

1 Introduction

1.1 Background

1.1.1 Medical screening

1.1.1.1 Medical screening of potential recruits is part of the selection process of all United Kingdom police services. Currently, each service sets its own medical standards for applicants although many follow the screening guidelines set out in Home Office Circular 7/98.

1.1.1.2 The rationale for medical screening is to ensure that persons considered for selection as police recruits are able to meet the demands of operational policing. The level of fitness necessary for operational policing sets the standard, because all police recruits are trained to become 'general duties' Police Constables. Medical screening, therefore, operates in tandem with physical competency testing to check the physical fitness of applicants, and with psychometric and other assessments to test mental ability and competency.

2 Research Methods

2.1 The standards

- 2.1.1 The standards presented in this report have been derived from specialist reviews on medical, psychological and disability issues. Following consultation meetings, job analysis and identification of critical levels of fitness, robust objective recruit standards have been defined in order to meet the requirements for both the intensive and arduous training and the following operational needs. A number of widely used and current recruit medical guidelines have also been scrutinised.
- 2.1.2 Using the framework of the Police officer job profile and core operational tasks within the Police National Competency Framework (PNCf) (2) precise information was gathered concerning tasks performed, hours and shift patterns worked and what working / environmental conditions are likely to be encountered.
- 2.1.3 The JSP 346 publication "PULHHEEMS - A Joint Service System of Medical Classification" represents the evolved armed forces' standards of medical fitness. This manuscript has been used as the starting template for the standards and although the correspondence supporting the JSP 346 selection criteria is not available in the public domain the standing armed forces committees' deliberations portray over 50 years experience within both specialist and senior administrative levels.
- 2.1.4 A body system classification was used to categorise illnesses, diseases and conditions that may have a bearing on an applicants suitability for police work. With any classification system there will be disagreement how certain conditions should be categorised.
- 2.1.5 The illness, disease or condition was considered in light of the current treatment available, prognosis, physical demands of the police officer role, psychological demands of the role and the PNCf activities.
- 2.1.6 For each illness, disease or condition in each of the body system sections an indication is given that the applicant is likely to be suitable for employment as a police officer; may be unlikely to be suitable for employment as a police officer; or is likely to require further information, investigation or assessment. The definitions of each of these recommendations is shown below:
- Likely to be suitable – the potential recruit with this condition is likely to be suitable for police work as the condition should not prevent him/her from carrying out the duties of a Constable
 - Unlikely to be suitable – the potential recruit with this condition may not be suitable for police work as the condition may prevent him/her from carrying out the duties of a Constable

- Likely to require further information, investigation and assessment – the potential recruit with this condition is likely to require further assessment and reports before a decision can be made.

2.2 The Police National Competency Framework

2.2.1 The Chief Constable's Council originally requested the development of the Police National Competency Framework (PNCf). Its development has been funded by each of the UK Forces together with the Home Office. The framework applies to all roles, ranks and levels of both Police and support staff. It has been developed using information from interviews across England, Wales and Northern Ireland. Role holders have provided information about the content, skills and knowledge required to do the job, together with definitions for effective performance.

2.2.2 The framework is essentially in 4 parts:

- Activities library - a list of every activity (or task) currently carried out in the National Police Service for both Police Constables and support staff.
- Knowledge and skills library - a list of knowledge and skills required to complete every activity in the library.
- Behavioural library - a list and description of 12 behaviours that cover every Police and support role (e.g. effective communication, strategic perspective).
- Role profiles library - the combination of appropriate activities, knowledge, skills and relevant behaviours for a number of key roles common to all Forces.

2.2.3 The PNCf is expected to provide a nationally recognised basis against which entry criteria to the Police Service can be established. Training needs may also be identified for existing staff who are undertaking a specific role described within the framework. The development of National Occupational Standards will build on the work of the PNCf with occupational standards underpinning the activities library.

2.3 Physical demands analysis

2.3.1 The research into the physical demands of the operational police constable role was divided into three phases. Phase 1 identified the core, role-related, operational tasks. Phase 2 investigated the physical demands of conducting controlled, training simulations for each of the core operational tasks. Phase 3 combined a notational analysis of patrol tasks conducted for trained, competent Police Constables during several shifts at their place of work, with a field assessment of the cardiovascular strain apparent when performing the operational role. Ninety-two subjects consented to participate in the study, each operating from Police stations and training establishments throughout the UK. Police officers from two urban (Greater Manchester and Metropolitan Police) and two rural (Cambridgeshire and Avon and Somerset) police forces took part in the study. Officers from Claytonbrook complex, Manchester and probationers from CENTREX, Bramshill National Police Training also took part in the study. The full methodology and results from this study can be found in the separate report QINETIQ/KI/CHS/TN022176 (Physical demands analysis of the operational Police Constable role) (4).

2.4 Eyesight standards

2.4.1 The methodology adopted for the provision of the eyesight standards is fully documented within a separate report - QINETIQ/CHS/MC/020249 – Draft Eyesight Standards for the Recruitment of Police Officers (3).

2.5 Consultation meetings

2.5.1 During the course of this project a number of consultation meetings were held. These meetings were arranged early in the project both to inform the project and to inform the groups consulted.

2.5.2 Towards the middle of the project a meeting was organised for the project team to present the initial findings to the ACPO Joint Working Group for Health, Safety and Welfare. Many of the individual groups consulted with earlier in the project are represented on this group, although some of the representatives were different.

2.5.3 The following groups attended consultation meetings:

Group	Representative(s)
Force Medical Advisors	Dr John Harrison, Sussex Police
Occupational Health Nurse Advisors to Police Service (OHNAPS)	Mrs Kate Bawden
Police Federation	Mr Brian Burdus
Superintendents Association	Mr Mike McAndrew
Police National Competency Framework team	Ms Lindsey Broadway
MPS Force Consultant Psychiatrist Department	Dr Nick Cooling Ms Annabel Poate-Joyner
Employers Forum on Disability	Mr Mark Goldby
Equal Opportunities Commission	Mr John Sharman
HSE Defence, Fire and Police Unit	Mr Lyn Harris
MPS Occupational Health Business Director	Ms Linda van Den Hende
ACPO Joint Working Group for Occupational Health, Safety and Welfare	Chair – Ms Della Cannings, Chief Constable of North Yorkshire

3 Limitations of Medical Standards

- 3.1 This report has been prepared in response to a requirement by the Home Department for medical standards that could be used for the recruitment of police officers. The standards are intended to provide guidance for the force medical advisors (FMAs) concerning physical fitness, vision and the medical status of recruits. The standards must not discriminate on the grounds of disability and must be defensible. Essentially, standards should relate to the role, and so must have functional correlates. In this sense the standards should be based on evidence.
- 3.2 Currently, within the world of occupational medicine, there is a developing attitude that experience, though gained over many years, may be an insufficient base on which to make decisions. This is particularly so concerning activities that involve standards that may be used in a regulatory context, and are likely to materially influence the working life of an individual. It has to be accepted that diagnosis alone does not necessarily provide the information on which a decision can be made as to whether an individual can meet specific requirements. It is necessary to relate the implications of the diagnosis to the nature of the task. However, current medical knowledge may not be adequate to make a reasonable decision and the experience available concerning particular disorders may not be useful.
- 3.3 Although medical standards are currently applied to individuals in many occupations and activities such as driving, there are concerns whether these standards are appropriate. Indeed, the more attention that is given to medical standards the more concerns seem to arise, and the complexity of the issues and difficulties in the decision making process are becoming increasingly evident. Medical standards, even those used for many years, which can lead to exclusion from certain activities of those with a demonstrable disorder are being challenged, sometimes successfully. The question arises whether individuals are being excluded on medical grounds from various activities without sufficient evidence that they are unable to provide the skill demanded.
- 3.4 It is, therefore, useful in the context of the present requirement to consider the implications of the limitations of medical standards. Although specific examples may not necessarily be encountered in the recruitment of police officers, they highlight issues that can arise if medical standards are not evidence based. Two current areas illustrate this problem, and could be encountered in the medical assessment of police officers. One area of dispute is that all individuals with diabetes who require insulin, experience hypoglycaemic episodes of such severity or frequency that render them unsafe in certain activities and occupations. Another is that all individuals with certain visual field defects have a degree of impaired vision that makes them unable to carry out certain tasks.
- 3.5 As far as diabetes is concerned the Type 2 variant is usually managed, at least initially, by diet or by oral therapy. However, medical practitioners usually view the move from oral therapy to insulin with caution, and the decision may then be made to restrict activity on the assumption of an increased severity or frequency of hypoglycaemic episodes due to increasing instability of glycaemic control. The decision to restrict activity immediately may be quite inappropriate, and it may be far more reasonable to monitor the situation once insulin is introduced. It could well be that individuals are treated unfairly because of a disability not

demanding role of the police recruit. Essentially, some recommendations may have borne heavily on experience from the world of occupational medicine.

- 3.10 It is evident that, at the present time, the requirement of the Home Office to provide a document based on evidence to guide medical officers in their examination of police recruits can only be partially fulfilled. In this context, though the limitations of experience are appreciated, experience cannot, at present, be easily disregarded. Carefully focussed studies in certain areas would be required to provide such a document. Efforts toward evidence based data are underway in other domains, but the data gathered may have limited application to the particular practice of occupational medicine under consideration. Such disorders as hypoglycaemia, epilepsy and visual field defects are being studied world wide with respect to driving. It is increasingly evident that such issues are complex, and that research programmes directed to the various issues demand high level skills in experimental medicine and physiology. The data gathered and being gathered could be useful, but it must be appreciated that there may be limited applicability to the work of the Police Constable.
- 3.11 There are clearly difficulties in writing a document on medical standards that relate to a demanding occupation in which physical and mental effectiveness are paramount, yet which seeks to ensure that discrimination on the grounds of disability is avoided and that the decision making process is defensible. Such a document is inevitably dependent on current knowledge. Some assessments, in particular physical fitness and vision, can be based largely on evidence while others are more dependent on experience, though the latter decision making process can be subjected to some validation. For the moment the lack of evidence based data that can relate a disorder to functional correlates and so the ability of the individual to carry out the task has to be accepted. In the assessment of the individual it is important to appreciate which standards are based on experience and which are based on evidence, and to weigh these appropriately in the decision making process. As far as government policy is concerned it is important that medical standards have the confidence of those involved. There is the need to identify the areas of uncertainty and to formulate focussed research that will provide the information essential for fair decisions to be made.

A INTRODUCTION: MEDICAL REVIEW

A.1 Occupational Medical Standards for Recruitment of Police Constables

A.1.1 Medical Standards

A.1.1.1 Every intervention by an occupational health professional at recruit selection should be related to assessing an individual's functional capacity against specific job requirements. Special consideration needs to be given to the role and whether it is likely to be particularly harmful to the individual taking into account existing medical conditions. The formal steps in the pre-employment medical selection process are outlined in section A.2. The careful consideration of the legal requirement "duty of care" imposed upon the individual Force has to temper the applicant's enthusiasm to participate in arduous training and operational roles against the clinical findings and prognosis following such exposure.

A.1.2 Ethics, communication and confidentiality

A.1.2.1 The prime responsibility of the Occupational Health Department at the pre-employment stage is to the prospective employer (viz. Force) rather than to the potential employee. This is well established in law and is reinforced in "Good Medical Practice for Occupational Physicians" ((4) Section 61). It is critical that the potential recruit understands the nature of the role of the OH Department and its reporting policies at every clinical intervention.

A.1.2.2 The publication "Guidance on ethics for occupational physicians" 5th edition produced by the Faculty of Occupational Medicine of the Royal College of Physicians should be closely followed by each Force's OH department.

A.1.2.3 The booklet "Confidentiality: Protecting and Providing Information" deals specifically with disclosures where doctors have dual responsibilities such as in an occupational health context ((5) Sections 33-35), Confidentiality: Protecting and Providing Information, September 2000. Occupational health professionals as independent advisers are concerned with the health of employees but are not always the medical advocate for patients / clients that their GPs would be. It is therefore essential good practice to seek formal written informed consent when contemplating sending any report (even functional) to Force management or third parties. Standards of practice and care are outlined in "Good Medical Practice for Occupational Physicians" ((4) Section 3). For ease of information flow a suitable declaration has been included in the updated pre-employment medical questionnaire (PEMQ) to allow reports to be given when questionnaires are forwarded by post to the occupational health professionals.

A.1.2.4 PEMQs should be marked "medical in confidence" and addressed specifically to the Occupational Health Department and not the Force. The necessity for this procedure is underpinned by the verdict in the case of London Borough of Hammersmith & Fulham vs. Farnsworth (3).

A.1.2.5 A potential conflict of roles can occur when a force medical advisor is also the general practitioner of a potential recruit. If no alternative physician is available to conduct the examination it is essential that the precise role of the FMA be explained to the candidate and the conversation documented.

A.1.3 Ownership of Occupational Records

A.1.3.1 It is a clear breach of confidentiality for any member of an occupational health department to hand over medical records (including PEMQs) to non-medical parties without specific and informed consent being obtained. The Data Protection Act 1998 requires everyone who processes information about living individuals to comply with the data protection principles.

A.1.4 Ability to meet professional driving standards.

A.1.4.1 A prime consideration because of its limiting effect on entry is the necessity or not for all applicants to meet domestic driving medical standards. These are detailed under Group 1 entitlement in "At a glance guide to the current medical standards of fitness to drive" (2).

A.1.5 Health Statistics

A.1.5.1 The 2001 edition of United Kingdom Health Statistics (8) revealed alarming high rates of diseases even in the young community. There were often significant differences in disease distributions between England and Wales.

A.1.5.2 The following tables show levels of disease amongst the police recruit age groups in England and Wales.

Insulin treated diabetes				
Males				
England	3.2	4.6	5.7	6.3
Wales	3.0	6.1	7.8	9.4
Females				
England	3.2	3.8	4.8	5.1
Wales	5.5	3.9	5.2	4.7

Table A-1: Prevalence of insulin treated diabetes per 1,000 patients for 1994-1998

Non-insulin treated diabetes				
Males				
England	0.1	0.5	3.1	10.6
Wales	0.1	0.7	4.1	13.4
Females				
England	0.1	0.6	2.4	7.2
Wales	0.2	0.3	2.1	7.1

Table A-2: Prevalence of non-insulin treated diabetes per 1,000 patients for 1994-1998

Age range	15-24	25-34	35-44	45-54
Males				
England	69.0	50.6	43.4	40.5
Wales	74.1	58.9	44.0	46.4
Females				
England	81.6	60.2	57.0	58.9
Wales	89.9	59.5	61.0	57.6

Table A-3: Prevalence of treated asthma per 1,000 patients for 1994-1998

Age range	17-24	25-34	35-64
Males	45	36	40
Females	45	38	36

Table A-4: Prevalence of epilepsy per 10,000 person years at risk, 1991-1992 for England and Wales

A.1.6 Medical conditions requiring special consideration

A.1.6.1 More thorough consideration has been given to certain medical conditions characterised by their relatively high prevalence in young adults, their chronic nature and their propensity to cause sudden and disabling incapacitation. They are:

- diabetes
- asthma
- epilepsy

A.1.6.2 Diabetes, asthma and epilepsy all share the characteristic that sufferers are often fit between exacerbations, but when an exacerbation does occur it can be potentially incapacitating. This will inevitably lead to concern that individuals with well-controlled disease are being unfairly excluded from certain occupations. Most extensive discussion is offered for these illnesses and aims to establish 'best practice' at this point in time, to identify the key issues behind suitability decisions, and to outline areas requiring further investigation where there is a possibility of achieving more inclusive medical standards in the future for sufferers of these conditions.

A.1.7 Acceptance Criteria

A.1.7.1 Acceptance criteria have been based upon the ability to conduct the activities and behaviours required of the operational role (as defined by the Police National Competency Framework (7), and the results of a physical demands analysis conducted on serving Police Constables throughout the UK (6).

A.1.8 Reasonable Adjustments

A.1.8.1 Under the DDA consideration has been particularly given to reasonable adjustments to see wherever practical and safe, if prostheses or aids for

special senses could be used without encroaching upon the operational role of the Police Constable.

A.1.8.2 The Act lists examples of reasonable adjustments and the following selection are likely to be the most sought after in and just after recruit training:

- altering working hours
- allowing individuals to be absent during working hours for rehabilitation, assessment or treatment
- acquiring or modifying equipment.

A.1.8.3 This complete document will simply provide guidance and will not interfere with the role of occupational health practitioners in assessing the nature of the individual's disability and how it affects functional work activity and giving advice on possible adaptations. It is however appreciated that the scope for adjustment of an individual's training schedule will be extremely limited. It appears critical that to meet the challenge of training the candidate should be free from acute disease or injury.

A.1.9 Length of Service Contract

A.1.9.1 Current civilian legislation does not allow discrimination at the recruitment stage when an individual is currently fit but his/her condition is likely to deteriorate within the normal career span. The recommendations in this report for each illness, disease and condition are based on the ability of the individual to carry out the duties of a Police Constable at the time of recruitment. To determine fitness to drive the Driver Vehicle Licensing Authority (DVLA) in its latest revision of January 2002 of "At a glance guide to the current medical standards of fitness to drive" propose medical reviews for drivers of between one and three years depending on the circumstances (1).

References (Annex A.1)

1. Driver Vehicle Licensing Authority (DVLA) publication. 2002. 'At a glance – A guide for Medical Practitioners', (January) (visit: http://www.dvla.gov.uk/at_a_glance/content.htm).
2. Driver Vehicle Licensing Authority .2002. 'At a glance guide to the current medical standards of fitness to drive'. (February) (visit: http://www.dvla.gov.uk/at_a_glance/content.htm).
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4. Faculty of Occupational Medicine of the Royal College of Physicians. 2001. Good Medical Practice for Occupational Physicians, Dec. ISBN 1 86016 158 8.
5. General Medical Council. 2000. 'Confidentiality: Protecting and Providing Information', (September).
6. Nevola VR, Collins S, Puxley K, Bentley M. 2002. Annex C to QINETIQ/CHSMC/CR020250 (Physical demands of the operational Police Constable role: Results). QinetiQ report number QINETIQ/KI/CHS/TN022176.
7. Police National Competency Framework version 4 (dated July 2002). A PSSO publication.
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Guidance for Occupational Health Departments: Medical Assessment for Potential Police Recruits.

A.2.1 General

- A.2.1.1 New entrants to the Police Service undergo intensive recruit training, which is physically arduous (e.g. method of entry training) and mentally taxing (i.e. intensive 15 week academic syllabus). They must be of robust constitution and free from disease or injury to meet this challenge. Modern Police Forces operate with minimal manning margins so that absence related to sickness will have an immediate and even profound impact upon units. Furthermore, flexibility of employment, in the event of illness, will be limited. These constraints place considerable reliance upon screening at new entry medical examination, to ensure that Police recruits who are accepted, start their training with the best chance of success and subsequently serve as fit, healthy and dependable Police men and women.
- A.2.1.2 Other than those in specialist roles or detailed to work in locations remote from medical care the need for periodic medical care or long term medication can generally be accommodated in the duties specified within the task requirements of the Police National Competency Framework (9). The difficult area of individuals in whom deterioration of a pre-existing condition might occur rendering them later potentially unsuitable for continued Police service is currently excluded from disability legislation determining selection procedures. Those applicants having known or detected medical conditions could enter only if fully meeting the standard required to undertake the full range of Police duties.
- A.2.1.3 Account should be taken of the following points: -
- a. New entrants must be fit to serve anywhere in their United Kingdom Force area, in all environments.
 - b. It should be noted that the criteria provided in the subsequent guidance represent the minimum acceptable overall standards and that specific requirements for special duties (e.g. diving or close protection work) will be more stringent than indicated in these recommendations.
 - c. Exclusion of a candidate, in particular circumstances, could be considered unreasonable and some discretion following further information, investigation and assessment will be appropriate.
 - d. Each case must be assessed on merit. Examining force medical advisors are encouraged to apply their clinical judgement individually and to bear in mind the greater disruption to recruits of failing in early training after civilian employment has been surrendered or declined. The subsequent guidance in this paper is intended to facilitate decision-making.
- A.2.1.4 Where previously undiagnosed conditions are discovered, candidates are to be informed and their permission sought for their usual general medical

practitioners (GP), to be notified; when such permission is not obtained then candidates should be encouraged to report the circumstances to their own GP.

A.2.2 Steps in the pre employment medical selection

A.2.2.1 Following accord with good practice accepted by the medical profession and by most employers' organisations:

- a) Screening within the occupational health department of all pre-employment medical questionnaires (PEMQs).
- b) Medical enquiries by occupational health staff using consent and the Access to Medical Reports Act (1998) through general practitioners and hospital specialists.
- c) Medical enquiries by occupational health staff using consent to view photocopies of clinical records from general practitioners.
- d) Receipt and careful consideration of external reports.
- e) Systematic medical examination including audiometry to professional standards.
- f) Results with explanation to unsuccessful candidates.
- g) Communication to general practitioners of unsuccessful candidates with the latter's consent.
- h) Appeal process.
- i) Regular audits including peer reviews of medical process.
- j) Regular revision of medical standards for recruit selection.

A.2.3 Medical history recording and examination must be systematic and thorough. Moreover this medical assessment should produce not only an accurate picture of the person's health, but their functional capacity with regard to their current or future employment. In particular the assessment for entry should include screening to attempt to predict the individual's likelihood of developing a condition prejudicial to service.

A.2.4 As detailed above, the medical history taken should be thorough and elucidating any conditions prejudicial to the person's future in the Police Service. Thus, thorough explanation of the past medical history, family history and social and occupational history is mandatory. Indeed history taking provides the majority of information to be gained at the medical examination and should therefore be both exhaustive and meticulously recorded for later reference. Provided the individual applicant has given consent at this stage it is possible to compare the photocopies of the general practitioner's notes, individually obtained hospital / GP reports and the applicant's statements.

A.2.5 Most forces require the medical assessment to be carried out by the Force Medical Advisor and occupational health team. It is recognised that the Metropolitan Police Force requires the applicant's GP to carry out this assessment. Nevertheless, the guidance remains valid for either route to assessing a potential recruit.

A.2.6 Identification

- A.2.6.1 Formal matching of an applicant against an authenticated passport is essential at the start of every examination process.

A.2.7 Physical examination

Physical capacity - General

- A.2.7.2 Bearing in mind the measured physical activities within the Police Service (7) a comprehensive clinical examination should be carried out. Occupational health staff should use their clinical judgement in interpreting the standards laid down. The recommended examination should be as set down below. The particular competencies of the occupational health team should allow division of labour in a structured form with the occupational physician undertaking at least part of the physical examination as well as overseeing the process to evaluate the test results. The conventional role of the physiotherapist within the team could usefully be expanded to deal with limb and spinal assessments.
- A.2.7.3 During the examination it is essential that candidates should be stripped to their underwear to facilitate a full inspection and also to gain an overall impression of the physical demeanour. Any abnormality discovered by the examiner should be pursued to a level sufficient to make an objective assessment.
- A.2.7.4 In particular cases the FMA should consider whether a chaperone is needed. However this is a decision for the FMA at the time of examination.
- A.2.7.5 Age, height and weight might influence physical capacity assessment.

A.2.8 Age

- A.2.8.1 Adolescence. Physically immature candidates need detailed assessment and often specialist advice.
- A.2.8.2 With potential age related decrement of functional capacity the clinical examination should aim to detect those conditions that will constrain personnel in fulfilling their future operational role.

A.2.9 Height, Weight and Body Fat Content

- A.2.9.1 Based on data from active young adults and competitive athletes it does appear that it would be desirable to maintain body fat at about 15% of body mass, or less for men, and 25% or less for women ((5) Page 627).
- A.2.9.2 Clinical judgement should be used in conjunction with height and weight tables to assess recruits. However, individuals outside the average weight range, plus or minus 25% for their height, (i.e. equates to a body mass index (BMI) of 18 to 30) should be carefully assessed, but it should not be an automatic exclusion criteria. The United States Naval Health Research Center accepted candidates with body fats (determined by BMI and four compartment body fat content estimation) of less than 26% (male) and less than 36% (female) provided they could achieve the Service's physical fitness test (4).

- A.2.9.3 In view of concerns regarding BMI being an inadequate assessor of "fatness" as it does not take into consideration muscle bulk it should be used purely as a screening tool to flag issues, which need further investigation. Although BMI has a high specificity (90%) for classifying individuals as having fat within the normal range, it has poor sensitivity (66%) for identifying individuals as having high body fat (10). The relationship between percent body fat and BMI is different among different ethnic groups (3).
- A.2.9.4 Standard "height-weight" tables reveal little about an individual's body composition, which, at a given body mass and stature, can vary considerably.
- A.2.9.5 An alternative technique that could be considered is Bioelectric Impedance Analysis (BIA). This is an indirect, non-invasive and relatively easy means of providing a general assessment of body composition, providing measurements are made under conditions strictly standardised for both ambient temperature and level of hydration. The principle of body impedance is based on the concept that electric flow is facilitated through fat-free tissue and extracellular water compared to fat tissue due to the greater electrolyte content of the fat-free component ((5) p.623).
- A.2.9.6 Deurenberg *et al* in 2001 reported on the validity of predicted body fat percentage from BMI and from impedance samples of five European populations (1). Another study looked at Asian subjects and the validation of skin fold thickness and hand-held impedance measurements. It showed that the biases in predicted body fat percentage differed between ethnic groups, differences that can be explained by differences in body composition and differences in body build (2).
- A.2.9.7 If there are clinical indications where abnormal results are detected using the BMI screening test and these are confirmed by BIA measurements the applicant could be referred to a technician skilled in the use of skin-fold callipers to objectively ascertain body fat percentage.
- A.2.9.8 The accurate use of skin-fold callipers to assess body fat content requires detailed training, regular exposure to the technique and adherence to rigid protocols to establish consistent and meaningful results (6).
- A.2.9.9 BIA and skin-fold techniques are offered as possible alternatives that may be considered if there are doubts about the use of, or results from, BMI assessments.

A.2.10 Head and Neck

A.2.10.1 The inspection of head and neck should include:

- Observation of facies and facial movements
- Check for movement of tongue and palate and understandable speech
- Tympanic membranes; which must be intact and healthy
- Nasal passages; for patency.

A.2.11 Respiratory/Thorax

A.2.11.1 No breast examination is necessary. (Occupational health staff should teach self-examination at an appropriate later time).

A.2.11.2 Expansion of the chest on inspiration must be assessed and the lungs evaluated by percussion, auscultation and pulmonary function measurement using spirometry/vitalograph to determine the Forced Expiratory Volumes (FEV₁) and Forced Vital Capacity (FVC) together with Peak Expiratory Flow Rate (PEFR). Where possible inspiratory and expiratory flow loops should be measured. The importance of regular calibration and operator instruction cannot be over emphasised with lung function measurements.

A.2.12 Cardiovascular

A.2.12.1 The pulse (rate and rhythm) is to be determined and the blood pressure recorded in accordance with the British Hypertension Society Guidelines. There is no need for a routine ECG.

A.2.12.2 The apex beat should be located and the heart sound auscultated.

A.2.12.3 Peripheral pulses should be checked.

A.2.13 Abdomen

A.2.13.1 Abdominal inspection and palpation for masses should include formal examination for liver, kidneys, spleen and any hernia.

A.2.13.2 Testicular, rectal or vaginal examinations are not necessary.

A.2.14 Central Nervous System

A.2.14.1 Cranial nerves and special senses must be assessed. Muscle tone and co-ordination are part of the upper limb and lower limb assessments, and tendon reflexes should be formally tested.

A.2.15 Lymphatic System

A.2.15.1 Palpation of lymph nodes should be undertaken in axillae, cervical and inguinal regions.

A.2.16 Skin

A.2.16.1 Any abnormalities of skin should be noted including distinguishing marks, tattoos and body piercings. Specific to the latter two decorations a history of jaundice should be sought. Bearing in mind the physically demanding nature of training, a risk assessment is needed for any retained body piercing 'jewellery'.

A.2.17 The Back and Spine

A.2.17.1 The examiner should inspect the posture anteriorly, posteriorly and laterally. The spinal movement should be assessed in flexion, extension, lateral flexion and rotation. Additionally the following should be undertaken:

- Observing from behind, the examinee should be asked to touch their toes without bending his/her knees, and note should be taken of whether a

smooth spinal curve develops and whether there is any evidence of scoliosis. The presence of surgical scars over the posterior spine is highly relevant.

- Standing up straight the examinee should look right, left and then tilt the head sideways aiming to touch each ear on the shoulder. The potential recruit should display the capability for full extension and flexion of the neck.
- Gait and mobility should be observed over a reasonable distance.

A.2.18 Upper Limbs

A.2.18.1 The medical examiner should gain an impression of development and detect any abnormalities of bone and joints of the upper limbs, shoulder girdle and upper spine by observation whilst guiding the examinee and performing the following movements:

- Extend both arms forwards with palms upwards (supinate), opens and spreads the fingers, closes the fingers (power grip), and then pinches the tip of the index finger and thumb (pinch grip).
- Turns the palms of the hands downwards (pronation).
- Exhibits full movement at the wrists and elbows.
- With arms straight, raise his/her arms to the front parallel to the ground, and then in abduction to the side, and lastly above the head.
- Demonstrates normal internal and external rotation of both shoulders.

A.2.18.2 Where appropriate the above movement should be conducted against resistance to determine muscle strength. This procedure will normally be integrated with a neurological examination.

A.2.19 Locomotion

A.2.19.1 The lower limbs, pelvis and lower spine should be assessed while the examinee performs the following movements:

- Stands on each foot in turn, first on the sole, then heel raises up onto the ball of the toes.
- Squats down and kneels on each knee and rises rapidly to an erect posture.
- The physical fitness test encompasses an objective assessment of running.

A.2.19.2 The examiner also performs the following:

- On a couch check for crepitus through the whole range of movement to the knee and perform a patellar apprehension test.
- With the leg in extension check the integrity of the medial and lateral collateral ligaments, together with any joint line tenderness.
- On a couch, with the hip and knee flexed at 90 degrees – (1) full internal and external rotation of the hip, (2) also perform the anterior and posterior draw test on the knee to establish the integrity of the cruciate ligaments.

- Passively invert (20 degrees) and evert (10 degrees) subtalar joints with the ankles in neutral.
- Examine the feet for any abnormality, of the toes and first MTP joint, and look for club, flat or claw feet.

A.2.20 Hearing Acuity

A.2.20.1 It will be assumed that audiometry standards will represent examinations in a soundproof facility by a trained operator to a level as specified by the Health and Safety Executive in document MS 26 (12). All new entrants must have a hearing acuity assessed by pure tone audiometry (ideally by Bekesey recording).

A.2.21 Conduct of audiometry

A.2.21.1 Prior to audiometry the ears should be clinically examined. The basis of audiometric assessment is a summing of high and low frequency levels in decibels (dB) over six frequencies. The frequencies used are 0.5, 1, 2, 3, 4 and 6 kilohertz (kHz); the low frequencies being 0.5, 1 and 2 kHz and the high frequencies 3, 4 and 6 kHz. The hearing in each ear is assessed and recorded separately.

A.2.22 Hearing aid(s)

A.2.22.1 As well as the examination of the ear without the hearing aid, fitting of the apparatus should be checked. A full audiogram should be carried out both with and without the hearing aid(s).

A.2.23 Phoneme comprehension testing

A.2.23.1 As the science of speech audiometry develops with particular application to radio/cell phone communications the test of phoneme comprehension will be required in future in order to ensure that each applicant can fully comprehend directions received through such media.

A.2.24 Visual Acuity

A.2.24.1 The testing of an applicant's visual system is detailed in the eyesight standards report (13).

A.2.25 Mental Capacity and Emotional Stability

A.2.25.1 The objective of medical screening is not to identify all applicants with a medical condition, but those with a condition that will prevent or restrict them in fulfilling the functions of a Police Constable. These functions are documented within the PNCF. The medical screening process should be directed at those duties but should also take into account that officers may be required to:

- work at any time, including for occasional long periods
- occasionally work alone
- occasionally work under conditions of physical and emotional distress¹
- operate under rotating shift patterns with occasional periods of only seven hours between the end of one shift and the commencement of another

¹ PNCF numbers: 1, 2, 6, 10, 11, 13, 15, 16, 19.

- work unscheduled periods of overtime at short notice
- occasionally work in inclement weather

A.2.25.2 Any of these requirements, either singly or in combination, may cause officers varying degrees of stress that could lead to them developing stress-related illness. The degree of stress leading to illness could be exacerbated by factors related to circumstances outside the working environment e.g. problems at home.

A.2.25.3 At most examinations the physician will not be expected to perform an exhaustive psychiatric examination. However, a limited enquiry should always be made. The most effective method is one of professional interest coupled with the respect for the examinees' personalities and feelings. The questions should begin with points relevant to the situation but of low emotional content. This can lead to a more general discussion of social background, work history and emotional relationships.

A.2.25.4 In the course of the examination, the physician must always have in mind the two aspects of psychiatric fitness; mental capacity (that is intelligence and ability to learn) and emotional stability. Mental capacity is assessed in the selection process, whereas in the medical examination attention should be given to school and work records. Emotional stability requires more care. There is no adequate group test for temperament or personality. Reliance must therefore be placed on history. Consultations with psychiatric services, substance abuse, eating disorders and contact with the Police and social services should be elicited. Any history of self-harm or post traumatic stress must be sought.

A.2.26 Urine Testing

A.2.26.1 Routine analysis should be performed in a clinical setting for pH, glucose, protein, blood and ketones. Urinalysis carried out by the examining doctor should be standard practice, as part of a complete medical assessment. Urinalysis is simple and quick to perform, and will occasionally detect underlying chronic illness such as diabetes or renal disease.

A.2.27 Following sections

A.2.27.1 Each subsequent section deals with body system impairments and their effect on applicant suitability. Throughout the remaining text the WHO Definitions (International Classification of Impairments, Disabilities, and Handicaps (1980)) (11) will be applied when discussing medical standards.

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MEDICAL HEALTH STANDARDS: POLICE RECRUITMENT

A.3 Ear, Nose and Throat Disorders

A.3.1 Ear, nose and throat disorders include a range of conditions that can impact significantly on work attendance, balance and hearing. Conditions may also be recurrent or progressive, and consideration must be given to whether a disorder is likely to lead to future incapacity. The status of the clinical condition at the time of recruitment is the point of reference. Whereas loss of hearing seldom leads to a period off sick, ear infections (especially of the external ear) when aggravated by working conditions, often do.

A.3.2 Ear disease

A.3.2.1 Disorders of the ear that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Disorders of the ear that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Interview victims and witnesses; comply with health and safety legislation.

Operational behaviours (1): Team working; effective communication.

Physical demands (2): Refer to paragraph 3.1.2 of the study report.

A.3.3 External auditory canal

A.3.3.1 Atresia or severe stenosis

Stenosis can be acquired (secondary to otitis externa) or be congenital. Congenital atresia of the canal can be unilateral or bilateral and surgical intervention is frequently indicated. There is also a greater risk of cholesteatoma, which again requires surgery (3). Hearing may be significantly impaired. Applicants are likely to require further information, investigation and assessment unless the audiometric standards are not met, when the applicant is unlikely to be suitable. If surgery is needed then the application should be deferred until post surgery.

A.3.3.2 Chronic otitis externa

Otitis externa (inflammation of the skin of the external auditory canal) results in recurrent painful exacerbations with ear-discharge and hearing loss. The condition can require frequent outpatient attendance for treatment and will interfere with the use of communications equipment. Severity ranges from mild to severe forms. Applicants with mild occasional otitis externa are likely to be suitable. Applicants with more severe, recurrent, chronic otitis media are likely to require further information, investigation and assessment.

A.3.4 Tympanic membrane

A.3.4.1 Perforation

Most *traumatic perforations* heal spontaneously and hearing returns to normal (4). If the perforation results from a recent injury and assuming healing has occurred then the applicant is likely to be suitable.

Chronic perforations (*i.e.* perforations that have not healed, whatever the cause) are more significant and surgery will usually be required if the perforation is to heal. Many ears with a chronic perforation will involve some form of chronic otitis media (see section A.3.5.1). There will frequently be associated conductive hearing loss and chronic ear discharge, with the possibility of underlying cholesteatoma or inflammation of the surrounding bone. Applicants are likely to require further information, investigation and assessment, but assuming the condition is asymptomatic they are likely to be suitable.

A.3.4.2 Ventilation tubes (Grommets)

Ventilation tubes or grommets can lead to secondary infection in a third of ears and in about 5% can actually lead to a small permanent perforation (5). Ventilation tubes in adults are used for the management of Eustachian tube dysfunction. Further information, investigation and assessment is likely to be required.

A.3.4.3 Myringoplasty or tympanoplasty

This operation for chronic perforation is straightforward and safe with a high success rate (6). Applicants with successful myringoplasty or tympanoplasty are likely to be suitable. Individuals with unsuccessful operations are likely to require further information, investigation and assessment (see section A.3.5.1). If the condition is symptomatic or there is significant hearing deficit, then the applicant is likely to require further information, investigation and assessment. The audiometric standards may make the applicant unsuitable in any case.

A.3.5 **Middle ear**

A.3.5.1 Chronic otitis media

Chronic middle ear infections have the potential for serious complications, which may make applicants unsuitable.

- a. Healed otitis media. No evidence of ongoing inflammation but hearing loss secondary to ossicular chain disruption or fixation may exist. Providing audiometric standards are met, the applicant is likely to be suitable.
- b. Inactive chronic otitis media – (incidence 2.6%) (7). This involves a permanent defect of the tympanic membrane but no active inflammation of middle ear. There is a risk of the condition becoming active with the need for surgery. Applicants are likely to require further information, investigation and assessment (see section A.3.4.1).

(14). Surgery might relieve the problem in one ear, but the symptoms may return in the other ear. The severe vertigo and unpredictability of the condition (15) means that applicants are unlikely to be suitable for the operational role (core operational tasks include (2): lifting heavy objects; forcing entry; climbing gates and fences; and climbing stairs).

A.3.6.2 Benign Positional Paroxysmal Vertigo (BPPV)

BPPV implies vertigo when the head is in a specific position. The nystagmus is fatigable and hearing is normal. It is a benign self-limiting condition, which usually resolves after three months but can persist for much longer (18). Attacks, when they do occur, can be limited by avoiding the head position, which makes symptoms worse. However, an officer may be debilitated by dizziness in a struggle or chase. Further information/investigation and assessment of the applicant is necessary.

A.3.6.3 Hearing loss below entry standard

The recommended entry standards for recruit hearing are based on the current entry standards (16). These state that an applicant should be rejected if there is a hearing loss of more than a total of 84 dB over the 0.5 - 1.2 KHz range, or more than a total of 123 dB over the 3,4 and 6 KHz range.

An applicant with hearing standards above the minimum required in both ears is likely to be suitable.

An applicant with hearing loss in both ears below the minimum requirement is unlikely to be suitable.

An applicant with hearing in one ear above and hearing in one ear below the minimum requirements is likely to require further information, investigation and assessment, and will need to be carefully assessed. Consideration should be given to assess the applicant with a practical test of hearing to assess functional ability, for example speech discrimination in an operational situation or as described in section A.2.23 a test of phoneme comprehension.

Applicants with hearing aids that bring their hearing above the minimum requirement are likely to require further information, investigation and assessment. A risk assessment should take account of the risk of trauma etc.

A.3.7 **Nose**

A.3.7.1 Allergic vasomotor rhinitis requiring treatment

Up to 10% of the population suffer with hayfever, 5% having perennial rhinitis. A proportion of these will also suffer nasal polyps (13). Severe rhinitis can be incapacitating, but should not affect the capacity to perform police work and therefore the applicant is likely to be suitable.

A.3.7.2 Nasal polyps

Nasal obstruction, rhinitis and secondary sinusitis can all be problematic. Intranasal corticosteroids avoid surgery in up to 50% of sufferers. Nasal polyps that have been treated are unlikely to impair the operational role of the

Police Constable, but may require frequent surgery, possibly as frequent as every two years. The applicant is likely to be suitable. However, if there is a significant history of problems it may be advisable to seek further information.

A.3.7.3 Chronic sinusitis

Endoscopic sinus surgery may be needed in some instances. Unless there are severe symptoms or the condition is refractory to treatment, the applicant is likely to be suitable.

A.3.8 Throat

A.3.8.1 Tracheostomy

Tracheostomy is an unacceptable procedure for a potential police recruit to have undergone, as the airway is not protected from hazards such as water. The area of the body involving the throat was considered important when Police Constables considered their ability to meet the physical demands of core operational tasks (2). The applicant is unlikely to be suitable.

A.3.8.2 Chronic laryngitis

Applicants are likely to require further information, investigation and assessment. The applicant's GP should be asked to refer the individual and any decision on suitability should be deferred until a diagnosis has been established and occupational queries addressed.

A.3.8.3 Other laryngeal disease

It is likely that further information, investigation and assessment will be required in cases where symptoms are severe. As with Chronic laryngitis the applicant's GP should be asked to refer the individual. Conditions such as cord paralysis (may have very few symptoms if unilateral), vocal nodules and polyps will not usually be a contraindication to suitability.

A.3.8.4 Severe speech impediment

A speech impediment may compromise communication and may make an applicant unsuitable, though speech and language therapy might be of use. The applicant is unlikely to be suitable if they are unable to communicate effectively.

A.3.9 Balance disorders or vertigo

A.3.9.1 Vertigo is an illusion of movement (17). Acute disorienting episodes may occur with no warning and may pose a danger to the worker or others. Recurrent attacks can result in significant time off work.

A.3.9.2 Vertigo or dizziness are common and over a fifth of the population may be affected at some time in their lives (17). However only a minority (3%) have symptoms persisting for more than a year.

A.3.9.3 Vertigo is only a symptom. Many diseases (e.g. arterial or cardiac disease, cerebral tumour, multiple sclerosis, chronic ear disease) can lead to symptoms of balance disturbance. An individual with a history of on-going

balance problems is likely to require further information, investigation and assessment. Where a balance problem is a symptom of a more serious underlying pathology then the underlying condition will often result in the applicant being unsuitable.

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A.4 Cardiovascular System

- A.4.1 Disorders of the cardiovascular system (CVS) that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Disorders of the CVS that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Provide initial response to incidents (may involve running); Conduct arrest and process procedures.

Operational behaviours (1): Team working; Personal responsibility.

Physical demands (2): Refer to table 7 and Annex J the study report (concerning core operational tasks which demand a high, relative work intensity, e.g. sprinting, climbing stairs, restraining a struggling suspect etc).

A.4.2 Heart Disease

- A.4.2.1 Cardiovascular disorders can impair fitness to work: by limitation; by symptoms on working capacity; and by risk of sudden incapacity. Those with marked cardiovascular disorders will not be able to perform safely and efficiently the operational role of the Police Constable. Progression of the disorder is unpredictable (3).

- A.4.2.2 Whereas exercise is encouraged as part of cardiac rehabilitation, sudden high levels of exercise are dangerous with established cardiovascular disease. Cold is a notorious trigger of myocardial ischaemia (4). Work involving rapid response to emergency calls, may place unacceptable demands on the cardiovascular system for those with Coronary Artery Disease (CAD) (5).

A.4.3 Coronary Artery Disease (CAD)

24.7% of men suffer from CAD between ages of 49 and 59 years. It is much less common below the age of 40. CAD manifests itself through chest pain (angina or myocardial infarction), through arrhythmias (possibly syncope leading to black-outs) and heart failure (pulmonary oedema). The operational role of the Police Constable requires occasional high cardiovascular demand (2). If the applicant is symptomatic then they are unlikely to be suitable, if asymptomatic it is likely that further information, investigation and assessment will be necessary. In any case regular review of the recruit may be necessary.

A.4.5 Hypertension

- A.4.5.1 Guidelines are needed to preclude inappropriate discrimination against individuals with hypertension (9). Untreated hypertension carries the risk of sudden disability from a cardiovascular episode, such as myocardial infarction.
- A.4.5.2 The protocol for evaluation of blood pressure measuring devices from the British Hypertension Society should be followed (10). The point taken for diastolic pressure is phase 5, that is the point of disappearance of the Korotkoff sounds. When the Korotkoff sounds persist throughout the deflation of the cuff, the fact should be recorded as well as the level at which the sounds become muffled (i.e. phase 4, e.g. 120/80/0) (8). Applicants with persistent elevation of resting systolic blood pressure above 140 mmHg and, or a resting diastolic blood pressure above 90 mmHg are likely to require further information, investigation and assessment. The main concerns in terms of medication side effects are giddiness, fatigue and limited exercise tolerance. Provided medication is well tolerated, is without disabling side effects and there is no end organ damage, applicants with treated hypertension to within acceptable blood pressures are likely to be suitable. Applicant with end-organ damage and unacceptable side effects of treatment are unlikely to be suitable.

A.4.6 Vascular conditions

A.4.6.1 Peripheral Vascular Disease (PVD)

This is mostly caused by atherosclerosis. Restriction in blood flow leads to muscle pain on walking (intermittent claudication) which limits mobility. Established peripheral vascular disease is a condition that is progressive and unpredictable, and unless treated applicants are unlikely to be suitable. Further reduction in blood flow leads to ischaemic pain at rest, which often affects the foot. This condition can lead to gangrene of the foot and may be limb threatening. Severe PVD can limit exercise tolerance to less than 100 yards on level ground. Angioplasty and surgical intervention should only be contemplated when the symptoms are seriously interfering with the patient's life style (11). Surgical procedures for PVD have a high complication rate (particularly graft occlusion) and are used only in cases where disease is sufficiently advanced to cause marked symptoms. Surgery is unlikely to render an individual who has previously suffered from PVD suitable.

If the condition is asymptomatic, mild and fully treated then it is likely that further information, investigation and assessment will be necessary before a decision is made on the applicant's suitability, otherwise the applicant is unlikely to be suitable.

Applicants with congenital arteriovenous malformations, congenital lymphoedema or a history of deep vein thrombosis will most likely require further information, investigation and assessment.

A.4.6.2 Raynaud's phenomenon

Raynaud's phenomenon affects the circulation of the fingers and has a prevalence of between 5 and 20%, most sufferers being female. There

may or may not be an identifiable underlying cause (when no cause is known, it is referred to as Raynaud's disease) and symptoms may vary from mild sensitivity to the cold to gangrene of the fingertips. This condition can impair a person's ability to work in even moderately cold conditions due to ischaemic pain in the fingers. A Police Constable may be required to operate alone, during a foot patrol, for up to 4 hours regardless of the environmental conditions. Further information, investigation and assessment is likely to be required for these applicants.

A.4.6.3 Varicose veins

The prevalence is about 2% with a slight female preponderance. Due to the operational need for prolonged periods of walking, standing and sitting, the presence of advanced varices with ulceration or active deep vein thrombosis is unlikely to make an applicant suitable. Except in the most trivial cases (limited area of varices with no symptoms of pain or skin changes), applicants are likely to require further information, investigation and assessment. The effect of varicose veins on the locomotor system needs to be assessed. Leg protection may be necessary to reduce the risk of haemorrhage following injury.

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A.5 Respiratory System

A.5.1 Disorders of the respiratory system that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Disorders of the respiratory system that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Provide initial response to incidents (may involve running); Conduct arrest and process procedures.

Operational behaviours (1): Team working; Personal responsibility; effective communication.

Physical demands (2): Refer to table 7 and Annex J of the study report (concerning core operational tasks which demand a high, relative work intensity, e.g. sprinting, climbing stairs, restraining a struggling suspect etc).

A.5.2 Background

A.5.2.1 Respiratory disorders are a significant cause of concern regarding an individual's fitness for operational duty (3). Work limitation arises most commonly from the sensation of breathlessness. It is essential that conditions adversely affecting the respiratory system are identified, therefore the presence of respiratory symptoms and signs requires further information, investigation and assessment. Active disease, or a significant decrease in pulmonary function (standardised for age, gender and race) from whatever cause is likely to have a profound effect on physical fitness of the operational Police Constable by decreasing aerobic capacity. Individuals with any persistent respiratory disease that impairs exercise capacity and decreases pulmonary function are unlikely to be suitable.

A.5.3 Asthma

A.5.3.1 Table A-3 of section A.1 gives prevalence data for asthma in England and Wales between 1984 and 1988, for police recruit age ranges. Concern is expressed at the large degree of over-diagnosis of asthma particularly within the community in childhood.

A.5.3.2 When the diagnosis of asthma is confirmed, whether it be persistent, recurrent or seasonal in nature, an applicant is likely to require further information, investigation and assessment before a decision on suitability can be made. The need for a Police Constable to be fully functional in all weathers is beyond debate.

A.5.3.3 Triggers to asthma

Of the non-specific mechanisms of triggering asthma, exercise is probably the most important. Cold air and fog (an aerosol of fine water droplets) are known to be potent stimuli provoking asthma (4). A recent study (5) of construction workers revealed a doubling of premature retirement rates compared with controls. They also experience limitations at work and in everyday life. Cold air, physical exercise and all types of dust and smoke caused the asthmatics to experience symptoms. An American study (7) showed that asthma and rhinitis were common conditions that affected adults of working age. Both conditions negatively affected work productivity. Asthmatics were less likely to be employed than those with rhinitis. Progressive incremental exercise tests carried out in Glasgow (8) with mild asthmatics and healthy matched individuals showed the following in the asthmatic group:-

- Lower maximum oxygen consumption ($\dot{V}O_2$ max)
- Significant reduction in anaerobic threshold
- Increased dyspnoea index at peak exercise

A.5.3.4 Caution criteria

A.5.3.5 Applicants evidencing the following criteria are unlikely to be suitable:

- History of asthma attacks causing sudden and severe incapacitation.
- History of exercise or stress induced asthma which has caused severe incapacitation
- Hospitalisation in past 5 years due to asthma except in proven chest infection
- Admission to ITU at any time where intubation and ventilation were required
- Oral steroid treatment required for asthma symptoms in past 5 years.
- Current regular (daily) inhaled cortico-steroid medication (not PRN before exercise)
- Peak Expiratory Flow Rate (PEFR) more than two standard deviations below norm on more than one occasion
- FEV₁ more than two standard deviations below norm on more than one occasion.

A.5.3.6 2-Chlorobenzylidene Malononitrile (CS Spray)

The Committees on Toxicity, Mutagenicity and Carcinogenicity of Chemicals in Food, Consumer Products and the Environment (COT, COM and COC) on behalf of the Department of Health, with the support of the Home Office concluded that the available data did not, in general, raise concerns regarding the health effects of CS spray itself [15]. But the Committee had concerns regarding exposure to CS spray in susceptible groups.

- (a) Individuals with bronchial asthma or chronic obstructive airways disease whose condition could be aggravated by the irritant effects of CS spray on the respiratory tract.
- (b) Individuals suffering from hypertension or other cardiovascular disease because of the transient effects of CS spray in increasing blood pressure.

- (c) Whether individuals being treated with neuroleptic drugs are more likely to be sensitive to the effects of CS spray [15].

The Committee also concluded that further information needs to be obtained on the effects of CS spray in humans [15].

The research cited above is based on the individual receiving the exposure to CS spray. There appears to be no literature that has looked at the effects of exposure to CS spray from the perspective of the individual delivering the spray. It is presumed that exposure to the CS spray is much lower for the individual delivering the spray and therefore the effects are less.

It is recommended that the Home Office give consideration to the commissioning of research to investigate the possible exposure and subsequent health effects of CS spray from the perspective of the individual(s) delivering the spray, i.e. Police Officers incapacitating a suspect.

A.5.3.4 Hayfever

- A.5.3.4.1 An applicant with mild seasonal hayfever is likely to be suitable providing that there is no associated wheeze and that systemic corticosteroids are not required. There should be no recent history of absence from school/employment due to the condition.

A.5.4 Spontaneous pneumothorax

- A.5.4.1 A history of pneumothorax secondary to traumatic injury is not relevant (providing the individual has made a full recovery from the injuries). Spontaneous pneumothorax occurs in the absence of trauma and is often due to a cyst beneath the pleura. In the young adult, the risk of a second spontaneous pneumothorax following successful treatment of the first is 40% and the risk of a third following treatment of the second is 60% (10). Therefore surgical treatment (pleurodesis) is usually recommended early on. The long term results after video-assisted thoracoscopic surgery for first-time and recurrent pneumothorax (11) reveal a recurrence rate of 4.6%. Applicants who have had a solitary spontaneous pneumothorax without complications are likely to be suitable. Those with recurrent problems (two or more) are likely to require further information, investigation and assessment. It is likely that they will have their application deferred until after treatment aimed at preventing further recurrences.

A.5.5 Chronic Obstructive Pulmonary Disease (COPD) and other chronic pulmonary disease

- A.5.5.1 COPD (chronic bronchitis and emphysema) is common in the older population, affecting between 5 and 8% of men and fewer women (12). Smoking is the main cause and the principal symptom of COPD is breathlessness on effort. Individuals with COPD, bronchiectasis, cystic fibrosis or any other chronic pulmonary condition are unlikely to be suitable. The reduced respiratory function is incompatible with the exercise requirements of the operational Police Constable's role.

A.5.6 Tuberculosis (TB)

- A.5.6.1 TB has been steadily increasing in the UK since 1988 (13) and can no longer be considered a disease of the past. Individuals with active TB are unlikely to be suitable, as droplet spread is predictable in high proximity groups, which is the case

within the closed community training environment. Otherwise it is likely that further information, investigation and assessment will be required before a decision on the applicant's suitability can be made. The presence of a BCG (Bacillus Calmette-Guerin vaccine) scar should be noted at the clinical examination.

A.5.7 Sarcoid

A.5.7.1 Sarcoid has a prevalence (world-wide) of 20 per 100,000 and is of unknown aetiology. Pulmonary involvement is common (85% of cases) although the condition can affect most organs or tissues in the body, especially the lymph nodes, liver, eye and skin. The heart can be affected in less than 5% of cases. Screening chest X-rays detect many cases and this is abnormal in over 85% of cases (14). If sarcoid is detected in the thorax (as either lung disease or lymph node involvement) then this is termed thoracic sarcoid. 60% of cases of thoracic sarcoid resolve spontaneously and a further 20% respond to steroids. Of the remainder, a proportion will go on to develop pulmonary fibrosis and this can cause potentially severe (restrictive) respiratory impairment. Because of the unpredictable progression of this illness and the involvement of many different body systems, it is likely that further information, investigation and assessment will be required. If the condition is asymptomatic and there is confirmation that the sarcoid has been quiescent for 5 years and lung function is normal, then the applicant is likely to be suitable.

A.6 Alimentary System

A.6.1 Disorders of the alimentary system that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Disorders of the alimentary system that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Provide initial response to incidents (may involve running); Conduct arrest and process procedures.

Operational behaviours (1): Team working; Personal responsibility.

Physical demands (2): Refer to Annexes H and I of the study report (concerning core operational tasks which require a wide range of motion about the trunk and which place a high demand on the abdominal muscles, e.g. lifting heavy objects etc)

A.6.2 Peptic ulcer disease

A.6.2.1 Peptic ulcer disease includes both gastric and duodenal ulcers and presents a broad clinical spectrum of illness. Peptic ulceration produces dyspeptic symptoms, which may affect ability to work, and can be complicated by perforation and gastrointestinal haemorrhage. These complications are serious and potentially life threatening. The risk of developing a peptic ulcer is greater for people in jobs with a high level of physical activity than those undertaking sedentary work (3). Although shift work does not cause peptic ulcers, it can exacerbate symptoms for some individuals (4).

A.6.2.2 Applicants with active peptic ulcer disease are likely to require further information, investigation and assessment. Cases of peptic ulceration, including secondary perforation or haemorrhage, related to *H. pylori* infection, which have endoscopic demonstrable healing of their ulcer (with no significant scarring), together with confirmation of eradication of *H. pylori*, are likely to be suitable after one year free of symptoms. Those with mild or infrequent symptoms not requiring medication are likewise likely to be suitable.

A.6.2.3 Non-ulcer dyspepsia (the presence of dyspeptic symptoms but no ulcer present on endoscopic examination) is common, and applicants are likely to require further information, investigation and assessment. Individuals who have on-going dyspeptic symptoms and who have been investigated by endoscopy and found to be free from ulceration within the last year, need to be carefully assessed. If there is any doubt about their suitability because of on-going symptoms, further assessment is required.

A.6.3 Irritable Bowel Syndrome (IBS)

A.6.3.1 As many as 15% of the general population have symptoms of a functional bowel disorder (5). Potentially serious underlying pathology may present with similar symptoms as IBS and must be investigated before the applicant can be assessed for suitability. IBS is common, reassurance from a doctor and dietary advice is usually all that is required. IBS will usually not present a problem for recruitment, unless there is evidence of significant disability or time off work/school. Severe bowel symptoms impacting on daily life and ability to work could present a problem for the operational role of a Police Constable and must be identified. Applicants are likely to be suitable unless: they are under investigation; require constant proximity to the toilet; require codeine for control; or if the IBS has a significant association with stress, then further information, investigation and assessment is likely to be required.

A.6.4 Inflammatory bowel disease

A.6.4.1 Crohn's disease

Crohn's disease is an inflammatory disease affecting both large and small bowel, with an incidence of 3 – 6/100 000 (6). It usually presents in early adulthood and follows an unpredictable relapsing and remitting course. Complications include abscess formation, fistulae (as the inflammation erodes through the bowel and into neighbouring structures), haemorrhage, bowel obstruction and perianal sepsis. Most Crohn's patients will require intestinal surgery at some point in their lives (7). Crohn's disease has a recurrence rate at 10 years of 100%, with 30% of cases requiring surgery in their first year of illness. For the remainder, there is a surgical intervention rate of 5% per year (8). Applicants are unlikely to be suitable due to the frequent need for surgery, as well as the impact of symptoms of disturbed bowel habit and abdominal pain on fitness to work. Core operational tasks often require the Police Constable to demonstrate unrestricted, trunk mobility and may involve lifting heavy objects (2). Applicants who have been successfully treated will still require further information, investigation and assessment.

A.6.4.2 Ulcerative Colitis (UC)

UC is an inflammatory disease of the large bowel, with inflammation involving the rectum and a variable length of colon proximally. The incidence of UC is 5 – 8/100 000 (9). It has a relapsing and remitting course with acute exacerbations causing bloody diarrhoea, fever and abdominal pain. Complications include perforation of the colon. Up to 25% of patients will undergo colonic resection in the first 10 years of illness, and there is a 95% relapse rate at 10 years (9). There is an established link between UC and colon cancer in later life. Applicants are unlikely to be suitable due to the chronic and frequently incapacitating nature of UC, the likelihood of surgery at some point in the illness, and the impact of symptoms on fitness to work. For example abdominal pain can restrict movement of the trunk, impairing core operational tasks, and can cause the individual to require more readily available toilet facilities than might be present on deployment. As surgical treatment of UC improves (e.g. restorative proctocolectomy, where all of the large bowel and rectum are removed and a stoma is avoided), there may be individuals who have suffered from UC previously, who, after successful surgery may warrant consideration.

A.6.5 Dietary and related conditions

A.6.5.1 Coeliac disease

Coeliac disease, or gluten enteropathy involves atrophy of the small bowel mucosa and has an incidence of 1 / 300 in England and Wales (10). A gluten-free diet will

gallstone disease include cholecystitis and cholangitis. Laparoscopic cholecystectomy is the operation of choice with excellent results. Applicants with a history of on going gallstone will require further information, investigation and assessment. Those with a history of cholecystectomy with complete recovery are likely to be suitable.

A.6.9.2 Inflammatory conditions of the bile ducts and strictures

Applicants with any chronic condition affecting the biliary tree are unlikely to be suitable for the operational role of the Police Constable, due to the complications of liver disease and the progressive nature of the condition.

A.6.10 **Pancreatitis**

A.6.10.1 Inflammation of the pancreas can be either acute or chronic. Further information, investigation and assessment is required for applicants with a history of a single previous episode of acute pancreatitis followed by a full recovery, to ensure it is an uncomplicated simple episode without provoking factors and that underlying pathology has been excluded. Chronic pancreatitis is most often related to alcohol abuse, and is frequently complicated by painful episodes of acute pancreatitis in its earlier stages (14). Applicants with chronic pancreatitis are unlikely to be suitable.

A.6.11 **Colostomy/ileostomy**

A 6.11.1 Stoma surgery is carried out in around 17,000 patients each year. Most ileostomies in younger adults are created for inflammatory bowel disease (15). Often the underlying diagnosis will make individuals with stomas unlikely to be suitable. However if this is not the case, then applicants with a well-managed stoma are likely to be suitable. The position of the stoma does not pose a risk of spread of infection provided a good standard of hygiene is practised (15). A generally good state of nutrition and absence of complications are fundamental to support fitness to serve. Reasonable adjustments under the DDA would encompass special padding or belts to enhance comfort for heavy-duty uniform belts.

A.7 Nephro-Urogenital System

A.7.1 Disorders of the nephro-urogenital system that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Disorders of the nephro-urogenital system that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Conduct a patrol; Provide initial response to incidents (may involve running); Conduct arrest and process procedures.

Operational behaviours (1): Resilience; Team working; Personal responsibility.

Physical demands (2): Refer to paragraph 3.1.2 of the study report.

A.7.2 Background

A.7.2.1 Renal disease and its sequelae can have profound effects on the ability of an operational Police Constable to attend let alone be safe and functional in his/her occupation. Sudden incapacity from pain, hypertension and renal failure are the major complications.

A.7.2.2 Major renal disease or malignancy is infrequent in the working age group. The complications of major renal disease, which have an impact on the functional role of the Police Constable, are as follows:

- Oedema (peripheral and pulmonary)
- Susceptibility to infection
- Anaemia
- Protein malnutrition
- Gastrointestinal irritation
- Renal pain
- Abnormalities of micturition including frequency, polyuria, nocturia, dysuria, incontinence, urgency (3)
- Chronic renal failure, which causes extreme fatigue and disruption of daily activities with increased sickness absences (4).

A.7.3 Abnormalities of urinalysis

A.7.3.1 A persistent abnormality of urinalysis is considered to be present when haematuria (of any degree) or proteinuria (greater than 'trace') is present on dipstick testing, on three consecutive occasions. If this is the case, then further information, investigation and assessment through the applicants GP will be required to exclude underlying nephrological and urological disease (5), prior to any decision regarding suitability.

A.7.4 Nephritis

A.7.4.1 Individuals with a history of nephritis and on-going impairment of renal function are unlikely to be suitable, because of the risk of complications as described in section A.7.2.2. However the following may be suitable following further information, investigation and assessment:

- no persistent abnormality on urinalysis
- normal blood pressure
- no significant depression in glomerular filtration (creatinine clearance) rate.

A.7.4.2 Individuals who have suffered from acute glomerulonephritis or a single attack of pyelonephritis (in the absence of predisposing factors) more than two years earlier, and who have made a complete recovery are likely to be suitable (6).

A.7.5 Urinary tract infections

A.7.5.1 A history of an isolated episode of acute urinary tract infection is not significant. An individual who presents a history of recurrent episodes is likely to be suitable, but may require further information, investigation and assessment to exclude underlying disease. Recurrent urinary tract infections can cause significant morbidity and if complicated it can cause severe renal disease including end-stage renal failure (7).

A.7.6 Urethral abnormality

A.7.6.1 Urethral abnormalities, congenital or acquired, can cause renal impairment. Therefore individuals who have undergone unsuccessful treatment, or who require on-going treatment for a urethral abnormality are unlikely to be suitable (the physical demands of the operational role place too great a risk to the health and safety of the individual) (2). Applicants who have undergone successful treatment for a minor urethral stricture may be suitable but further information, investigation and assessment will be needed (6).

A.7.7 Urinary incontinence

A.7.7.1 Applicants are likely to be suitable. However applicants with a history of diurnal urinary incontinence or of nocturnal enuresis within the last 2 years, even in the absence of an identifiable neurological or psychological cause are likely to require further information, investigation and assessment. Although self-catheterisation can overcome the problem in some, lack of access to clean and private places whilst on patrol could be problematic (8).

A.7.8 Scrotal swellings

A.7.8.1 Applicants with scrotal swellings are likely to require further information, investigation and assessment, principally to exclude a testicular malignancy. Benign causes of scrotal swelling include hydrocoele, varicocele and epididymal cyst. An inguinal hernia extending into the scrotum should be excluded. Complications of these common conditions include rupture after trauma, infection and pain (9). Surgery generally

leads to good results. Individuals presenting with an undiagnosed scrotal swelling should have their application deferred and urged to visit their GP for diagnosis and treatment. In some cases, small asymptomatic varicoceles or epididymal cysts may be treated conservatively and applicants are likely to be suitable.

A.7.9 Congenital abnormality

A.7.9.1 The commonest anomaly is horseshoe kidney, and a third of these cases will remain symptomless (the anomaly often being discovered for the first time at autopsy) (10). Certain conditions will not impair renal function whilst others will have a profound effect on renal function. Applicants are likely to be suitable if they retain normal renal function. Otherwise they are likely to require further information, investigation and assessment.

A.7.9.2 If there is evidence of renal impairment or other on-going complication due to congenital abnormality, then the individual is unlikely to be suitable. There are occasions within the operational role when the Police Constable is required to conduct short intense periods of hard physical work (2). The circulatory response to such hard work may place individuals with such a congenital abnormality at an unacceptably high risk of personal injury.

A.7.10 Polycystic kidney disease

A.7.10.1 This inherited cystic disease of the kidneys affects 1 in 350 of the population. There is also an associated increase in cerebral (over 10% of cases) and abdominal aortic aneurysms with this condition. Complications of the disease include recurrent urinary tract infections, renal stones, haemorrhage, hypertension and chronic renal failure (11). This condition is responsible for up to 10% of all cases of end stage renal failure (12). Renal failure will develop in most patients 10 to 20 years after diagnosis. Applicants with this condition are unlikely to be suitable because of the complications listed above, and the progression to end stage renal failure.

A.7.11 Loss or malfunction of one kidney

A.7.11.1 A single healthy kidney is compatible with good renal function and an applicant is likely to be suitable. However it is likely that further information, investigation and assessment will be required to ensure that disease in the remaining kidney is excluded. For individuals with loss or malfunction of one kidney, they must be shown to have no persistent abnormality on urinalysis, normal blood pressure and a glomerular filtration rate of 60 ml.min⁻¹.

A.7.12 Renal stone disease (urolithiasis)

A.7.12.1 As many as 12% of the population have renal stone disease. The risk of recurrence has been reported as being between 35% and 75% at 10 years (13). Complications include hydronephrosis of the kidney with associated impaired renal function and infection. The passing of a stone through the ureter causes renal colic and this is characteristically severe and incapacitating. Renal colic is a frequent cause of hospital admission for analgesia and assessment. Applicants with an established stone disease are likely to require further information, investigation and assessment, but are likely to be suitable following successful treatment.

A.7.13 Renal failure

- A.7.13.1 Chronic renal failure involves an irreversible deterioration in renal function and is not compatible with the operational role of the Police Constable because of the complications listed in section A.7.2.2, and the nature of the operational role, where flexibility, extended working hours and exercise demand are all important factors (14). Survival of such individuals on renal dialysis at 5 years can be as low as 60% (15) due to a combination of factors, including the complications of dialysis and the underlying disease. In addition, dialysis is not compatible with shift work. Applicants on renal dialysis, whether by haemofiltration or continuous ambulatory peritoneal (CAPD), are unlikely to be suitable.
- A.7.13.2 Renal transplant, although relieving individuals from the constraints of renal dialysis, is not compatible with the Police Constable's operational role. Those who have undergone renal transplant require immunosuppressive therapy, which increases the risk of infections and has other potentially severe side effects. There is also an unacceptable risk of trauma to the transplanted kidney from lower abdominal injury. Applicants are unlikely to be suitable.

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A.8 Endocrine System

- A.8.1 Disorders of the endocrine system that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Disorders of the endocrine system that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Conducts patrol; Provide initial response to incidents.

Operational behaviours (1): Team working; Personal responsibility.

Physical demands (2): Foot patrols may be conducted, un-accompanied for extended periods of time throughout an 8-10 hour shift, often occupying 14-37% of the shift duration. (see paragraph 3.1.2, and Annex G of the physical demands analysis)

A.8.2 Background

- A.8.2.1 A defective endocrine system is unable to adjust properly and correlate the activities of the various body systems. The individual is not able to adapt to the changing demands of the external and internal environment.

A.8.3 Diabetes mellitus – overview

- A.8.3.1 The different types of diabetes mellitus, type 1 and type 2, differ greatly in terms of the population affected, the methods of treatment and the types of complications experienced.

- A.8.3.2 Type 1 diabetes is defined in the Department of Health's National Service Framework for Diabetes (Standards) as follows:

"In people with Type 1 diabetes, the pancreas is no longer able to produce insulin because the insulin-producing cells have been destroyed by the body's immune system. Without insulin to move glucose from the bloodstream to the body's cells, glucose builds up in the blood and is passed out of the body in the urine." (3)

- A.8.3.3 Type 2 diabetes is defined as the person's pancreas not being "able to produce enough insulin for the body's needs. The majority of people with type 2 diabetes also have some degree of insulin resistance, where the cells in the body are not able to respond to the insulin that is produced."

A.8.4 Type 1 diabetes

- A.8.4.1 Type 1 diabetes accounts for approximately 15% of cases of diabetes in England (4). It generally presents in children and early adulthood and always requires treatment with insulin. Treatment aims to achieve glycaemic control through regular injections of insulin (usually 2 to 4 per day). It is usual for a diabetic person to monitor their blood glucose through self-testing, using blood glucose strips.

A.8.4.2 The principal complications that could affect the diabetic with the type 1 variant at work are hypoglycaemia and diabetic ketoacidosis (DKA). Of these, hypoglycaemia is more likely to produce acute incapacitation, although most diabetics develop a reliable 'awareness' of an impending hypoglycaemic episode, and are able to take measures to prevent a serious problem. DKA has a much more gradual onset and the person will feel unwell for a time beforehand (5).

A.8.4.3 Long term complications of type 1 diabetes are as follows (6):

- retinopathy, causing impairment of vision and in some, blindness
- neuropathy, causing loss of sensation, especially in the feet
- nephropathy, causing renal failure, if advanced
- foot ulceration, sometimes resulting in amputation if advanced
- increased incidence of coronary heart disease.

Such complications develop in a relatively small population of diabetics, usually where type 1 diabetes has been present for many years or where there has been poor glycaemic control (6).

A.8.4.4 The concern in terms of the Police Constable's role focuses on the difficulties experienced in shift work by type 1 diabetics and the need for a degree of routine in terms of meals and insulin injections. A significant degree of flexibility is necessary for the role and meals may be missed at short notice due to emergency situations (2). It may be difficult for a Police Constable to find suitable opportunities for blood glucose monitoring, insulin injections or snacks whilst deployed in the operational setting. The consequence of disruption to normal insulin regime and meal routine could precipitate a hypoglycaemic episode, compromising the safety of the Police Constable and others dependent upon him/her. In addition, the long-term effects of poor glycaemic control through such disruption will have deleterious effects on the individual's health through progression of diabetic complications. Core tasks of the operational role include conducting a foot patrol for up to 4 hours (2, 7). During the study to investigate the physical demands of the operational role it was reported that Police Constables were often required to conduct 8 to 10 hour shifts, 4 to 5 days per week, occasionally with less than a 7 hour period between shifts (2). On these grounds, a diagnosis of type 1 diabetes may not be compatible with the police role. However, further information and assessment will be needed in each case.

A.8.5 Type 2 diabetes

A.8.5.1 Type 2 diabetes presents a spectrum of conditions, including diet-controlled, tablet and diet-controlled, and insulin and diet-controlled conditions. Hypoglycaemia is much less common in type 2 diabetes, although there is a risk for those requiring insulin of hypoglycaemic episodes occasionally for those taking sulfonylureas of an inappropriate dosage, or for those requiring insulin. DKA does not present in this group of diabetics. Applicants with mild type 2 diabetes and not requiring insulin, with no ongoing complications will require further information, investigation and assessment. Applicants with type 2 diabetes, requiring insulin may not be suitable for the police role but further information and assessment will be needed in each case.

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procedures and the procedures themselves could clearly prejudice the performance of the police officer at a crucial juncture, and their use may be delayed due to operational pressures. It is also important to bear in mind that the treatment of hypoglycaemia by oral glucose may take up to 45 minutes before cognition is restored. Further, the police officer treated with insulin would be vulnerable in the event that insulin was not available for whatever reason.

A.8.6.7 In the final analysis it is the Home Office that has to decide whether the implications and complications of the management of an individual with diabetes treated with insulin are compatible with the role of the police officer. The medical position is that there is the possibility of cognitive impairment and unconsciousness, and that recovery may be prolonged. The Home Office has to decide whether such a risk is acceptable and / or whether the procedures related to the reversal of hypoglycaemia could prejudice a police operation. It is also the task of the Home Office to decide between any differences in the approach to the employment of police officers treated with insulin that may be advocated by various bodies. Such considerations must be concerned with the implications and complications of the management of diabetes to the maintenance of an effective police force. Presumably the deliberations will be based on common medical evidence or lack of evidence.

A.8.6.8 In summary, it is considered that the problems inherent in insulin-treated diabetes, whether Type 1 or Type 2, may not be compatible with the role of the police officer. This position could be reviewed in the future, for example, if more detailed information became available on the nature and incidence of hypoglycaemia in specific sub-groups. Some work is in hand, but additional studies sponsored by the Home Office relevant to the issues of critical occupations are needed if it is the wish of the Home Office to ensure that certain groups of individuals with diabetes are not being discriminated against with respect to employment.

A.8.7 Thyroid disease

A.8.7.1 An applicant with a history of hypo and hyperthyroidism is likely to be suitable providing they are undergoing treatment or have undergone successful surgical treatment previously. A euthyroid state should be achievable in all cases. If doubt exists or there is evidence of symptoms or signs attributable to thyroid disease, further information, investigation and assessment is likely to be required.

A.8.8 Pituitary disease

A.8.8.1 Pituitary hypofunction can be secondary to a variety of causes including previous infection and severe haemorrhage. Hypofunction may be associated with other on-going conditions that need to be assessed in their own right. There may be a visual field defect due to compression of the optic chiasma by a tumour and this will need to be excluded by perimetry (not just by clinical assessment). However, when other factors do not exclude a candidate, hormonal therapy can allow individuals to perform normal activities (8), but further information, investigation and assessment is likely to be required. Conditions due to hyperfunction are usually due to pituitary tumours and include Cushing's disease, acromegaly and hyperprolactinaemia. All conditions of the pituitary gland require further information, investigation and assessment.

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A.9.3.2 Psoriasis

An applicant with mild psoriasis not involving the hands is likely to be suitable. If there is a history of extensive psoriasis, then further information, investigation and assessment will be required. It is the case that both physically and emotionally demanding work can exacerbate psoriasis (4) and lead to disability from the condition. The operational role of the Police Constable will, therefore, aggravate the condition in those with more severe disease and these applicants are unlikely to be suitable.

A.9.4 **Malignant melanoma**

A.9.4.1 Malignant melanoma has an incidence in the UK of 6 per 100,000 of the population per year, and although relatively uncommon, cases are frequently seen in the younger population. In addition, there has been a significant increase in incidence in the UK in recent years (5). Individuals may present who have had a malignant melanoma excised previously these applicants will require further information, investigation and assessment. An uncomplicated excision of a melanoma will usually leave little if no disability, and there should be no impact on operational function. The principal concern is recurrence, which is associated with a poor prognosis. Melanomas can be classified at excision by measurement of the vertical thickness of the lesion, and can be described as thin, medium or thick. They are also classified as to whether there is any involvement of lymph nodes. The survival rate at five years from a thin lesion is over 90% and for a thick lesion is less than 50%. If lymph node spread is present, then curative treatment will not be possible.

A.9.4.2 Any individual with a history of excision of a malignant melanoma will require further assessment, and this will include an indication as to the thickness of the original lesion, whether there was any evidence of lymph node involvement and assessment of the risk of cerebral metastases. Those who have had a single thin lesion excised, without lymph node spread, and who have remained recurrence-free for 5 years are very unlikely to develop a recurrence and are likely to be suitable. Lymph node involvement, spread to any other tissue or a recurrent lesion constitutes an inoperable malignancy and such individuals are unlikely to be suitable. For thicker lesions with no evidence of spread, the risk of recurrence cannot be ignored and must be considered seriously in a decision on an applicants suitability.

References (Annex A.9)

1. *Police National Competency Framework version 4 (dated July 2002). A PSSO publication.*
2. *Nevola VR, Collins S, Puxley K, Bentley M. 2002. Annex C to QINETIQ/CHS/MC/CR020250 (Physical demands of the operational Police Constable role: Results). QinetiQ report number QINETIQ/KI/CHS/TN022176.*
3. *Fitness for Work: The medical aspects (3rd edition). 2000 (reprinted 2002). Eds: Cox RAF., Edwards FC., and Palmer K. Published by Oxford University Press (Oxford, UK). Chapter 23 'Dermatology', NF Davies and RJG Rycroft. p. 456*
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A.10 Orthopaedic and Soft Tissue Conditions

A.10.1 Orthopaedic and soft tissue conditions that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Orthopaedic and soft tissue conditions that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Conducts patrol; Provide initial response to incidents; Search persons; Conduct arrest; Provide first aid.

Operational behaviours (1): Team working; Personal responsibility;

Physical demands (2): Core operational tasks may require joint mobility throughout a wide range of motion and manual dexterity (e.g. restraining and handcuffing an individual during an arrest). Upper and lower body muscle force is required when restraining struggling suspects, lifting heavy objects, forcing entry etc. Foot patrols may be conducted alone, in inhospitable environments, for extended periods of time throughout an 8-10 hour shift, often occupying 14-37% of the shift duration. Physical tasks may expose susceptible individuals to repetitive strain injuries (tasks include climbing in and out of vehicles, climbing stairs and fences etc). (see Annex G of the physical demands analysis).

A.10.2 General

A.10.2.1 Orthopaedic and soft tissue conditions are likely to affect the flexibility, mobility and dexterity of an individual. Such limitations could impact on the operational role of the Police Constable (refer to Annex G [Job profiles], H [postural analysis], and I [body map] within the physical demands analysis (2)). Some individuals may present with confirmed orthopaedic medical diagnoses (such as rheumatoid disease). However, individuals will more often present with a range of musculoskeletal symptoms from previous injuries or fractures, and it is important that such conditions are carefully assessed to ensure that the operational role will be attainable. Failure to identify such conditions will not only compromise the ability of an individual to perform the Police Constable's role, but may put that individual at further risk of injury and subsequent disability.

A.10.2.2 It is important to establish whether the individual has musculoskeletal disease that in the course of time may progress and affect their ability to work as a Police Constable. Assessment must also identify any disease or

The added stresses imposed on the contra lateral limb render lower limb amputees likely to be unsuitable for operational service. However the loss of hand digits from the ring and little fingers might well not impair functional grip and dexterity and each case should merit consideration of suitability. Assessment should be made on a case by case basis.

A.10.4.5 Dislocation / joint instability

Of those suffering a traumatic shoulder dislocation under the age of 20 years, 90% will have a recurrence of the problem. An applicant, who has had an isolated traumatic shoulder dislocation with no recurrence and where function of the joint meets the operational standard, is likely to be suitable. Because of the high risk of recurrent dislocation whilst engaged in Police Constable's duties (typical core operational tasks that require unhindered shoulder action include: restraining; grappling a suspect to the ground; shield training; and cardiopulmonary resuscitation (2) those with recurrent dislocation, or those who have required shoulder stabilising surgery are unlikely to be suitable.

For dislocation of other major joints, isolated episodes of dislocation with no recurrence applicants are likely to be suitable, providing operational functional standards are met. If there is a history of recurrent dislocation, then the candidate is unlikely to be suitable due to the risk of recurrence whilst engaged in the Police Constable's role.

A.10.4.6 Knee disorders

Knee problems account for a large proportion of problems during recruit training. Applicants with acute or chronic problems of either knee are likely to require further information, investigation and assessment. Anterior knee pain syndrome is a major cause of failure to complete arduous training and any history, symptoms or signs of this syndrome may make the applicant unsuitable. An applicant with osteochondritis dissecans is unlikely to be suitable due to the vulnerability of the knee joint to severe damage. The operational requirement to; conduct a patrol on-foot for up to 4 hours (4); sprint for up to 1 minute; run for several minutes; lift heavy objects; and climb obstacles (e.g. stairs or fences), limits the scope of knee disorders that would make an applicant suitable for entry to the Police Service.

Applicants, who have undergone partial meniscectomy, are likely to be suitable 12 months post operative provided that 95% of the meniscus remains in the joint and is in a healthy state, the remaining joint structure is healthy, there is no evidence of osteoarthritis, there is a stable joint; the applicant is symptom free and there is a full range of movement in the joint. Lateral meniscectomy (with subsequent risk of early osteoarthritis) may not be suitable, but further information, investigation and assessment is likely to be required.

An applicant with any ligamentous injury requiring surgery or resulting in ligamentous instability of the knee will require further information, investigation and assessment, but due to the risk of further injury whilst carrying out the Police Constable's role, may not be suitable. However, in exceptional circumstances where ligament repair surgery has been carried out, with excellent results and no recurrence over a five year period despite a fully active life style, then an individual is likely to be suitable.

Total knee replacement in the recruitment age-group will usually be secondary to rheumatoid arthritis or previous knee trauma, and applicants are unlikely to be suitable. As for hip replacement, physical activity involved in the operational role will increase the risk of prosthetic failure, and again applicants are unlikely to be suitable.

A.10.4.7 Hip joint

Total hip replacement may be indicated in the younger population for traumatic hip fracture or congenital hip disease. The risk of failure of the prosthesis is significantly increased by arduous work and therefore applicants with a hip replacement are unlikely to be suitable.

A.10.4.8 Arthroscopy

Arthroscopy is an increasingly common surgical technique for both diagnosing and treating joint disease, particularly of the knee and shoulder. The complications of arthroscopy are relatively rare (around 1%), and the procedure in itself is not a concern. However, the underlying diagnosis must be sought before the significance of an arthroscopic procedure can be clearly understood.

A.4.10.9 Foot disorders

Foot disorders will frequently affect mobility and so require careful assessment to establish whether the individual is capable of fulfilling the operational role. Decisions should be made following an approach as described in section A.10.3. and further information, investigation and assessment is likely to be required.

A.4.10.10 Cervical spine/neck disorders

Individuals with on-going problems of the cervical spine (pain, nerve entrapment symptoms, reduction in function) are unlikely to be suitable. An applicant with a previous episode of whiplash injury is likely to be suitable, providing the individual has been symptom-free for at least one year. Applicants who have undergone cervical discectomy for nerve root entrapment, are unlikely to be suitable. Such cases are unlikely to be suitable due to on-going neck symptoms (which are not necessarily improved by discectomy), persisting neurological deficit in an upper limb or

A.10.4.11 Lumbar spine/back disorders

A history of chronic back pain with or without sciatica must be carefully assessed, as the operational role of the Police Constable may exacerbate back pain in several ways, particularly extended periods of standing or driving. A single episode of self-limiting back pain, which has resolved without any evidence of functional loss or neurological deficit, is likely to require further information, investigation and assessment before a decision on suitability is made.

All other types of back pain will require further information, investigation and assessment. Those with on-going pain or evidence of neurological deficit in a lower limb are unlikely to be suitable.

Those who have undergone lumbar spine surgery or other treatment are unlikely to be suitable, but an applicant with single level disc surgery may be suitable following further information, investigation and assessment. Applicants with multiple level spine disease are unlikely to be suitable.

A.10.4.12 Endoprosthetic replacements

Endoprosthetic replacements are used in osteosarcoma surgery. Individuals with such endoprostheses are advised not to take part in contact sports because of the risk of trauma to the implant and surrounding bone (5). As for joint replacements, the consequences of damage to the endoprosthesis are severe. This group is unlikely to be suitable because of this risk.

A.10.5 Arthritis

A.10.5.1 Rheumatoid arthritis

Rheumatoid arthritis is relatively common with a prevalence in the UK of 1 to 2 %. It can cause significant deformities, particularly of the hands, and can be a disabling illness. The presence of extra-articular features is a poor prognostic indicator. The disease relapses and remits and the course is unpredictable. Due to the progressive nature of this disease and the joint deformity associated with it (particularly of the hands), applicants with rheumatoid arthritis are unlikely to be suitable.

A.10.5.2 Connective tissue diseases

The commonest condition among the connective tissue diseases is systemic lupus erythematosus (SLE), which affects mainly females. The cause is uncertain and the clinical features vary greatly, from mild joint pain and photosensitive rash to more severe systemic disease (5). Individuals presenting with this condition or any other of the connective tissue disorders may experience only mild and infrequent symptoms, which do not impact upon their work. In view of the potential for more severe disease, and an unpredictable progression, further information, investigation and assessment will be required. Signs of active disease in any body system must be carefully assessed and will usually make the applicant unlikely to be suitable.

A.10.5.3 Other conditions affecting the joints

Gout is generally well treated today and severe tophaceous gout is uncommon. An applicant with uncomplicated gout is likely to be suitable. Ankylosing spondylitis may be acceptable if there is no functional deficit or on-going problems with back pain, although further information, investigation and assessment is required. In many cases, ankylosing spondylitis is a mild illness and will not cause significant functional disability. Strenuous activity is not contraindicated and 70% of sufferers are capable of following their service career in the armed services (6). An applicant with ankylosing spondylitis with chronic pain, however, is unlikely to be suitable. Those with a history of reactive arthritis and Reiter's will require further information, investigation and assessment.

References (Annex A.10)

1. *Police National Competency Framework version 4 (dated July 2002)*. A PSSO publication.
2. Nevola VR, Collins S, Puxley K, Bentley M. 2002. Annex C to QINETIQ/CHS/MC/CR020250 (Physical demands of the operational Police Constable role: Results). QinetiQ report number QINETIQ/KI/CHS/TN022176.
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A.11 Haematological Disorders

A.11.1 Haematological disorders that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Haematological disorders that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Conducts patrol; Provide initial response to incidents; Conduct arrest; Provide first aid.

Operational behaviours (1): Team working; resilience.

Physical demands (2): Prolonged foot patrols (lasting up to 4 hours); foot chases (sprinting or running); restraining struggling suspects; conducting cardio-pulmonary resuscitation (Nevola *et al* 2002 (2)). The aerobic, anaerobic and sustained endurance based tasks may present difficulties for individuals suffering from certain haematological disorders. Disorders that manifest themselves in external blood loss may not be compatible with tasks that require direct contact with colleagues and members of the public.

A.11.2 Anaemia

A.11.2.1 Background

Anaemia is common and is due to a reduced haemoglobin concentration in the red blood cells for the age and sex of an individual. Haemoglobin carries oxygen to the tissues and even in asymptomatic sufferers anaemia is likely to compromise exercise tolerance and limit physical activity and work capacity. Non-specific symptoms typically include lethargy, weakness and tiredness. Anaemia may be secondary to an underlying cause that may make the applicant unlikely to be suitable. In particular, it often accompanies chronic kidney disease, liver disease and malignancy. Hence if the underlying cause has not been identified then the application must be deferred and the applicant urged to visit their GP to identify, assess and treat the cause before recruitment may be considered. Further advice on specific causes of anaemia is given below.

A.11.2.2 Iron deficiency

Even in Western society some 3% of adult men and over 5% of adult women have iron deficiency anaemia (3; 4). Treatment with iron, in the absence of adequate investigation, will not necessarily make the applicant suitable. Dietary deficiency is unlikely in the West and occult bleeding from the gastrointestinal tract must be sought. In women, gynaecological causes of excessive blood loss should be considered. Malabsorptive states and

rarer causes may also need to be investigated. An applicant with persistent or recurrent anaemia sufficient to warrant ongoing treatment with iron is unlikely to be suitable, unless it is clear that the individual's dietary preference is responsible and a normal haemoglobin concentration can be maintained with simple oral iron supplementation, but further information, investigation and assessment is recommended.

A.11.2.3 Megaloblastic anaemias

These anaemias are usually due to deficiency of either vitamin B12 or folate causing abnormal blood cell production with early death of immature cells. Serious complications of these diseases, including neurological damage, may occur even when the anaemia is still relatively mild. However, anaemia is usually more advanced by the time of presentation. Excessive alcohol consumption and liver disease often coexist with megaloblastosis. Applicants will likely require further information, investigation and assessment. Causes, complications and associated conditions must be sought and assessed on their own merits; they will often make applicants unlikely to be suitable. Pernicious anaemia may be treated successfully but is a disorder primarily of the elderly and is less likely to be the cause of megaloblastic anaemia in younger individuals for recruitment.

A.11.2.4 Other anaemias

Applicants are likely to require further information, investigation and assessment. Sideroblastic anaemia is a form of myelodysplasia, applicants are unlikely to be suitable due to the association with more serious and often malignant disorders and the risk of progression to acute leukaemia. Applicants with active hypoplastic and haemolytic anaemias are also unlikely to be suitable. Individuals with a past history of anaemia of uncertain origin should be carefully assessed with regard to likelihood of recurrence and further information, investigation and assessment may be necessary.

Some conditions, such as G6PD deficiency or hereditary elliptocytosis, are highly variable between affected individuals and applicants are likely to require further information, investigation and assessment. The haemoglobinopathies are addressed separately.

A.11.3 **Polycythaemia**

- A.11.3.1 High haemoglobin levels are associated with an increase in blood viscosity and an increased risk of thromboembolism, transient ischaemic attacks, visual disturbances, vascular disease and other ischaemic conditions, leading to an increased risk of accidents at work when the haematocrit is above 0.55 (5). The underlying cause of the condition such as heart or lung disease may make the applicant unsuitable. Polycythaemia rubra vera (PRV) may run a protracted course but will usually terminate in bone marrow failure and incapacity. A significant proportion of sufferers will develop myelofibrosis or myeloid leukaemia. Applicants with this condition are unlikely to be suitable.

A.11.4 Haemoglobinopathies

A.11.4.1 Thalassaemia

Thalassaemias are inherited disorders characterised by abnormal globin chain production and hence abnormal haemoglobin. Expressed forms of these disorders are associated with severe and chronic anaemia and applicants are unlikely to be suitable, although further information, investigation and assessment is likely to be required. Individuals with clinically silent forms may be suitable for recruitment, but even those with thalassaemia trait who are usually symptom-free may develop anaemia if suffering from infection.

A.11.4.2 Sickle cell disease

Sickle cell disease is inherited and results in abnormal haemoglobin production and damage to the red cells. Expressed forms of the disease are usually associated with chronic and recurrent anaemia and painful incapacitating sickle cell crises that make applicants unlikely to be suitable for the role of the Police Constable, although further information, investigation and assessment is likely to be required. Those relatively few individuals who remain free from complications still need to avoid undue exposure to cold or significant dehydration, as these can provoke sickle cell crises. Individuals with simple sickle cell trait, are not anaemic, remain well, have a normal life expectancy and are likely to be suitable. The trait will carry no risk to employment in any normal environment (6).

A.11.5 Bleeding disorders

A.11.5.1 Bleeding disorders cover a wide spectrum of conditions of variable and often unstable severity. They may predispose to spontaneous haemorrhage, which can be severe and incapacitating, as well as increasing the severity of haemorrhage after trauma.

A.11.5.2 Haemophilia

Applicants with Haemophilia are unlikely to be suitable owing to the physical nature of the work involved and the increased risk of bleeding after even minor injury. Rarely, if the condition is demonstrably mild, with Factor VIII:C levels greater than 5% of normal, and there is no history of haemorrhage, incapacity or residual disability, they enjoy a normal, physically active lifestyle an applicant could be considered but further information, investigation and assessment will be required.

A.11.5.3 Thrombocytopenia

The cause, severity and time-course of the low platelet count and the associated risk of haemorrhage must be established before recruitment can be considered. Where there is a significant history of haemorrhage in association with thrombocytopenia that persists, then the applicant is likely to require further information, investigation and assessment. In the absence of a history of haemorrhage, if the platelet count remains consistently greater than 100×10^9 per litre then the subject will usually be symptom-free and not bleed excessively after trauma. Those with counts below 50×10^9 per litre may suffer spontaneous bleeding and are generally

unfit for strenuous work and therefore unlikely to be suitable. However, those between these ranges, and the occasional candidate who appears resistant to bleeding despite counts between $25-50 \times 10^9$ per litre (4), may be considered. Those with counts that fall below 25×10^9 per litre at any time are unlikely to be suitable. Management of patients with thrombocytopenia can be protracted and difficult, and is not always successful. A single, self-limiting episode of childhood idiopathic thrombocytopenic purpura (ITP) could make the applicant suitable.

A.11.5.4 Anticoagulation therapy

For individuals requiring anticoagulant therapy, the underlying disorder is likely to make the applicant unsuitable. It has been suggested that patients requiring anticoagulation should be barred from occupations involving "strenuous physical work" (7). Individuals on Warfarin would be unlikely to be suitable due to the risk of exsanguination. However, some individuals may be considered to require only temporary anticoagulation with limited subsequent risk of recurrence of the underlying condition. Such cases should be considered on their merits.

A.11.6 Haematological malignancy

A.11.6.1 Leukaemia

Acute leukaemias are associated with anaemia, bleeding and infection and tend to be rapidly progressive if not treated. Individuals suffering from acute leukaemia, will require considerable medical care and will be prone to complications of the disease and its treatment. Late relapses, late complications of treatment and second malignancies may occur many years after the original illness. All individuals with a past history of leukaemia who are in remission are likely to require further information, investigation and assessment.

Applicants in remission followed by a satisfactory period of normal health may be considered. Complete remission requires that there are no signs of active disease detectable clinically or in the laboratory, so the patient should be asymptomatic with no organomegaly, normal bone marrow, normal cerebrospinal fluid and a normal blood count (8).

Individuals with a history of childhood acute lymphoblastic leukaemia (ALL) who have been in remission and perfectly well for over 10 years, without chemotherapy, are likely to be suitable, but further information, investigation and assessment is advised (ALL has a 5-year survival rate of 75%). However, there should be no evidence of neurological or mental impairment secondary to past cranial irradiation nor evidence of complications secondary to cytotoxic treatment, such as cardiac arrhythmia consequent to anthracycline therapy. In adults with ALL, the median survival time from diagnosis is only 3 years without bone marrow transplantation. Acute myeloid leukaemia (AML) has only a 50% 5-year survival. Relapses tend to be sudden and unpredictable. Hence individuals who are well, without complications, and who have been in remission from ALL and AML for at least 5 years, may be suitable subject to further assessment. Consideration of any other individuals would require further information, investigation and assessment. This will include individuals with chronic myeloid leukaemia (CML) who may have benefited from bone

marrow transplantation and who may anticipate prolonged disease-free survival. Patients with CML are otherwise unlikely to be suitable. Chronic lymphocytic leukaemia (CLL) is a disease of the middle-aged and elderly and so is unlikely to give concern as to fitness for Police entry. CLL tends to follow a prolonged and relatively benign course so, exceptionally, the occasional younger candidate with CLL may be judged suitable following careful assessment of prognostic indicators.

A.11.6.2 Lymphoma

Almost all individuals who have had successful treatment for Stage 1A Hodgkin's Disease will expect to be cured and although further information, investigation and assessment will be required to confirm their disease stage, treatment and ongoing good health they are likely to be suitable. Many individuals with more advanced disease at diagnosis may also expect to fare well, with the majority of relapses occurring in the first few years after treatment. Approximately 65% of those in remission will remain disease-free at 10 years. Recurrent disease may also be treated successfully with a median survival of over 5 years from the time of relapse (9). Accordingly, individuals who have obtained complete remission and have been well for 4 years or more are likely to be suitable upon confirmation of their illness and its management. Individuals who have been in remission for 2 years are likely to be suitable on their merits but will require assessment and advice regarding their prognosis.

Non-Hodgkin's lymphomas (NHL) are more common and numerous classifications exist. As with Hodgkin's disease, some sufferers may be cured. For prognostic purposes tumours are generally regarded as either 'low grade' or 'high grade' depending on the tumour cellularity. Both types may be cured but early relapses are common. The median time to relapse with low grade tumours is 4 years. They have a longer time course, occur in older individuals, have a greater likelihood of late relapse, with transition to high grade, and have a survival time of 7-10 years. High grade tumours are more aggressive initially and affect younger patients with a poorer short-term survival rate. However, those that survive 4 years have a good chance of longer-term survival. The stage of the disease also affects prognosis but is less helpful than with Hodgkin's lymphoma. Most individuals for Police entry who have a history of NHL are unlikely to be suitable. Those with limited initial disease, a 'curative' response to treatment, longer remission times and a better chance of longer-term survival may, following further information, investigation and assessment of prognosis and an appropriate and well-justified recommendation, be suitable.

References (Annex A.11)

1. *Police National Competency Framework version 4 (dated July 2002). A PSSO publication.*
2. *Nevola VR, Collins S, Puxley K, Bentley M. 2002. Annex C to QINETIQ/CHS/MC/CR020250 (Physical demands of the operational Police Constable role: Results). QinetiQ report number QINETIQ/KV/CHS/TN022176.*
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A.12 Infectious Disease

A.12.1 Infectious diseases that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Infectious diseases that are unacceptable, impair the ability of the individual to conduct:

Operational activities (1): Conducts patrol; Provide initial response to incidents; Conduct arrest; Provide first aid.

Operational behaviours (1): Team working; resilience

Physical demands (2): Prolonged foot patrols (lasting up to 4 hours); foot chases (sprinting or running); restraining struggling suspects; conducting cardio-pulmonary resuscitation (Nevola *et al* 2002 (2)). Diseases that can be readily transmitted may not be compatible with operational tasks that require direct contact with colleagues and members of the public.

A.12.2 HIV infection

A.12.2.1 Human Immunodeficiency Virus (HIV) infection produces the Acquired Immunodeficiency Syndrome (AIDS). Symptomatic individuals are unlikely to be suitable. Asymptomatic individuals are likely to require further information, investigation and assessment. The scientific research on HIV and AIDS is dynamic and changing therefore the most recent advice is recommended. One of the core competencies for a Police Officer is to 'Provide First Aid' and so the guidance for the conduct of first aid within the HSE document "Blood-borne viruses in the workplace: Guidance for employers and employees" (6) is recommended.

A.12.3 Viral hepatitis

A.12.3.1 Hepatitis A

Acute hepatitis A is generally a mild and self-limiting condition from which complete recovery may be anticipated. Serious complications are uncommon but can include fulminant hepatic failure and aplastic anaemia. There is no progression to chronic liver disease. A history of uncomplicated hepatitis A that has resolved will make the applicant likely to be suitable. Individuals with acute illness should be deferred until they have fully recovered.

A.12.3.2 Hepatitis B

Approximately 3% of the normal population have serological evidence of past exposure to hepatitis B infection. Of all immunocompetent infected individuals, 10% will become chronic carriers (3). Such asymptomatic

individuals may be suitable for Police entry in the presence of normal liver function, absence of serological evidence of active infection and absence of serological evidence of carrier status (4), but will require further information, investigation and assessment.

Fewer than 2% of asymptomatic hepatitis B carriers who have no history of clinical hepatitis will go on to develop significant liver disease, hepatitis B carriers are unlikely to be suitable. Future treatments that allow carriers to successfully clear the virus may allow this policy to be revised. Persistent infection is associated with a high risk of serious complications including cirrhosis and hepatocellular carcinoma. Individuals with evidence of active infection must be deferred pending acceptable resolution both clinically and serologically.

A.12.3.3 Hepatitis C

Progression to chronic liver disease occurs in over 25% of cases of hepatitis C (5) and over 50% of cases lead to chronic carrier status. A past history of infection is a bar to blood donation due to the theoretical risk of transmission. Individuals with a history of hepatitis C are unlikely to be suitable.

A.12.3.4 Hepatitis D (Delta Virus)

Delta virus is always associated with either active hepatitis B infection or hepatitis B carrier states, which of themselves will determine fitness for entry. Recovery from hepatitis B is associated with disappearance of Delta virus. Infection with Delta alongside hepatitis B carrier states can cause a severe acute hepatitis and hepatic failure and is more likely to lead to chronic Delta infection with a poor prognosis. Evidence of active Delta infection will make the applicant unlikely to be suitable.

A.12.3.5 Hepatitis E

Hepatitis E is similar in many respects to hepatitis A and does not produce chronic liver disease. Assuming full recovery with no evidence of ongoing infection, the applicant is likely to be suitable.

A.12.3.6 Other causes of viral hepatitis

Infections with other viruses that cause hepatitis, such as cytomegalovirus, Epstein-Barr virus and herpes simplex, should be treated on their merits with due consideration of non-hepatic disease features. The hepatic element of the illness should be assessed along the same principles outlined above.

A.12.4 **Glandular fever**

A.12.4.1 infectious mononucleosis or Glandular fever is a viral infection caused by the Epstein-Barr virus. It can affect people of any age, but those between 10 and 25 years of age are most vulnerable. The illness usually passes without serious problems, however some people continue to feel tired and easily exhausted for weeks or sometimes months. Applicants presenting with diagnosed glandular fever are likely to require further information, investigation and assessment, but are likely to be suitable unless

A.13 Miscellaneous Conditions

A.13.1 Other conditions (not previously discussed in this report) that may exclude an individual from pursuing a career in the Police Service have been judged to place an unacceptable risk to the health and safety of the individual, fellow Police Constables and members of the public. Conditions that are unacceptable, impair the ability of the individual to conduct:

nal activities (1): ; patrol; Provide initial response to incidents; Conduct arrest; Drive Police vehicles safely.

nal behaviours (1): rking; resilience; personal responsibility.

demands (2): d foot patrols (lasting up to 4 hours); foot chases (sprinting or running); lifting heavy objects; restraining struggling suspects; conducting cardio-pulmonary resuscitation (Nevola *et al* 2002 (2)). The aerobic, anaerobic and sustained endurance based tasks may present difficulties for individuals suffering from certain fatigue syndromes and diseases. Transmissible conditions may not be compatible with tasks that require direct contact with colleagues and members of the public (e.g. restrain and arrest a suspect, grapple a suspect to the ground *etc*).

A.13.2 Malignant disease

A.13.2.1 Introduction

The five-year survival rates for malignant disease are highly variable, ranging from 4% for pancreatic disease to 97% for some skin cancers. Some tumours of childhood and early adulthood have a good chance of cure and individuals may be regarded as having a normal life expectancy. Wilms' tumour (nephroblastoma) in childhood is an example. Such individuals are likely to require further information, investigation and assessment. Providing that routine follow up is required no more often than annually, there is no concern relating to possible recurrence and no treatment is required, they are likely to be suitable. Many other malignancies now carry an excellent prognosis.

A.13.2.2 Specific diseases

It might reasonably be expected that individuals who have been successfully treated for basal cell carcinoma of the skin, or with radiotherapy for testicular seminoma, for example, after an appropriate period of good health free from disease, are likely to be suitable, although further information, investigation and assessment may be required. The key is the accurate judgement of the risk of recurrence of malignancy and

each application should be carefully and individually assessed and an evidence-based decision made as to suitability for entry. For example, colorectal carcinoma rarely recurs more than five years after resection, and the five-year survival rate is 90% for Dukes's stage A (mucosa and submucosa only) patients. Individuals who are disease-free three years after treatment for testicular malignancy are highly likely to remain so. On the other hand, breast cancer may recur many years after primary treatment. The assessment of recurrence risk will be supported as necessary by the further assessment.

A.13.2.3 Exclusions

In cases where genuine doubt exists, the application should be deferred until an appropriate time when a clear decision can be made. However, this option is not an acceptable substitute for careful and due consideration of an application at the appropriate time. Specific consideration of malignant melanoma is outlined under the section on dermatological disorders while the leukaemias and lymphomas are discussed under the section on haematological disorders. Clearly, ongoing colposcopic management for simple cervical dyskaryosis is unlikely to make an applicant suitable. The long-term complications of chemotherapy and radiotherapy treatment must also be considered. The consequences of their use may necessitate further information, investigation and assessment but may preclude entry.

A.13.3 Genetic disease

The principles behind the assessment of congenital disorders are no different from those that are acquired. Individuals with unacceptable mental or physical functional impairment or disability are unlikely to be suitable. Those without should be considered on their merits, but are likely to require further information, investigation and assessment.

A.13.4 Disorders of Sleep and Wakefulness

A.13.4.1 Disorders of sleep and wakefulness, such as narcolepsy and sleep apnoea, may be accompanied by excessive daytime sleepiness. Narcolepsy may not only impair daytime alertness, but also be accompanied by cataplexy and applicants are unlikely to be suitable.

A.13.5 Body Mass Index

A.13.5.1 BMI is discussed in section A.2. A recruit who has a BMI outside the normal range (18-30) should not be automatically excluded. BMI should be used only as screening tool. The examining doctor should carefully assess recruits outside the normal BMI range and it is likely that further information, investigation and assessment will be required.

A.13.6 Gynaecological conditions

A.13.6.1 Background

Gynaecological conditions present a broad spectrum of disease's ranging from mild to severe. Many of the conditions can result in abdominal or pelvic discomfort and this may interfere with operational capability.

Although applicants presenting with these conditions are likely to require further information, investigation and assessment they are unlikely to make an applicant unsuitable.

A.13.6.2 Pelvic inflammatory disease

Pelvic inflammatory disease (PID) is defined as infections of the uterus, ovaries, tubes and parametrium and can be either acute or chronic. Some women suffer from a chronic PID with on-going pelvic pain (20%), which may be associated with heavy and painful periods. An applicant with any history suggestive of PID will likely require further information, investigation and assessment.

A.13.6.3 Menstrual disorders

Menorrhagia is defined as excessively heavy or prolonged periods (> 7 days) and may result in anaemia. Dysmenorrhoea refers to painful menstruation; primary dysmenorrhoea affects younger women, usually immediately before the onset of a period; secondary dysmenorrhoea typically affects older women and is associated with some form of pelvic disease. An applicant is likely to require further information, investigation and assessment, but is most likely to be suitable.

A.13.6.4 Endometriosis

In this condition, deposits of functioning endometrial tissue are present at sites outside the uterine cavity (5). Endometriosis is a cause of secondary dysmenorrhoea. Hormone treatment will improve symptoms in the majority of women (up to 80%) although surgical treatment may be indicated for endometrial cysts. An applicant is likely to require further information, investigation and assessment, but is most likely to be suitable.

A.13.6.5 Fibroids, ovarian cysts and other benign conditions

Small fibroids and ovarian cysts are common conditions and applicants are likely to be suitable, providing symptoms do not impair the operational performance of the applicant. More significant disease may require further information, investigation and assessment.

A.13.6.6 Cervical dysplasia

Abnormalities of cells on cervical smear tests are graded by pathologists using the CIN system (cervical intra-epithelial neoplasia). CIN 1 indicates the lowest grade of dysplasia and CIN 3 the highest (the next grade being invasive carcinoma). Women who have shown any grade of CIN with a smear test will be under follow-up by a gynaecologist. The following system can serve as a guide (6):

- CIN 1 or 2 – applicant are likely to be suitable following two consecutive normal smears at least six months apart.
- CIN 3 – applicants will require further information, investigation and assessment, but are likely to be suitable following satisfactory surgical treatment and two consecutive normal smears, at least six months apart.
- Invasive carcinoma – applicants are unlikely to be suitable.

A.13.6.7 Polycystic ovary disease

Polycystic ovary is a common problem and assessment should focus on the severity of symptoms, rather than the diagnosis itself. If symptoms are more disabling, then further information, investigation and assessment will be required, but an applicant is more likely to be suitable than not.

A.13.7 Pregnancy and fitness for entry

The physical training at recruit stage will present a serious risk to an advancing pregnancy (6). Applicants who are pregnant should have their application deferred for a period of three months after vaginal or caesarean delivery. For women who have undergone a termination of pregnancy (whether this be spontaneous or induced), a period of four weeks is advised before acceptance into recruit training, providing there is no complication.

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A.14 Neurological disorders

A.14.1 General

A.14.1.1 Both negative² and positive³ symptoms can have a profound dysfunctioning effect on the role of an operational Police Constable. These effects are best considered as: -

- disturbances of awareness
- disturbances of posture, balance and gait

² Arising from a failure of neuronal activity.

³ Arising from excess neuronal or axonal stimulation

- extremity pain, numbness and weakness
- neurobehavioural impairment
- ophthalmological conditions

A.14.1.2 The clinical assessment of the symptoms and signs and the review of the patient's work capacity are more important than the diagnostic label ((4) p.98).

A.14.1.3 Applicants with a history of neurological disease, e.g.

- epilepsy,
- migraine (which may be aggravated by 'stress', lack of sleep, missed meals or anxiety),
- multiple sclerosis,
- cerebral vascular accidents, or
- malignant disease,

which has failed to respond satisfactorily to treatment, will require entry to be deferred to allow further information, investigation. Although a recent onset of true migraine in an adult merits investigation (9), migraine that does not degrade functional capacity should not make an applicant unsuitable for entry into the police service.

A.14.1.4 Special work problems and restrictions.

Due to the variety of both symptoms and functional loss associated with the above disorders, there are no specific work limitations applicable to all, save for the considerations given below; and each should be dealt with on an individual basis:

- Avoidance of high risk or dangerous environments (e.g. shift work, singleton posts, operational work, and remote locations) is advisable in those with ongoing symptoms or a latent predisposition to sudden disability which may pose a risk to the individual or his/her colleagues.⁴
- The relevant authorities for certain occupations would generally consider individuals with significant neurological disorder to be unfit for work, e.g. vocational driving (i.e. Group 2) duties. It is recommended that this consideration should apply to the police service, which is an occupation with safety critical areas of operation.⁵

A.14.1.5 Applicants with diseases of the nervous system with a progressive or disabling recurrent course such as motor neurone disease, cerebella ataxias, progressive peripheral neuropathy and Parkinson's disease are unlikely to be suitable.

⁴ PNCF numbers: 15 (Conducting potentially unaccompanied patrol); 1, 2, 4, 6, 10, 11, 15, 16, 17, 19. The majority of Police Constables work to a system of shifts, and some Police Constables work in remote locations e.g. rural beat officers.

⁵ 'Safety critical areas of operation' include PNCF numbers: 1, 2, 6, 10, 11, 16, 17, 19.

A.14.2 Epilepsy

- A.14.2.1 In the chapter on epilepsy (4), Brown and Shorvon highlight the need for individual risk assessment when considering job applicants with epilepsy: 'In the case of epilepsy, the decision must be based on risk assessment and medical evidence and never on prejudice or assumption'; and 'Every case will need to be assessed on its merits by a suitably qualified team after examination of the medical and occupational evidence'.
- A.14.2.1 The incidence of epilepsy in England and Wales in 1991-1992 for police recruit age ranges is shown in table A-4 of section A.1 taken from UK Health Statistics 2001(16).
- A.14.2.3 Following a single convulsion, there is a 70% probability of further fits occurring in the following two years. However, 20 years after diagnosis of epilepsy, 70% of people remain fit free (50% off all medication and a further 20% on medication) ((14) p.1081 and 1083).
- A.14.2.4 As sleep deprivation is a common provocative factor, shift work or extended hours are important considerations even in those with well-controlled epilepsy (11).
- A.14.2.5 Most people with epilepsy have a good prognosis and the seizures can be well controlled (2). Despite more than 20 approved drugs in developed nations and several non-pharmacological options, up to 30% of patients especially those with partial seizures are still refractory to treatment. Pharmacotherapy remains the mainstay of treatment and is effective in most patients (3). 50% of children with petit mal may develop grand mal fits ((14) p.1079).
- A.14.2.6 Depression is a common occurrence amongst epileptic patients and along with anxiety disorders constitutes the most frequent psychiatric condition in these patients (7).
- A.14.2.7 It is recommended that those who suffer a single seizure prior to entry are likely to require further information, investigation and assessment before a decision on suitability can be made. Research data regarding recommended safe seizure free periods vary between 1-2 years and 12 months or more (see footnotes 16 and 17). On this basis it is advised that applicants in whom no abnormality is found should have their acceptance for entry to the police service deferred for a period of 18 months⁶. Certain activities are incompatible with a history of even a solitary seizure, e.g. Group 2 driving⁷ ⁸ and working at height; applicants who suffer from

⁶ There is a high risk of recurrence during this time. If the seizure has occurred within the past 18 months it is recommended that entry to the police service be deferred for that period. If it is clear that the condition is likely to be permanent, then the applicant should be refused entry to the police service.

⁷ Recent research [Medical aspects of fitness to drive: a review of recent literature concerning the usefulness of clinical and experimental data relating to mild dementia, Parkinson's disease, diabetes, epilepsy and visual field effects] quotes a report of the International Bureau for Epilepsy/International League against Epilepsy [Fisher et al., 1994] in which are included a number of guidelines for granting driving licences to epileptic patients. They recommended a 1-2 year seizure free period although they recognised that it could be reduced in certain circumstances.

⁸ A seizure-free period of 12 months or more is the best predictor of not having an accident whilst driving [Krauss G. L., Krumholz A., Carter R. C., Li G. et al].

epilepsy should be considered permanently unsuitable for these categories of police work.⁹

A.14.2.8 **Recurrent Seizures.** Applicants with established epilepsy (i.e. those who have a history of recurrent episodes requiring treatment), which either degrades the functional capacity and/or fails to respond satisfactorily to treatment, are unlikely to be suitable.¹⁰

A.14.2.9 **Special work problems and restrictions.** Those with suspected or proven epilepsy may be unsuitable for recruitment until they have been seizure free for a specified time period and considered safe to work as a Police Constable after assessment. Ineligibility is based on applicants' inability to undertake work in certain environments or safety critical areas that require high standards of fitness, and/or work of an unsupervised nature. They would be unable to undertake safely the following duties of a Police Constable:

- Shift working
- Climbing and working unprotected at height.
- Driving on public highways¹¹. It is recommended that after one year, in keeping with DVLA regulations, Group 1 (non-vocational drivers) may resume driving, (or in the case of ongoing nocturnal epilepsy, no day time fits for three years¹²). All others in the higher risk Group 2 (vocational drivers) are restricted from driving for 10 years under DVLA regulations¹³.
- Shiftwork, VDU Work¹⁴
- Working with or near unguarded machinery and/or hazardous materials or processes, including fire, water, electricity.¹⁵

A.14.3 Migraine and/or headaches

A.14.3.1 Migraine is defined as "recurrent headaches associated with visual and gastro-intestinal disturbances." About a third of patients have premonitory symptoms for a day or two before the attack. These consist of mood swings, hunger and drowsiness. Between 10% and 20% of the UK population is estimated to suffer migraine at some time in their lives ((1)

⁹ Some Police Constables are occasionally required to work at height when undertaking rooftop covert observational duties and/or pursuing suspected criminals. *PNCF numbers 1, 2, 6, 10, 15*

¹⁰ Recurrent seizures would potentially seriously affect the safety of the individual officer, his or her work colleagues, and members of the public in all safety critical areas of operation.

¹¹ It is currently illegal to drive after a single seizure and the applicant should be reminded of this and their legal obligation to report the matter to the DVLA; restoration of licence and authority to drive is a DVLA responsibility. *PNCF number: 17.*

¹² Officers working shifts will similarly be restricted from Group 1 driving duties at night until they have experienced no nocturnal fits for 3 years.

¹³ For further information refer to the Driver Vehicle Licensing Authority (DVLA) website and the publication "At a glance" - A guide for Medical Practitioners, at http://www.dvla.gov.uk/at_a_glance/content.htm.

¹⁴ Increasingly, Police Constables are required to operate electronic equipment fitted with a VDU such as portable electronic IT-based systems and/or computers e.g., for recording crimes, accessing suspects' criminal records, undertaking crime pattern analyses, preparing case papers. *PNCF numbers: 1, 2, 3, 6, 8, 10, 11, 12, 14, 15, 16, 17, 18, 19.*

¹⁵ Operational policing occasionally requires Police Constables to attend industrial accidents where there may be unguarded machinery and/or hazardous materials and/or processes, including fire, water, electricity. Police Constables commonly are called to the scenes of fires, traffic accidents and other incidents where these elements and dangers may be in evidence. *PNCF numbers: 1, 2, 6, 10, 15, 19.*

p.205). Apart from treatment, attacks tend to grow less frequent and less severe with ageing although the menopause can exacerbate them. The disorder is often accompanied by an aura and the following headache can have transient aphasia and nausea as well as visual disturbances ((9) pp.1081-1083). Provoking factors for migraines are stress, altered sleep patterns, alcohol, exercise, bright lights and hunger ((14) p.1068). The incapacity caused by migraine, which is not amenable to treatment, will at best detract considerably from the power of concentration, as needed for report writing¹⁶ and at worst confine the individual to a darkened room to rest and recover.

A.14.3.2 Migraineurs scored significantly higher than non-migraine sufferers did for pain characteristics, disability, depressive symptomatology and total coping scores (8). Headaches are common and those who have infrequent mild are likely to be suitable unless a headache is shown to be migraine. Those with headaches or migraine which are severe enough despite medication to disrupt normal activities, including loss of time from work, and aggravated by lack of sleep, missed meals or anxiety, and occurring more often than once every two weeks are likely to require further information, investigation and assessment.

A.14.4 Head injuries

A.14.4.1 Headaches after brain injury are common and are more severe and frequent in individuals under stress or working hard ((4) p.112) (17). Intellectual impairment without physical signs is not common after head injury. In more severe cases, improvement can continue after head injury for two years.

A.14.4.2 A candidate with past history of severe head injury who shows any evidence of persisting intellectual, psychiatric or neurological disability is likely to require further information, investigation and assessment before a decision on suitability can be made. After a severe head injury there is a significant risk of developing post-traumatic epilepsy for a very prolonged period, although the initial risk diminishes by approximately 80% after two years without onset of seizures. A head injury is considered to be severe if any of the following occurred or are present:

- Loss of consciousness of more than 24 hours.
- A period of post-traumatic amnesia of greater than 24 hours.
- Depressed skull fracture, with or without loss of consciousness.
- Intracranial and/or intracerebral haemorrhage or haematoma.
- Past history and persisting evidence of focal neurological dysfunction.

¹⁶ PNCF numbers: 1, 2, 3, 8, 10, 11, 12, 14, 16, 18, 19.

A.14.4.3 Where there is considered to be a high risk of post-traumatic epilepsy, applicants should have their acceptance for entry to the police service deferred for a period of 24 months¹⁷. Even after that time, applicants are likely to require further assessment before suitability can be judged.

A.14.4.4 Duration of post-traumatic amnesia (PTA) on hospital admission is a good predictor in mild to moderate head injury outcome (17). It is essential that after even a mild traumatic brain injury a proper assessment be made of possible related cognitive impairments (5). Cognitive loss is caused by the interaction of the brain injury with distractions such as pain and emotional distress in some victims of road traffic accidents (13). Post traumatic stress has a strong influence on the functional outcome of mild traumatic brain injury (6).

A.14.5 Miscellaneous Neurological Conditions

A.14.5.1 Subarachnoid haemorrhage

Recovery can be complete if bleeding is confined to the subarachnoid space. If bleeding is more extensive then cerebral damage may occur. If the subarachnoid haemorrhage is due to an aneurysm, which is treated successfully by surgery, then the prognosis is good and a further haemorrhage is unlikely ((4) p.111). Patients surviving a subarachnoid haemorrhage without neurological symptoms have a good prognosis and should be encouraged to return to a normal lifestyle within about three months (10). Applicants are likely to require further information, investigation and assessment. Where there is an isolated cause, such as berry aneurysm, which has been identified and treated then the applicant is likely to be suitable. It is also recommended that applications who have survived a subarachnoid haemorrhage without neurological symptoms be deferred for a minimum of three months, subject to further assessments.

A.14.5.2 Transient Ischaemic Attacks (TIA)

The risk of stroke in patients with a history of TIA (as defined by a vascular event with complete resolution of neurological symptoms within 24 hours) varies between 5% and 15% per annum ((14) p.1087). Even transient loss of vision from a TIA can seriously handicap drivers. Applicants are likely to require further information, investigation and assessment, and may not be suitable. Consideration should be given to applicants deferring entry for a minimum of 12 months.

A.14.5.3 Hydrocephalus

Hydrocephalus is an abnormal accumulation of cerebrospinal fluid (CSF) within ventricles inside the brain. CSF is in constant circulation and has many important functions. It surrounds the brain and spinal cord and acts as a protective cushion against injury. CSF contains nutrients and proteins necessary for the nourishment and normal function of the brain. It also carries waste products away from surrounding tissues. Hydrocephalus occurs when there is an imbalance between the amount of CSF that is

¹⁷ After a severe head injury there is a significant risk of developing post-traumatic epilepsy for a very prolonged period, although the initial risk diminishes by approximately 80% after 2 years without onset of seizures.

single lesion. A 2nd attack of optic neuritis increases the risk of developing MS four-fold. Remissions can last for 25 years.

A.14.6.2 Two patterns of MS are described: -

- Relapsing and remitting with lesions occurring in different parts of the central nervous system (CNS) at different times.
- Chronic progressive MS (approximately 20% of the total).

A.14.6.3 Epilepsy and trigeminal neuralgia occur more commonly in MS patients ((9) p.1069).

A.14.6.4 A MRI allows lesions to be demonstrated and hence the diagnosis to be made much more easily after a single critical episode ((4) p.114-115). Brain MRI at presentation with a clinically isolated syndrome is predictive of the long-term risk of subsequent development of MS, the type of disease and the extent of disability (12). Over a five-year period from presentation 75% of patients with a disturbance of vision fall into the group where symptoms and signs of demyelination elsewhere in the nervous system follow. Onset in the winter, the presence of 'silent' cerebral lesions on cranial MRI and the presence of certain histocompatibility antigens, e.g. HLA DR2, increase the risk of subsequent MS. Some symptoms may influence the working ability but because there is such a variation it is impossible to predict the prognosis. Poor sleep and irregular hours may worsen symptoms. After a single event with a full recovery the prognosis should be hopeful. No work environment will alter the prognosis of MS but certain surroundings may make symptoms worse. Urgency of micturition is common but if there is easy access to toilets incontinence is rare. Any demyelinating disorder may prevent fine manual work or even ability to stand for long periods due to associated limb spasticity ((4) p.97). Usually intellectual function is preserved. Depression is fairly common and euphoria occurs more frequently than with other CNS diseases.

A.14.6.5 An American study showed that up to 80% of patients report worsening of symptoms with elevated body temperature (15).

A.14.6.6 The long-term value of beta interferon as a prophylactic therapy for those with relapsing and remitting MS is uncertain but a decrease in the attack rate by a third and a reduction in the number of lesions on MRI are reported ((9) p.1070). Only in late 2001 did the drug become widely available. The long-term outlook is highly variable. Twenty percent of patients have a benign course for 15 or more years. Generally there is a slower progression in women. Onset of the disease at an early age generally shows a less favourable prognosis. MS has no appreciable effect on the life span of its victims. Because of the impossibility of predicting the prognosis it is likely that applicants suffering from MS will require further information, investigation and assessment and their application deferred for 12 months after the date of appearance of their last set of symptoms.

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Annex B: Mental Health Standards for Recruits A Guide for Force Medical Advisors

1. Principles

Estimation of the mental health of a potential recruit should be based upon an assessment of the individual rather than simply looking at a diagnostic label, which may be unreliable. It should take into account the applicant's functional competence together with an assessment of risk. The assessment of psychological competence should take heed of the relevant parts of the Police Integrated Competency Framework.

1.1 Of particular importance will be an assessment of the recruit's ability to meet core psychological competencies as follows. They should be able to:

- Communicate effectively both verbally and in writing
- Take responsibility and demonstrate an appropriate degree of motivation
- Plan and organise effectively
- Analyse information and take effective decisions
- Show resilience in difficult circumstances, whilst remaining calm
- Show respect for the opinions and feelings of others, no matter what their race, religion, position or circumstances
- Work as an effective member of a team

1.2 Any mental health problem that significantly effects, or is likely to effect, the recruit's ability to demonstrate the competencies outlined above will make them unacceptable.

1.3 The assessment of risk should take the following factors into account:

- Does the recruit have a mental health problem that will result, if they were to serve as a police officer, in them being or becoming:
 - A risk to their own health
 - A risk to colleagues, themselves or members of the public
 - A risk to the efficient functioning of the organisation

1.4 A recruit is unlikely to be accepted if:

- The individual is likely to suffer a significant deterioration in his/her mental health as a result of carrying out the duties of a police officer.
- The individual, as a result of temperament or the presence of mental disorder, is likely to act in such a manner as to put themselves, colleagues or members of the public at risk.
- The individual is unlikely to be able to carry out the duties of an officer in a consistent manner without taking excessive time off for sick leave or treatment such as would adversely affect the efficient functioning of the organisation.

2. Precautionary Principle

2.1 Whilst all forces will want to be inclusive and to recruit from a broad strata of society, assessment procedures should ensure as far as possible that the health and safety of officers or members of the public is not put at risk.

2.2 If clinical staff have significant doubts about the mental health of a potential recruit then any decision to accept should be deferred pending more information becoming available or the matter becoming clearer with the passage of time.

3 Specialist Referral

3.1 In the majority of cases specialist referral should not be necessary. Decisions regarding the mental health of recruits should be made on common sense grounds and if there is doubt the decision should be deferred and reviewed at a later date. Specialist referral should only be necessary when there appears to be a high probability of the issue resulting in the threat of legal challenge.

3.2 If a referral is made to a specialist then care must be taken to ensure that the specialist understands the issues in question. This may best be achieved by providing the specialist with details of appropriate competencies and asking specific questions relating to the competencies. For instance, it is better to ask the question, 'Does this applicant have a mental disorder that is likely to relapse?' or, 'Does the applicant suffer from a mental disorder that is likely to significantly affect their concentration and motivation?' rather than 'Is this applicant suitable to become a police officer?' Having received a report from an appropriate specialist it remains the decision of the Force Medical Advisor (FMA) to make a recommendation as to whether or not the applicant is suitable.

4 Documentation

4.1 Contemporaneous notes should be made of all recruit assessments. It is especially important that detailed reasons, preferably related to the candidate not meeting specific competencies, are recorded when an applicant is rejected. The examining doctor must bear in mind that such decisions may be open to challenge at a later date at an Employment Tribunal under the DDA.

5 Guidance Regarding Specific Mental Health Problems

5.1 The following guidance is based upon the DSM-IV classification. It is not exhaustive but covers most common mental health conditions. It should be read in conjunction with medical standards for police recruitment issued by the Home Office in September 2004.

6 Disorders Usually First Diagnosed in Childhood or Adolescence

Mental retardation / Learning Disability

6.1 This condition is likely to significantly affect the individual's ability to meet the necessary core competencies. They are unlikely to be accepted.

Pervasive Developmental Disorders / Autism / Asperger's Syndrome

6.2 These conditions cover a wide variety of abilities. At the most severe end of the spectrum there would be no possibility of acceptance. At the most mild end of the spectrum the individual may appear completely normal. In such cases care should be taken in assessing their ability to communicate, to understand and empathise with the emotions of others and to work as a team member. A detailed developmental, educational and employment history may be of greater use than a clinical examination. If it is considered necessary, a referral to a clinical psychologist, familiar with assessing such conditions, may be helpful.

Attention-Deficit Hyperactivity Disorder (ADHD)

6.3 This diagnosis and treatment with amphetamine type medication is becoming more prevalent. Some children grow out of the condition by their teenage years. There is however a significant correlation with features of personality disorders in adulthood. Some adults continue to demonstrate features ADHD.

6.4 If it is clear that the individual has been symptom free in adulthood, as demonstrated by their personal and employment history, then the diagnosis in childhood is unlikely to be of relevance. If symptoms remain, or if there is a need for ongoing medication, or if there are features of personality disorder then the individual is unlikely to be able to meet core competencies.

7 Cognitive and Amnestic Disorders

Dementia

7.1 Dementia resulting from any cause is likely to preclude acceptance.

7.2 The most common causes of dementia, Alzheimer's and vascular disease are unlikely to be encountered within the age group likely to be seeking employment as a police officer.

7.3 Younger applicants may however present with early signs of dementia due to:

- HIV infection

- Huntington's disease
- Head injury
- CJD
- Substance Abuse

7.4 Such individuals are likely to be picked up by adequate questionnaires and clinical examination. Referral for neurological or evaluation will only very rarely be required.

Amnestic Disorder / Korsakov's Syndrome

7.5 Any condition that significantly affects memory is likely to be applicable being rejected as being unable to meet core competencies.

7.6 Amnestic Disorder is most frequently associated with severe alcohol dependency but may result from other forms of substance abuse or head injury. Its presence should be evident during routine screening and should lead to rejection.

8 Substance Related Disorders

8.1 Unfortunately the use of recreational drugs amongst school children and young people is commonplace as is the excessive consumption of alcohol. A history of such use on an intermittent basis in the past may not be relevant but when taking the history, care should be taken to elucidate features of physical or psychological dependency. Those people who have developed dependency in the past, but are currently abstinent, may be particularly brittle and prone to catastrophic relapse, particularly when placed under unfamiliar stress. A high degree of caution is appropriate when considering applications from such candidates.

8.2 A degree of dependency warranting referral to specialist services, in-patient treatment, or the use of medication to assist withdrawal is unlikely to be compatible with an applicant being able to consistently meet core competencies.

8.3 A past history of abuse of Class A drugs, such as heroin, cocaine or amphetamines or a history of polysubstance abuse, is unlikely to be compatible with a personality structure likely to meet core competencies. A past history of severe physical, psychological or sexual abuse in childhood may increase the risk of an individual being prone to substance abuse as can a family history of alcohol dependency.

8.4 A history of dependency on prescription medication, such as analgesics, may be acceptable in very rare circumstances but is likely to indicate an unacceptable lack of personal resilience.

9 Schizophrenia / Schizophreniform Disorder / Schizoaffective Disorder / Delusional Disorder

9.1 These disorders will for the most part mean that an individual will not meet core competencies. However, mild forms of these conditions may not recur after a

single episode or the condition may be adequately controlled with the use of appropriate medication. There is also the possibility of misdiagnosis. A carefully taken history should elucidate these points.

9.2 Care should be taken in assessing the following:

- i) What effect will any residual symptoms, if any, have upon core competencies?
- ii) What effect will any medication, or medication side-effects, have upon the individual's ability to function?
- iii) What would the practicalities be of the individual needing regular medication and/or monitoring?
- iv) What is the risk of relapse?
- v) Would the individual be able to detect relapse before it became obvious to others?
- vi) Is there a history of the individual having sufficient insight to appropriately manage relapses?
- vii) Are episodes of relapse associated with symptoms or behaviours likely to put the individual or others at risk?
- viii) Are the stresses associated with carrying out the duties of a police officer likely to significantly increase the risk of relapse or otherwise damage the mental health of the individual?

9.3 If an individual with a history of suffering from schizophrenia or other psychotic episode seeks appointment whilst still taking antipsychotic medication any decision to appointment should be deferred until they have been off medication and remained symptom free in a normally stressful environment for at least 5 years.

9.4 As with all mental health problems rejection of an applicant should be based upon a careful assessment of competencies and risk. Rejection based upon an historical diagnosis should not be assumed.

10 Mood Disorders / Depression / Bipolar Disorders

10.1 Depression is the most common condition likely to be encountered. Approximately 1 in 8 women and 1 in 12 men will suffer from a significant episode of depression at sometime during their life. Depression becomes more prevalent with increasing age. Depression may commonly be associated with significant symptoms of anxiety and panic.

10.2 Depression is a term that may often be misused and members of the public, and some doctors, may use the term to indicate temporary episodes of emotional distress rather than depressive illness. Minor, very short-term episodes of depression associated with the break-up of interpersonal relationships or other stressful events most probably have little prognostic value.

10.3 A history of a single episode of depressive illness, particularly if it was associated with a unique traumatising event such as a bereavement or marital breakdown, may not be significant. Although even after a single episode of depressive illness the likelihood of a further episode is increased when compared to a population that has never suffered from depression.

10.4 A history of severe depression, that is requiring hospital admission, ECT, or long-term medication, may indicate that an individual will not have the emotional robustness to cope with operational policing. Episodes of significant depressive illness occurring early in life, or not associated with any significant stressor, may be associated with a long-term depressive diathesis, or indicate a tendency towards recurrent illness. A strong family history of anxiety, depression or suicide may be a poor prognostic factor. Such factors should be taken into account when assessing the risk to the individual.

10.5 If an individual with a history of depressive illness seeks appointment whilst still taking antidepressant medication any decision to appointment should be deferred until they have been off medication and remained well in a normally stressful environment for at least 24 months.

10.6 Manic, or hypomanic episodes may pose particular risks but mild forms of bipolar disorder may be successfully controlled on a long-term basis with appropriate medication, such as Lithium or Valproate. Depending on the severity of symptoms during relapse and the risks associated with such symptoms an individual with a history of Bipolar Disorder being considered for appointment should be able to demonstrate a significant period, that is in the region of 5 years, of being stabilised on medication and free from relapse. Such a history should be considered as a minimal requirement.

10.7 The questions in 27i) – viii) above could usefully be used as part of the assessment.

11 Generalised Anxiety Disorder / Panic Disorder / Phobic Anxiety / Obsessive Compulsive Disorder / Adjustment Disorder / Posttraumatic Stress Disorder

11.1 Most applicants with current symptoms of any form of anxiety disorder are unlikely to meet core competencies, particularly in regard to showing resilience in difficult circumstances. If they present with anxiety disorder currently controlled on medication then any decision to appoint should be deferred until they have been medication free and well for a minimum of 24 months, providing that they are able to demonstrate that they are symptom free in normal stressful circumstances and not just in a protected environment.

11.2 Applicants with a past history of anxiety disorder require careful assessment. As with depression, minor episodes of anxiety associated with understandably stressful situations may have little prognostic value. A history of repeated episodes of anxiety, for whatever reason, may indicate a life-long tendency that police service is likely to exacerbate. A family history of anxiety/depression/suicide should be considered to be a poor prognostic indicator.

11.3 Panic symptoms, if any more than very short lasting, may be an indication of severity and as such should be considered a poor prognostic sign and unlikely to be compatible with core competencies.

11.4 Phobic anxiety varies greatly in both severity and its effects upon the individual. In many cases it is easily treatable. Minor phobias concerning spiders or snakes are relatively common. An applicant with symptoms that are likely to impede their personal effectiveness should be encouraged to seek treatment whilst any decision regarding their suitability is deferred.

11.5 Symptoms of OCD may only occur in some individuals as part of a depressive or stress related illness. In such cases the underlying condition should be considered as the principle arbiter of suitability, although OCD symptoms in these circumstances should be considered a poor prognostic sign and a possible indicator of increased risk of relapse.

11.6 Severe OCD is often a life-long condition prone to relapse and often requiring permanent medication. Such a condition is unlikely to be compatible with core competencies.

11.7 Adjustment disorder occurs within 3 months of exposure to a stressful situation and may involve symptoms of both depression and anxiety. In most people it will resolve with or without treatment within 6 months unless exposure to the stressor is ongoing, in which case the condition may become chronic. In simple short-lived cases it may have little prognostic value. It should however be remembered that stress may be cumulative and that an individual who has been exposed to a stressor and developed an adjustment disorder may be more prone to develop PTSD or another stress related disorder in the future.

11.8 Posttraumatic stress disorder occurs after an individual has been exposed to a traumatic occurrence in which they have experienced or witnessed events that involved actual or threatened death or serious injury and their response involved intense fear, helplessness or horror. It does not occur, and should not be diagnosed, following minor stressful events or upsets in interpersonal relationships, although a chronic form of PTSD can follow serious abuse in childhood.

11.9 PTSD is often a very serious condition that can be difficult to treat and it may result in long-term disability. Someone who has a prior diagnosis of PTSD, yet has apparently made a full recovery, may still be liable to suffer a deterioration in mental health as a result of being exposed to quite minor episodes of trauma. Such cases are unlikely to meet core competencies in regard to showing resilience in difficult circumstances. An individual who applies whilst still requiring treatment, either by way of medication or psychological support, should have any decision regarding acceptance deferred until they have been symptom free and off any form of treatment and in a normally stressful occupation for a minimum period of 24 months.

12 Somatoform Disorders / Factitious Disorders / Dissociative Disorders / Chronic Fatigue Syndrome

12.1 These conditions are relatively uncommon. They can indicate an underlying anxiety, depressive or personality disorder. Unless the episode was trivial in most circumstances such disorders would be incompatible with core competencies.

12.2 Chronic fatigue syndrome is not in the DSM-IV classification but research shows that between 30-40% of sufferers have a co-morbid mental disorder, most commonly depression. Post-viral fatigue following Epstein-Barr viral infection usually does not last for more than 6 to 12 months and is usually followed by complete recovery. Applicants with a history of suffering from chronic fatigue lasting longer than 12 months should be carefully assessed as to whether or not they will meet core competencies. A history of chronic fatigue associated with stress or warranting hospital admission or prolonged treatment and investigation may be indicative of a relapsing condition and should raise doubts about the applicant's ability to demonstrate resilience under difficult conditions. Similar comments would apply to applicants presenting with a history of fibromyalgia.

13 Sexual and Gender Identity Disorders

13.1 Sexual arousal disorders / orgasmic disorders will not usually be relevant to the recruitment process unless they are associated with significant personality dysfunction or are the result of medication side-effects.

13.2 Sexual paraphilias of significant severity to come to the attention of the medical profession or the criminal justice system will in most circumstances be incompatible with police service.

13.3 Gender identity disorder should not be considered to be incompatible with police service, depending upon the underlying personality strengths and weaknesses of the individual. If an applicant is in the process of undergoing gender reassignment it may be best to defer a decision regarding suitability until reassignment has been completed.

14 Eating Disorders

14.1 Eating disorders occur more commonly in women. A temporary phase of bulimia or anorexia is common in teenage girls and may not be of great relevance. If a male has a past history of eating disorder it may be more indicative of underlying personality problems.

14.2 Anorexia in particular may become chronic in nature and resistant to intervention. Such cases would in most circumstances be incompatible with core competencies. Applicants presenting as significantly under-weight at first screening are likely to be rejected or, if the circumstances indicate, deferred. In borderline cases a degree of suspicion regarding the possibility of fluid loading may be justified. Bulimia may be more difficult to detect; loss of dental enamel and unusually poor dentition in an otherwise healthy individual may be indicative of repeated vomiting.

15 Personality Disorders

15.1 In all cases a strong history of personality disorder is likely to be incompatible with meeting core competencies. Severe personality disorder has a significant mortality and morbidity and is incompatible with a stable work record. There is also likely to be a history of difficulty forming or maintaining stable relationships. There is a strong correlation between Conduct Disorder in childhood and Personality

Disorder in adulthood. The use of illicit substances and/or alcohol abuse is commonly co-morbid. Histories of repeated acts of self-harm or of a childhood marred by significant abuse or time in care should raise the index of suspicion.

15.2 More difficult to assess are applicants with mild forms of personality disorder or isolated personality traits, particularly if the traits are not associated with anti-social behaviour. Such cases are often a matter of personal judgement by the FMA or other assessors. Heed should be taken of the applicant's developmental, educational, relationship and employment history. Such information is likely to be of greater predictive value than information elicited by clinical examination. If doubts persist then a decision should be deferred or more expert advice sought.

Additional Notes

16 Detention Under the Mental Health Act

16.1 Detention under the MHA will in most cases be related to the severity of the individual's mental disorder. Care should be taken however in not excluding applicants automatically if they have a past history of detention, especially if the incident occurred a long time ago and they have been functioning appropriately since.

16.2 Members of black (particularly afro-Caribbean) communities are statistically more likely to be detained under the MHA when compared to white control groups. The exact cause of this is a matter of conjecture but may in part relate to misinterpretation of different cultural norms when individuals express states of high emotional arousal.

16.3 Detention under one of the short term sections, that is Section 136, Section 5(2) or 5(4) or Section 2 is likely to be less indicative of long-term mental disorder and may indicate misinterpretation as above or misdiagnosis. Detention for treatment under Section 3 is more likely to be associated with enduring mental disorder that may affect core competencies.

16.4 Detention under a hospital order imposed under Part III of the MHA by a Court is most unlikely to be compatible with Police service.