

**Table 2 - Evidence Map, AHCS Standards of Proficiency**

AHCS Standards of Proficiency	Location of Evidence in Portfolio
<b>1. PROFESSIONAL AUTONOMY AND ACCOUNTABILITY</b>	
<b>Standard 1: Understand your role in Healthcare science and its contribution to the delivery of high quality healthcare</b>	
1.1 Understand your first concern is always the service user and the public	
1.2 Understand the need to respect and uphold the rights, dignity, confidentiality and autonomy of service users, including your role in the testing, investigation, diagnosis, treatment and therapy process, and in maintaining health and wellbeing	
1.3 Are able to maintain the highest standards of care and service, treating every individual with compassion, dignity and respect	
1.4 Understand the need to take responsibility not only for the care that you personally provide (whether or not your role involves direct service user/patient contact), but also for your wider contribution to the aims of your team and the healthcare system as a whole	
1.5 Understand the current structure and function of Health and Social Care services in the UK	
1.6 Are able to actively contribute to sustainably improving services by working in partnership with service users, colleagues, local communities and the public	
<b>Standard 2: Are able to practice safely and effectively within your scope of practice</b>	
2.1 Understand the need to work within the limits of your personal competence	
2.2 Understand the need to work within your agreed scope of practice for lawful, safe and effective Healthcare Science	
2.3 Know the limits of your practice and when to seek advice or refer to another professional	

<b>Standard 3: Are able to practice within the legal and ethical boundaries of your profession as a Healthcare science Practitioner</b>	
3.1 Are able to exercise a professional duty of care	
3.2 Understand the standards of proficiency, conduct and continuing professional development expected of you by the Academy for Healthcare Science	
3.3 Know about, and be able to meet the current legislation and policy applicable to your work	
3.4 Understand the need, where appropriate, to hold indemnity insurance	
<b>Standard 4: Are able to maintain fitness to practice</b>	
4.1 Understand the importance of maintaining your own health	
4.2 Understand the need to maintain high standards of personal, professional and business conduct	
4.3 Understand the need to maintain, develop and update your knowledge and skills once registered	
<b>Standard 5: Are able to practice as an autonomous health professional, exercising your own professional judgment</b>	
5.1 Are able to draw on appropriate skills and knowledge in order to make professional judgments	
5.2 Are able to assess a situation, determine the nature and severity of the problem and call upon the required knowledge and experience to deal with the problem	
5.3 Know the limits of your patience and when to seek advice or refer to another professional	
5.4 Recognise that you are personally responsible for, and must be able to justify your decisions	

<b>Standard 6: Are aware of the impact of culture, equality and diversity on practice</b>	
6.1 Understand the requirement to adapt practice to meet the diverse needs of service users	
6.2 Understand the need to take account of a service user's individual physical, psychological, religious and cultural needs when delivering healthcare	
6.3 Understand the need to respect and uphold the rights, dignity, values and autonomy of service users (including their role in the diagnostic and therapeutic process and in maintaining health and wellbeing)	
6.4 Understand the need to address issues of inequality of service provision for all communities	
<b>Standard 7: Are able to practice in a non-discriminatory manner</b>	
7.0 Are able to practice in a non-discriminatory manner	
<b>Standard 8: Understand the need for openness and transparency in the management and delivery of healthcare</b>	
8.1 Understand the need to protect service users from risk or harm presented by another person's conduct, performance or health and to act appropriately when concerns are identified or raised	
8.2 Understand the duty of candor you owe to service users/patients and the public, and know how to act accordingly	
8.3 Understand how to share information as appropriate with service users/patients/carers, colleagues and other services to support the quality of care in line with published guidance and legal requirements, taking into account data protection and confidentiality	
8.4 Understand that your conduct should at all times justify the trust of service users/patients, carers, colleagues and the public in the scientific profession	

<b>Standard 9: Understand the importance of and be able to maintain confidentiality</b>	
9.1 Understand the need, when appropriate to obtain informed consent	
9.2 Understand the need to maintain the confidentiality of service user's information and records in line with published guidance, legal requirements and the wishes of the service user	
9.3 Understand that the requirements of confidentiality and informed consent extends to (for example) test results, recordings, digital images and illustrations	
<b>Standard 10: Are able to maintain records appropriately</b>	
10.1 Understand the need to maintain a complete record including all relevant information related to tests, investigations and treatment	
10.2 Are able to keep accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines	
10.3 Are able to provide clear reports using appropriate methods of analysing, summarising and displaying information in ways that are accessible and understandable by non-scientific professionals	
<b>Standard 11: Are able to communicate effectively</b>	
11.1 Understand how communication skills affect the provision of Healthcare Science and how the means of communication should be modified to address and take account of sensory or cognitive impairments	

<p>11.2 Are able to demonstrate effective and appropriate skills in communicating information, advice, instruction and professional opinion to colleagues, service users, their relatives and carers:</p> <ul style="list-style-type: none"> <li>• Are able to gather information, including qualitative and quantitative data, that helps to evaluate the responses of service users to their care</li> <li>• Are able to evaluate intervention plans using recognized outcome measures and revise the plans as necessary in conjunction with service users</li> <li>• Recognise the need to monitor and evaluate the quality of practice and the value of contributing to the generation of data for quality assurance and improvement programmes</li> <li>• Are able to make reasoned decisions to initiate, continue, modify or cease investigation, treatment or the use of techniques or procedures, and record the decisions and reasoning appropriately</li> <li>• Are able to select and apply quality control and quality assurance techniques in accordance with standard operating procedures, national and international guidelines</li> <li>• Are able to identify and respond appropriately to abnormal outcomes</li> </ul>	
<p><b>Standard 12: Are able to work appropriately with others</b></p>	
<p>12.1 Understand the need to work with other professionals, support staff, service users, carers and relatives in the ways that best serve the interests of individual service users and the public</p>	
<p>12.2 Understand the need to work effectively as a member of a multi-disciplinary team</p>	
<p>12.3 Understand the need to consult and take advice from colleagues where appropriate</p>	
<p>12.4 Understand the needs to respect the skills and contributions of your colleagues</p>	
<p>12.5 Understand the need to share information with colleagues to protect the health, safety and well-being of service users and the public</p>	
<p>12.6 Understand the need to maintain responsibility when delegating to others and provide support when necessary</p>	

<b>2. SKILLS REQUIRED FOR PRACTICE AS A HEALTHCARE SCIENCE PRACTITIONER</b>	
<b>Standard 13: Are able to draw on appropriate Healthcare Science knowledge and skills required for safe and effective practice</b>	
13.1 Are able to identify and assess the Healthcare Science needs of service users	
13.2 Are able to gather appropriate information within the context of Healthcare Science and its application in Healthcare	
13.3 Are able to select and use appropriate standardised and non-standardised assessment techniques, including (where appropriate): <ul style="list-style-type: none"> <li>• Are able to undertake and record a thorough, sensitive and detailed assessment, using appropriate techniques and equipment</li> <li>• Are able to demonstrate practical skills in the essentials of measurement, data generation and analysis</li> <li>• Are able to validate routine scientific and technical data and demonstrate compliance with pre-defined quality standards</li> <li>• Are aware of the need to assess and evaluate new equipment, methods and procedures prior to routine use</li> <li>• Are able to undertake and arrange investigations or assessments as appropriate using protocols to select standard healthcare science procedures</li> </ul>	
13.4 Are able to conduct appropriate healthcare science procedures including: <ul style="list-style-type: none"> <li>• Understand the need to maintain the safety of both service users and those involved in their care</li> <li>• Are able to use equipment, methods and other technology in routine clinical investigations in accordance with standard operating procedures, national and international guidelines</li> <li>• Are able to perform standard healthcare science procedures, including working directly with patients (where appropriate) to reproducible and measurable quality standards</li> </ul>	

<ul style="list-style-type: none"> <li>• Are able to validate standard scientific and technical data and observations from service users according to pre-determined quality standards</li> </ul>	
<p>13.5 Are able to analyse and critically evaluate the information collected, including:</p> <ul style="list-style-type: none"> <li>• Are able to contribute to the investigation and monitoring of disease processes and normal states</li> <li>• Are able to evaluate the performance of equipment and take corrective action where appropriate</li> <li>• Are able to use standard operating procedures to analyse data</li> <li>• Are able to participate in the audit of scientific and technical data</li> <li>• Are able to evaluate risks and their implications</li> <li>• Are able to produce a technical report on data collected and analysis undertaken</li> <li>• Are able to undertake or arrange investigations as appropriate and in accordance with standard protocols</li> </ul>	
<p>13.6 Are able to report on information collected, analysis undertaken and findings/results identified</p>	
<p>13.7 Are able to formulate and deliver specific and appropriate plans and strategies for meeting the Healthcare Science needs of service users, including setting of timescales</p>	

<p>13.8 Are able to use research, reasoning and problem-solving skills to determine appropriate actions, including:</p> <ul style="list-style-type: none"> <li>• Are able to recognise the value of research to the critical evaluation of practice</li> <li>• Are able to engage in evidence-based practice, evaluate practice systematically, and participate in audit procedures</li> <li>• Are aware of a range of research methodologies</li> <li>• Are able to demonstrate a logical and systematic approach to problem solving</li> <li>• Are able to perform scheduled experimental work and to produce and present results</li> <li>• Re able to present data in an appropriate form</li> </ul>	
<p>13.9 Are able to monitor and review the ongoing effectiveness of planned activity and modify it accordingly, including:</p> <ul style="list-style-type: none"> <li>• Are able to gather information, including qualitative and quantitative data, that helps to evaluate the responses of service users to their care</li> <li>• Are able to evaluate intervention plans using recognized outcome measures and revise the plans as necessary in conjunction with service users</li> <li>• Recognise the need to monitor and evaluate the quality of practice and the value of contributing to the generation of data for quality assurance and improvement programmes</li> <li>• Are able to make reasoned decisions to initiate, continue, modify or cease investigation, treatment or the use of techniques or procedures, and record the decisions and reasoning appropriately</li> <li>• Are able to select and apply quality control and quality assurance techniques in accordance with standard operating procedures, national and international guidelines</li> <li>• Are able to identify and respond appropriately to abnormal outcomes</li> </ul>	
<p><b>Standard 14: Are able to reflect on, evaluate and review practice</b></p>	

14.1 Are able to critically reflect on their performance or situations and understand the need to record the actions they will put in place and the outcome of such reflection	
14.2 Understand the need to keep their professional, scientific, technical knowledge and skills up to date	
<b>Standard 15: Are able to assure the quality of your practice</b>	
15.1 Understand your role in assuring the quality of healthcare delivered to patients/service users	
15.2 Are able to engage in evidence-based practice	
15.3 Understand the need to plan, take part in, and act on the outcome of regular and systematic audits	
15.4 Understand the need to respond constructively to the outcome of audits, appraisals and performance reviews, undertaking further training where necessary	
<b>Standard 16: Understand the need to establish and maintain a safe environment in which healthcare is delivered</b>	
16.1 Understand the need to take reasonable care of health and safety at work for yourself, other members of your team and others, and to co-operate with employers to ensure compliance with health and safety requirements	
16.2 are able to identify and manage sources of risk in the workplace, including manual handling, specimens, raw materials, needlestick injuries, clinical and special waste, equipment, radiation and electricity	
16.3 Understand the need to apply correct methods of disinfection, sterilisation and decontamination and deal with waste and spillages accordingly	
<b>3. KNOWLEDGE OF HEALTHCARE SCIENCE</b>	
<b>Standard 17: Understand the key concepts of the knowledge base relevant to Healthcare Science</b>	
17.1 Understand the structure and function of the human body, together with knowledge of health, disease, disorder and dysfunction relevant to Healthcare Science	

17.2 Understand the scientific principles upon which the practice of Healthcare Science is based	
17.3 Understand the underpinning knowledge of anatomy, physiology, pharmacology, pathology, biochemistry, immunology, epidemiology, public health medicine, genetics, microbiology and the psychosocial dimensions of health to provide the foundations for study in any of the three divisions of Healthcare Science – namely Physical Sciences and Biomedical Engineering, Life and Pathology Sciences, and Physiological Sciences	
17.4 Are aware of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process	
17.5 Recognise the role of other professions in Health and Social Care	
17.6 Understand the theoretical basis of, and the variety of approaches to assessment and intervention 17.7 Know the basic science underpinning the discipline in which the registrant practices and be able to put it into the clinical context	
17.8 Know the main clinical applications of the technology used in the discipline and the importance of decisions arising from the results of standard Healthcare Science procedures	
17.9 Understand the principles and practice of instruments, equipment and methodology used in the discipline	
17.10 Know the standards of practice and performance expected from the correct use of relevant equipment, methods and other technology and how to seek advice when confronted with non-standard data	

<p>17.11 Healthcare Science Practitioners in medical physics and clinical engineering must:</p> <ul style="list-style-type: none"> <li>• Know the physics and engineering principles and clinical application of clinical, scientific or technical procedures relevant to the specialism</li> <li>• Know and understand the performance of a range of clinical, scientific or technical procedures relevant to the specialism including measurement principles, indications, contra-indications and limitations</li> <li>• Understand the quality assurance processes for a range of clinical, scientific or technical procedures relevant to the specialisms and to maintaining patient safety including calibration, action levels and infection control</li> <li>• Understand the equipment lifecycle including specification, procurement, commissioning, preventative maintenance, fault finding and repair, calibration, safety testing and decommissioning for equipment relevant to the specialism</li> <li>• Understand the analysis and reporting of data from a range of clinical, scientific and technical procedures relevant to the specialism and the use and limitations of reference ranges, action levels and normal values</li> </ul>	
<p>17.12 Healthcare Science Practitioners in physiological science must:</p> <ul style="list-style-type: none"> <li>• Know the pathophysiology of common conditions affecting patients referred for investigation</li> <li>• Know and understand the underpinning performance of a range of physiological (and where appropriate psychophysical) measurement investigations including measurement principles, indications, contra-indications and limitations</li> <li>• Know the quality assurance processes to assure the quality of a range of physiological measurement investigations relevant to the specialism and patient safety including calibration and infection control</li> <li>• Know the range of physiological measurement investigations undertaken in a paediatric setting including consent, child protection, embryology, child development investigative techniques and treatment options appropriate to the specialism</li> <li>• Know the therapeutic options including medication, non-pharmacological treatments, rehabilitation and stress management appropriate to the specialism</li> </ul>	

<ul style="list-style-type: none"> <li>• Know frameworks for analysis and reporting of data from a range of physiological measurement investigations relevant to the specialism and the use and limitations of reference ranges/normal values</li> </ul>	
<p>17.13 Healthcare Science Practitioners in laboratory sciences must:</p> <ul style="list-style-type: none"> <li>• Know the pathology of common conditions affecting patients referred for investigation relevant to the specialism and undertake or arrange investigations as appropriate</li> <li>• Know and understand the underpinning performance of a range of investigations relevant to the specialism including principles, indications, contra indications and limitations</li> <li>• Know the quality assurance processes to assure the quality of a range of life science investigations relevant to the specialism including equipment and infection control, and understand the need to establish and maintain a safe practice environment</li> <li>• Know the range of life science investigations undertaken in routine and specialist cases and the development of relevant investigative techniques appropriate to the specialism</li> <li>• Know frameworks for analysis and reporting of data from a range of life science investigations relevant to the specialism and the use and limitations of reference ranges/normal values.</li> </ul>	