

Quality Assurance Framework

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Introduction

What is Quality?

Quality was defined in '[High Quality Care for all](#)' (DH, 2008) as having three dimensions: safety; effectiveness; and provision of the best possible experience.

How does the Academy quality assure the education and training of the healthcare science workforce?

The purpose of the Academy's quality assurance function is to maintain high standards of education, training and professional behaviour in the health service, so that patients receive high quality care from the healthcare science workforce. It therefore follows that quality assurance underpins everything we do.

The Academy has put **patients** at the heart of its organisational structure and the Academy's independent Regulation Council has both a lay Chair and a lay majority. It is expected that if they haven't already, then other healthcare science organisations will adopt a similar approach in order to ensure a patient-driven approach to quality assurance. Patient and Public Involvement (PPI) should take into account the views of users, carers and the wider public. There is a recognised need for better and more structured PPI involvement in the design, development and delivery of programmes of study. The Academy has actively supported Health Education England (via HEE West Midlands) in the development of a guide to implementation of the 'STP patient and public involvement project'. This project was primarily aimed at scientist training, however the approach recommended can equally be used for other programmes.

The Academy has a **UK-wide role**¹ encompassing England, Wales, Scotland and Northern Ireland. Each country is committed to **the Academy's six Strategic Objectives** as set out in the Academy's strategic plan².

¹ Follow these web links for more information on the four UK departments:

<https://www.england.nhs.uk/publications/bulletins/cso-bulletin/>

<http://gov.wales/topics/health/cmo/professionals/scientific/?lang=en>

<http://www.nes.scot.nhs.uk/education-and-training/by-discipline/healthcare-science/contacts.aspx>

<http://www.nidirect.gov.uk/chief-medical-officers-annual-report>

² The Academy's six Strategic Objectives

1. To support and promote Healthcare Science, scientific and diagnostic services, and the staff working in them - speaking for the profession with one clear voice.
2. To demonstrate the 'one voice' of the Healthcare Science profession by making authoritative responses to Government, regulatory bodies and independent organisations with remits in health and to the media and public on generic issues
3. To develop an accredited Register for Healthcare Scientists, as a step towards securing statutory registration for all people working within the Healthcare Science workforce
4. To support and recognise career development within the Healthcare Science workforce
5. To provide wider support and assurance for the education and training processes and standards across healthcare science
6. To strengthen the governance and internal working arrangements of the Academy and to ensure the financial sustainability of the Academy for the benefit of the public

Quality Assurance Mission and Aim

The Academy's **mission** is to establish, implement and develop Education and Training Standards for the professional accreditation of education and training for all the major career stages of the healthcare science workforce. The role of the Academy's Regulation Council is central to the fulfilment of this mission.

The Academy's quality assurance **aim** is to provide wider support and assurance for the education and training processes and standards across Healthcare Science by:

- Quality assuring the work of the National School for Healthcare Science (NSHCS) (<http://www.nshcs.org.uk/>), including NSHCS's Accreditation of HEIs and training workplaces (<http://nshcs.org.uk/for-the-public/accreditation>).

NSHCS accreditation visits are used for approval or re-approval against standards. Peer review-based discussion of curricula, tours of physical resources and cross-verification of documentary and oral evidence are recognised as the unique benefits of an accreditation visit.

- Supporting the development of new education and training curricula (<https://www.networks.nhs.uk/nhs-networks/msc-framework-curricula>)
- Supporting service improvement and accreditation initiatives such as the [IQIPS](#) 'Improving Quality In Physiological Services Programme' that aims to improve service quality, care and safety for patients undergoing physiological diagnostics and treatment.

Quality Assurance Roles and Responsibilities

The Academy has a key role to play in shaping the strategic direction of Modernising Scientific Careers (MSC) programmes and is represented on the Healthcare Science Implementation Network Group in which all Local Education Training Boards participate. This group oversees implementation of the MSC programme. The Academy is also represented on the Health Education England Advisory Group for Healthcare Science, which provides advice on workforce training and education issues to HEE's Multi-Professional Advisory Board.

In healthcare science education and training there are three levels of quality assurance:

- Level 1: Quality Assurance** of the UK system, carried out by the Academy for Healthcare Science using a 'right touch' approach that is fit for purpose. AHCS produces annual reports for the regulators: HCPC and the PSA.

- Level 2: Quality Management** carried out by the Lead LETB (for Healthcare Science (Health Education West Midlands <http://www.hee.nhs.uk/hee-your-area/west-midlands>) via the National School of Healthcare Science and the National Commissioner for Healthcare Science education.
The National Commissioner for Healthcare Science education in Scotland is NHS Education for Scotland, <http://www.nes.scot.nhs.uk/education-and-training/by-discipline/healthcare-science/contacts.aspx> which quality manages local HCS arrangements in partnership with the National School.

- Level 3: Quality Control** of education, training and placements carried out by education and training providers in conjunction with employers; with accountability comes a responsibility to highlight issues that need change. This may be done in response to accreditation / contract reviews but also via exception reporting, for example when complaints are received.

AHCS Education, Training and Professional Standards Committee

In 2014, the Academy established an Education, Training and Professional Standards Committee (ETPSC) to oversee Standards and Quality Assurance. The ETPSC has:

- An independent Chair: Professor Ed Peile, Emeritus Professor of Medical Education, University of Warwick
- Lay representatives who contribute to all the work of the Committee, including Patient and Public issues
- A close working relationship with the [AHCS Regulation Council](#).

Standards and quality assurance processes are important in ensuring that healthcare science education and training programmes are:

- Fit for practise and
- Fit for purpose.

Standards also lay out for education and training providers the clear requirements which they need to meet in the design and delivery of programmes, and set the expectations for members of the public on the education and training of the healthcare science workforce.

Academy principles in setting Standards and QA processes

There are six Academy principles in the development of both standards and quality assurance processes. These are:

- Proportionality
- Accountability
- Consistency
- Transparency
- Targeting
- Agility.

The table in the Appendix 1 summarises how these principles are applied to setting standards and quality assurance processes.

Standards and Curricula that the Academy endorses

AHCS Standards of Education and Training (SETs) set out the requirements for the learning, teaching and assessment environment to ensure that the outcomes of education and training address the necessary professional standards. They are consistent with the SETs used by the statutory register held by the Health and Care Professions Council (HCPC). SETs enable the Academy to make judgements on educational and training provision to ensure that the standards leading to professional practice are met.

Good Scientific Practice

Professional standards for the healthcare science workforce exist in the form of *Good Scientific Practice*. The development of *Good Scientific Practice* was a participative process which arrived at a consensus of views across the healthcare science workforce. Standards for education and training ensure not only fitness for practice but also fitness for purpose.

'Modernising Scientific Careers' (MSC) Curricula

The MSC curricula embed *Good Scientific Practice* into all MSC healthcare science courses. They link professional standards to standards for education and training by setting out the development of knowledge, skills and behaviours expected of the healthcare science workforce (degree level and above) and by explaining the core values that underpin professional values. NSHCS Curricula and Learning Guides are available at:

<http://www.nshcs.org.uk/for-training-officers/curricula-and-learning-guides>

AHCS Curriculum Development Standards

Programmes within the MSC framework are delivered at undergraduate level in the Practitioner Training Programme (PTP), at master's level in the Scientist Training Programme (STP) and doctoral level in the Higher Specialist Scientist Training (HSST) programme. Programmes within the MSC framework at the same educational level as the above programmes must meet these standards as well, e.g. Accredited Scientific Practice. Curricula are currently reviewed by the Education, Training and Scrutiny Group (ETSG), a sub-group of the Healthcare Science Implementation Network Group (HCS ING)* and approved by HCSING on the recommendation of ETSG. HCSING acts through Health Education England's delegated executive authority with respect to education, training and workforce arrangements for HCS.

AHCS Standards of Proficiency (SOPs) set out the minimum standard that a person must meet in order to register with the AHCS. These SOPs have been cross-referenced with the HCPC Standards of Proficiency. They cover the five domains of Good Scientific Practice:

1. Professional Practice
2. Scientific Practice
3. Clinical Practice
4. Research, Development and Innovation
5. Clinical Leadership

The Academy's PTP SOPs are available at:

<http://www.ahcs.ac.uk/the-register/register-standards/>

Registration, Regulation and Fitness to Practise

All of the abovementioned standards are required to make judgements on individuals for entry to and removal from a statutory or voluntary professional register. Professional standards set out the knowledge and skills required by a professional as well as expectations for professional practise.

In 2014, the Academy established an independent Regulation Council (<http://www.ahcs.ac.uk/the-register/regulation-council/>) with a lay chair, [Patricia Le Rolland](#), and majority lay membership to oversee Registration Standards, Rules and Fitness to Practice.

Registration of professionals is important for the protection of patients and is increasingly viewed as essential by employers, providers, commissioners and patients themselves. Through registration, an individual shows that they are committed to upholding high professional standards and to keeping their knowledge, skills and experience up-to-date through ongoing professional development. If individuals fail to uphold standards and show that they are [Fit to Practise](#) then they can have their registration status restricted or removed completely. The various stages and specialisms of the Healthcare Science workforce are regulated in different ways (see Appendix 2). Some parts of the workforce are regulated by law ('statutory regulation') through registration with the Health and Care Professions Council (HCPC). Other parts of the workforce take part in accredited / voluntary registration.

The new education and training routes introduced through Modernising Scientific Careers are changing the arrangements for Registration [across the various career levels of healthcare science](#). The Academy has grasped the nettle. It has established [an accredited register](#) which is structured and coherent, with the aim of protecting patients and public.

The Academy's commitment to driving up the quality of education and training

The Academy will continue to:

- Drive forward scientific excellence and strong leadership through quality assurance of the education and training framework.
- Be committed to working closely with professional bodies and to playing a pro-active role in national networks.
- Value high quality research evidence and support the principle that education and training is best delivered in research-active environments.
- Support the integration of new knowledge into practice.
- Analyse information from a wide variety of sources in order to learn from experience, improve performance and drive up standards of education, training and practice.
- Carry out regular monitoring against performance indicators to measure progress in achieving quality improvement aims and objectives.
- Value stakeholder feedback evaluation from the service, students / trainees, patients and the public. This evaluation will inform decisions on the further targeting of quality assurance activities and on the further development of standards.
- Hold wide-ranging talks with professional colleagues who join with us in seeing the benefits of working together. The Academy has close links with a number of organisations including professional bodies, whose specialist knowledge feeds into the National School of Healthcare Science's quality management processes. Each specialism is unique and carries its own risks, therefore this professional body engagement constitutes an important part of the Academy's overall Quality Assurance processes.
- Share information on best practice with a range of organisations, including employers, Health Education England and the Professional Standards Authority. We are all working towards better standards across the board. Feedback provides us with good intelligence on areas that need to be improved. By critically assessing evidence of what works and what does not work, we are able to focus our communications on specific approaches that are most likely to have a positive impact on raising standards.

Appendix 1

Academy principles in the development of Standards and Quality Assurance processes

Summary table showing how we apply these principles

Principle	Standards	Quality Assurance processes
Proportionality (‘Right touch’)	<p>The burden created to comply with standards should be proportionate to the risks presented.</p> <p>Standards are normally expressed as outcome statements, to allow a diversity of approaches to meeting them.</p> <p>As far as possible, standards will be applicable across the disciplines and roles of the healthcare science workforce.</p>	<p>It is a requirement that organisations and individuals undertake activities that help to mitigate risk.</p> <p>Processes must call on evidence that already exists as much as possible.</p>
Accountability	<p>In producing and revising standards, there will always be appropriate public consultation.</p> <p>Standards will be reviewed periodically to ensure that they remain fit for purpose.</p>	<p>The Academy is accountable to both HCPC and the PSA – healthcare science regulators.</p> <p>The NSHCS is accountable to the Academy for its quality management and accreditation operations.</p>
Consistency	<p>Adherence to standards must be measurable.</p> <p>As far as possible, standards will be consistent with other standards relevant to healthcare science.</p>	<p>It is a requirement that individuals involved in QA are trained and developed, to ensure consistency.</p> <p>QA decisions will be independent of both education commissioners and providers and will be evidence-based.</p>
Transparency	<p>The process for producing standards will be transparent, with clear points of consultation and the inclusion of organisational, professional and lay views.</p> <p>The purpose of standards will be transparent and they will be available on the Academy’s website.</p>	<p>QA processes will be transparent to all organisations and the individuals who have to use them, including members of the public. Processes include observations of the assessment provisions of education providers. The outcomes from QA activities will be publicly accessible via the AHCS web site.</p>
Targeting	<p>Standards are targeted at areas of risk.</p> <p>When standards are reviewed, the creation of new standards or revisions to existing standards will be based in part on the evidence of risk.</p>	<p>QA processes will identify risk and prioritise areas of high risk over areas of low risk.</p> <p>Where other bodies operate QA processes in the same setting, targeting will be used to prevent the duplication of evidence collection.</p>
Agility	<p>Standards will not inhibit the development of a profession or service, provided all risks have been reasonably mitigated.</p> <p>Standards will be reviewed periodically to mitigate new and emerging risks, and amended where evidence suggests that existing standards require it or removed if they lack continued relevance.</p>	<p>Wherever possible QA will be pro-active and with an emphasis on risk prevention.</p>

Appendix 2

Regulation and routes to registration

Regulation exists to protect the public against the risk of poor practice. It works by setting agreed standards of practice and competence and registering those individuals who meet those standards and who have been assessed as competent to practise.

Registration of professionals protects patients and is increasingly viewed as essential by employers, providers, commissioners and patients themselves. Through registration, an individual shows commitment to upholding high professional standards and to keeping their knowledge, skills and experience up-to-date through ongoing professional development. If individuals fail to uphold standards or show that they are Fit to Practise then they may have their Registration status restricted or removed.

The various levels and specialisms of the Healthcare Science workforce are regulated in different ways. Some parts of the workforce are regulated by law ('statutory regulation') through registration with the Health and Care Professions Council (HCPC). Each statutorily registered profession has its own specific protected professional title, which can only be used by a registered member of that profession. 'Biomedical Scientist', 'Clinical Scientist' and 'Hearing aid dispenser' are the protected titles for the three professions in Healthcare Science that are statutorily regulated by the HCPC. Certain other parts of the Healthcare Science workforce take part in accredited registration, e.g. via the Register of Clinical Technologists, or voluntary registration e.g. via the Registration Council for Clinical Physiologists.

The Academy has long held the view that the best way to protect patients, the public and the interests of the NHS is for all groups within Healthcare Science to be covered by Statutory Regulation. For professions not currently statutorily regulated by the HCPC, the Academy provides a Register that is accredited by the Professional Standards Authority (PSA)*. Commissioned by Health Education England (HEE), this Register is co-ordinated across Healthcare Science and is an important step in achieving the Academy's long term aim of supporting all parts of the Healthcare Science workforce to achieve statutory regulation.

** See Appendix 3 for more information on the PSA's Accredited Register scheme*

Registration Arrangements for the Healthcare Science workforce at each Career Level

Practitioner Training Programmes (PTP – Degree level)

Life Sciences

Where a Healthcare Science (life sciences) honours degree practitioner training programme (PTP) has been accredited by the National School of Healthcare Science and approved by the HCPC, the graduate is eligible to apply for statutory registration as a Biomedical Scientist with the HCPC. Graduates are also eligible to apply to join the Academy's Accredited Register as a Healthcare Science Practitioner.

Healthcare Science (life sciences) honours degree practitioner training programmes may additionally be accredited by the Institute of Biomedical Science. As above, the graduate is eligible to apply for statutory registration as a Biomedical Scientist with the HCPC, and eligible to apply to join the Academy's Accredited Register as a Healthcare Science Practitioner.

A list of HCPC-approved programmes is available at www.hcpc.org.uk. A list of IBMS approved healthcare science Practitioner Training Programme degrees is available at www.ibms.org

The HEE NHS primary route to registered practitioner is the PTP – and as such receives the NHS tariff.

There is an additional category of healthcare science (life sciences) degree practitioner training programmes: graduates of biomedical science degrees accredited solely by the Institute of Biomedical Science and approved by the HCPC (i.e. not accredited by the NSHCS). These graduates are eligible to apply for statutory registration as a Biomedical Scientist with the HCPC, but not directly for the Academy's Accredited Register of Healthcare Science Practitioners. Further information about these degrees is available at www.ibms.org

Physiological Sciences and Physical Sciences

Where a physiological or physical sciences PTP has been accredited by the National School of Healthcare Science, a graduate is eligible to apply to join the Academy's Accredited Register.

A list of National School of Healthcare Science-accredited practitioner training programmes is available on the [NHS networks website](#).

The AHCS PTP Certificate of Equivalence is for individuals already working in Healthcare Science in the UK, EU or overseas who now wish to register as a Healthcare Science Practitioner. The Academy expects that anyone who can register as a practitioner should be so registered. For this reason AHCS established the 'equivalence' process so that individuals who are competent at practitioner level but do not hold a PTP degree can be registered as a practitioner. This process involves a formal, objective assessment of an individual's knowledge, skills and competencies against a set of pre-defined and established standards (standards of proficiency for healthcare science practitioners). These standards are also used to approve PTP degrees. Achieving the PTP Certificate of Equivalence demonstrates that previous training, qualifications and experience meet the learning outcomes of the relevant specialist Modernising Scientific Careers programme and confers eligibility to apply for registration. Joining the register shows commitment to high standards of technical competency, patient safety, quality and professional and personal behaviour. It also offers a degree of assurance to employers, colleagues, service users and patients.

Alongside this process, the Academy has also established a process whereby individuals who are competent anatomical pathology technologists, genetic technologists, ophthalmic science technologists or tissue bank technologists can be registered as such. The process mirrors what was in place for a number of years for these disciplines with their previous voluntary registration body. As with PTP 'equivalence', the process for these four disciplines involves a formal, objective assessment of an individual's knowledge, skills, competencies and behaviours against a set of pre-defined and established standards (there are published standards of each of the four disciplines). This assessment process can lead to the award of a Certificate of Competence and thereby eligibility to apply to register with AHCS.

Clinical Scientists (Master's level)

In order to work in the UK under the protected title 'Clinical Scientist' one must first gain registration as such with the Health & Care Professions Council ([HCPC](#)). Until that point one may work in clinical science in the UK but as a pre-registrant/trainee. There are different options available to individuals wishing to apply to obtain HCPC registration as a Clinical Scientist in the UK.

1) HCPC International route

This route is for those already considered fully trained, qualified and working overseas, but wishing to obtain HCPC registration in the UK as a Clinical Scientist. These individuals should obtain information directly from the [HCPC](#).

2) Academy for Healthcare Science (AHCS) Certificate of Attainment / Certificate of Equivalence

Certificate of Attainment

This route is for those who have successfully completed a formal Modernising Scientific Careers Scientist Training Programme (STP).

Certificate of Equivalence

For those who have undertaken training, hold qualifications and/or professional experience equivalent to those trained through the relevant STP programme. The AHCS do not prescribe a specific length of training to confer equivalence, although applicants should note that graduates from the STP programme will complete three years of Masters level (EQF level 7) education including a minimum of 90 weeks integrated workplace training, and it is unlikely that periods of experience substantially less than this will be deemed adequate. Applicants are assessed against [Good Scientific Practice](#) in relation to the appropriate STP learning outcomes that can be found in the STP Curricula and Learning Guides on the NHS Networks website [here](#). Applications for the Certificate of Equivalence (STP) are considered in three stages, the preliminary (screening) application, preparing the portfolio and the assessment stage. In the preliminary stage, the applicant's basic qualifications and experience are reviewed, this is an administrative check and the applicant should ensure that they have the appropriate background to apply. Once applicants have been approved for portfolio submission, a portfolio must be submitted within six months of the approval date, except in exceptional circumstances. For more detail on these options please seek information directly from the [AHCS](#).

Further information:

- [STP Certificate of Attainment Programme Handbook](#) (Aug14)
- [STP Certificate of Equivalence Programme Handbook](#) (Aug14)

3) Association of Clinical Scientists (ACS) Certificate of Attainment

ACS Route ONE

For those who have successfully completed an ACS constituent member professional body approved formal pre-registrant clinical scientist training role (formally 'Grade A') and have other relevant experience working as a pre-registered clinical scientist supervised by a GMC or HCPC registered clinical scientist (or a supervisor approved by the ACS Board on request). This experience comprise at least three years of relevant full time work in total.

ACS Route TWO

For those who may not have completed the formal training associated with Route ONE, but have extensive experience, totalling at least six years, in the relevant field, of which at least three years must be in the role of a supervised pre-registrant clinical scientist (with the above conditions of supervision). The remaining experience may be taken from time working towards completing a relevant PhD, or work as a Biomedical Scientist with appropriate experience.

Notes

It may be noted that for either of the ACS Routes of applications we can accept experience gained from overseas towards an application.

Please see the ACS [Guidelines for application](#) on the ACS website for more information, in particular pages 4 & 5 for the formal definitions and subsequent explanations of each route of application.

For more information specific to your modality, including advice on training and qualified Clinical Scientist opportunities in the UK, you may wish to contact the relevant ACS constituent member [professional body](#) to your field for advice. If the relevant professional body is unable to advise please direct any specific queries you might have by reply to this email and we will forward to their representative on the ACS Board who may be able to respond with some advice in due course.

Higher Specialist Scientist Register (HSSR – Doctorate level)

Since a process of Equivalence is intended for all career stages of the Modernising Scientific Careers Framework, there is now a route onto the HSSR via Equivalence. Applicants need to demonstrate that their previous training, qualifications and experience reflect the outcomes of Higher Specialist Scientist Training. As the Higher Specialist Scientist Training (HSST) programme takes five years to complete, in the immediate future Equivalence will be the sole route onto the HSSR.

The AHCS asked early implementer Equivalence applicants to test and finalise the Equivalence process. Details are available via the Academy's [web site](#). Candidates are all HCPC-registered Clinical Scientists.

The process involves an initial application with a full Curriculum Vitae, certificates and referees. Applicants also need to provide a validated job description and person specification.

There are three possible outcomes:

1. Equivalence to HSST has been demonstrated and a Certificate of Equivalence is recommended.
2. Additional evidence is required.
3. Equivalence has not been achieved.

The guidance and handbook for making an initial application / creating a full portfolio will be finalised in 2016, after the early implementer phase (the HSSR scheme proper commences in April 2016).

Discussions with the PSA took place in spring 2015 and the Academy's 'Notification of Change' to extend the scope of its PSA-Accredited Register to include a new HSSR part was formally accredited in autumn 2015. Discussions with the Health and Care Professions Council (HCPC) have also taken place, resulting in an agreed, coherent approach to all HSSR Fitness to Practise issues.

Future plans

The Academy's view is that ultimately the entire Healthcare Science workforce should be registered. Therefore the Academy is currently exploring the possibility of opening a new part of its Accredited Register for the Assistant and Associate workforce (Career Framework levels 2-4). Plans are at an early stage. Further news on developments in this area will be made available via the Academy's website in 2016.

Appendix 3

About Accredited Registers

The [Professional Standards Authority](#) is government-funded and accountable to the UK Parliament. It is responsible for the scrutiny and annual performance review of regulatory bodies, whether statutory (such as HCPC) or accredited (such as AHCS).

The Accredited Registers programme is run by the Professional Standard Authority and aims to enhance public protection and promote public confidence in health and social care occupations that are not statutorily regulated.

The Professional Standards Authority accredits registers of people working in a variety of health and social care occupations. In order to be accredited, organisations holding these registers must prove that they meet our demanding standards in areas such as education and training, registration and governance. In addition, the organisation needs to demonstrate its commitment to public protection.

Accreditation provides assurance to the public that the registers are well run and that the organisation requires its registrants to meet high standards of personal behaviour, technical competence and, where relevant, business practice.

The Professional Standards Authority publishes a list of Accredited Registers on the website and allows these organisations to use the 'quality mark' (shown below) on their literature and their websites to show that they are accredited by the Authority.



Only Accredited Registers and their registrants are allowed to use the accreditation mark.

Accreditation lasts for 12 months and is renewable annually, provided organisations demonstrate that they continue to meet our standards.