physical sciences or engineering.	
The documentation states that there are moves to raise the entry level to the profession through a first degree in clinical technology or a higher national certificate or higher national diploma.	
For those wishing to practice the medical physics modality there are a number of first degrees in medical physics available in the UK*.	
For those who wish to practice in clinical engineering there are few available courses. As a consequence, entry is via completion of a Higher National Certificate/Diploma (HNC/HND) in an appropriate engineering subject followed by the professional body examination.	
In relation to the HNC/HND these are quality assured through the further education sector	
the HNC/HND programmes are interspersed with clinical practice and ongoing work based training culminating in the professional examination.	
The clinical practice and work based training components are accredited by IPEM on behalf of VRCT. There is no evidence of external quality assurance of IPEM performing this function.	
There is no evidence of QAA benchmark statements though there is a stated commitment to do so in conjunction with VRCT's 'successor body'.	
<b>Registration procedures</b>	
The registration procedures are clearly documented.	
<b>The primary criterion for entry onto the register if successful completion of the training scheme recognised by the IPEM.</b>	
Each application for membership of the voluntary register is considered/approved by the VRCT Assessors' Panel.	
* these are quality assessed thorough the HEIs.	



enclosure3c.xls: 7

CRITERIA:	SCORE:
<i>Independently assessed entry qualifications</i>	Partly met
<b>Summary comments (10 words max.)</b>	
This exists for the academic qualifications with the training component being assessed by the IPEM	
<b>Detailed comments</b>	
Entry for those wishing to practice in medical physics is by first degree. The BSc in Clinical Technology affords the most direct route.	
It is assumed therefore that the education provider assesses the entry qualifications to a programme.	
These courses are offered at the following universities: Nottingham/De Montfort, Sunderland, Swansea, NESCOL, Paisley, Bradford and Homerton School of Health Studies, Cambridge.	
The courses have undergone the validation processes of the awarding institution.	
2 of the courses have been validated by IPEM ~ Nottingham/De Montfort and Swansea.	
Training is provided in IPEM accredited centres and is externally audited by IPEM.	
The external quality assurance of the training provided and the assessment of competence in the workplace is undertaken by IPEM appointed external moderators.	
VRCT is proposing that its "successor body" will undertake an assessment of training to ensure that entrants meets the Standards of Proficiency.	
The IPEM training programme is monitored by the IPEM Accreditation & Training Committee.	
There is no evidence of the IPEM scheme being assessed by an independent body.	



enclosure3c.xls: 9

CRITERIA:	SCORE:
<i>Disciplinary procedures to enforce those standards</i>	Met
<b>Summary comments (10 words max.)</b>	
The VRCT has structures and procedures in place to enforce its standards	
<b>Detailed comments</b>	
VRCT has a formal disciplinary procedure in place.	
There were no examples of members undergoing the disciplinary procedures to date.	
There are guidelines in place for the selection of members of the disciplinary panel.	
The disciplinary panel comprises of members of the Professional Conduct Committee and is chaired by an individual who is not a member of VRCT, nor employed or connected with healthcare or higher education.	

# enclosure3c.xls: 10

CRITERIA:	SCORE:
<b>Commitment to continuous professional development (CPD)</b>	Met
<b>Summary comments (10 words max.)</b>	
There is commitment to CPD but VRCT does not operate its own scheme.	
<b>Detailed comments</b>	
It is a requirement of membership that members are committed to undertaking CPD.	
VRCT has no CPD scheme of its own. Instead members are encouraged to undertake the CPD schemes offered by IPEM and IEE.	
Members are encouraged to undertake these schemes or if they are not a member of IPEM or IEE, undertake CPD schemes offered by their employers.	
The IPEM CPD scheme is aimed at extending the body of knowledge, experience and skills.	
There is no documentary evidence submitted of what form CPD should take and by whom it will be assessed.	
There is no documentary evidence of how an individual should submit their CPD portfolio and how this links to continued membership.	