



08 January 2015

## **Healthcare Science Draft Apprenticeship Standards: levels 2-4**

### **Response from the Institute of Biomedical Science**

The Institute of Biomedical Science (IBMS) is the UK professional body for biomedical science. It represents approximately 20,000 members employed mainly in NHS laboratories, NHS Blood and Transplant, Public Health services, private laboratories, research, industry and higher education. In its capacity as a standard setting organisation, and also an HCPC approved education provider, the Institute welcomes the opportunity to contribute to this consultation on the final version of the Healthcare Science Draft Apprenticeship Standards for Levels 2-4 of the career framework, which lead to the appointment of Healthcare Science Assistants and Associates. We are, however, disappointed at the shortness of the consultation period for such an important piece of work.

The IBMS has amongst its members a full representation of the Healthcare Science career framework, which the apprenticeship standards and underpinning knowledge requirements support.

A number of suggestions regarding the standards have been made and the IBMS is also seeking clarification on a number of points, which may help with the development of further guidance and support material.

#### **Nomenclature**

The use of the term 'Level' is unclear. For other Trailblazers 'level' appears to refer to academic or key skills levels, whereas in healthcare science it appears to refer to career framework level. To avoid confusion and to ensure consistency the Institute would recommend that academic level is used and where appropriate reference the relationship to the corresponding HCS career framework (HCSCF) level.

The separate titles of Healthcare Science Assistant and Healthcare Science Assistant Practitioner are possibly an over complication of a single role that is variable graded and remunerated at either Band 2 or 3 depending on local policy. It may be more beneficial to amalgamate these two sets of standards in to a single academic level 3 award for Healthcare Science Assistant.

#### **Entry Criteria**

For all three sets of standards the entry criteria are not specified, instead the outcome in respect of maths and English is given so by definition are not entry criteria (i.e. requirements for admission to the programme). The expected entry criteria should be clearly stated in addition to the outcome on successful completion.

The entry criteria wording for level 4 is identical to level 3.

The transition from Level 3 to Level 4 standards marks a shift from straightforward tasks to being capable of responding to the demands of more complex activities. As candidates for Level 4 apprenticeships need to demonstrate more explicit reasoning ability and personal responsibility in making decisions about how tasks are organised the stated entry requirement should be either a Level 3 Apprenticeship award or another appropriate Key Skills Level 3 award.

### **Registration**

The guidance issued by HM Government “*The Future of Apprenticeships in England – guidance for developers of apprenticeship standards and related assessment plans*” states that apprenticeship standards must link to professional registration where this exists in the occupation. The Science Council’s Registered Science Technician (RSciTech) and Registered Scientist (RSci) registers are well established and supported by the Gatsby Charitable Foundation that is also supporting the development of the apprenticeship Trailblazers project. The level 3 and 4 standards would enable those who successfully complete the respective training programmes to apply for entry on to the RSciTech or RSci registers (indeed this would be the expectation) and this should be clearly stated as an outcome for these standards. However, in the interests of transparency and patient protection the Institute feels it should be stressed that completion of either of these two apprenticeship levels will only lead to voluntary registration and not statutory regulation with the Health and Care Professions Council.

### **Knowledge standards**

#### **Level 2 and 3**

These encompass the generic knowledge and skills that would be necessary for healthcare science assistant roles and can map to HCSCF levels 2 and 3 and also the Agenda for Change Bands 2 and 3. However, as responsibility and remuneration is not consistent across all employers for staff at the AfC Bands 2 and 3 it may be more appropriate to consider the amalgamation of these two sets of standards in to a single set at academic level 3, the outcome of which would be eligibility to apply for registration as a Registered Science Technician irrespective of whether the individual is employed as a Band 2 or 3.

#### **Level 4**

In the second paragraph of the role description it states that the HCS Associate will “often be able to work without supervision”. This may be interpreted somewhat too liberally by some employers and in the interest of patient safety it should perhaps read “The HCS Associate will often be able to work without *direct* supervision”.

We feel that the knowledge component of the Level 4 standards may be disproportionately detailed and prescriptive and not directly relate to the skills. For this reason we believe it would be resource intensive and not suitable for employer led delivery without the addition of external educational support in the form of a formal taught element. Additionally, the level and detail of the core knowledge component would be difficult to deliver in an 18 month apprenticeship and would be more commensurate with a Foundation Degree syllabus, which is of more than 18 month duration.

We feel there is a disproportionate emphasis on Life Sciences, and in particular pathology laboratory investigations, which would be significantly less relevant to those apprentices in either a physiological science or physical science role and may prove challenging for trainers from a non-life science environment to deliver. For these reasons it is the view of the Institute that the Level 4 knowledge standards are not suitable for release in their current form and require a significant review. We would make the following suggestions for consideration:

- The knowledge standards should more directly relate to the skills standards with less emphasis on specific background theoretical knowledge
- The knowledge standards should either provide an equal generic spread across the breadth of healthcare science OR should offer a choice of Life Science, Physiological Science or Physical Science according to the environment in which the apprentice training is being undertaken OR could give employers the option of training a sector specific apprentice or a generic HCS apprentice.

Below are specific elements of the Level 4 mandatory knowledge standards that may not be required for all healthcare science disciplines and may be viewed as too pathology specific to be suitable for many roles:

- the chemical, cellular and tissue level of organisation of the body and the structure and function of the cell
- the anatomy, physiology and pathology of the body
- the cellular, tissue and systems responses to disease
- the pathophysiology of disease
- the principles of immunology
- how epidemiology relates to individual patients and how chronic disease may impact on a patient
- the role of genetics in medicine
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The following are not felt to be essential to this level of staff or are potentially too broad:

- professional practice in healthcare science, including policies, innovation, patient and colleague relationships and continuous improvement
- basic epidemiological and statistical concepts and how these contribute to evidence-based medicine
- a basic understanding of how epidemiology is used in planning health services

### **Optional Knowledge**

The list of optional knowledge standards covers mainly physiological and medical physics topics. For those apprentices in a physiological or medical physics role we would question whether it is appropriate that the knowledge elements, key to the functions they undertake, should be offered only as optional rather than mandatory for their scientific specialism. These standards give the impression that pathology laboratory knowledge is essential for all healthcare science associate practitioners and other knowledge is added on as required. If this truly is the intention, it would be helpful for this to be explicitly stated to avoid confusion for those apprentices and trainers in a physiology or medical physics environment.

It is noted that the Royal College of Pathologists logo strap line “The science behind the cure” has been used in this category. We are uncertain how this would be translated, and therefore assessed, in terms of optional knowledge. Similarly “building blocks of life” presumably refers to structure, function and metabolism of macromolecules normally covered in biochemistry and metabolism which is already listed in Mandatory Knowledge topics. Again, we would suggest it would be most helpful to be explicit regarding the intended outcome.

### **Skills (level 4 standards)**

It is appreciated that the following statements are open to interpretation however, in the interests of protecting patients and public, we would encourage the differentiation between the practice of

autonomous qualified practitioners regulated by statute and those individuals trained and competent to work in a highly skilled but nevertheless support worker capacity.

- analyze and interpret clinical data in the context of routine investigations and diagnosis relevant to healthcare science
- present and explain results clearly and accurately using numerical, graphical and written formats appropriate to purpose, findings and audience
- communicate complex information in terms suitable for the recipient
- Recording, analysing and reporting a range of clinical data in manual and electronic formats

We feel that phrases such as “assist with research projects” may be misleading in terms of expectation.

Looking to the future and the launch of these apprenticeships, the Institute would welcome the opportunity to understand the following points in order to respond to queries from its members.

### **Behaviours**

Are the core behaviours related to the person selection criteria?

### **Duration of the Apprenticeship**

The entry criteria into the apprenticeships are not stated. It would be helpful to know who the target individuals are and expected qualifications they might have, if any.

It is stated the apprenticeships are a minimum of 12 months and average of 18 months duration. Further information on how this may be delivered would be necessary ahead of formal publication and release, i.e.: taught academic courses (which are usually of a finite length), work-based teaching and learning, or a mixture of both?

### **Funding**

What funding arrangements are in place to support the introduction of an apprenticeship programme? Would these be regarded as supernumerary posts?

### **Review Date**

Which employers will review the standards? Will they be open to consultation?

Thank you once again for the opportunity to respond to this consultation. The Institute looks forward to receiving feedback on its submission and, in particular, the specific questions raised in this response.

Please send or email correspondence to the office of the Chief Executive at the above address.