Reaccreditation of a Pharmacy Technician level 3 knowledge-based qualification, National Pharmacy Association (NPA)

Report of a reaccreditation event, 21 July 2014

Introduction

The General Pharmaceutical Council (GPhC) is the statutory regulator for pharmacists and pharmacy technicians and is the accrediting body for pharmacy education in Great Britain.

Background

The National Pharmacy Association (NPA), 'the provider' is a trade organisation and membership comprises community pharmacy owners. The NPA Professional Development Department supports community pharmacy owners with support staff training. The NPA was originally accredited by the previous regulator, the Royal Pharmaceutical Society of Great Britain. In 2011, a GPhC accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that the NPA's knowledge-based qualification for pharmacy technicians should be reaccredited for a period of three years from March 2011, subject to the following three conditions: 1. The level 3 knowledge-based qualification must be mapped to the National Occupational Standards and submitted to the GPhC for review and approval by the accreditation team. Thereafter, there must be a process in place where this is regularly reviewed other than when the qualification is due for reaccreditation by the GPhC. 2. The GPhC must be notified when the IT initiative involving online training materials and assessment is launched. 3. All outstanding mapping errors and adjustments must be rectified. Conditions 1 and 3 were required to be met by 1 May 2011. All conditions were met. The accreditation team made the following recommendation: A separate guide should be produced for locum pharmacists/pharmacy technicians who may work with a trainee. This should be available within the 'Supervisors' Guide' to enable locums to understand their training obligations. In response, the NPA decided that any locum who is acting as a witness for the students would need to read the whole Supervising Pharmacists guide as all information contained within is essential for full understanding of the course.

Documentation

The provider submitted submission documentation to the GPhC in line with agreed timescales and a pre-event meeting took place at the General Pharmaceutical Council headquarters in Lambeth on 2 July 2014. During the pre-event meeting the schedule of meetings and timings for the accreditation event were confirmed.

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The following documents were submitted by the provider in advance of the accreditation event:

- Completed GPhC submission template 'Accreditation of a pharmacy technician programmes'.
- Evidence documents:
  - See Appendix 1

The following documents were submitted during the Reaccreditation event:
  - Delivering Medicines – Safely and Effectively Module
  - Student data about the Gender, Age, Ethnicity and Learning Disability since 2011-2014
  - Flow chart of Student Disability Example
  - Flow chart of Example of an appeal
  - Flow chart of Plagiarism Example
  - Module Review Procedure
  - Letter requesting module
  - QCF 2014 QA Random sample
  - Blank comparative marking form
  - Comparative marking process criteria
  -

The event

The event was held on 21 July 2014 at the NPA offices in St Albans

Accreditation team

The GPhC's accreditation team ('the team') comprised:

Name	Designation at the time of accreditation event
Mrs Barbara Wensworth*	Accreditation team leader, Freelance Consultant Pharmacist
Mrs Cath Davies	Accreditation team member, Health Science Co-ordinator, Stoke-on-Trent College (proxy member)
Mrs Donna Bartlett	Accreditation team member, Area compliance co-ordinator, Whitworth Chemist Ltd
Professor Dorothy Whittington	Accreditation team member (Lay), Emeritus Professor of Health Psychology, University of Ulster and Non-executive Director, Northern Health and Social care Trust (Northern Ireland)

along with:

Name	Designation at the time of event
Ms Joanne Martin *	Quality Assurance Manager (Education), General Pharmaceutical Council
Ms Jenny Clapham *	Quality Assurance Officer, General Pharmaceutical Council
Dr Ian G Marshall	Rapporteur , Emeritus Professor of Pharmacology, University of Strathclyde, Glasgow

*attended pre-event meeting on 2 July 2014

Declaration of potential conflicts of interest

No potential conflicts of interest were declared.

Meeting the accreditation standards

	Accreditation team's commentary
Standard 1 – Patient and public safety There must be clear procedures to address immediately any concerns about patient safety arising from pharmacy technician education and training involving patients and the public.	All candidates work under the supervision of a pharmacist to whom their professional responsibility is highlighted as part of the course guides and learning contracts. In line with all other support staff functions the responsible pharmacist/supervising pharmacist oversees the work of the preregistration trainee pharmacy technician to ensure that patient safety is paramount in the candidate's development. All candidates and their supervising pharmacists are required to read, understand and agree to a learning contract. All tasks allocated to the candidates will be delegated by a pharmacist and undertaken under their supervision in line with pharmacy legislation. The team was told that the course contains information on following standard operating procedures (SOPs) and that throughout the course the roles of staff are defined, along with information to which staff should refer if they are unsure of their competence to undertake a task. As candidates are employed within a registered pharmacy and their continuation on the course is dependent upon this employment, the course is discontinued if the candidate stops working in the pharmacy. The marking form submitted with all course assessments requires both the supervising pharmacist and the candidate to make a declaration which includes declaring that there are no causes for concern. A complete and signed marking form is a prerequisite for the marking of candidate assessments. If a supervising pharmacist has cause for concern they are required to inform the NPA Professional Development Department immediately. Any cause for concern is addressed immediately and in line with the NPA Malpractice and Plagiarism policy as applicable. The GPhC *Code of Conduct for Preregistration Trainee Pharmacy Technicians* is introduced to candidates during Module 5 and receives heavy focus in Module 20 just before the student completes the course and becomes eligible for registration. The documentation stated that this, along with the learning contract and the Patient Confidentiality Candidate agreement, forms the basis for discussions between the candidate and their supervising pharmacist. The team was also told that the GPhC *Standards of Conduct, Ethics and Performance* document is referred to in all modules. The team agreed that the introduction of the GPhC *Code of Conduct for Preregistration Trainee Pharmacy Technicians* in Module 5 was late and advised that it should be introduced at an earlier stage. **All 6 of the criteria relating to Patient and public safety were met**

Standard 2 – Selection of trainees All selection procedures must be open, fair and designed to identify those applicants who will practise safely and effectively and uphold the standards of the profession.	The selection of applicants to undertake the course is made by pharmacy owners and/or training managers, or supervising pharmacists in line with their pharmacy/company polices. Thus, the NPA receives the requests directly from pharmacy owners or supervising pharmacists and candidates are not allowed to apply directly. Guidance is provided to NPA members via various portals, including the NPA Learning brochure, direct telephone enquiries to the Professional Development Department, face-to-face meetings and various events throughout the year. The team was told that enrolment is possible after 3 months employment in the pharmacy in question and is based on the pharmacist's judgement of the capabilities of the candidate. The team was told that if the candidate is unsure about enrolling on the Level 3 pharmacy technician course, then they can enrol onto a Level 2 course and potentially transfer onto the Level 3 course on completion. It was stressed that pharmacists can contact the NPA for advice about possible choices and may be advised to check on the candidates' numeracy and literary abilities as a guide to the individual's potential capabilities in relation to choice of course. In terms of the selection of candidates, the GPhC QA Manager apprised the NPA team of the recent HEE introduction of a values-based recruitment policy that may be relevant to recruitment to the pharmacy technician course. **Both of the 2 criteria relating to Selection of trainees were met**
Standard 3 – Equality, diversity and opportunity All aspects of pharmacy technician education and training must be based on principles of equality, diversity and fairness and meet the requirements of all relevant legislation.	Equality and diversity data is captured as part of the enrolment process and documented on to the Integra – Customer/Member Relationship Management (MRM) system as part of the student's individual record. Data captured includes ethnicity and disability data. This data is analysed annually and, if required, recommendations are made to encourage diversity in the profession to reflect modern society. The team was told that such data are used extensively with respect to completion figures. The team was told that although the organisation receives few applications from candidates with disabilities, all such cases are dealt with on an individual basis. For example, in the case of severe dyslexia, various on-line tests and numeracy and literacy tests can be used by the pharmacist to identify the problem. The team was also told that the NPA has a link to legal expertise and the NPA Pharmacy Services Department for advice. The team considered that there was only limited disability support, and while recognising the small numbers involved, agreed that it would benefit the organisation and its students if it sought advice and guidance from qualified disability advisors and organisations. The team was told that there is a whistleblowing policy and students who feel that they have been discriminated against can call the NPA and appeal against grades on the basis of discrimination; their relevant module and assessments would be called in for examination by the Professional Development Department. Nevertheless, it was emphasised that the markers are all professional in their approach to their assessment responsibilities. **All of the 3 criteria relating to Equality, diversity and opportunity were met**
Standard 4 – Monitoring, review and evaluation	The documentation submitted stated that a full review of the training material is conducted at least annually by the NPA Course Leader, with review of the NPA Law and Ethics module and The Drug Tariff module undertaken every 6 months.

The quality of pharmacy technician education and training must be monitored, reviewed and evaluated in a systematic way.	Candidates are assessed via formative and summative assessments. Students are required to pass the summative assessments for all 20 modules that must be submitted to an external marker/assessor for marking. Formative assessments are integrated throughout the course in the form of activities and exercises. The majority of modules also require the successful completion of formative multiple choice questions (MCQs) in order to assist the supervising pharmacist in assessing the readiness of the candidate to attempt the summative assessment. The summative assessments vary for different modules and may comprise short answer questions, case studies, MCQs and calculations papers. The team was told that supervising pharmacists are entrusted by the NPA to ensure that the student submits their own work and completes MCQs under examination conditions and are responsible for marking the formative MCQs. However, they should not mark the student's summative coursework. The team was told that a candidate may appeal a failed assessment and the NPA may consider allocating a different marker. Although this process may take some time, the team was assured that students would be kept informed of progress in re-assessing their work.
	The presentation included a description of a sophisticated process for ensuring consistency between external markers/assessors and identifying any outlying markers. The team was told that in the hypothetical situation of a passing student's work having to be re-marked as a result of an outlying over-generous marker and resulting in the award of a fail grade, the student would be offered a re-sit opportunity. The team advised that a statement explaining this possible course of action should be included in the Student Handbook. The team expressed concern about the assessment process being consistent with safe and effective practice. In particular, although the team was told that assessments were marked against criteria and that all 20 modules had to be passed to allow completion of the course, it agreed that the specification of a 50% pass mark as representing safe and effective practice was unsound. The team also agreed that the NPA team appeared to have not completely considered the level of the pass mark in relation to the learning outcomes of the course. Accordingly, it will be a **condition of reaccreditation** that the NPA must develop a robust, valid and reliable assessment process that is consistent with the safe and effective assessment of trainees. The team agreed that the current marking guidance is not sufficiently robust to assess reliably that a student can demonstrate safe and effective practice; this particularly applies to the module marking guidance documents and the 50% pass mark.
	One of the 3 criteria relating to Monitoring, review and evaluation was met
Standard 5 – Support and development for trainees Trainees must be supported to acquire the necessary skills and experience through induction, effective supervision, an appropriate and realistic workload, personal support and time to learn.	The NPA has a dedicated support line with in-house markers/assessors that can provide professional guidance and support in addition to that provided by the candidate's supervising pharmacist. There is an online information module to assist students in the competence-based assessment. This module is accessible to all students and may be viewed as often as required. Each student is able to contact the Professional Development Department to discuss any areas of the course with an experienced marker or assessor. In the case of student non-engagement with the learning materials, they are currently sent a letter after 6 months non-participation although the NPA team is considering issuing such a letter after 3 months. The team was told that in the case of problems between students and their supervising pharmacist, the NPA will always consider the student's position but it was stressed that the NPA has to take great care not to become involved in any

	internal HR disputes in member companies. The team was told that students are offered support with the literacy and numeracy tests by signposting them to appropriate websites or a calculations workbook. Competence at calculations was said to be the most common problem, but the team was told that this can generally be identified at enrolment and enrolment delayed if necessary until remedial work had been undertaken. Students interviewed by teleconference expressed them as satisfied with the level of support they had received during their course. **The 1 criterion relating to Support and development for trainees was met**
Standard 6 – Support and development for those providing education and training Those involved in providing the teaching and learning must be supported to acquire the necessary skills and experience through induction, effective mentoring, continuing professional development and personal support.	All supervising pharmacists are able to access the NPA support line for support and guidance to assist their candidate through the course. The telephone line is manned by a team of student support officers, pharmacists and pharmacy technicians who are able to advise and provide guidance on any aspect of the course. All NPA Professional Development Pharmacists are qualified or trainee NVQ assessors and have undertaken a period of induction training including "Train the Trainer" training and where applicable further training qualifications. All staff members undergo a period of training and shadowing and all work is peer reviewed. The current Professional development team has all undertaken CIPD courses on both face-to-face and distance learning delivery of training. **Both of the 2 criteria relating to Support and development for those providing education and training were met**
Standard 7 – Management of initial education and training Education and training must be planned and maintained through transparent processes which show who is responsible at each stage.	Student progress on the course is tracked by the use of the student database. All active candidates on the course receive regular status letters at six monthly intervals giving full details of all grades held on the database. The Professional Development Department has a dedicated team of Member Liaison Officers who support the member or customer and manage the key relationships. Communication networks between different pharmacies and pharmacy chains differ dependent on the needs of the member or customer. This can range from telephone progress reports to formal reports generated by the Professional Development Department and presented to the respective training department of the pharmacy chain. Regardless of the employing pharmacy, all candidates and supervising pharmacists are required to agree to a learning contract which clarifies what is expected of each party. **The 1 criterion relating to Management of initial education and training was met**
Standard 8 – Resources and capacity The education and training facilities, infrastructure, leadership and other staffing must be sufficient to deliver	The NPA Professional Development Department is made up of an established team consisting of a mix of pharmacists, pharmacy technicians, member liaison officers and student support officers. The team is led by the Head of Professional Development who is in a senior management position and reports directly to the NPA Chief Executive. The Head of Professional Development is supported by the Professional Development management team consisting of the Professional Development Manager, Member Liaison Manager and Quality Assurance Pharmacist. The Professional Development Pharmacists report to the Professional Development Manager. The NVQ Centre Manager is a registered pharmacy

outcomes.	technician and reports directly to the Quality Assurance Pharmacist. A team of four Student Support Officers is line-managed by either the Professional Development Manager or Quality Assurance Pharmacist but also reports to the lead Student Support Officer. The NPA contracts 34 self-employed external markers/assessors to mark summative assessments who are either pharmacists or registered pharmacy technicians. The markers/ assessors are given the resources required to undertake the marking of modules and assessment of portfolios including all guidance marking and supplementary course materials. **Both of the 2 criteria relating to Resources and capacity were met**
Standards 9 to 11 – Curriculum • The programme must develop the required skills, knowledge and understanding. • The programme must be delivered at Qualifications and Credit Framework level 3, Scottish Credit and Qualifications Framework level 6 or equivalent • The curriculum must remain relevant to current practice and national standards	The team reviewed the programme's curriculum and was satisfied that the topics covered and the distribution of learning hours met this criterion. The programme is delivered at an NVQ level 3 and meets the requirements of study for the QCF Level 3 knowledge framework in Pharmacy Services. Candidates are required to evaluate and analyse information making reasoned judgements often drawing information from a number of sources. All course material is updated as necessary in a timely manner to reflect the new standards and all active students are updated on any changes to the frameworks by mail. If a major change occurs during a course an addendum is sent to all current students and included as a supplement in the Module for those students who enrol before the formal update. All versions of courses are kept on file as an audit of amendments both by the NPA and the printing company. The NPA has regular contact with Pearson Edexcel and any changes to the framework are implemented in line with national guidance. The team reviewed the programme's curriculum and was satisfied that the topics covered and the distribution of learning hours met this criterion. However, the team noted that several aspects of the mapping exercise that the provider had undertaken were inaccurate. **All of the 4 of the relevant criteria relating to curriculum were met**

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Standards 12 to 14 – Assessment	All course materials and assessment papers are written by pharmacists and are peer-reviewed. The course authors and reviewers are pharmacists with experience in community and other sectors of pharmacy. Should the subject area require additional expertise the NPA contracts specialists in the subject area to write or review material. Each module requires the satisfactory completion of a summative assessment. Summative assessments comprise a number of assessment methods. These include multiple choice questions, short answer questions and case studies. The knowledge modules and assessments are vertically and horizontally integrated as students will build on their knowledge from earlier modules and be required to link knowledge and understanding from different modules. Each module is assessed individually and assessment uses a variety of means including case studies, short answer questions and multiple choice questions designed to test recall, application, comprehension, evaluation and critical thinking. The team expressed concern about the assessment process being consistent with safe and effective practice. In particular, although the team was told that assessments were marked against criteria and that all 20 modules had to be passed to allow completion of the course, it agreed that the specification of a 50% pass mark as representing safe and effective practice was unsound. The team also agreed that the NPA team appeared to have not completely considered the level of the pass mark in relation to the learning outcomes of the course. Accordingly, as described for Standard 4, the team agreed that the current marking guidance is not sufficiently robust to assess reliably that a student can demonstrate safe and effective practice; this particularly applies to the module marking guidance documents and the 50% pass mark. Accordingly, it will be a **condition of reaccreditation** that the NPA must develop a robust, valid and reliable assessment process that is consistent with the safe and effective assessment of trainees. **Three of the 6 relevant criteria relating to Assessment were met**
- The assessment strategy must assure appropriate standards of assessment - The assessment strategy must ensure that trainees can demonstrate the required outcomes and practise safely and effectively according to the standards of proficiency and other relevant standards and guidance when they register. - There must be effective monitoring and evaluation mechanisms in place to ensure appropriate standards in the assessment.	

Appendix 1 - Documentation submitted

- Appendix 1 Policy
- Appendix 2 Role profiles
- Appendix 3 CV
- Appendix 4 Enrolment form
- Appendix 5 Literacy and Numeracy
- Appendix 6 Marker Contract
- Appendix 7 Marker SLA
- Appendix 8 Marker Info Pack
- Certificate

QCF course
- Modules 1, 10, 11 12, 13, 14, 15, 16, 17, 18, 19, 2, 3, 4 E+W, 4 NI, 4 SCOT, 5, 6, 7, 8, 9.

QCF GM
- Modules 1, 10, 11 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 3, 4 N Ireland, 4 Scotland, 8, 9, 13, 5, 6, 7 (all GM2013 suffix)

Summary and conclusions

The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that the National Pharmacy Association should be reaccredited to provide a Pharmacy Technician qualification should be reaccredited for a full period of three years, subject to 1 condition

Condition:

The NPA must develop a robust, valid and reliable assessment process that is consistent with the safe and effective assessment of trainees. The current marking guidance is not sufficiently robust to assess reliably that a student can demonstrate safe and effective practice. This particularly applies to the module marking guidance documents and the 50% pass mark.

This is to meet Standard 4, 12, 13 and 14. To meet this condition, the revised assessment strategy must be submitted to the GPhC for approval by the accreditation team by 31 October 2014.

The full record and report includes other comments from the team and the Registrar regards the record and report in its entirety as its formal view on provision. Providers are required to take all comments into account as part of the reaccreditation process.

Standing condition of accreditation:

These are the conditions which will apply in all circumstances of Pharmacy Technician accreditation:

1. The General Pharmaceutical Council has assumed responsibility for the regulation of pharmacy education. The Pharmacy Order, the legislation establishing the General Pharmaceutical Council as regulator, states that the General Pharmaceutical Council accept previous decisions of the Society. In this context, that means previous accreditation decisions of the Society will stand.
2. The team's recommendations are not binding on the Registrar and the Registrar may add, remove or modify points on reflection and in light the accreditation panel views.
3. The General Pharmaceutical Council's record and report will be sent to the NPA shortly to comment on factual accuracy. The provider must respond to the definitive version of the record and report within three months of receipt.
4. Thereafter the summary report, along with the NPA response, will be published on the General Pharmaceutical Council's website and remain for the duration of the accreditation period. The record remains confidential to the training provider and the General Pharmaceutical Council.
5. All accredited providers are required to inform the General Pharmaceutical Council annually of changes to the curriculum and/or resources.

The *Pharmacy Order* 2010 states:

Part 5 Education, training and acquisition of experience and continuing professional development, Information to be given by institutions or other providers, 46. ...
(3) Whenever required to do so by the Council, any institution or other provider to which this article applies must give to the Council such information and assistance as the Council may reasonably require in connection with the exercise of its functions under this Order.

(4) Where an institution or other provider refuses any reasonable request for information made by the Council under this article, the Council may, in accordance with article 47 ('Refusal or withdrawal of approval of courses, qualifications and institutions'), refuse to approve or withdraw approval from, any course of education or training, qualification, test or institution or other provider to which the information relates.

It is a requirement of accreditation that institutions or other providers provide the GPhC proactively and in a timely manner with any information which is, or has the potential to be, material to the delivery of an accredited course. This includes, but is not limited to: changes in staffing, changes in funding, and/or substantial changes in curriculum or delivery.

Reference: http://www.legislation.gov.uk/uksi/2010/231/contents/made

Following the above event a satisfactory response was received to meet the conditions of reaccreditation. The Registrar of the General Pharmaceutical Council agreed with the accreditation team's recommendations and approved the course for reaccreditation for a further period of three years, until the end of September 2017.

Appendix 2 - Accreditation Criteria

Standard 1 – Patient and public safety

There must be clear procedures to address immediately any concerns about patient safety arising from pharmacy technician education and training involving patients and the public.
Criteria to meet this standard: **1.1.** Supervision is in place to ensure that the practice of pre-registration trainee pharmacy technicians does not jeopardise patient safety. **1.2.** Pre-registration trainee pharmacy technicians only undertake tasks in which they are competent, or are learning to be competent, under adequate supervision **1.3.** Assessment and monitoring systems are in place to ensure that pre-registration trainee pharmacy technicians are able to practise safely and effectively at a level that is consistent with their stage of education and training. Causes for concern should be addressed promptly. **1.4.** Provision of appropriate support relating to health, conduct and professional progression is available to pre-registration trainee pharmacy technicians. **1.5.** Trainees are not allowed to complete an accredited or approved programme if they are a risk to patients and the public. **1.6.** Training providers delivering an accredited or approved programme use the Code of Conduct for Pre-registration Trainee Pharmacy Technicians to ensure that professionalism is embedded in trainees and to act as a guide to what constitutes acceptable and unacceptable practice, attitudes and behaviours in relation to fitness to practise.

Standard 2 – Selection of trainees

All selection procedures must be open, fair and designed to identify those applicants who will practise safely and effectively and uphold the standards of the profession.
Criteria to meet this standard: **2.1** Selection policies and procedures must provide those submitting the application and those making the selection decisions with the information they need to make informed choices. **2.2** Those responsible for selection must be trained to apply selection guidelines consistently and fairly. They must be trained to be able to promote equality and diversity and follow current equal opportunities legislation and good practice.

Standard 3 – Equality, diversity and opportunity

All aspects of pharmacy technician education and training must be based on principles of equality, diversity and fairness and meet the requirements of all relevant legislation.
Criteria to meet this standard:
3.1. Information about equality and diversity issues must be collected routinely, analysed, recommendations developed, implemented and monitored.   **3.2.** Equality and diversity training records must be collected routinely and fed into quality management and enhancement mechanisms where appropriate.   **3.3.** Information about how issues are identified and addressed as part of the quality management and enhancement systems and how outcomes are disseminated should be collected and reported.

Standard 4 – Monitoring, review and evaluation

All aspects of pharmacy technician education and training must be based on principles of equality, diversity and fairness and meet the requirements of all relevant legislation.
Criteria to meet this standard:
4.1 The standard will be demonstrated by systems and policies that encompass the following information about roles and responsibilities, lines of accountability and authority to act of those involved in education and training together with the timing of monitoring reports and reviews.   All aspects of education and training must be covered including: • entry to education and training   • quality of teaching and learning (including the curriculum)   • appraisal of and feedback to trainees   • assessment of trainees   • supervision, including training   • educational resources and capacity   • appeals   • malpractice and plagiarism   **4.2** There must be procedures in place to check the quality of teaching, learning and assessment and to ensure that standards are being maintained. These must be monitored using a variety of methods and approaches such as staff appraisal, student feedback, patient feedback and peer review.

4.3 Any problems identified through the gathering and analysis of quality data should be addressed promptly and the actions taken clearly documented. It must be clear who is responsible for this.

Standard 5 – Support and development for trainees

All aspects of pharmacy technician education and training must be based on principles of equality, diversity and fairness and meet the requirements of all relevant legislation.
Criteria to meet this standard: **5.1** Trainees must have access to pharmacists and/or pharmacy technicians who are able to act as role models and provide professional support and guidance.

Standard 6 – Support and development for those providing education and training

Those involved in providing the teaching and learning must be supported to acquire the necessary skills and experience through induction, effective mentoring, continuing professional development and personal support
Criteria to meet this standard: **6.1** Supervising pharmacists and pharmacy technicians must have an identified source of support from the training provider. **6.2** Staff involved with the delivery and/or assessment of the programme must undergo a designated period of training and development in teaching, learning, assessment and trainee support.

Standard 7 – Management of initial education and training

Education and training must be planned and maintained through transparent processes which show who is responsible at each stage

Criteria to meet this standard:
7.1   All education and training will be supported by a defined management plan with a schedule of responsibilities as well as defined structures and processes to ensure the maintenance of standards in the arrangement and content of education and training to ensure effective delivery.

Standard 8 – Resources and capacity

The education and training facilities, infrastructure, leadership and other staffing must be sufficient to deliver outcomes
Criteria to meet this standard:

8.1   All training providers must have a pharmacist or pharmacy technician who has professional responsibility and sufficient authority to deliver outcomes.
 8.2   There must be:
      •   sufficient staff to deliver the education and training and support trainees' learning
      •   appropriately qualified and experienced staff
      •   access to appropriate learning resources
      •   facilities that are fit for purpose

Standards 9– Curriculum

The programme must develop the required skills, knowledge and understanding
Criteria to meet this standard:
9.1   For competency-based qualifications, the programme covers the knowledge, skills and understanding set out in appendix 1.   **9.2**   For knowledge-based qualifications, the programme covers the knowledge and understanding set out in Appendix 2

Standard 10 – Curriculum

The programme must be delivered at Qualifications and Credit Framework level 3, Scottish Credit and Qualifications Framework level 6 or equivalent
Criteria to meet this standard: **10.1** The programme is delivered at the appropriate level. **10.2**   Systems must be in place to ensure that any changes to the frameworks are implemented.

Standard 11 – Curriculum

The programme must be delivered at Qualifications and Credit Framework level 3, Scottish Credit and Qualifications Framework level 6 or equivalent
Criteria to meet this standard: **11.1** In the processes of programme review and development, advances in pharmacy practice and developments potentially impacting on pharmacy are taken into account.

Standard 12– Assessment

The programme must be delivered at Qualifications and Credit Framework level 3, Scottish Credit and Qualifications Framework level 6 or equivalent
Criteria to meet this standard: **12.1** For competency based qualifications, the assessment strategy must follow the agreed QCF/SVQ Assessment Strategy for Pharmacy Services Qualifications. **12.2** For knowledge based qualifications, the assessment strategy must assure appropriate standards in assessment and include: • verification of assessment decisions • requirements for tutors, trainers and assessors • marking criteria, including the minimum to achieve a pass • policies for resits and resubmissions

- procedures for suspected plagiarism and/or malpractice
- appeals procedures

12.3 For knowledge based qualifications, question papers, including the independent assessment, must be developed by subject experts from the pharmacy sector and directly relate to and include all the subject areas.

12.4 For knowledge based qualifications, assessment must be through a number of assessment methods and involve the candidate using knowledge in a way that demonstrates their understanding of the links between various subjects and their relevance to practice.

Standard 13 – Assessment

The assessment strategy must ensure that trainees can demonstrate the required outcomes and practise safely and effectively according to the standards of proficiency and other relevant standards and guidance when they register

Criteria to meet this standard:

13.1 The assessment strategy ensures that trainees can demonstrate the required outcomes.

13.2 For competency-based qualifications, the assessment strategy ensures that, on completion of the programme, trainees can practise safely and effectively.

Standard 14 – Assessment

There must be effective monitoring and evaluation mechanisms in place to ensure appropriate standards in the assessment

Criteria to meet this standard:

14.1 There are effective monitoring and evaluation mechanisms in place to ensure appropriate standards in the assessment

Appendix 3 – Learning outcomes

The duration of the underpinning knowledge programme must provide a minimum of 720 learning hours comprising: Science of pharmacy (minimum of 400 learning hours) •   30 learning hours of chemistry •   30 learning hours of microbiology •   340 learning hours of biology, human physiology and action and uses of medicines. •   Pharmacy practice and law (a minimum of 230 learning hours) •   100 learning hours on dispensing procedures and practices. •   60 learning hours of interpersonal skills •   50 learning hours on pharmacy law, ethics and regulation •   20 learning hours on pharmaceutical production and aseptic procedures *To allow for flexibility in the delivery of training programmes, the remaining 90 learning hours required to meet the overall minimum requirement of 720 learning hours can be comprised of either science of pharmacy or pharmacy practise and law.*
The programme covers all learning outcomes of the competency based and knowledge based qualifications for pharmacy technicians
While completing the programme the trainee must undertake a minimum of two years simultaneously completed work-based experience under the supervision, direction or guidance of a pharmacist to whom the trainee was directly accountable for not less than 14 hours per week.

B3.1 Chemistry (30 learning hours)

Syllabus topics

The structure and classification of inorganic chemicals
    • Nuclear and electronic structure of atoms
    • The periodic table
    • Chemical bonding

The principles of chemical reaction
    • Basic principles including the various units used in science, solution properties, pH
    • Principles and processes by which chemicals react
    • Chemical and molar quantities
    • Balanced equations for chemical reactions

The basic structure and function of biological chemicals
    • Water
    • Carbohydrates, fats and proteins
    • Nucleic acids
    • Enzymes

B3.2 Microbiology (30 learning hours)

Syllabus topics

Structure, function and classification of micro-organisms
    • Classification and identification of micro organisms
    • Structure of bacteria, fungi, viruses and protozoa
    • Prokaryotic and eucaryotic cells
    • Growth and reproduction of micro-organisms

Pathogens and the transmission of infections
    • Infectious diseases
    • Pathogenic micro-organisms
    • Routes of transmission
    • Modes of transmission

Control of micro-organisms in the daily working environment
    • Basic principles of hygiene
    • Contamination, cross contamination and spoilage of medicines
    • Control of hospital acquired infections

• Sterilisation
• Disinfection
• Antimicrobial agents

B3.3 Biology, human physiology and action and uses of medicines and other pharmaceutical products (340 learning hours)

Syllabus topics

Structure and function of cells and tissues
    • Cells in the body
    • Epithelial tissue
    • Connective tissue
    • Muscle tissue
    • Nerve tissue
    • Blood

Structure and function of major organs and body systems
    • Digestive
    • Circulatory
    • Lymphatic
    • Respiratory
    • Nervous
    • Endocrine
    • Reproduction and foetal development
    • Musculoskeletal
    • Urinary
    • Skin
    • Ear, eye, oropharynx

Regulation of body systems
    • Nutrition
    • Metabolism and excretion
    • Homeostasis and homeostatic disorders, including hormone-related disorders
    • The defence mechanisms in the human body
 	
General action and use of medicines
    • Nature and causes of diseases

• Medical terms relevant to medical treatments
• Drug administration, absorption, delivery metabolism and excretion
• Pharmacodynamics
• Interactions and adverse drug reactions

Action and uses of drugs in the treatment of various body systems and clinical conditions
- Gastro-intestinal system
- Cardiovascular system
- Respiratory system
- Central nervous system
- Infections
- Endocrine drugs
- Obstetrics, gynaecology & urinary-tract infections
- Malignant disease & immunosuppression
- Nutrition & blood
- Musculoskeletal & joint disorders
- Eye
- Ear, nose & oropharynx
- Skin
- Immunological products & vaccines
- Anaesthesia

Appliances, dressings and other products
- Wound dressings
- Bandages and adhesives
- Elastic hosiery
- Ostomy products
- Inhalers and other devices

Pharmacy practice and law (a minimum of 230 learning hours)

B3.4 Interpersonal skills (60 learning hours)

Syllabus topics
Customers in pharmacy
• Range of customers including all service users#

- Colleagues as customers

Communication
- Principles of good communication
- Identification of customer needs
- Appropriate responses to different types of customer and different needs
- Handling complaints
- Dealing with conflict
- Confidentiality issues

Team working
- The principles of effective team working
- Styles of interaction between team members
- Handling problem relationships within teams

Supporting Learning
- Different learning styles
- Learning environment
- Instructional techniques
- Structuring demonstrations

Reflective practice
- Identifying development opportunities to improve practice
- Learning from successful interventions
- Learning from errors, critical incidents and enquiries into serious failings
- Recording CPD

Provision of information and advice on medicines
- Medicines usage and adverse effects
- Medicines storage
- Patient information leaflets
- Devices and sundry items
- Sources of information on medicines & their use
- Supporting concordance

Correct procedures for the sale of supply of OTC medicines
- Pharmacy protocol
- Classes of medicines
- Questions to be asked before recommending or referring
- Provision of information

Public Health

• Healthy eating
• Healthy lifestyles
• Health promotion in the pharmacy
• Health protection
• Disease prevention
Preparation for review of medicines taken by an individual
• Purposes of reviewing an individual's medicines
• National and local guidelines and policies
• Issues that affect how people take medicines
• Creating and maintaining accurate records

B3.5 Dispensing procedures and practices (100 learning hours)

Syllabus topics
Prescription handling and assembly
• Principles and practices for dispensing, including organisational policies
• The importance and use of standard operating procedures (SOPs)
• Prescription receipt and collection
• Reading and interpretation of prescriptions
• Types of check on a prescription
• Causes and consequences of near misses and dispensing errors
• In-process accuracy checking
• Error recording
• Record keeping
Calculation and weighing and measuring techniques
• Percentages, dilutions, displacement values, weight per ml etc.
• Dosage calculations based on age, weight, surface area and blood volume
• Weighing and measuring equipment
• Procedures for weighing and measuring
• Metric system and the SI units
• Calculating ingredient quantities required for medicines preparation

• Quantity of medicines to be supplied on prescription based on the number of prescribed doses and time intervals

Medicines formulation

- Types of water used in pharmaceutical products
- Forms of pharmaceutical products and their properties
- Pharmaceutical techniques including mixing, comminution, filtration, clarification, sieving
- Microbial aspects of medicines formulation
- Physical and chemical properties of medicines
- Vehicles and excipients
- Routes of administration of medicines
- Packing materials and containers
- Stability of medicines and the factors that affect stability

Preparation of pharmaceutical products

- Equipment used in the dispensing of medicines
- Preparation of a range of dispensed medicines in common use
- Processes for dilutions and reconstitutions
- Labelling of dispensed medicines, including additional labelling
- Storage of medicines including stock rotation
- Robotics
- Record keeping and documentation

Ordering, receiving, disposal and return of stock

- Ordering and receipt of stock
- Storage requirements for stock
- Branded and generic medicines
- Stock control
- Procedures for dealing with breakages / spillages of materials
- Stock rotation and dealing with expiry of stock items
- Returns and disposal of stock

Services provided outside of the pharmacy

- Supply of medicines to residential and nursing homes
- Provision of monitored dosage systems (MDS)
- National and local regulations and policies regarding supply of medicines to patients in care
- Storage of medicines in residential and nursing homes

B3.6 Pharmacy law and ethics (50 learning hours)

Syllabus topics
Legislation relating to medicines • Sale and supply of medicines (Medicines Act) • Classes of medicines • Patient Group Directions • Prescribing conventions and abbreviations • Prescriptions, prescription charges & exemptions • Electronic prescribing • Misuse of drugs • Poisons • Denatured alcohol • Supply of veterinary medicines • NHS regulations • Licensing of medicines • Supply of unlicensed medicines • Disposal of waste and unused medicines
The Drug Tariff • Payment for supply of medicines • Allowable products • Endorsing of prescriptions
Legislation affecting pharmacy • Responsible pharmacist • Supervision • Provision of service in the absence of a pharmacist • Provision of service in a pandemic or other national emergency • Legal & ethical requirements for confidentiality • Trade descriptions • Consumer protection • Weights and measures • Data protection

• Hazardous substances • Health and safety • Equality and diversity • Adult and child protection • Freedom of information
Structure and function of organisations affecting pharmacy • Pharmacy regulatory and professional bodies • Other organisations within pharmacy • The National Health Service
Regulation of pharmacy technicians • Working as a professional • Codes of conduct & ethics • Continuing professional development • Fitness to practise • Registration
Roles in pharmacy and health • Roles undertaken by pharmacists, pharmacy technicians and other pharmacy support staff groups • Roles of other healthcare professionals • Types of prescribers
Factors affecting standards within pharmacy and pharmacies • Clinical governance • Audit and quality improvement • Risk assessment and management • Standard operating procedures

B3.7 Pharmaceutical production and aseptic procedures (20 learning hours)

Syllabus topics

Legislation and guidelines controlling small scale pharmaceutical production
- Health and Safety
- Hazardous substances
- Good manufacturing practice
- Licensed and unlicensed units
- Recognised guidelines relating to manufacture
- Recognised guidelines for aseptic preparation
- Various quality assurance (QA) documentation
- Standard Operating Procedures (SOPs)
- Error reduction policies & strategies

Environment and equipment for small scale pharmaceutical production
- Hygienic considerations for the manufacturing unit, equipment and personnel
- Sources of contamination
- Environmental monitoring
- Design of production units including aseptic units
- Maintenance of the production unit including the building, fixtures and fittings
- Maintenance of equipment
- Protective clothing and equipment

Manufacturing processes
- Methods used in manufacture of non sterile products
- Methods used in manufacture of sterile products
- Methods used in the manufacture of biopharmaceuticals
- Relevant documentation including worksheets
- SOPs including labelling and packaging
- Methods of disinfection and sterilisation
- Storage of the product
- Distribution procedures
- Transportation procedures
- Safe disposal of waste materials

Quality control and assurance
- Quality Control

Pharmaceutical materials

Formulated products

Testing procedures including microbiological testing e.g. sterility testing, pyrogens
- Quality Assurance

Standards associated with the manufacturing process Validation and records Audit of the manufacturing process Total quality management (TQM) Quarantine of the product
Clinical trials • Types of trial • Design of trial • Phases
Aseptic preparation of pharmaceutical products including cytotoxic preparation • CIVAS and a range of products • Cytotoxic products • Intrathecal products • Radiopharmaceuticals • Total parenteral nutrition • Monoclonal antibodies • Methods used for the aseptic preparation and dispensing of pharmaceutical products • Disposal of waste materials • Packaging, labelling and transportation of cytotoxic materials