1. Population Needs

1.1 National/local context and evidence base

National context:

The classical tropical diseases such as malaria, trypanosomiasis, leishmaniasis, typhoid and leprosy continue to present in primary and secondary care throughout the UK – increasingly so as a consequence of global travel. These diseases continue to be relatively rare however, and therefore, often sub-optimally treated, if diagnosed at all in a timely manner. Furthermore, the UK’s ageing population, often with co-morbidity, adds to complexity in terms of a timely and effective diagnosis and management. As with other specialist clinical areas, best outcomes will only flow from those units and clinicians with appropriate skill sets and experience.

The health of UK travellers and migrants, and the management of imported infections, are major Department of Health priorities. The increased burden of infection in many non-UK born populations is related to the higher prevalence of infections in the countries from which they originate, usually acquired before arrival in the UK. Some migrants are at on-going risk of these diseases after arrival. Many of these diseases are chronic and progressive, but are almost invariably completely treatable; earlier diagnosis is associated with clinical and public health benefit and is likely to be cost-effective.

The prevalence of parasitic disease, and especially helminth infection within UK migrant communities goes largely undiagnosed and unrecognised. We have
evidence that such infection can be present in up to 70% of first-generation migrants.

In terms of the UK, the South East contains the highest concentration of migrants from developing countries, as well as high indices of poverty.

Improving the health of the poorest, fastest, is a current Department of Health priority; delivering better diagnostics and treatment to these populations will both reduce health inequalities and also reduce transmission of infections to others.

More than 1,500 patients with malaria are diagnosed in the UK each year, including >250 cases of severe and sometimes fatal falciparum malaria. There is a strong association between where people are diagnosed and their outcome. This in part reflects variation in quality of such specialist care, where (for example) new knowledge of better treatments is not universally applied.

Hydatid disease and Leprosy are rare but complex long-term conditions affecting UK residents. Both require multi-disciplinary management, including surgery and costly medication. For example the Hospital for Tropical Diseases (HTD) currently manages >70% of UK hydatid and >90% of all leprosy cases and provides diagnostics, clinical leprosy and parasitology advice. Diagnosis and management of other conditions such as leishmaniasis, trypanosomiasis (African and South American) and helminth infections should also be supported. Tropical Disease Hospitals will provide both laboratory services and specialist clinical advice to infectious diseases clinicians across the UK, where referral of the patient for management is considered and if possible avoided, thereby saving money and unnecessary travel for the patients themselves.

Evidence base:

- The Advisory Committee on Dangerous Pathogens (ACDP) report on the management of patients with viral haemorrhagic fever (VHF) - [http://www.dh.gov.uk/health/2012/07/vhf-guidance/](http://www.dh.gov.uk/health/2012/07/vhf-guidance/)
- Malaria mortality paper [http://www.bmj.com/content/344/bmj.e2116](http://www.bmj.com/content/344/bmj.e2116)
- [http://www.gmc-](http://www.gmc-)

© NHS Commissioning Board, 2013
The NHS Commissioning Board is now known as NHS England
2. Scope

2.1 Aims and objectives of service

The aim of the service is to provide efficient and effective specialist care for adults and children across the UK with proven or suspected tropical diseases, by supporting timely and efficient diagnosis, treatment and prevention (for those at risk of travel-related disease) and best outcomes.

The tropical diseases service will accept appropriate secondary and tertiary adult and paediatric referrals from across the UK.

Patients will include those with suspected and diagnosed tropical diseases and infections as listed within Appendix 1.

Core objectives should include:

- To efficiently diagnose and treat tropical infections in a timely manner, to include diagnosis by exclusion.
- To provide preventative travel advice
- To provide long-term disease management to support patients in achieving greater quality of life
- Reduced length of hospital stay

The service will deliver these aims by:

- providing an open access emergency clinic plus inpatient and outpatient hub for diagnosis, management and prevention of suspected tropical and parasitological disease.
- providing a service designed to not only diagnose, but also rule out, tropical diseases.
- ensuring timely admission and input from a specialist in tropical medicine within a specialist inpatient facility
- providing 24-hour telephone advice to healthcare professionals around the UK seeking advice on management of their patients.
- providing a specialist learning environment based on these aims, that will maintain and develop UK expertise in tropical and parasitological diseases, disseminate guideline-based best practice and inform UK policy on management of imported infection
- integrating tropical diseases services in the trust with its broad portfolio of other specialist services for the purposes of improved efficiency and patient experience
- providing the UK with the only accredited parasitology diagnostic laboratory.

providing a tertiary referral travel clinic service which risk assess and manages patients with complex clinical co-morbidities who wish to travel and are at higher risk of infection and worse outcomes. Generic travel clinics are not funded by
the NHS, but this is a tertiary service offering highly specialised travel advice to a small cohort of patients with complex clinical co-morbidities.

2.2 Service description/care pathway

Key principles

Clinical

- Patients achieve better outcomes from access to clinicians specialising in tropical diseases and a full multi-disciplinary team to support them.
- The patient experience is improved with more timely referral and treatment.
- The patient experience is much improved by prompt diagnosis.
- The patient experience is improved with more experienced staff and peer support.
- Patient outcomes are improved and long term infections managed more effectively through expertise in units dealing with high numbers of patients.
- Unnecessary hospital stays, investigations, antibiotic usage are avoided.

Research

- Audit, epidemiological, management and outcome data will be collected.
- Lead national research into diagnostic pathways, treatment methods, and delivery and service improvements.

Education

- Deliver specialist training in tropical medicine as part of NHS consultant accreditation, including experience in a face-to-face pre-travel clinic.
- Deliver, as a Royal College of Physicians (RCP)-approved provider of the London Diploma in Topical Medicine & Hygiene, all curriculum requirements including clinical exposure to imported tropical infection as provided in specialist tropical centres.

Health Economics

- The clinical, educational and research principles above will favour savings to healthcare delivery.
- Avoidance of tropical disease through prevention and education and the prompt and effective diagnosis of infections will reduce whole system costs.

Components

Key components for a specialised tropical diseases unit include day-to-day access to the following:
- 2,000 new outpatient appointments per year for specialist tropical advice and treatment, with input from consultants specialising in dermatology,
ophthalmology and histopathology. 65.9% of these referrals are outside of the local commissioning area and, are considerably higher than any other service provided by University College London Hospitals NHS Foundation Trust (UCLH). It is important to note that tropical disease is effectively excluded subsequent to being seen by HTD clinicians. Exclusion of disease is an important function and applies to many of the hospital’s referrals. Accordingly, such patients will not have a tropical ICD10 code attached. It is accepted that such specialist activity should nevertheless be captured in the sub-commissioning framework.

- An open access emergency clinic seeing 2,500 attendances per year; this provides rapid diagnosis and thus speedy treatment and prevention of admission where appropriate. Such an open access structure provides the best possible patient experience by giving patients access to a specialist on the same half day if not within an hour, often with “whilst you wait” parasitology results. This Gold Standard level of Quality Care is furthermore highly efficient as time and money are not wasted with unnecessary primary care referral or A&E attendance.

- An external 24-hour telephone advice line receiving over 5,000 calls per year ensuring safe, effective and efficient investigations of patients locally; providing specialist medicines where appropriate, thereby improving outcomes for tropical/ID patients in primary and secondary care at the end of a phone. This advice line is further augmented through a clinical network, namely the Health Protection Agency (HPA)/HTD/Liverpool fever service designed to provide rapid diagnosis of tropical infection, such as Lassa, Rabies and other viral haemorrhagic fevers (20 calls per month).

- National referral service for suspected or proven Leprosy and leishmaniasis. A weekly outpatient clinic by the only leprologist in the UK; a monthly specialist tropical histopathology MDT and reference laboratory support for molecular diagnostics; an outpatient ambulatory therapy service for patients with cutaneous and visceral leishmaniasis; multidrug therapy, specialist occupational therapy and dedicated surgical expertise for patients with leprosy; and PbR-supported drug management of complications of leprosy treatment. This service also provides telephone and e-mail advice to specialists elsewhere in the UK where referral is delayed or inappropriate, plus dedicated expertise and support to national guidelines committee and networks.

- A weekly clinic provided by the only Clinical Parasitologist in the UK, managing imported and UK-acquired parasitological conditions. In addition this service provides clinical advice to healthcare professionals managing patients who do not require referral, plus dedicated expertise to national guidelines committees and clinical networks.

- Pre-travel face-to-face advice for patients with complex medical problems, for which no tariff is available; dedicating expertise to national guidelines/committees/networks etc on pre-travel medicine.

- An inpatient bed base (within a larger ID bed base of 24), with shared clinical teams managing acutely unwell patients with proven or (more often) suspected specific tropical infections, but outnumbered by patients with non-tropical community-acquired, healthcare-associated, immunosuppression-associated infections and HIV.
• Access to other specialist services including intensive care, infectious diseases, microbiology, surgery, HIV medicine, psychology, psychiatric services, social services.
• A clinical governance structure and service lead
• Quality measures: patient experience surveys, clinical outcome measures
• Potential network links.

NB: All tropical diseases outpatient activity is currently funded by a locally agreed tariff equivalent to the PbR tariff for infectious diseases.

Inpatients will be identified by diagnoses defined by the ICD10 codes detailed in Appendix 1 in conjunction with the associated treatment function code 350 (adults). Treatment function code 350 is used as there is no treatment function code for tropical medicine.

Outpatient attendances are not coded by ICD10 codes. As a result all outpatient activity is considered relevant within this specification (see section 2.4 for further information).

The service will also provide telephone and e-mail advice to specialists elsewhere in the UK where referral is delayed or inappropriate, as well as pre-travel face to face advice for patients with complex medical problems. Such services will be funded via nationally agreed tariffs, and where these do not exist via locally agreed tariffs.

General Paediatric care

When treating children, the service will additionally follow the standards and criteria outlined in the Specification for Children’s’ Services (attached as Annex 1 to this specification)

2.3 Population covered

The service outlined in this specification is for patients ordinarily resident in England*; or otherwise the commissioning responsibility of the NHS in England (as defined in ‘Who Pays?: Establishing the responsible commissioner’ and other Department of Health guidance relating to patients entitled to NHS care or exempt from charges).

Specifically, this service is for adults and paediatrics with suspected or proven tropical diseases where a history of potential exposure to imported or complex parasitological infection is relevant; where this service is the appropriate local tropical diseases referral base; or where referring clinicians have deemed that a face-to-face consultation with, or clinician-clinician telephone advice from, our tropical and parasitological expertise is in the patient’s interest.

Note: for the purposes of commissioning health services, this EXCLUDES patients who, whilst resident in England, are registered with a GP practice in

---

*Note: for the purposes of commissioning health services, this EXCLUDES patients who, whilst resident in England, are registered with a GP practice in
Wales, but INCLUDES patients resident in Wales who are registered with a GP practice in England. Legislation for Scotland and Northern Ireland provides that the responsible authority for an individual’s healthcare provision is the one where a person is usually resident and is not based on GP practice registration as provided by English legislation.

2.4 Any acceptance and exclusion criteria

The unit will comply with local and national polices, guidelines and other conditions of commissioning as required (including, but not limited to, mandatory surveillance systems, antimicrobial stewardship, governance, patient safety alerts and NICE).

All outpatient attendances within dedicated tropical medicine clinics are included within this service specification. It is important to note that tropical disease is effectively excluded subsequent to being seen by specialist clinicians at the HTD. Exclusion of disease is an important function and applies to many of our referrals. Accordingly, such patients will not have a tropical ICD10 code attached. We believe that such specialist activity should nevertheless be captured in the sub commissioning framework.

2.5 Interdependencies with other services

Treatment of tropical diseases requires interdependencies with other services including but not limited to:

Highly specialised infectious disease services detailed in separate service specifications:
- High Security Infectious Diseases (HSIDU)
- Infectious Diseases
- Human T-cell Lymphotropic Virus Type 1 (HTLV1)
- Complex Bone & Joint Infections

Interdependent Services:
- Cancer Services
- Services for Blood and Marrow Transplantation
- Services for Women’s Healthcare
- Intensive Care
- Infectious Diseases
- Psychology and psychiatric services
- Social services
- Dermatology Services
- Ophthalmology Services
- Renal Services
- Intestinal Failure and Home Parenteral Nutrition Services
- Cardiology and Cardiac Surgery Services
- HIV Treatment and Care Services
• Allergy Services
• Immunology Services
• Liver, Biliary and Pancreatic Medicine and Surgery services
• Children; particularly sections on: cardiology & cardiac surgery, ear nose and throat (ENT), gastroenterology, hepatology, neurosciences, ophthalmology, orthopaedic, renal, respiratory, HIV, and surgery services
• Rheumatology Services
• Respiratory Services

Early presentation, testing and diagnosis are critical in prevention, management and control of tropical diseases, requiring clear pathways with local services in primary care, community care and voluntary sector.

A number of infectious tropical diseases require network management arrangements and clear pathways and responsibilities should be identified.

2.6 Key Components of a Specialised Tropical Diseases Service

• Combined inpatient and outpatient care.
• Microbiological, histopathological and radiological diagnostics. Provision for prevention advice and pre-travel services.
• Dedicated inpatient beds staffed by specialist nurses and professionals allied to medicine.
• More than one whole time equivalent consultant who have successfully completed training in tropical medicine to at least ST3 level.
• MDT outpatient clinics.
• Access to either specialised services as required. A clinical governance structure and service lead.
• Quality measures such as patient experience surveys and clinical outcome measures.

3. Applicable Service Standards

3.1 Applicable national standards e.g. NICE, Royal College

NICE quality standard: Patient experience in adult NHS services
http://www.nice.org.uk/guidance/qualitystandards/patientexperience/home.jsp


There are several NICE guidelines that may be relevant to certain patient groups. These include:

‘The management of pressure ulcers in primary and secondary care,’ (2005)
‘Nutrition support in adult,’ (2006)
‘Venous thrombo-embolic disease’ (2012)

World Health Organisation (WHO) guideline for management of severe malaria

UK guideline for management of severe malaria
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947343507

BIS/HTD guideline on management of fever in returned traveller

BIS/HTD guideline on management of eosinophilia

Management of Hazard Group 4 viral haemorrhagic fevers and similar human infectious diseases of high consequence - Advisory Committee on Dangerous Pathogens – May 2012

4. Key Service Outcomes

Outcomes:

Clinical

- Patient outcomes
- Readmission rate
- Mortality (30 day and 1 year)
- Patient satisfaction scores

Process

- Clinic letters sent out within 5 days of appointment
- 100% compliance with NICE guidance on venous thromboembolism (VTE) prophylaxis
- MRSA and *C. difficile* rates within Department of Health targets
- 100% compliance with Waterlow and MUST score assessments
- Complaints
- Length of stay
- Access to care (waiting times, failure to attend appointment rates) for routine and urgent patients.
- Unplanned transfers to acute specialities such as general medicine, general surgery or intensive care
- Telephone calls to advice line answered within 30 seconds and responses
5. Location of Provider Premises

The National Highly Specialised providers are located at:

Hospital for Tropical Diseases
UCL Hospitals NHS Foundation Trust
2nd Floor Mortimer
Market Capper Street
London, WC1E 6JB

Liverpool School of Tropical Medicine
Pembroke Place
Liverpool
L3 5QA
Appendix 1

Infectious Diseases

<table>
<thead>
<tr>
<th>Primary ICD10 Code (Adults)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A17.0</td>
<td>Tuberculous meningitis</td>
</tr>
<tr>
<td>A17.1</td>
<td>Meningeal tuberculoma</td>
</tr>
<tr>
<td>A17.8</td>
<td>Other tuberculosis of nervous system</td>
</tr>
<tr>
<td>A17.9</td>
<td>Tuberculosis of nervous system unspecified</td>
</tr>
<tr>
<td>A18.5</td>
<td>Tuberculosis of eye</td>
</tr>
<tr>
<td>A18.4</td>
<td>Tuberculosis of skin and subcutaneous tissue</td>
</tr>
<tr>
<td>A22.0</td>
<td>Cutaneous anthrax</td>
</tr>
<tr>
<td>A22.1</td>
<td>Pulmonary anthrax</td>
</tr>
<tr>
<td>A22.2</td>
<td>Gastrointestinal anthrax</td>
</tr>
<tr>
<td>A22.7</td>
<td>Anthrax septicaemia</td>
</tr>
<tr>
<td>A22.8</td>
<td>Other forms of anthrax</td>
</tr>
<tr>
<td>A22.9</td>
<td>Anthrax, unspecified</td>
</tr>
<tr>
<td>A23.0</td>
<td>Brucellosis due to Brucella melitensis</td>
</tr>
<tr>
<td>A23.1</td>
<td>Brucellosis due to Brucella abortus</td>
</tr>
<tr>
<td>A23.2</td>
<td>Brucellosis due to Brucella suis</td>
</tr>
<tr>
<td>A23.3</td>
<td>Brucellosis due to Brucella canis</td>
</tr>
<tr>
<td>A23.8</td>
<td>Other brucellosis</td>
</tr>
<tr>
<td>A23.9</td>
<td>Brucellosis, unspecified</td>
</tr>
<tr>
<td>A24.1</td>
<td>Acute and fulminating melioidosis</td>
</tr>
<tr>
<td>A24.2</td>
<td>Subacute and chronic melioidosis</td>
</tr>
<tr>
<td>A24.3</td>
<td>Other melioidosis</td>
</tr>
<tr>
<td>A24.4</td>
<td>Melioidosis, unspecified</td>
</tr>
<tr>
<td>A31.1</td>
<td>Cutaneous mycobacterial infection</td>
</tr>
<tr>
<td>A75.0</td>
<td>Epidemic louse-borne typh fev due Rickettsia prowazekii</td>
</tr>
<tr>
<td>A75.2</td>
<td>Typhus fever due to Rickettsia typhi</td>
</tr>
<tr>
<td>A75.3</td>
<td>Typhus fever due to Rickettsia tsutsugamushi</td>
</tr>
<tr>
<td>A77.0</td>
<td>Spotted fever due to Rickettsia rickettsii</td>
</tr>
<tr>
<td>A77.1</td>
<td>Spotted fever due to Rickettsia conorii</td>
</tr>
<tr>
<td>A77.2</td>
<td>Spotted fever due to Rickettsia sibirica</td>
</tr>
<tr>
<td>A77.3</td>
<td>Spotted fever due to Rickettsia australis</td>
</tr>
<tr>
<td>A79.1</td>
<td>Rickettsialpox due to Rickettsia akari</td>
</tr>
<tr>
<td>A79.8</td>
<td>Other specified rickettsioses</td>
</tr>
<tr>
<td>A79.9</td>
<td>Rickettsiosis, unspecified</td>
</tr>
<tr>
<td>A82.0</td>
<td>Sylvatic rabies</td>
</tr>
<tr>
<td>A82.1</td>
<td>Urban rabies</td>
</tr>
<tr>
<td>A82.9</td>
<td>Rabies, unspecified</td>
</tr>
<tr>
<td>A91.X</td>
<td>Dengue haemorrhagic fever</td>
</tr>
<tr>
<td>A96.0</td>
<td>Junin haemorrhagic fever</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>A96.1</td>
<td>Machupo haemorrhagic fever</td>
</tr>
<tr>
<td>A96.8</td>
<td>Other arenaviral haemorrhagic fevers</td>
</tr>
<tr>
<td>A96.9</td>
<td>Arenaviral haemorrhagic fever, unspecified</td>
</tr>
<tr>
<td>A98.0</td>
<td>Crimean-Congo haemorrhagic fever</td>
</tr>
<tr>
<td>A98.1</td>
<td>Omsk haemorrhagic fever</td>
</tr>
<tr>
<td>A98.5</td>
<td>Haemorrhagic fever with renal syndrome</td>
</tr>
<tr>
<td>A98.8</td>
<td>Other specified viral haemorrhagic fevers</td>
</tr>
<tr>
<td>A99.X</td>
<td>Unspecified viral haemorrhagic fever</td>
</tr>
<tr>
<td>B00.0</td>
<td>Eczema herpeticum</td>
</tr>
<tr>
<td>B20.0</td>
<td></td>
</tr>
<tr>
<td>B20.1</td>
<td></td>
</tr>
<tr>
<td>B20.3</td>
<td>HIV Disease leading to secondary infections</td>
</tr>
<tr>
<td>B20.5</td>
<td></td>
</tr>
<tr>
<td>B20.7</td>
<td></td>
</tr>
<tr>
<td>B30.3</td>
<td>Acute epidemic haemorrhagic conjunctivitis (enteroviral)</td>
</tr>
<tr>
<td>B35.8</td>
<td>Deep and complex dermatophytosis</td>
</tr>
<tr>
<td>B38.0</td>
<td>Acute pulmonary coccidioidomycosis</td>
</tr>
<tr>
<td>B38.1</td>
<td>Chronic pulmonary coccidioidomycosis</td>
</tr>
<tr>
<td>B38.2</td>
<td>Pulmonary coccidioidomycosis, unspecified</td>
</tr>
<tr>
<td>B38.3</td>
<td>Cutaneous coccidioidomycosis</td>
</tr>
<tr>
<td>B38.4</td>
<td>Coccidioidomycosis meningeitis</td>
</tr>
<tr>
<td>B38.7</td>
<td>Disseminated coccidioidomycosis</td>
</tr>
<tr>
<td>B38.8</td>
<td>Other forms of coccidioidomycosis</td>
</tr>
<tr>
<td>B38.9</td>
<td>Coccidioidomycosis, unspecified</td>
</tr>
<tr>
<td>B39.0</td>
<td>Acute pulmonary histoplasmosis capsulati</td>
</tr>
<tr>
<td>B39.1</td>
<td>Chronic pulmonary histoplasmosis capsulati</td>
</tr>
<tr>
<td>B39.2</td>
<td>Pulmonary histoplasmosis capsulati, unspecified</td>
</tr>
<tr>
<td>B39.3</td>
<td>Disseminated histoplasmosis capsulati</td>
</tr>
<tr>
<td>B39.4</td>
<td>Histoplasmosis capsulati, unspecified</td>
</tr>
<tr>
<td>B39.5</td>
<td>Histoplasmosis duboissii</td>
</tr>
<tr>
<td>B39.9</td>
<td>Histoplasmosis, unspecified</td>
</tr>
<tr>
<td>B40.0</td>
<td>Acute pulmonary blastomycosis</td>
</tr>
<tr>
<td>B40.1</td>
<td>Chronic pulmonary blastomycosis</td>
</tr>
<tr>
<td>B40.2</td>
<td>Pulmonary blastomycosis, unspecified</td>
</tr>
<tr>
<td>B40.3</td>
<td>Cutaneous blastomycosis</td>
</tr>
<tr>
<td>B40.7</td>
<td>Disseminated blastomycosis</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>B40.8</td>
<td>Other forms of blastomycosis</td>
</tr>
<tr>
<td>B40.9</td>
<td>Blastomycosis, unspecified</td>
</tr>
<tr>
<td>B41.0</td>
<td>Pulmonary paracoccidioidomycosis</td>
</tr>
<tr>
<td>B41.7</td>
<td>Disseminated paracoccidioidomycosis</td>
</tr>
<tr>
<td>B41.8</td>
<td>Other forms of paracoccidioidomycosis</td>
</tr>
<tr>
<td>B41.9</td>
<td>Paracoccidioidomycosis, unspecified</td>
</tr>
<tr>
<td>B42.1</td>
<td>Lymphocutaneous sporotichosis</td>
</tr>
<tr>
<td>B43.0</td>
<td>Cutaneous chromomycosis</td>
</tr>
<tr>
<td>B43.8</td>
<td>Other forms of chromomycosis</td>
</tr>
<tr>
<td>B43.9</td>
<td>Chromomycosis, unspecified</td>
</tr>
<tr>
<td>B47.X</td>
<td>Mycetoma</td>
</tr>
<tr>
<td>B50.0</td>
<td>Plasmodium falciparum malaria with cerebral complications</td>
</tr>
<tr>
<td>B50.8</td>
<td>Other severe and complicated Plasmodium falciparum malaria</td>
</tr>
<tr>
<td>B51.0</td>
<td>Plasmodium vivax malaria with rupture of spleen</td>
</tr>
<tr>
<td>B51.8</td>
<td>Plasmodium vivax malaria with other complications</td>
</tr>
<tr>
<td>B52.0</td>
<td>Plasmodium malariae malaria with nephropathy</td>
</tr>
<tr>
<td>B52.8</td>
<td>Plasmodium malariae malaria with other complications</td>
</tr>
<tr>
<td>B55.0</td>
<td>Visceral leishmaniasis</td>
</tr>
<tr>
<td>B55.1</td>
<td>Cutaneous leishmanias</td>
</tr>
<tr>
<td>B55.2</td>
<td>Mucocutaneous leishmanias</td>
</tr>
<tr>
<td>B55.9</td>
<td>Leishmaniasis, unspecified</td>
</tr>
<tr>
<td>B56.0</td>
<td>Gambiense trypanosomias</td>
</tr>
<tr>
<td>B56.1</td>
<td>Rhodesiense trypanosomias</td>
</tr>
<tr>
<td>B56.9</td>
<td>African trypanosomias, unspecified</td>
</tr>
<tr>
<td>B57.0</td>
<td>Acute Chagas' disease with heart involvement</td>
</tr>
<tr>
<td>B57.1</td>
<td>Acute Chagas' disease without heart involvement</td>
</tr>
<tr>
<td>B57.2</td>
<td>Chagas' disease (chronic) with heart involvement</td>
</tr>
<tr>
<td>B57.3</td>
<td>Chagas' disease (chronic) with digestive system involvement</td>
</tr>
<tr>
<td>B57.4</td>
<td>Chagas' disease (chronic) with nervous system involvement</td>
</tr>
<tr>
<td>B57.5</td>
<td>Chagas' disease (chronic) with other organ involvement</td>
</tr>
<tr>
<td>B67.0</td>
<td>Echinococcus granulosus infection of liver</td>
</tr>
<tr>
<td>B67.1</td>
<td>Echinococcus granulosus infection of lung</td>
</tr>
<tr>
<td>B67.2</td>
<td>Echinococcus granulosus infection of bone</td>
</tr>
<tr>
<td>B67.3</td>
<td>Echinococcus granulosus infection, other and multiple sites</td>
</tr>
<tr>
<td>B67.4</td>
<td>Echinococcus granulosus infection, unspecified</td>
</tr>
<tr>
<td>B67.5</td>
<td>Echinococcus multilocularis infection of liver</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>B67.6</td>
<td>Echinococcus multilocularis infection oth / multiple sites</td>
</tr>
<tr>
<td>B67.7</td>
<td>Echinococcus multilocularis infection, unspecified</td>
</tr>
<tr>
<td>B67.8</td>
<td>Echinococcosis, unspecified, of liver</td>
</tr>
<tr>
<td>B67.9</td>
<td>Echinococcosis, other and unspecified</td>
</tr>
<tr>
<td>B69.0</td>
<td>Cysticercosis of central nervous system</td>
</tr>
<tr>
<td>B69.1</td>
<td>Cysticercosis of eye</td>
</tr>
<tr>
<td>B69.8</td>
<td>Cysticercosis of other sites</td>
</tr>
<tr>
<td>B69.9</td>
<td>Cysticercosis, unspecified</td>
</tr>
<tr>
<td>B73.X</td>
<td>Onchocerciasis</td>
</tr>
<tr>
<td>B74.0</td>
<td>Filariasis due to Wuchereria bancrofti</td>
</tr>
<tr>
<td>B74.1</td>
<td>Filariasis due to Brugia malayi</td>
</tr>
<tr>
<td>B74.2</td>
<td>Filariasis due to Brugia timori</td>
</tr>
<tr>
<td>B74.3</td>
<td>Loiasis</td>
</tr>
<tr>
<td>B74.8</td>
<td>Other filariases</td>
</tr>
<tr>
<td>B74.9</td>
<td>Filariasis, unspecified</td>
</tr>
<tr>
<td>B78.0</td>
<td>Intestinal strongyloidiasis</td>
</tr>
<tr>
<td>B78.1</td>
<td>Cutaneous strongyloidiasis</td>
</tr>
<tr>
<td>B78.7</td>
<td>Disseminated strongyloidiasis</td>
</tr>
<tr>
<td>B78.9</td>
<td>Strongyloidiasis, unspecified</td>
</tr>
<tr>
<td>B81.2</td>
<td>Trichostrongyliasis</td>
</tr>
<tr>
<td>B81.3</td>
<td>Intestinal angiostrongyliasis</td>
</tr>
<tr>
<td>B81.4</td>
<td>Mixed intestinal helminthiases</td>
</tr>
<tr>
<td>B81.8</td>
<td>Other specified intestinal helminthiases</td>
</tr>
<tr>
<td>B82.0</td>
<td>Intestinal helminthiasis, unspecified</td>
</tr>
<tr>
<td>B88.1</td>
<td>Tungiasis (sandflea infestation)</td>
</tr>
<tr>
<td>B83.2</td>
<td>Angiostrongyliasis due to Parastrostrongylus calonensis</td>
</tr>
<tr>
<td>B83.8</td>
<td>Other specified helminthiases</td>
</tr>
<tr>
<td>B83.9</td>
<td>Helminthiasis, unspecified</td>
</tr>
<tr>
<td>B90.0</td>
<td>Sequelae of central nervous system tuberculosis</td>
</tr>
<tr>
<td>B92.X</td>
<td>Sequelae of leprosy</td>
</tr>
<tr>
<td>Z20.3</td>
<td>Contact with and exposure to rabies</td>
</tr>
</tbody>
</table>
| Z22.6 | Carrier of human T-lymphotropic virus type-1 [HTLV-1] infect
ANNEX 1 TO SERVICE SPECIFICATION:
PROVISION OF SERVICES TO CHILDREN

Aims and objectives of service

This specification annex applies to all children’s services and outlines generic standards and outcomes that would fundamental to all services.

The generic aspects of care:

The Care of Children in Hospital (HSC 1998/238) requires that:
- Children are admitted to hospital only if the care they require cannot be as well provided at home, in a day clinic or on a day basis in hospital.
- Children requiring admission to hospital are provided with a high standard of medical, nursing and therapeutic care to facilitate speedy recovery and minimise complications and mortality.
- Families with children have easy access to hospital facilities for children without needing to travel significantly further than to other similar amenities.
- Children are discharged from hospital as soon as socially and clinically appropriate and full support provided for subsequent home or day care.
- Good child health care is shared with parents/carers and they are closely involved in the care of their children at all times unless, exceptionally, this is not in the best interest of the child; accommodation is provided for them to remain with their children overnight if they so wish.

Service description/care pathway

All paediatric specialised services have a component of primary, secondary, tertiary and even quaternary elements.

The efficient and effective delivery of services requires children to receive their care as close to home as possible dependent on the phase of their disease.

Services should therefore be organised and delivered through “integrated pathways of care” (National Service Framework for children, young people and maternity services (Department of Health & Department for Education and Skills, London 2004))

Interdependencies with other services

All services will comply with Commissioning Safe and Sustainable Specialised Paediatric Services: A Framework of Critical Interdependencies – Department of Health
Imaging

- All services will be supported by a three-tier imaging network (‘Delivering quality imaging services for children’, Department of Health, 13732 March, 2010). Within the network:
  - it will be clearly defined which imaging test or interventional procedure can be performed and reported at each site
  - robust procedures will be in place for image transfer for review by a specialist radiologist, these will be supported by appropriate contractual and information governance arrangements
  - robust arrangements will be in place for patient transfer if more complex imaging or intervention is required
  - common standards, protocols and governance procedures will exist throughout
  - all radiologists, and radiographers will have appropriate training, supervision and access to continuing professional development
  - all equipment will be optimised for paediatric use and use specific paediatric software

Specialist Paediatric Anaesthesia

- Wherever and whenever children undergo anaesthesia and surgery, their particular needs must be recognised and they should be managed in separate facilities, and looked after by staff with appropriate experience and training. All UK anaesthetists undergo training which provides them with the competencies to care for older babies and children with relatively straightforward surgical conditions and without major co-morbidity. However those working in specialist centres must have undergone additional (specialist) training and should maintain the competencies so acquired. These competencies include the care of very young/premature babies, the care of babies and children undergoing complex surgery and/or those with major/complex co-morbidity (including those already requiring intensive care support).
- As well as providing an essential co-dependent service for surgery, specialist anaesthesia and sedation services may be required to facilitate radiological procedures and interventions (for example MRI scans and percutaneous nephrostomy) and medical interventions (for example joint injection and intrathecal chemotherapy), and for assistance with vascular access in babies and children with complex needs such as intravenous feeding.
- Specialist acute pain services for babies and children are organised within existing departments of paediatric anaesthesia and include the provision of agreed (hospital wide) guidance for acute pain, the safe administration of complex analgesia regimes including epidural analgesia, and the daily input of specialist anaesthetists and acute pain nurses with expertise in paediatrics.

*The Safe and Sustainable reviews of paediatric cardiac and neuro-sciences in England have noted the need for additional training and maintenance of competencies by specialist anaesthetists in both fields of practice.
Specialised Child and Adolescent Mental Health Services (CAMHS)

The age profile of children and young people admitted to specialised CAMHS day/in-patient settings is different to the age profile for paediatric units in that it is predominantly adolescents who are admitted to specialised CAMHS in-patient settings, including over-16s. The average length of stay is longer for admissions to mental health units. Children and young people in specialised CAMHS day/in-patient settings generally participate in a structured programme of education and therapeutic activities during their admission.

Taking account of the differences in patient profiles the principles and standards set out in this specification apply with modifications to the recommendations regarding the following:

- Facilities and environment – essential Quality Network for In-patient CAMHS (QNIC) standards should apply (http://www.rcpsych.ac.uk/quality/quality_accreditationaudit/qnic1.aspx)
- Staffing profiles and training - essential QNIC standards should apply.
- The child/young person’s family are allowed to visit at any time of day taking account of the child/young person’s need to participate in therapeutic activities and education as well as any safeguarding concerns.
- Children and young people are offered appropriate education from the point of admission.
- Parents/carers are involved in the child/young person’s care except where this is not in the best interests of the child/young person and in the case of young people who have the capacity to make their own decisions is subject to their consent.
- Parents/carers who wish to stay overnight are provided with accessible accommodation unless there are safeguarding concerns or this is not in the best interests of the child/young person.

Applicable national standards e.g. NICE, Royal College

Children and young people must receive care, treatment and support by staff registered by the Nursing and Midwifery Council on the parts of their register that permit a nurse to work with children (Outcome 14h Essential Standards of Quality and Safety, Care Quality Commission, London 2010)

- There must be at least two Registered Children’s Nurses (RCNs) on duty 24 hours a day in all hospital children’s departments and wards.
- There must be an Registered Children’s Nurse available 24 hours a day to advise on the nursing of children in other departments (this post is included in...
Accommodation, facilities and staffing must be appropriate to the needs of children and separate from those provided for adults. All facilities for children and young people must comply with the Hospital Build Notes HBN 23 Hospital Accommodation for Children and Young People NHS Estates, The Stationary Office 2004.

All staff who work with children and young people must be appropriately trained to provide care, treatment and support for children, including Children’s Workforce Development Council Induction standards (Outcome 14b Essential Standards of Quality and Safety, Care Quality Commission, London 2010).

Each hospital who admits inpatients must have appropriate medical cover at all times taking account of guidance from relevant expert or professional bodies (National Minimum Standards for Providers of Independent Healthcare, Department of Health, London 2002). "Facing the Future" Standards, Royal College of Paediatrics and Child Health.

Staff must carry out sufficient levels of activity to maintain their competence in caring for children and young people, including in relation to specific anaesthetic and surgical procedures for children, taking account of guidance from relevant expert or professional bodies (Outcome 14g Essential Standards of Quality and Safety, Care Quality Commission, London 2010).

Providers must have systems in place to gain and review consent from people who use services, and act on them (Outcome 2a Essential Standards of Quality and Safety, Care Quality Commission, London 2010). These must include specific arrangements for seeking valid consent from children while respecting their human rights and confidentiality and ensure that where the person using the service lacks capacity, best interest meetings are held with people who know and understand the person using the service. Staff should be able to show that they know how to take appropriate consent from children, young people and those with learning disabilities (Outcome 2b) (Seeking Consent: working with children Department of Health, London 2001).

Children and young people must only receive a service from a provider who takes steps to prevent abuse and does not tolerate any abusive practice should it occur (Outcome 7 Essential Standards of Quality and Safety, Care Quality Commission, London 2010 defines the standards and evidence required from providers in this regard). Providers minimise the risk and likelihood of abuse occurring by:

- ensuring that staff and people who use services understand the aspects of the safeguarding processes that are relevant to them.
- ensuring that staff understand the signs of abuse and raise this with the right person when those signs are noticed.
- ensuring that people who use services are aware of how to raise concerns of abuse.
- having effective means to monitor and review incidents, concerns and complaints that have the potential to become an abuse or safeguarding concern.
- having effective means of receiving and acting upon feedback from people who
use services and any other person.
• taking action immediately to ensure that any abuse identified is stopped and suspected abuse is addressed by:
  • having clear procedures followed in practice, monitored and reviewed that take account of relevant legislation and guidance for the management of alleged abuse
  • separating the alleged abuser from the person who uses services and others who may be at risk or managing the risk by removing the opportunity for abuse to occur, where this is within the control of the provider
  • reporting the alleged abuse to the appropriate authority
  • reviewing the person’s plan of care to ensure that they are properly supported following the alleged abuse incident.
• using information from safeguarding concerns to identify non-compliance, or any risk of non-compliance, with the regulations and to decide what will be done to return to compliance.
• working collaboratively with other services, teams, individuals and agencies in relation to all safeguarding matters and has safeguarding policies that link with local authority policies.
• participating in local safeguarding children boards where required and understand their responsibilities and the responsibilities of others in line with the Children Act 2004.
• having clear procedures followed in practice, monitored and reviewed in place about the use of restraint and safeguarding.
• taking into account relevant guidance set out in the Care Quality Commission’s Schedule of Applicable Publications
• ensuring that those working with children must wait for a full Criminal Records Bureau (CRB) disclosure before starting work.
• training and supervising staff in safeguarding to ensure they can demonstrate the competences listed in Outcome 7E of the Essential Standards of Quality and Safety, Care Quality Commission, London 2010

All children and young people who use services must be:
• fully informed about their care, treatment and support.
• able to take part in decision making to the fullest extent that is possible.
• asked if they agree for their parents or guardians to be involved in decisions they need to make.

(Outcome 4I Essential Standards of Quality and Safety, Care Quality Commission, London 2010)
Key Service Outcomes

Evidence is increasing that implementation of the national Quality Criteria for Young People Friendly Services (Department of Health, London 2011) have the potential to greatly improve patient experience, leading to better health outcomes for young people and increasing socially responsible life-long use of the NHS. Implementation is also expected to contribute to improvements in health inequalities and public health outcomes e.g. reduced teenage pregnancy and STIs, and increased smoking cessation. All providers delivering services to young people should be implementing the good practice guidance which delivers compliance with the quality criteria.

Poorly planned transition from young people’s to adult-oriented health services can be associated with increased risk of non-adherence to treatment and loss to follow-up, which can have serious consequences. There are measurable adverse consequences in terms of morbidity and mortality as well as in social and educational outcomes. When children and young people who use paediatric services are moving to access adult services (for example, during transition for those with long term conditions), these should be organised so that:

- all those involved in the care, treatment and support cooperate with the planning and provision to ensure that the services provided continue to be appropriate to the age and needs of the person who uses services.

The National Minimum Standards for Providers of Independent Healthcare, (Department of Health, London 2002) require the following standards:

- **A16.1** Children are seen in a separate out-patient area, or where the hospital does not have a separate outpatient area for children, they are seen promptly.
- **A16.3** Toys and/or books suitable to the child’s age are provided.
- **A16.8** There are segregated areas for the reception of children and adolescents into theatre and for recovery, to screen the children and adolescents from adult patients; the segregated areas contain all necessary equipment for the care of children.
- **A16.9** A parent is to be actively encouraged to stay at all times, with accommodation made available for the adult in the child’s room or close by.
- **A16.10** The child’s family is allowed to visit him/her at any time of the day, except where safeguarding procedures do not allow this.
- **A16.13** When a child is in hospital for more than five days, play is managed and supervised by a qualified Hospital Play Specialist.
- **A16.14** Children are required to receive education when in hospital for more than five days; the Local Education Authority has an obligation to meet this need and are contacted if necessary.
- **A18.10** There are written procedures for the assessment of pain in children and the provision of appropriate control.

All hospital settings should meet the Standards for the Care of Critically Ill Children (Paediatric Intensive Care Society, London 2010).

There should be age specific arrangements for meeting Regulation 14 of the Health...
and Social Care Act 2008 (Regulated Activities) Regulations 2010. These require:
- a choice of suitable and nutritious food and hydration, in sufficient quantities to meet service users’ needs;
- food and hydration that meet any reasonable requirements arising from a service user’s religious or cultural background
- support, where necessary, for the purposes of enabling service users to eat and drink sufficient amounts for their needs.
- for the purposes of this regulation, “food and hydration” includes, where applicable, parenteral nutrition and the administration of dietary supplements where prescribed.
- that providers must have access to facilities for infant feeding, including facilities to support breastfeeding (Outcome 5E, of the Essential Standards of Quality and Safety, Care Quality Commission, London 2010)

All paediatric patients should have access to appropriately trained paediatric trained dieticians, physiotherapists, occupational therapists, speech and language therapy, psychology, social work and CAMHS services within nationally defined access standards.

All children and young people should have access to a professional who can undertake an assessment using the Common Assessment Framework and access support from social care, housing, education and other agencies as appropriate

All registered providers must ensure safe use and management of medicines, by means of the making of appropriate arrangements for the obtaining, recording, handling, using, safe keeping, dispensing, safe administration and disposal of medicines (Outcome 9 Essential Standards of Quality and Safety, Care Quality Commission, London 2010). For children, these should include specific arrangements that:
- ensure the medicines given are appropriate and person-centred by taking account of their age, weight and any learning disability
- ensure that staff handling medicines have the competency and skills needed for children and young people’s medicines management
- ensure that wherever possible, age specific information is available for people about the medicines they are taking, including the risks, including information about the use of unlicensed medicine in paediatrics.

Many children with long term illnesses have a learning or physical disability. Providers should ensure that:
- they are supported to have a health action plan
- facilities meet the appropriate requirements of the Disability Discrimination Act 1995
- they meet the standards set out in Transition: getting it right for young people. Improving the transition of young people with long-term conditions from children's to adult health services. Department of Health Publications, 2006, London
End.