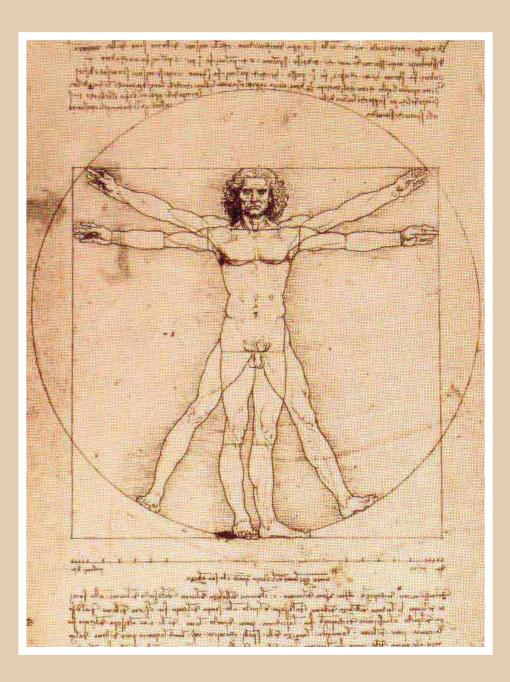
## Physician Assistant Managed Voluntary Register



Competence and Curriculum Framework for the Physician Assistant 2012 Left intentionally blank

# The Revised Competence and Curriculum Framework for the Physician Assistant

In mid 2010, the Department of Health agreed to a request from the UK & Ireland Universities Board for Physician Assistant Education (UKIUBPAE) to review and where appropriate revise the Competence and Curriculum Framework for Physician Assistants published by the Department in 2006. The 2006 document had explicitly recognised that, as the profession developed in the UK, such revision would be necessary.

The working group was established for the time limited task of revising the Competence and Curriculum Framework for Physician Assistants in the light of the experience of higher education institutions running training programmes and the range of roles undertaken by Physician Assistants on graduation. Because of the interest being expressed in employing Physician Assistants in the care of surgical patients and patients in emergency departments, The Royal College of Surgeons and the College of Emergency Medicine were invited to participate alongside The Royal College of Physicians and the Royal College of General Practitioners which were involved in the original steering group. There was also to be involvement from Skills for Health and the Patient Association

The content of the original document was informed by the results from the public consultation process but a similar process will not been undertaken for the production of this revised Competence and Curriculum Framework. As far as is possible the recommendations from the original consultation have been incorporated into this document.

# **Executive Summary**

- 1. A Physician Assistant (PA) is defined as someone who is: *a new healthcare professional who, while not a doctor, works to the medical model, with the attitudes, skills and knowledge base to deliver holistic care and treatment within the general medical and/or general practice team under defined levels of supervision.* The role is therefore designed to supplement the medical workforce, thereby improving patient access.
- 2. Once an Assured Voluntary Register for Physician Assistants is established, it is hoped that those who are on the Register will be given prescribing rights as a standard part of their role rather than an extended role. PAs should have access to a prescribing formulary that recognises their area of work and allows them to treat the presenting patient without unnecessary delay. Local prescribing formularies should be adhered to at all times.
- 3. The framework specifies a range of competencies expected of PAs at the point of qualification. These include broad professional competencies, competencies in terms of history taking, physical examination and diagnosis and competence in procedural skills. It also sets out a model used to identify those conditions which PAs can be expected to diagnose and/or manage independently.
- 4. In order to ensure that these competencies can be achieved, the framework sets out certain criteria to be met by all programmes. This includes overall length and academic level (90 weeks of postgraduate diploma (M level) programme) and minimum levels of clinical practice in each of a range of fields as well as overall minima.
- 5. Programmes will be periodically accredited by a nationally appointed panel which will include lay representation. Once statutory regulation is achieved this function will be taken over by the regulator.
- 6. Accreditation ensures that programmes meet the structural standards set by the framework: but it is the National Assessment (MCQ and OSCE) which ensures that all qualifying PAs from whichever programme, have demonstrated the competencies required for practice. Students must have successfully completed an accredited programme and passed the national assessment before they can be entered on the register.
- 7. Following completion of initial training, all students undertake a 12 month internship programme designed to consolidate their core knowledge and skills and demonstrate competence in action. It also provides an opportunity for students to undertake additional learning of relevance to the field in which they are practicing.
- 8. Although Physician Assistants will acquire more specialist knowledge of relevance to their field, they are all required to maintain the same basic level of general competence across the whole scope of PA practice that was tested by the National Assessment.

- 9. To ensure that they do so, they are required to undertake a recertification exam similar to that taken at qualification every 6 years in order to remain on the register. CPD (PAs are required to demonstrate that they have met the minima for CPD through each two-yearly cycle) is therefore likely to have a dual focus on maintenance / updating of core knowledge and development of new and more specialised skills and knowledge.
- 10. At present, there is a managed voluntary register (PAMVR) held by the professional body (UKAPA) and overseen by an independent commission. Once the process becomes clear, we would intend that the managed voluntary register is superseded by an Assured Voluntary Register

# Contents

1 Introduction	6
1.1 The role of the Physician Assistant	6
1.2 The key points of the Competence Framework	8
1.3 The key points of the Curriculum Framework	8
2 The Competence Framework	9
2.1 Competence on qualification	9
2.2 The assessment of competence	10
2.3 Specification of core competences	11
2.4 Specification of core procedural skills	16
2.5 Specification of core clinical conditions	18
2.6 A model for categorising clinical conditions on the basis of	19
required competence	
2.6.1 Example: Cardiovascular conditions	21
2.6.2 Example: Patient presenting with chest pain	22
2.6.3 List of Patient Presentations	23
3 The Curriculum Framework	25
3.1 Introduction to the Curriculum Framework	25
3.2 Principles of learning and teaching	26
3.3 Learning partnerships	27
3.4 The educational aims of PA programmes	28
3.5 The structure of the Physician Assistant programme	29
3.5.1 Overall length of the programme	29
3.5.2 Clinical experience in the programme	29
3.5.3 Progression	30
3.6 Criteria for entry to the programme	31
3.6.1 Major entry groups	31
3.6.2 Other entry routes	31
3.6.3 Transitional arrangements	32
4 Assessment	33
4.1 Definition of competence	33
4.2 Roles of assessment	33
4.3 Criteria for assessment and standard setting	35
4.4 National assessment and initial certification	35
4.5 Internship	36
4.6 Maintaining professional competence	36
5 The Core Syllabus	38
5.1 Core theoretical knowledge	38
6 Validation, accreditation and evaluation of the programme	40
6.1 Validation and accreditation of the programme	40
6.2 Evaluation of the programme	40

7 Regulation and accountability	42
7.1 Professional title	42
7.2 Regulation and registration	42
7.3 Accountability and supervision	43
8 Glossary of terms	44

# **1** Introduction

## **1.1 The role of the Physician Assistant**

With the continuing increase in the overall size of the population and in particular the rise in the number of elderly people, the demand on services of the NHS will continue to increase. Meanwhile, the European Working Time Directive is reducing the number of doctor hours available to provide medical care. Many Trusts are forced to take on locum doctors at great cost to the NHS and offering limited continuity of care.

Not all medical care has to be undertaken by doctors. Over the last decade, the scope of practice of many health care practitioners in the National Health Service has expanded to include roles and tasks that were previously the reserve of the medical profession. Whilst all the evidence would suggest that this has generally been achieved without reduction in the efficacy with which those tasks have been carried out, there is a limit to which this approach can be taken without seriously diminishing the resource available for nursing, physiotherapy etc.

In a situation in which the demand on all the established health professions will be increasing, the development of the Physician Assistant offers an economical means of meeting the increased requirement for medical care without further reducing the resource available for the fulfilment of the vital roles of the other health professions.

This document defines standards for the education and practice of the Physician Assistant: a broadly-based healthcare professional, who is able to contribute to holistic patient-centred care in both primary and generalist secondary care settings. In setting such standards, the aim is to maximise the sustainability and transferability of the role across the NHS.

#### A Physician Assistant is defined as someone who is:

#### a new healthcare professional who, while not a doctor, works to the medical model, with the attitudes, skills and knowledge base to deliver holistic care and treatment within the general medical and/or general practice team under defined levels of supervision.

A Physician Assistant can:

- formulate and document a detailed differential diagnosis having taken a history and completed a physical examination
- work with patients and, where appropriate, carers to agree a comprehensive management plan in light of the individual characteristics, background and circumstances of the patient
- maintain and deliver clinical management in collaboration with the patient and on behalf of the supervising physician whilst the patient travels through a complete episode of care
- perform diagnostic and therapeutic procedures and prescribe medications (subject to the necessary legislation)
- request and interpret diagnostic studies and undertake patient education, counselling and health promotion.

This overall role definition and the capacities outlined above will clearly play out differently in different health care settings. It is proposed that, in conjunction with each of the relevant Royal Colleges, we produce an addendum to this document outlining the role that might be undertaken by a reasonably experienced Physician Assistant in Acute Medicine, General Practice, Emergency Department etc.

The Physician Assistant role provides a new way of working that will complement roles already developed in primary and secondary care and strengthen the multi-professional team. A Physician Assistant will always work under the supervision of a designated senior doctor (consultant, registrar or general practitioner). Their detailed scope of practice in a given setting is circumscribed by that of the supervising doctor. Although there may be circumstances when the supervising doctor is not physically present, they will always be readily available for consultation. Like all other regulated healthcare professionals the Physician Assistant is responsible for their own practice though the supervising doctor always maintains the ultimate responsibility for the patient.

The Physician Assistant will be employed as a member of the medical team in either primary or secondary care and will have a clinical supervisory relationship with a named doctor who will provide clinical guidance when appropriate. It is expected that over time the supervisory relationship will mature and whilst the doctor will remain in overall control of the clinical management of patients, the need for directive supervision of the Physician Assistant will diminish.

The Physician Assistant will always act within a predetermined level of supervision and within agreed guidelines.

Qualified Physician Assistants may develop specialist expertise that reflects the specialty of their supervising doctor. This will be gained through experiential learning and CPD. However, they are expected to maintain their broad clinical knowledge base through regular testing of generalist knowledge and demonstrated maintenance of generalist clinical skills.

## **1.2 The key points of the Competence Framework**

In addition to competences and skills, this Framework describes the level of responsibility that Physician Assistants will be expected to take for the diagnosis and management of a range of clinical conditions. An employing organisation can use the framework to set appropriate expectations of the Physician Assistant.

A diagrammatic matrix is used to document the minimum capacity required of the Physician Assistant on qualification (or, if trained outside the UK, on first employment in the NHS) with regard to the diagnosis and management of a wide range of different conditions. Experience to date has demonstrated the need to differentiate between a limited set of exemplar conditions (both common conditions and 'red flag' presentations) that PAs must know about at qualification, and a broader range of conditions which they should be able to diagnose and manage through the application of the knowledge and skills available to them on qualification and following familiarisation with the specific clinical context in which they are working.

## **1.3 The key points of the Curriculum Framework**

This Framework recognises that the development of common standards on qualification requires:

- flexible but rigorous entry criteria to programmes
- a substantial and appropriately supported and accredited academic programme that will allow the time required for individual professional development
- agreed minimum overall hours of clinical experience and minima for clinical experience in particular health care settings
- a common core knowledge base
- a common core of procedural skills
- common competences as a clinician and a professional
- national (or international) assessment.

Physician Assistants will complete a Masters level<sup>1</sup> academic programme of no less than 90 weeks leading to a Postgraduate Diploma in Physician Assistant Studies. This will be followed by a period of internship, during which the newly qualified PA will receive additional training in relation to the clinical field in which they are working as well as consolidating their common core learning and providing a clinical service. The internship should take place in a single setting but with access to other clinical areas as appropriate. This foundation will enable Physician Assistants to practice as part of the clinical team, within a range of primary and secondary healthcare settings.

<sup>&</sup>lt;sup>1</sup> Defined in the Framework for Higher Education Qualifications in England, Wales and Northern Ireland

# **2 The Competence Framework**

Although this section is written in relation to the qualifying student and, it might therefore be suggested, should be seen as an integral part of the Curriculum framework, the Competence Framework equally provides the minimum competencies required of anyone who has qualified as a Physician Assistant (or equivalent) in another country and is now seeking employment as a Physician Assistant in the UK. Just as importantly, it specifies the minimum set of competencies to be maintained by all Physician Assistants (and to be tested periodically as part of re-certification) even if those competencies are not of direct relevance in their current area of practice.

## **2.1 Competence on qualification**

This chapter defines the core achievements required of the Physician Assistant student at the point of qualification, in order to be placed on the register. There are three major components to this specification.

- 1. The core competences which the Physician Assistant is expected to be able to demonstrate across all their clinical practice.
- 2. The range of procedural skills in which the Physician Assistant must have demonstrated competence.
- 3. The common patient presentations, the clinical conditions (both common and 'red flag') which the Physician Assistant would be expected to consider as part of differential diagnosis and the level of responsibility which the Physician Assistant is expected to take for their diagnosis and/or management. (Outlined in the body of this document, but dealt with in detail as a separate appendix)

This document sets out the competence expected at the point of qualification. A Physician Assistant is required to maintain this breadth of competence throughout their professional career. The additional expertise that they will acquire in particular fields, through experience or further training, is an addition to this general competence and not a substitute for it.

It is anticipated that Physician Assistant students will be drawn from a variety of backgrounds including members of other health professions wishing to change career and life-science graduates. With such a mixed potential intake, programmes will have to be designed to meet the needs of individuals with widely differing knowledge and skill profiles.

Another potential area for recruitment is medical assistants / medical technicians from the armed services, although suitable access programmes would need to be designed to prepare such candidates to successfully take on masters level education.

The competences detailed in this document reflect the requirement for a significant knowledge skill base and an understanding of the application of scientific principles, through professional judgement, in a range of clinical settings. This capability is to be acquired through an appropriate academic and clinical curriculum accredited by the regulatory authority<sup>2</sup>. In order to enable entrants from different backgrounds to achieve the required competences, curricula will have to target specific groups, or demonstrate the flexibility to cope with the range of learning needs.

Physician Assistants will be accountable for their own practice within the boundaries of delegation but they will work under the overall supervision of a general practitioner or medical consultant. Arrangements for supervision and the delegation of duties and responsibilities will vary according to the Physician Assistant's level of overall experience and expertise in the particular clinical field. However, as a dependent profession, PAs will always work in close conjunction with a physician or small team of physicians with clear lines of supervision.

## 2.2 The assessment of competence

The day to day management of the assessment of students' knowledge, skills and attitudes as they develop through Physician Assistant education programmes will be the responsibility of individual universities. However, in order to qualify as a Physician Assistant, students from all programmes will be required to undertake a nationally determined assessment. Whilst universities Whilst universities are encouraged to incorporate the national assessment as part of their overall assessment regime (and all universities currently running programmes require the students to pass the national assessments in order to achieve the university PGDip in PA studies) they are of course free to apply any additional assessments for the award of their institutional qualification.

The National Assessment will ensure competence in the use of clinical knowledge and in professional, clinical judgement by testing which will consist of:

- i. a knowledge-based examination using multiple choice questions
- ii. an objective structured clinical examination (OSCE)

Multiple choice questions and OSCE stations for the examination will be drawn from secure banks held by or mediated through the National Assessment Sub-committee of UKIUBPAE and the results determined / approved at a nationally constituted Examination Board.

In addition, individual universities / programmes will be responsible for demonstrating that they have in place structures and processes by which they ensure:

• direct observation of the students' competent application of communication, interpersonal, clinical and procedural skills in practice

<sup>&</sup>lt;sup>2</sup> It was originally intended that this role would be taken by the National Reference Panel until statutory regulation was achieved, but after one accreditation visit to the West Midland's courses the Panel became inactive and it has not been possible to replace it. UKIUBPAE is currently working with UKAPA and other stakeholders to establish an accrediting body which, whilst not fully independent of the universities running the programme, will include a broader spectrum of opinion.

- collection of evidence provided by other healthcare practitioners regarding the performance of the student
- direct questioning by an assessor to check understanding of patient-centred care, health and safety procedures, technological interventions and interpretation of results, in addition to demonstrating core knowledge
- a portfolio of evidence maintained by the student. This will include a record of progress as well as reflective accounts of critical learning encounters and will inform the assessment process and its outcome.

Wherever possible, learning / performance in relations the core clinical competences, skills and conditions, should be evidenced in working with patients in the clinical setting. There are clearly some aspects (a prime example is CPR) where evidence of competence in simulation is considered sufficient.

## 2.3 Specification of core competences

Although, in order to specify competence in any detail, it is necessary to break down the clinical role into a series of core constituent elements, it is important to remember that clinical competence is more than simply the sum of these elements. Although knowledge must include national and local guidelines and relevant protocols, it is essential to the medical model, to which the Physician Assistant works, that their consultations and interventions are responsive to the individual patient and their situation, rather than mechanistic – that is, they should apply their knowledge and skills in a patient-centred way rather than sticking blindly to predetermined protocols. The Physician Assistant must hold knowledge in such a way that it can be effectively applied, through clinical reasoning and professional judgement, in situations of complexity and uncertainty; in the context of the individual patient's needs and wishes.

In addition, this document acknowledges the government expectation (Department for Education and Skills, 2005) that practitioners working with children and young people should have a basic common core set of skills, knowledge and values that promote equality, respect diversity, help provide more effective and integrated services and acknowledge the rights of children, young people and their families.

#### 2.3.1 Professional Behaviour & Probity

- Consistently behave with integrity and sensitivity.
- Behave as an ambassador for the role of Physician Assistant, acting professionally and behaving considerately towards other professionals and patients.
- Recognise and work within the limits of your professional competence and scope of practice and within the scope of practice of your supervising clinician
- Maintain effective relationships with colleagues from other health and social care professions.
- Inform patients, carers and others of the nature of the clinical role.
- Contribute to the effectiveness of a clinical learning environment.
- Be a good role model

#### 2.3.2 The patient relationship

- Demonstrate the ability to develop and maintain clinician patient relationships which will foster informed patient choice and negotiated care decisions.
- Communicate effectively and appropriately with patients and carers even when communication is difficult
- Demonstrate the ability to work with the patient to make best therapeutic use of the clinician-patient encounter
- Perform a tailored and holistic assessment in order to develop an appropriate management plan
- Facilitate patient and/or carer involvement in management, planning and control of their own health and illness
- Appropriately and sensitively identify and utilise opportunities for patient and carer education.

## **2.3.3** Common core skills and knowledge when working with children, young people and families

- Demonstrate effective communication and engagement with children, young people and families
- Demonstrate effective observation and judgement in children's and young people's development
- Recognise when to take appropriate action in safeguarding and promoting the welfare of the child
- Intervene appropriately when supporting transitions between stages of development and/or services
- Demonstrate effective multi-agency working through awareness of roles and responsibilities within other services
- Identify when to share information in a timely and accurate manner while respecting legislation on the control and confidentiality of information

#### 2.3.4 History taking and consultation skills

- Structure interviews so that the patient (carer) is encouraged to express their concerns, expectations and understanding, so that these can be appropriately addressed
- Elicit a patient history appropriate to the clinical situation, which may include, presenting complaint, history of the present illness, past medical history, social history, family history, medications, allergies, review of systems, risk factors and appropriate targeted history
- Identify relevant psychological and social factors, integrating these perspectives with the biomedical evidence to elucidate current problems.

#### 2.3.5 Examination (general)

• Perform a physical examination tailored to the needs of the patient and the demands of the clinical situation, including, as appropriate, neurological examination, musculoskeletal examination, blood pressure (BP) measurement and control, male and female uro-genital examination, breast examination, ophthalmic examination, oropharyngeal examination cardiovascular examination, respiratory examination, abdominal examination and dermatological examination

• Perform a comprehensive mental state examination, tailored to the needs of the patient and the demands of the clinical situation, including as appropriate, assessment of appearance and behaviour, levels of consciousness, posture and motor behaviour, thoughts and perceptions, affect, speech and language, orientation, memory and higher cognitive function.

#### 2.3.6 Interpreting evidence/determining the requirement for additional evidence

- Interpret the findings from the consultation (history, physical examination and mental state examination) in order to determine the need for further investigation and, with the patient/carer, the appropriate direction of patient management
- Understand the indication for initial and follow-up investigations
- Select, interpret and act upon appropriate investigations
- Determine the relevance of screening tests for a given condition.

#### 2.3.7 Clinical judgement in diagnosis and management

- Formulate a differential diagnosis based on objective and subjective data
- Make use of clinical judgement to select the most likely diagnosis in relation to all information obtained
- Recognise when information/data is incomplete and work safely within these limitations
- Recognise key diagnostic errors and the issues relating to diagnosis in the face of incomplete data.
- Recognise when a clinical situation is beyond their competence and seek appropriate support.

#### 2.3.8 Therapeutics and prescribing

- Working under medical delegation clauses, determine and propose appropriate therapeutic interventions from the full range of available prescription medications used in the clinical setting
- Write accurate and legible prescriptions in out-patient, in-patient and primary care setting for review and signature by a supervising clinician.
- On commencing intravenous infusion, write accurate and legible prescriptions for appropriate fluid regimes for review and signature by a supervising clinician
- Use the British National Formulary (BNF) and local formularies appropriately and be familiar with the yellow card system for reporting side effects/drug interactions
- Recognise their responsibility for facilitating patient concordance for the drug regime being proposed by them and prescribed by their supervising clinician.

#### 2.3.9 Clinical planning and procedures

- Formulate and implement a management plan in collaboration with the patient, the carers and healthcare professionals
- Perform clinical procedures using knowledge of the indications, contraindications, complications and techniques
- Monitor and follow up changes in patient's condition and response to treatment, recognising indicators of patient's response.

#### 2.3.10 Documentation and information management

- Initiate and maintain accurate timely and relevant medical records
- Contribute to multi-professional records where appropriate.

#### 2.3.11 Risk management

- Recognise potential clinical risk situations and take appropriate action
- Recognise risks to themselves, the team, patients and others and takes appropriate action to eliminate/minimise danger
- Value the importance of clinical governance and participate as directed.

#### 2.3.12 Teamwork

- Value the roles fulfilled by other members of the health and social care team and communicate with them effectively
- Effectively manage patients at the interface of different specialties and agencies, including primary/secondary care, imaging and laboratory specialties
- Effectively and efficiently hand over responsibility to other health and social care professionals

#### 2.3.13 Time/resource management

- Prioritise workload using time and resources effectively
- Recognise the economic constraints to the NHS and seek to minimise waste.

#### **2.3.14** Maintenance of good practice

- Critically evaluate own practice to identify learning/developmental needs and identify and utilise learning opportunities
- Use evidence, guidelines and audit (including significant event analysis) to benefit patient care and improve professional practice.

#### 2.3.15 Ethical and legal issues

Identify and address ethical and legal issues, which may impact on patient care, carers and society. Such issues will include:

- ensuring patients' rights are protected (e.g. children's rights including Gillick competency: patients' right to participate in making decisions about their care)
- maintaining confidentiality
- obtaining informed consent
- providing appropriate care for vulnerable patients (including vulnerable adults, children and families in need)
- responding to complaints.

#### 2.3.16 Equality and diversity

- Recognise the importance of people's rights in accordance with legislation, policies and procedures
- Act in a way that:
  - acknowledges and recognises people's expressed beliefs, preferences and choices - respects diversity
  - values people as individuals
  - incorporates an understanding of one's own behaviour and its effect on others
- Identify and take action when own or others' behaviour undermines equality and diversity.

#### 2.3.17 Awareness of guiding principles and current developments in the NHS

- Practice in a manner which is grounded in the underlying principles of the NHS as a patient centred service, free at the point of delivery
- Maintain an awareness of national and local guidelines / legal requirements, both generally and, in particular, as relevant to their area of practice
- Maintain an awareness of any new developments in the structure and function of the NHS and particularly in relation to their area of practice
- Demonstrate an understanding of change processes within the NHS and fulfil their broader professional role by participating in national and local consultation processes

#### 2.3.18 Public health

- Address issues and demonstrate techniques involved in studying the effect of diseases on communities and individuals including:
  - assessment of community needs in relation to how services are provided
  - recognition of genetic, environmental and social causes of, and influences on the prevention of illness and disease
  - application of the principles of promoting health and preventing disease.

#### 2.3.20 Moving and Handling

- Assess the risks to self, colleagues and the patient prior to moving and handling and act to minimise those risks by:
  - ensuring that there are sufficient trained staff available to carry out the action safely
  - using appropriate manual handling techniques for the situation
  - making proper use of any moving and handling aids provided

## **2.4 Specification of core procedural skills**

The following is a list of procedural skills which the Physician Assistant should be able to perform on completion of the educational programme. This section is designed to be read in conjunction with the competences (2.3) and for the sake of brevity we do not repeat the vitally important skills of routine examination, communication with the patient, seeking informed consent, ensuring safety, avoiding infection etc.

#### 2.4.1 Cardiovascular system

- Perform and interpret a 12 lead ECG
- Participate in cardiopulmonary resuscitation to the level expected in Immediate Life Support Training: including oxygen with mask, bag intubation, which medication to use and when, depending upon ECG reading.

#### 2.4.2 Respiratory system

- Undertake respiratory function tests, including the performance of peak flow measurement
- Commence and manage nebulised therapy
- Commence and manage oxygen therapy
- Instruct patients in the use of devices for inhaled medication

#### 2.4.3 Gastrointestinal system

- Insert a naso-gastric tube (tested in simulation)
- Undertake nutritional assessment

#### 2.4.4 Musculoskeletal system

• Undertake appropriate strapping and splinting for common musculoskeletal injuries

#### 2.4.5 Eyes

- Perform fluoroscein dye examination of the cornea
- Remove loose foreign bodies from under lids

#### 2.4.6 Female reproductive system

• Obtain a cervical smear, cultures for HVS etc

#### 2.4.7 Renal and genitourinary system

- Undertake male and female urinary catheterisation
- Perform a urine dipstick test

#### 2.4.8 Skin

- Undertake simple skin suturing
- Be competent in the use of local anaesthetics

#### **2.4.9** Diagnostics and therapeutics

• Interpret written prescriptions accurately, seeking confirmation when the drug, dose or route of administration are unclear, or where the prescription as written is outside standard practice

- Draw up and give intramuscular, subcutaneous, intra-dermal and intravenous injections.
- Take a venous blood sample, using appropriate tubes for required tests
- Obtain an arterial blood gas (ABG) sample
- Undertake venous cannulation and set up an infusion and infusion pump
- Commence and manage a blood transfusion (in simulation)
- Measure body temperature
- Measure pulse rate
- Monitor oxygen saturation transcutaneously
- Take nose, throat and skin swabs
- Calculate dosage of insulin using a pre-prescribed sliding scale and administer

## **2.5 Specification of core clinical conditions**

The model on the two pages following describes a two-dimensional categorisation of conditions in relation to PA competence - the X axis referring to competence in undertaking the diagnostic process and the Y axis referring to competence in managing the condition. The matrix therefore defines the conditions which, in their uncomplicated form, PAs are competent to diagnose and manage (1A); Diagnose or include in a differential diagnosis and refer appropriately for management (1B); Determine a management strategy once diagnosed by another clinician (2A); Undertake day to day management once the management strategy has been set by another (2B).

These categorisations should not be read as hierarchical: i.e. equating to a 'must know'/ 'should know'/ 'could know' taxonomy. It is clearly just as important that the PA on qualification is able to recognise a red flag condition that they need to refer (1B) or manage a condition that their supervising clinician has diagnosed (2A) as it is that they can diagnose and manage the conditions in 1A.

The conditions within ech of the categories of the matrix form a separate document published on the Department of Health website and are currently under review as part of this revision programme. The conditions in that appendix are generally organised by body system (cardiovascular conditions; respiratory conditions etc.) because this minimises duplication. The matrix as it relates to cardiovascular conditions is given as an example [p 22]. However, the diagnostic task facing the Physician Assistant clearly starts from the position of a patient presenting with a particular problem and a further example is given of the matrix as it relates to chest pain [p 23].

The full list of patient presentations with which the qualifying Physician Assistant should be familiar is also included. [pp 24-25]

# **2.6 A model for categorising clinical conditions on the basis of required competence**

#### X Axis: Is the PA competent to undertake the diagnostic process?

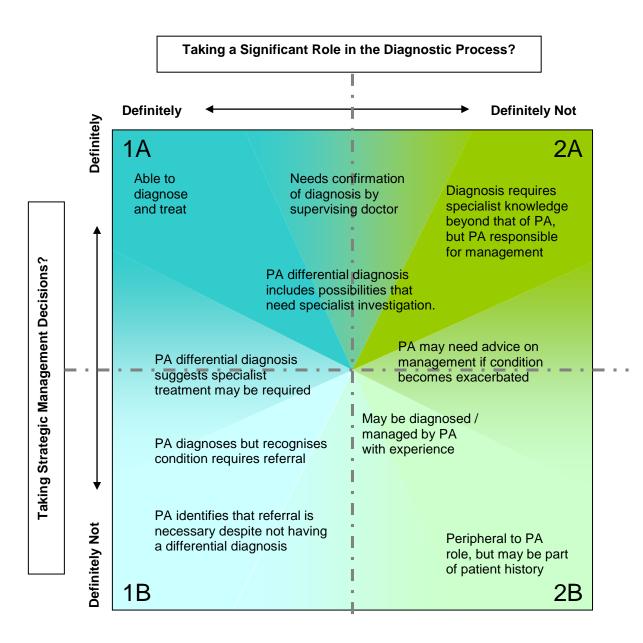
- **YES:** Category 1 The PA is able to identify a condition as a possibility within differential diagnoses and to take measures to confirm the diagnosis.
- **NO:** Category 2 The PA is aware of the condition, but does not necessarily have the knowledge or resources to make the diagnosis.

#### Y Axis: Is the PA competent to take responsibility for management?

- **YES:** Category A The PA is able to manage the uncomplicated condition without routine referral to others.
- **NO:** Category B The PA participates in the management of the condition, but does not take a lead role in determining the management strategy.

X Axis: Taking a Significant Role in the Diagnostic Process?			
↑		YES - Category 1	NO - Category 2
	]	1A	2A
bility for Management?	YES - Category A	The PA is able to diagnose the condition in a patient who is presenting with the problem for the first time and will normally be able to manage it without regular or routine referral.	Once the condition has been diagnosed, either by their supervising doctor or a clinical specialist, the PA is able to manage the condition without routine referral.
Y Axis: Taking Responsibility for Management?	NO - Category B	The PA is able to identify the condition as a possible diagnosis: may not have the knowledge / resources to confirm the diagnosis or to manage the condition safely, but can take measures to avoid immediate deterioration and refer appropriately	The PA is able to undertake the day to day management of the patient and condition once the diagnosis and strategic management decisions have been made by another.
Τ	J	1B	2B

As with most models, this is something of an oversimplification of reality. Relatively simple conditions may be complicated by the personal circumstances of the patient, their reaction to the disease process or some other underlying health problem. Equally, a PA may already be familiar with a non-core condition because of prior experience. However, whilst the following diagram may be closer to the truth, we believe that the simplified model is an appropriate base for the development of curricula.



## 2.6.1 Example: Cardiovascular conditions

#### Taking a significant role in the diagnostic process?

1A			2A
	Hypertension	Vascular Diseases	
	Essential	Giant cell arteritis	
	Isolated systolic	Ischemic Heart Disease	
	latrogenic	Angina pectoris	
	Hypotension	Stable	
	Orthostatis/postural		
	Hypovolaemic shock		
	Vascular Diseases		
	Phlebitis/thrombophlebitis		
	Hypothermia		
	Hypertension	Cardiomyopathy	
	Secondary	Dilated	
	Malignant/accelerated	Hypertrophic	
	Hypotension	Restrictive	
	Cardiogenic shock	Congenital Heart Disease	
	Conduction Disorders	Atrial septal defect	
	Bundle branch block	Ventricular septal defect	
	Premature beats	Coarctation of aorta	
	Atrioventricular block	Patent ductus arteriosus	
	Ventricular tachycardia	Tetralogy of Fallot	
	Ventricular / Atrial fibrillation/flutter	Valvular Disease	
	Vascular Diseases	Mitral valve prolapse	
	Chronic/acute arterial occlusion		
	Varicose veins		
	Venous thrombosis		
	Peripheral vascular disease		
	Acute rheumatic fever		
	Aortic aneurysm/dissection		
	Arterial embolism/thrombosis		
	Valvular Disease		
	Aortic / Mitral stenosis/regurgitation		
	Tricuspid / Pulmonary stenosis/insufficiency		
	Cardiac failure Ischaemic		
	Valvular		
	Hypertensive		
	Ischemic Heart Disease		
	Acute myocardial infarction		
	Angina pectoris – unstable / Prinzmetal's variant		
	Other Forms of Heart Disease		
	Acute and subacute bacterial endocarditis		
	Acute pericarditis		
	Cardiac tamponade		
	Pericardial effusion		
1B			2B

#### Example: Patient presenting with Chest Pain 2.6.2

ī		Yes	No	
	1A			2A
			Cardiovascular	
			Angina Pectoris: stable	
		Respiratory		
		Bacterial Pneumonia		
		Viral Pneumonia		
s		Gastro-Intestinal		
Yes		Oesophagitis		
		Gastro-oesophageal reflux disease		
		Dyspepsia		
		Neurological		
		Herpes zoster (of chest wall)		
		Mental Health		
		Panic Disorder		
		Cardiovascular		
		Acute Myocardial Infarction		
		Angina Pectoris: unstable		
		Angina Pectoris: Prinzmetal's variant		
		Respiratory	Respiratory	
8 Z		Pulmonary Embolism	Fungal Pneumonia	
_		Pleurisy	HIV related Pneumonia	
		Gastro-intestinal		
		Acute Cholecystitis		

#### Taking a significant role in the diagnostic process?

## 2.6.3 List of Patient Presentations

The Physician Assistant should be familiar with the following patient presentations and should be able to manage and diagnose / refer appropriately.

Addiction
Altered sensation (including loss of feeling in lower limbs)
Anxiety: abnormal
Appetite/weight: alteration
Back pain
Blood loss
Breast problems (lump, pain, discharge, surface changes)
Children: Failure to thrive
Children: Developmental problems
Children: Short stature
Children: Unexplained injury
<b>Circulatory abnormalities</b> of the limbs
Collapse/reduced level of consciousness (including fits)
Cough
Cutaneous/subcutaneous swellings
Disordered mood
Disordered thinking
Distension: abdominal
ENT problems
ENT Emergencies
Eye problems
Eye Emergencies
Falls/faints (syncope)/dizzy turns
Fertility / Infertility
Fever
GI disturbances including vomiting/altered bowel habit
Head and neck lumps
Headache
Hypothermia
Injury: Head & Neck
Injury: Extremities
Injury: Abdominal & Pelvic
Injury: Thoracic
Joint pain/swelling
Mass: abdominal
Memory loss
Menstrual changes / problems
Micturition abnormalities (including frequency, volume, colour and incontinence)
Movement: loss of/abnormal (inc. inability to walk, shaking hands)
Oedema
Pain: abdominal
Continued over

Continued over

Pain: chest (including heartburn)
Pregnancy: problems in
Prolapse
Sciatic leg pain
Scrotal and groin swellings / pain
Sexual dysfunction
Sexually transmitted infection: concerns about
Shortness of breath
Skin changes: colour, ulceration, pruritis, rashes
Sleep disorder
Speech disturbances
Swallowing difficulties (dysphagia)
Tiredness
Visual disturbances
Voice changes
Weakness (both focal and general)

# **3 The Curriculum Framework**

## **3.1 Introduction to the Curriculum Framework**

For a new profession (in some ways even more so than for one that is already well established and understood in the public mind) it is vital that all entrants to the professional register meet a transparent and agreed standard. The purpose of this Curriculum Framework, in conjunction with the definition of competence in the previous section, is to make that standard explicit and to set out the criteria which any initial training programme for Physician Assistants must meet, in order to ensure that that standard can be achieved.

To fulfil this purpose, it is clearly important that this document should identify the competences to be demonstrated by graduates and the clinical problems that they should be able to address. In the case of a programme leading to professional registration, it is also appropriate that a Curriculum Framework includes certain specifications of structure and content and the nature of the educational process and experience.

However, it is not the purpose of this Framework to create homogeneity by placing unnecessary constraints on individual HEIs running Physician Assistant programmes. It is recognised that different institutions have their own constraints and opportunities and may well be tailoring programmes to different types of candidates. Variation in programmes is, in any case, to be welcomed, as an enrichment of the professional educational resource and the opportunity to develop and share areas of good practice.

The competences set out in the previous section of this document are therefore a minimum, to which an individual institution may choose to add in determining the outcomes for their own graduates. The length of the programme and the hours of clinical experience (both general and in terms of particular fields) are equally set as minima. Educational process is discussed in terms of the philosophical underpinning and the effect of process on the equipping of the professional for fulfilling their role, rather than in terms of a specification of particular learning and teaching strategies.

However tightly the specification of minimum standards might be worded, they are still open to differential interpretation by individual institutions, teachers and students. This document therefore also identifies the key role to be played by a national assessment of competence as a determinant of registration, without wishing to contest the right of individual HEIs to determine the academic award for their own students.

## **3.2 Principles of learning and teaching**

The primary responsibility for the achievement of the required learning rests with the student. It is the responsibility of curriculum developers, programme organisers and teachers to provide educational structures and experiences through which the student can fulfil their responsibilities. This includes teaching, but also the facilitation of individual and group work and the encouragement of autonomous learning.

The clinical environment provides many of the most important learning experiences for healthcare professionals. Unlike other learning settings, the education of the student is not the primary purpose of such environments and the student must learn how to make best use of the opportunities available without imposing upon patients or disrupting the provision of service.

The inter-relation of theory and practice is fundamental to the development of professional competence. Students must learn to:

- seek out and recognise clinical applicability whilst they are undertaking theoretical learning
- apply the theory they have learnt in the 'classroom' when they are in the practice setting
- reflect on practice to identify learning needs, whether to be met in the classroom or the clinical setting.
- theorise during practice (i.e. recognise patterns of clinical reasoning which go beyond what the text book can offer)
- theorise practice itself (i.e. how to recognise, in a particular piece of practice, the principles, assumptions, beliefs and theories, which actually shaped that practice).

Learning in professional practice is a collaborative activity in which members of one profession or of a number of professions may enhance their ability to achieve common learning needs by working together or may share their knowledge and skills to enable others to achieve their learning needs. This behaviour should be encouraged and rewarded through the educational process.

Professional practice involves living with uncertainty: making decisions in situations where there is no single right answer and where professional judgment must be used to determine the appropriate response. Learning and teaching in the Physician Assistant programme needs to prepare students for this reality and to equip them to make and live with such decisions.

Learning is moulded and driven by assessment and it is vital that both formative and summative assessment are designed in such a way that this direction coincides with the outcomes stated in the curriculum.

## **3.3 Learning partnerships**

The establishment of effective learning partnerships between a student Physician Assistant and their clinical supervisor(s) is vital to the professional learning process. To be effective, such individual partnerships must be framed by a partnership between the HEI and the service provider which mutually values the role that both play in shaping and enabling learning.

The learning partnership between the student Physician Assistant and their clinical supervisor moves beyond the traditional master / apprentice model. Learning is to be co-directed and questioning to be encouraged, so that both parties engage more thoughtfully in the processes of teaching and learning. This in turn should provide the basis for more motivated and better directed education.

For the partnership to work effectively, the clinical supervisor must have an understanding of the educational principles and values underpinning the programme, a detailed understanding of student learning needs in the educational experience they facilitate and an understanding of how that experience fits in to the totality of the course.

Training in clinical decision making is more complex than training in technical or factual matters. Where circumstances permit, the clinical supervisor should facilitate students in making a professional judgment rather than simply offering their own. Where the supervisor *does* offer their own professional judgment, they must be prepared for the student to question how that judgment was made. Students in turn must recognise that there is much professional knowledge that is tacit and may be difficult for the supervisor to elucidate.

Both supervisor and student should make efforts to be adaptable to the normal learning or teaching style of the other.

The partnership should be guided by educational principles, even when these principles take the student and/or the supervisor outside their comfort zones (e.g. in enabling and undertaking enquiry-based learning). It is important for the student to be thrown back on their own resources and to learn independently (whether from patients or library/internet resources) even where this may be more time consuming and where it involves a loss of control of the learning agenda by the clinical supervisor.

Where the clinical supervisor is involved in processes of formative and summative assessment, they must recognise both the different and the common intentions of the two processes.

Consequently, this Curriculum Framework supports the belief that the following principles are essential in shaping the education of the Physician Assistant:

- observation in clinical settings is directed so that student Physician Assistants learn to see, analyse and interpret all that occurs
- action (rather than just observation) in the practical setting is essential to foster learning
- ongoing dialogue in the clinical setting between educator, clinical supervisor and student Physician Assistant is a vital part of the learning process

- clinical supervisors help student Physician Assistants to investigate examples of professional judgment in both medical and educational practice
- problem-solving by the student Physician Assistant in a range of different practical activities, using critical thinking, creativity and improvisation
- Clinical supervisors enable student Physician Assistants to develop their use of the processes of deliberation and reflection, encouraging self-knowledge and self-appraisal.

## **3.4 The educational aims of PA programmes**

As mentioned previously, this Curriculum Framework aims to identify the core criteria which any Physician Assistant programme should enable students to meet. The aims outlined below, like the competences listed previously, serve to define that core. By contrast, learning outcomes will be written by individual Physician Assistant programmes and, whilst they must encompass the core specifications, they may go beyond them.

The broad aims of Physician Assistant programmes are as follows:

- The programme aims to produce graduates who have the knowledge, skills and professional behaviours to function as Physician Assistants (and to have their qualification nationally and internationally recognised) and the personal and intellectual attributes necessary for life-long professional development. Such graduates will be:
- safe practitioners under medical supervision in a wide variety of clinical settings, with patients from diverse social and ethnic backgrounds
- expert communicators who are empathic in a manner appropriate to a healthcare profession
- aware of health inequalities and the challenges of working in a multicultural environment
- aware of the limits of their competence and determined to act within those limits
- trained in the context of multi-professional working in a team environment
- adept in the use of C&IT (Communication and Information Technology) skills for healthcare
- capable and motivated lifelong learners continually engaged in active professional development
- understanding of the need to maintain and promote health, as well as to cure or palliate disease and aware of their obligations to the wider community as well as to individuals
- trained to integrate theoretical and clinical learning.

## **3.5** The structure of the PA programme

The structure of the Physician Assistant programme will be highly dependent on the institution running it and the prior learning and experience of the students admitted to the programme. This framework therefore refers only to those structural specifications which all programmes must meet.

#### 3.5.1 Overall length of the programme

This will be equivalent in length to a three year undergraduate degree programme: i.e. the minimum length of the programme will be 90 weeks. This is considered to be the minimum length of time required in order to enable the development of the knowledge base and the competences/skills identified above, but equally the minimum time in which effective professional socialisation can normally be achieved.

Professional socialisation may be said to have a generic and a specific component: i.e. PA students are socialised into the general ethos of being a health care professional, as well as into the specific codes of practice of the PA profession. It should therefore be recognised that some highly experienced health care professionals: e.g. nurses may have both the knowledge and the broader socialisation to allow the programme to be safely shortened. Normal APL/APEL processes will allow institutions to make a judgement about which elements of a programme an individual health professional can be allowed to miss. However, for students to be appropriately prepared for and socialised into the PA profession, a shortened programme should still be a minimum of 18 months (68 weeks).

#### 3.5.2 Clinical experience in the programme

Ninety weeks should constitute a minimum of 3,150 hours of nominal study time. Of this time, a minimum of 1,600 should be designated as clinical learning. Up to 200 hours of the designated clinical learning time may consist of learning in skills centres (see paragraph following) but a minimum of 1,400 hours will be spent in practice in the clinical area, in substantive attachments to a unit or to a doctor. This includes time spent with the doctor in hospital or general practice, on ward rounds, in clinics, etc. as well as time spent in tutorials. It also includes independent learning in the clinical area that is facilitated by the doctor, or time spent with other healthcare professionals.

When compared with medical education, the two year Physician Assistant programme provides less opportunity for students to encounter patients with rare, but potentially life threatening 'red flag' conditions. Increasingly sophisticated simulation (e.g. role players trained to simulate physical signs; moulage<sup>3</sup>; 'stethoscopes' that simulate heart murmurs etc.) offers students a chance to work with such cases in the skills centre. Time spent in simulation can therefore be seen as a useful enhancement of clinical experience, rather than as a second rate alternative where sufficient clinical experience is hard to obtain.

It is intended that the Physician Assistant, on qualification will be able to undertake first contact medical care in General Practice, Emergency Departments, Medical and Surgical Assessment Units and general hospital wards. There is also the potential to provide 'out of hours cover' in hospital and primary care/community settings with appropriate and adequate

<sup>&</sup>lt;sup>3</sup> Make up that mimics wounds and lesions

medical supervision. For this to be achieved, it is important that students have a breadth of clinical placement. Whilst recognising that many of the competences can be demonstrated and many of the core conditions encountered in any, or at least many clinical areas, it is felt appropriate to set certain minima for experience in different fields. These minima are designed to ensure breadth of significant experience for all qualifying Physician Assistants, but to leave sufficient undesignated clinical hours to allow individual institutions to differentiate their programmes by offering an emphasis on one or more clinical fields

The minimum core placements are as follows:

Community Medicine	180 hours
<b>General Hospital Medicine</b>	350 hours
Front Door Medicine <sup>4</sup>	180 hours
Mental Health	90 hours
General Surgery	90 hours
<b>Obstetrics &amp; Gynaecology</b>	90 hours
Paediatrics (acute setting)	90 hours

This adds up to 1070 hours, leaving a minimum of 330 hours to be designated by individual institutions. Although not a requirement, institutions will be encouraged to use these 400 hours to extend the time spent in core placements, reflecting local educational opportunity and the needs of the health economy, rather than simply to broaden the training circuit. In addition, institutions will be encouraged to maintain flexibility in their programmes which would allow individual students to spend further periods of time in a clinical area where they were experiencing some difficulty in achieving the learning, or alternatively, in which they had a particular interest.

#### 3.5.3 Progression

Progression through the programme is a matter for regulation by individual HEIs, but all institutions must ensure that their programme is classified as a 'fitness to practice programme' by their institutions and that they have in place rigorous processes for dealing with fitness to practice issues. Progress and qualification must be seen to be dependent on professional behaviour and specific clinical skills (e.g. cannulation or catheterisation) as well as on more generic academic competences.

Academic achievement is measured by both institutional and national assessment. As with other professions, acceptance for registration is dependent on a combination of academic achievement and a statement from the institution of the candidate's fitness to practise, in terms of professional behaviour and clinical competence. Although an institutional qualification does not of itself enable registration, institutions should consider making an alternative qualification available to those students who meet the academic criteria for the programme but are not deemed to be fit to practice.

<sup>&</sup>lt;sup>4</sup> This should include significant experience in Emergency Medicine

## 3.6 Criteria for entry to the programme

#### 3.6.1 Major entry groups

It is envisaged that there will be two main target groups from which students will be drawn – life-science graduates and existing health professionals. Universities may wish to tailor the programmes they offer to one group of candidates or the other, or to identify approaches that benefit from students with mixed backgrounds. In their selection processes for this programme, we would encourage universities to recognise and value life experience and rounded personality in addition to proven academic ability.

Whichever catchment a university is drawing on, the institution has a duty to ensure that the students it recruits to the programme are 'of good character' as well as academically capable of completing the course and undertaking the clinical role. As specified by the General Medical Council (GMC), with regard to undergraduate medical training:

"Universities have a duty to make sure that no member of the public is harmed as a result of taking part in the training of their medical students. Medical students cannot complete the undergraduate curriculum without coming into close, and sometimes intimate, contact with members of the public who may be vulnerable or distressed. The vocational part of their training, which prepares them for clinical practice when they become registered doctors, is such that they may not be directly observed or supervised during all contact with the public, whether in hospitals, in general practice or in the community."

The means by which the character and capability of candidates is assessed is a matter for individual institutions or groups of institutions. However, in determining admission processes, institutions must be cognisant of developing practice in other healthcare professions<sup>5</sup> and the need to take opportunities to widen participation in both higher education and the NHS. However, account needs to be taken of the eventual acceptability of candidates to the regulatory body (e.g. candidates previously removed from a professional register; with a criminal record etc).

#### 3.6.2 Other entry routes

Some of those interested in training as a Physician Assistant may not have the professional experience or appropriate education to allow direct entry to Physician Assistant programmes, set as they are at postgraduate (M) level. As the Physician Assistant role becomes embedded, this may include mature students looking for a change in career and school leavers selecting a Physician Assistant career. It may also include medical technicians/assistants in the armed services looking for professional development within the forces or a means of ensuring a career path when they return to civilian life. In this context, HEIs offering Physician Assistant programmes may wish to consider providing access routes into Physician Assistant programmes.

<sup>&</sup>lt;sup>5</sup> For example developments aimed at assessing the intellectual capacity of candidates as opposed to their achievement (e.g. the Medical Schools Admission Test) and/or admission processes which allow institutions to broaden the basis of selection beyond the traditional mix of paper qualification and interview, to include team-working, debating current issues, problem-solving, interpersonal skills etc

#### 3.6.3 Transitional arrangements

A number of those who trained on recognised Physician Assistant pilot programmes would like to be among the first to register as home-grown Physician Assistants. From a patient safety point of view there is nothing to be gained by requiring this group to undertake formal training, if it replicates training they have already received while developing the role. However, there is a need for individual practitioners to demonstrate their fitness to practise against the standards of proficiency based on the competences developed once the role itself has been established and the decision taken to regulate it in its own right.

Now that a Managed Voluntary Register is in place, Physician Assistants who trained through pilot programmes before the inception of this framework will be encouraged to apply for registration, identifying the date at which they qualified. To remain on the register they will need to meet the criteria set out in Section 4.5, including passing the national recertification assessment. It is proposed that recertification assessment will be on a six-yearly or five-yearly cycle<sup>6</sup>. If, in order to pass this broad-based assessment, a PA needs training in fields that were not part of their original programme, one of the current PA programmes may be asked to facilitate this. A final date at which these transitional arrangements are to be terminated will be determined by the current Managed Voluntary Register Commission or by a successor body

<sup>&</sup>lt;sup>6</sup> Depending on whether the US Physician Assistant model or the proposed GMC Medical model is followed

# 4 Assessment

## **4.1 Definition of competence**

In common usage, the word 'competent' often implies 'only just good enough': i.e. 'not incompetent, but not very good either'. When the term competence is used in this document, it refers to a specified level of capability or proficiency in relation to an activity (see definition below). Whilst the achievement of such competences may define the borderline between the student passing and failing, they do not define the borderline between competent and incompetent and are generally set at a high level of performance.

In this Framework competence is defined within a professional context as the broad ability with which a professional person is able to practise to the required standards in a predetermined range of clinical fields and across a range of situations. This broad definition includes attributes that can be applied, clinical performance (Stuart 2003), and the use of professional judgment (Carr 1993). More specifically, in the medical context, a newly qualified PA must be able to perform their clinical work *at the same standard* as a newly qualified doctor. And similarly an experienced PA must be able to perform at the same standard as an experienced junior doctor, asking for help from the consultant as needed, in the same way that a junior doctor would. This principle is based on the moral requirement that patients are entitled to first-class treatment which is not endangered by the involvement of new practitioners and the principle underpins the setting of a national examination and the close involvement of experienced doctors in teaching and assessing PAs.

## 4.2 Roles of assessment

Assessment fulfils a number of roles in an educational programme leading to a professional qualification. These can be primarily divided into summative and formative roles.

The summative role of assessment is to enable assessors to determine whether a student has met an agreed standard / set of standards for completion (e.g. of a module) progress or qualification. In the context of the healthcare professions, it therefore has a role in the protection of the public, the health service and indeed the profession, by ensuring that all those qualifying from a course have achieved the required competences and knowledge, and the skills and professional behaviours that underpin them. Equally, it protects the educational institution by ensuring that there is no devaluation of the degrees or other qualifications that they offer.

The formative role of assessment is to provide feedback to students on progress, strengths and weaknesses, thereby enabling students to identify and 'own' their learning needs, so that they can focus their future efforts effectively.

Formative Assessment has a solely formative role in that it does not provide a bar to progress or completion, nor affect grades or degree classification. Summative assessment must fulfil its summative role, but *may* also fulfil a formative role, by staff feeding back on why a grade was given, how a student might look to improve etc.

The pattern of formative assessment is a matter for the individual institution and is dependent on their overall pattern of assessment. It should include a longitudinal portfolio based assessment process. The portfolio will include a log of experience and a reflective diary. This would form the basis for discussion with personal tutors and mentors so that students can receive appropriate guidance and feedback. It must be structured in such a way that it encourages students to recognise weaknesses as well as demonstrate strengths and to determine their learning needs accordingly. Formative assessment should also allow students to familiarise themselves with those modes of assessment used in national examinations.

Assessment, in both its formative and its summative role, shapes learning. Whilst the formative role enables a student to prioritise learning in response to their current performance profile, it is the summative role that sets the learning agenda in the first place. All candidates look at what they are going to be tested on and what form the test will take, as a major determinant of what they are going to learn. Assessment drives learning and, if the problems associated with a hidden curriculum at variance to the published curriculum are to be avoided, there is a need to ensure that the syllabus is in concordance with the programme, in other words the pattern of assessment is what would be expected from the pattern and purpose of the curriculum.

In the case of Physician Assistant programmes, it is vital that assessment should drive students towards education, intellectual development and the application of knowledge and professional judgment, rather than training, the simple accumulation of knowledge and the unquestioning use of protocols.

In setting standards to be tested, it is vital that knowledge, skill and professional behaviour, although they may be used together in the clinical environment, are seen as constituting separate domains for the purposes of assessment, that there can be no compensation between them and that a satisfactory standard must be demonstrated in each. It is as inappropriate for a student who has 'a good way with patients' to be allowed to graduate despite a lack of knowledge, as it is for academic brilliance to be allowed to compensate for a lack of probity in a student.

The nature of the assessment process appropriate to one domain may be entirely different from that for another. Students need to demonstrate that they can perform a particular skill. Skills development takes longer for some students than for others and it may be perfectly appropriate for them to go several times around the learning and testing cycle until they have achieved the standard required. It may be perfectly appropriate for students to demonstrate in an examination that they can apply knowledge and professional judgment in a given scenario, but in terms of professional behaviour, they need to demonstrate that they habitually act in an appropriate way towards patients rather than that they can behave appropriately in an examination situation.

## 4.3 Criteria for assessment and standard setting

Although the standards which qualifying Physician Assistants are expected to achieve are set out in some detail in the competences, skills and core conditions, such specifications are still open to interpretation and a common standard for qualification can only really be achieved through a common assessment process. All students will therefore take the national assessment, consisting of a multiple choice question examination and an objective structure clinical examination, which they will be required to pass in order to qualify for the register. In addition, individual universities / programmes will be responsible for demonstrating that they have in place structures and processes by which they manage assessment of professional behaviour etc.

Whilst a common standard is, in itself, very important, it is equally important that the standard set is correct, that the assessment is reliable (i.e. that it is maintained from one type of assessment to another) that it is rigorous (i.e. that candidates cannot pass by chance) that it is valid (i.e. it tests what it purports to test) and is congruent with the stated aims of all the curricula developed under this Framework.

This requires a rigorous and formalised process of standard setting (e.g. modified Angoff or borderline group method) for individual examinations, so that any variation in the pass/fail standard between sittings is smoothed out. It is equally important that reliability is ensured in assessments of practical competence/problem solving etc. The most common method for undertaking standard setting in this context (i.e. in OSCEs) is the borderline group method.

Recognising that this is a new profession and that maintenance of patient safety is paramount, a National Assessment Sub-committee has been established, which functions under the aegis of the UK and Ireland Universities Board for Physician Assistant Education. It is envisaged that this National Assessment Sub-committee will be responsible to a future Physician Assistant professional body and to the appropriate regulating/registering body.

The Assessment Sub-committee is to be constituted as the sole provider of assessment for the register. It has support of all HEIs running courses leading to registration, both in terms of valuing its role in standard setting and the standards set and in terms of practical support - the provision of questions and assessment 'stations', involvement in the standard setting process, involvement in assessing, moderating and external examining.

## 4.4 National assessment and initial certification

There will be a national assessment (theoretical and clinical) taken by all Physician Assistant students, to assess their core knowledge, skills and attitudes. Individual institutions may incorporate this into their overall assessment package as a component of a graduating examination, or may choose to use it as a separate and additional hurdle, relating to registration rather than academic qualification. In either case, the individual institution is left free to set further assessments on the basis of any additional elements and the academic level of the programme. Such a national assessment is the only way to ensure a common standard is met by all entrants to the Physician Assistant profession, since, because the profession is new, the published standard may be open to different interpretations by different institutions.

In order to enter the Managed Voluntary Register (and in time, the Assured Voluntary Register) candidates will have to demonstrate that they have successfully completed an accredited Physician Assistant programme *and* have passed the National Assessment.

## 4.5 Internship

Following initial certification, it is strongly suggested that the qualified Physician Assistant will be required to undertake an internship.

Internship is a designated period of employment following qualification during which the Physician Assistant receives a higher than normal level of supervision and is facilitated in experiential learning in the clinical area in which they are working. It provides an opportunity to consolidate learning from initial training and demonstrate its translation into competence in practice, but also to further develop knowledge and skills of particular importance to the specific area in which they are working. The recommended standard period of internship is 6 months, but employers may benefit from making that internship part of a longer term of employment, with Physician Assistants moving smoothly from internship into a period in which, although learning clearly continues, service provision takes higher priority.

During the period of internship the Physician Assistant will maintain a portfolio of cases and case discussions with clinicians which will be reviewed and 'signed off' by their supervising doctor and their initial training institution.

## 4.6 Maintaining professional competence

As with any profession, Physician Assistants will need to undertake 40 hours of CPD per year to maintain and update their professional competence and to fit it to the professional roles they are required to undertake. However, it is one of the strengths of the role that the practitioner will be expected to maintain a generalist capability, whatever field they happen to be working in at a given time. For the Physician Assistant working in a specialist field, or taking special interest in particular aspects of a generalist role, the purpose of CPD is twofold and must involve both a generalist and specialist component.

CPD will be rigorously assessed through regular appraisal as recommended by the Department of Health (2006) in their review of regulatory arrangements for non-medical healthcare professions. Such an approach will enable the Physician Assistant to demonstrate that they have undertaken sufficient learning to support their practice (e.g. by the compilation of a portfolio of evidence). There will be a requirement for a specified quantum of learning to have been undertaken during any two year period of professional practice, but the focus of that learning will normally be determined by the Physician Assistant, with or without input from their supervising doctor, recognising the periodic assessment of their generalist capability specified below.

In addition to any requirement by the regulator for intermittent re-application for registration on the basis of CPD, it is proposed that all Physician Assistants should be required to take a national examination on a six yearly basis. The re-certification examination will be closely related to that for initial certification, requiring candidates to demonstrate that they have maintained competence across the whole range of potential clinical settings, rather than simply developed expertise in the single setting in which they have been working. It is this maintenance of general competence that maintains career flexibility and transferability for the Physician Assistant and offers a major advantage to doctors and others working with Physician Assistants. In the context of secondary care, the breadth of competence is a useful counterbalance to the increasing specialism of the doctor and ensures that concurrent problems that are relevant, but outside the specialism (e.g. mental health problems in the surgical patient, cancer in the client at the alcohol dependency unit) are not missed by the team. This revalidation system should demonstrate that a person remains safe to practise for the purpose of protecting the interest and safety of the patient, meeting the employer's (or commissioner's) needs and the regulator's requirements.

The national re-certification examination will therefore assess both core knowledge and core skills. It is designed to ensure that all Physician Assistants on the Register maintain the level of generic knowledge / competence expected of the qualifying Physician Assistant after the period of internship referred to in Section 3.5.3.

Since the assessment is intimately involved with the maintenance of the professional register, it is expected that the registering body, or an expert panel designated by the registering body<sup>7</sup> will:

- remind Physician Assistants of the date by which they must have passed the periodic assessment in order to maintain unbroken practice
- construct the assessment and set standards
- administer the assessment and manage the processes of marking and moderation
- inform Physician Assistants of the outcome of the assessment and arrangements for any reassessment required.

CPD and re-certification requirements will be informed by and aligned with the Knowledge and Skills Framework (Department of Health 2004). The main purpose of the KSF is to provide an NHS wide framework that can be used consistently across the service to support personal development in post, career development and service development. Nationally approved KSF post outlines (full and internship) for the Physician Assistant role can be accessed via <u>www.e-ksf.org.</u>

The costs of CPD and periodic re-certification will eventually be met by Physician Assistants themselves, but until sufficient numbers have been built up, full economic costs would be prohibitive and the structure and process will need to be supported by the HEIs in the form of free staff time.

<sup>&</sup>lt;sup>7</sup> Until Assured Voluntary Register status is available and achieved, a Managed Voluntary Register (MVR) is in place and will enforce the same requirements for CPD and periodic re-accreditation. The re-accreditation examination will be run by the Assessment Committee of the UKIUBPAE.

## **5 The Core Syllabus**

Any division of curriculum content into separate subjects is to some extent artificial, but the indication of required content it provides is useful to curriculum developers and those responsible, within and beyond individual institutions, for the validation of programmes of study. Whether focusing on the domain level of knowledge, skills and professional behaviours, or the discipline level of anatomy, ethics and immunology etc. the whole purpose of the curriculum is to provide qualifying Physician Assistants with an integrated platform from which to undertake the professional role.

Whilst the following sections of this Framework necessarily separate out the various strands of professional learning for the purpose of specifying the core elements which must be included in the whole, any curriculum must explicitly facilitate students in reintegrating these areas of study into a meaningful professional corpus and may indeed be integrated in such a way that the specific disciplines are not readily identifiable. However, in such a case the proportion of time in each discipline should be visible in other ways, e.g. through analysis of learning outcomes, or through assessment.

## 5.1 Core theoretical knowledge

As with the specification of clinical experience, it is not intended that any national specification should identify the whole theoretical input that may be included in a given programme, but only those common core aspects which all Physician Assistant programmes should include.

Equally, the detailed structure and manner of provision of such a programme of theoretical knowledge to students is not specified. The information is presented on the basis of standard academic subject areas (itself an unlikely structure for a Physician Assistant programme) so that individual institutions have free rein to offer courses structured on a systems-based approach, problem based learning etc.

The list of theoretical (i.e. non-clinical) knowledge subject areas to be covered in the core syllabus is as follows. The list is alphabetical and does not suggest chronological order or the subject's priority or the amount of time it should have within a programme.

Anatomy Biochemistry Communication Development, growth and ageing Ethics and law Healthcare policy Health education Health information technology Histology Immunology and microbiology Pathology Pharmacology and therapeutics Physiology Psychology Public health and epidemiology Sexual health & reproduction Sociology Teaching and assessing

In addition, there are a number of threads which should run throughout the programme including diversity in society and the appropriate professional response, competence as a user of and participant in research and the basis of inter-professional working.

It is not within the remit of this framework document to attempt to specify the expected learning in relation to each of the listed disciplines, except to say that it should be restricted to content that clearly informs and supports the function of the Physician Assistant in the clinical arena. Any higher education institution intending to put together a Physician Assistant programme will clearly require more detail as to the breadth and depth of theoretical learning that may be legitimately tested by the National Assessment. This will be managed by providing access to exemplar questions drawing on the fields identified.

# **6 Validation, accreditation, and evaluation of the programme**

Validation, accreditation and evaluation are central elements of the quality assurance process in professional education. Although the processes are interlinked in their aims, each is carried out separately by the body/group with the legitimate authority to do so.

## 6.1 Validation and accreditation of the programme

Validation refers to the approval process applied by each university to the programmes they run. It will normally require the submission of detailed plans for the programme and for individual modules. A university will usually require those proposing a programme to demonstrate that there is a market for the programme; that it is supported by effective management structures and resources; that it is fit for purpose in terms of the level and content of the education it purports to offer and that the processes of assessment are sufficiently rigorous to differentiate appropriately between those who have and have not achieved the required standard.

Accreditation refers to the equivalent approval process as carried out by the competent professional/regulating body (e.g. GMC for medicine, NMC for Midwifery). The purpose of accreditation is for the body to assure itself that each programme leading to professional registration will enable the appropriately selected and duly diligent student to achieve nationally agreed minimum standards in relation to knowledge, skills and attitudes.

Until the Physician Assistant title is registered and a formal professional body is established, it is proposed that the process be undertaken by a panel drawn from the professional body (UKAPA) and the participating HEIs (UKIUBPAE) with additional lay members. This replaces the proposal in the 2006 document which gave the responsibility to the short-lived National Reference Panel. The process must be robust, transparent and, as much as can be judged, transferable with minimum disruption to the statutory regulator.

#### Detailed procedures for accreditation of Physician Assistant Programmes will be published as an Appendix to this document

Note: where appropriate, validation and accreditation can be carried out through a single joint process, enabling negotiation on any issues dividing the validating and accrediting bodies.

## **6.2 Evaluation of the programme**

Universities will have their own regulations and codes of practice regarding evaluation of programmes which they validate. These regulations usually relate to the formal, cyclical processes of quality assurance and enhancement. The evaluation should be focused on the intentions of the programme as expressed by aims and learning outcomes, and the utility of teaching and other planned learning opportunities and the quality of the clinical training circuit for enabling outcomes to be achieved. It should also look at institutional support for

the programme, the academic expertise available to the programme and internal quality assurance and enhancement processes.

The university led processes of cyclical review should not usually be replicated by the professional body, which will have access to all relevant university reports. However, such processes may, on occasion, be supplemented by the professional body, to explore different perspectives or areas.

Universities will be required to submit an annual report, summarising any curriculum changes and demonstrating that internal quality assurance and enhancement processes are applied and effective.

# 7 Regulation and accountability

## 7.1 Professional title

It is acknowledged that the title for this profession needs both to reflect the proposed role and to avoid confusion between this and other healthcare professions. The public consultation which preceded the publication of the Competence and Curriculum Framework in 2006 demonstrated overwhelming support for the title 'Physician Assistant'. The title has international validity in that it is shared with the established profession in the United States and Canada and, in Europe, with the Netherlands.

Through the process of voluntary and then statutory regulation, the profession is seeking protection of this title. Once appointed, the statutory regulator will consider and, if appropriate, give final approval to the title.

## 7.2 Regulation and registration

In line with new government policy on new professions, it is expected that the Manage d Voluntary Register will, in time, be replaced by an Assured Voluntary Register.

It is expected that new legislation will enable Physician Assistants to be registered as a profession. A separate regulatory framework is necessary because the proposed role is inherently and sufficiently different from that of existing professions and their primary regulated roles (as opposed to extended practice).

Statutory regulation has four functions as follows:

- 1. Set standards of proficiency (competence), ethics and conduct for practitioners of a profession.
- 2. Set standards for education and training which will produce competent, safe and effective practitioners in that profession.
- 3. Keep a register of those who meet the standards and are fit to practise.
- 4. Have a mechanism for dealing with those registrants who stop meeting the standards and need to be removed or restricted from practice, by investigating complaints and taking any necessary action to restrict their practice.

Until such time as statutory regulation is in place, a physician assistant managed voluntary register (PA MVR) has been established. The overall responsibility for this lies with the UK Association for Physician Assistants (UKAPA) as the professional body. This voluntary register, whilst not back by law, provides an element of public protection and safety whilst also setting standards for PA practice. The PA MVR is overseen by a PA MVR commission (PA MVRC) made up of various representatives from medicine, allied health, higher education and lay members. Their responsibility is overseeing the running of the register and dealing with fitness to practice issues

As registered professionals, Physician Assistants will be accountable for their own practice and subject to the requirements of the regulator.

From a legal perspective, only one regulatory body can undertake statutory regulation for a distinct profession. From an individual's perspective, practitioners can be registered with two bodies if qualified for two regulated professions and wish to practise in both (e.g. a registered

nurse can change career and become a registered Physician Assistant). However, only registration with the appropriate regulator will confer entitlement to practise as a specific regulated professional, so for instance, a registered nurse cannot work as a Physician Assistant without undergoing a new registration process which will demonstrate competence to work in that role.

## 7.3 Accountability and supervision

It is envisaged that supervising doctors will be accountable overall for the work of the Physician Assistant, in a similar manner to their responsibilities for trainee doctors, nonconsultant career grade doctors, staff and associate specialist grade doctors. Individual Physician Assistants will still be accountable for their own practice, within the boundaries of supervision and defined scope of practice. Supervising clinicians must accept overall responsibility for any duties that are undertaken by a Physician Assistant in training or a qualified Physician Assistant. On this basis, doctors should determine the scope of duties and responsibilities of the Physician Assistant on the basis of known competence within the relevant area of practice.

Physician Assistants work under the supervision of doctors throughout their professional lives. Whilst this may appear to contrast with autonomous practice in nursing and other health professions, it should be remembered that all health professions, including doctors remain professionally and managerially accountable to others throughout their working lives despite being independent clinically autonomous practitioners. The particular position of the Physician Assistant relates to the fact that they are working in association with and under the supervision of the doctor as an integral part of the medical team. Those who come from other professions, but wish to undertake the Physician Assistant role, must recognise and respect this relationship.

# **8 Glossary of terms**

APEL Accreditation or Assessment of Prior Experiential Learning.

**Appraisal** The process by which others (whether peers, superiors or others) assist a person to review their performance and draw lessons from it.

**Certification** Initially, the outcome of national assessment, by which the qualifying professional is recognised as having demonstrated the required knowledge, skills and attitudes for membership of the profession. On a continuing basis, it is a recognition that they have maintained that competence, undertaken CPD as required, demonstrated fitness to practice and successfully completed **periodic re-certification**.

**Child or young person** Someone up to the age of 19 (up to the day before their 19<sup>th</sup> birthday), care leavers up to the age of 21 (up to the day before their 21<sup>st</sup> birthday or beyond if they are continuing to be helped with education or training by their local authority) or up to 25 (up to the day before their 25<sup>th</sup> birthday) if they have learning difficulties or disabilities.

**Clinical supervisor** An accredited physician with responsibility for an identified trainee Physician Assistant within their medical team.

Co-morbidity Co-existence of more than one disease in an individual patient.

**Competence** A practitioner's current ability to practise an entire role, combining individual competences and the use of wider judgement.

**Continuing Professional Development (CPD)** A process of life-long learning for all individuals and teams which enables professionals to expand and fulfil their potential and which also meets the needs of patients and delivery of the health and healthcare priorities of the NHS. CPD should be purposeful, patient-centred and educationally effective.

**Core knowledge** The content of medical practice that is common to all medical specialties.

**Curriculum Framework** The main educational policy document providing the background, development entry routes, definitions, structure of education and training and assessment strategy for trainees on the programme.

**Differential diagnosis** Distinguishing between two or more diseases and conditions with similar symptoms by systematically comparing and contrasting their clinical findings, including physical signs and symptoms, as well as the results of laboratory tests and other appropriate diagnostic procedures.

**Medical model** The medical model is a perspective which is predominantly concerned with the diagnosis and treatment of disease which is based on pathology and disease processes, but places this within the context of the individual patient and their social context.

**Patient-centred care:** Care which explores a) the patient's main reason for the visit, concerns and need for information b)seeks an integrated understanding of the patients' world – that is their whole person, emotional needs and life issues c) finds common ground on what the problem is and mutually agrees on management d) enhances prevention and health promotion e) enhances the continued relationship between the patient and health professional.

**Performance** The manner in which a practitioner has carried out a particular task or function. This is the observable part of competence.

**Professional judgement** The application of relevant knowledge and experience within the context provided by clinical standards (that reflect the collective judgement of the profession) and rules of professional conduct in reaching decisions where a choice must be made between alternative possible courses of action.

**Regulation** The set of systems and activities intended to ensure that healthcare practitioners have the necessary knowledge, skills, attitudes and behaviours to provide healthcare safely.