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The health of recent migrants from resource-poor countries

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Abstract

The care of people who have recently migrated from resource-poor countries requires careful consideration by healthcare providers. Innovative approaches are called for to reduce the significant inequalities in health compared with UK-born and long-term migrant populations. Primary care physicians are best positioned to improve the early diagnosis of imported infections such as tuberculosis, HIV, malaria, hepatitis and enteric infections, thus avoiding the high cost of emergency presentations with advanced disease. Culturally sensitive approaches are required when managing stigmatizing diseases. Common non-communicable conditions and psychiatric morbidity should not be overlooked. Pregnant women who have recently entered the country are at risk of worse birth outcomes. A significant number of people are denied free UK National Health Service care despite their entitlement, or they do not seek it owing to a lack of awareness of their right to care; increased familiarity among healthcare workers with current recommendations may help minimize disparities in access to care.

Keywords

HIV; malaria; mental health; migrant health; parasitic worms; poverty; primary care; refugee; screening; tuberculosis; undocumented migrants

Key Points:

- Eligibility for NHS healthcare is often poorly understood by both migrants and healthcare workers
- Among recent migrants, socioeconomic deprivation, exposure to violence and the conditions of migration can contribute to ill-health, including psychiatric disorders
- Women who are recent migrants to the UK are at higher risk of poor pregnancy outcomes
- The non-UK-born population have rates of tuberculosis 15 times higher than their UK-born counterparts (more than half the former group have lived in the UK for >6 years)
- HIV is often diagnosed late (especially among the migrant population). In high-incidence areas in the UK, all new patients registering with a GP and all medical admissions should be offered a HIV test
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Malaria should be considered as a cause of fever in people who have migrated from, or through, malaria-endemic countries

Introduction

A significant proportion of the UK populations was born abroad; over 10% overall and up to 40% in some areas (e.g. inner London). Romania is the most common country of birth of the non-UK-born population, followed by India. Migration from tropical countries is primarily from India, Pakistan, Nigeria and Bangladesh.

The reasons why people migrate are likely to impact on their health needs. Some people migrate in order to improve their quality of life or to escape significant hardship, sometimes called economic migrants. Asylum seekers have registered an application to claim asylum from conflict or persecution in their home country; if their application is successful, they are designated status as a refugee. If their application is rejected, they may face arrest and detention. Undocumented migrants have not registered their migration status or filed an application for asylum. Included in this group may be people who have been trafficked (transported and/or harboured due to coercion, abduction or fraud and for the purposes of exploitation).

The proportion of all migrants to the UK seeking asylum is low; in 2016, it was 6.5%. Despite the global refugee crisis, as of March 2017 there was a 13% fall in asylum applications from the previous year. A smaller proportion of these people will have been granted leave to remain. Most of the applications came from nationals of Iran, Iraq, Pakistan, Eritrea, Afghanistan and Syria. There has been a large increase in the number of unaccompanied children seeking asylum in the UK, an increase of 58% from 2014 to 2015, rising by a further 78% between 2016 and 2017. The number of undocumented migrants in the UK is, by nature, unknown.

Most people in the UK who have migrated from resource-poor countries have documented entitlement to citizenship and, consequentially, to National Health Service (NHS) care. This includes asylum seekers and refugees. Undocumented migrants are entitled to limited National Health Service (NHS) care. However, often, they are denied access to all healthcare through misunderstanding and prejudice.¹ It is important to identify those most vulnerable migrants, who are often marginalized and unaware of their entitlement to care (Table 2). These include asylum-seekers and refugees, unaccompanied children, people who have been trafficked, undocumented migrants and low-paid migrant workers. In 2005–2006, an emergency room survey of newly registered migrant domestic workers found that 86% reported working >16 hours a day; 70% reported psychological abuse, 23% physical abuse and 71% food deprivation. The Bethnal Green Clinic, run in London by Doctors of the World UK (<https://www.doctorsoftheworld.org.uk/our-clinics>), helps marginalized people to access health services to which they are entitled. Three-quarters of their clients need help with general practitioner (GP) registration (Case 1).

In order to deliver effective healthcare to migrants, these inequalities in access to healthcare, as well as their wider health needs, must be appreciated (Table 1). The risks taken by refugees and migrants to get to Europe can be substantial, with many undertaking treacherous and dangerous journeys to reach their destination, including exposure to poor

sanitation, violence and sexual exploitation (Figures 1 and 2). The high prevalence of chronic infections in some migrant populations reflects infection rates in the individuals' countries of origin plus the effects of socioeconomic deprivation and reduced healthcare access in the UK. Non-communicable diseases (NCDs) are more prevalent in some groups of migrants than in the UK as a whole and should not be overlooked.

Public Health England's migrant health guide outlines the priorities for assessment of new migrants (Table 3) and has country-specific pages that highlight specific health needs relating to a person's country of origin.

Tuberculosis (TB)

Despite a fall in incidence in recent years, the UK has, according to World Health Organization (WHO) estimates (2015), one of the highest rates of TB in Western Europe. The non-UK-born population bear a disproportionate burden of disease (72.5% of all cases), with an incidence rate 15 times higher than in people born in the UK.

The number of TB infections in new migrants has fallen, most likely because of the implementation of pre-entry TB screening since 2012.³ Pre-entry screening is now required for migrants from countries with a high TB incidence (>40 cases per 100,000) applying for a UK visa for 6 months or more. Screening involves a chest X-ray, symptom assessment with or without sputum examination in the country of origin.

The risk of TB in migrants to the UK is influenced by the rate of TB in their country of origin, the reasons for and means of their migration, their status in the UK (legal status, social status, living conditions) and any co-morbidities that convey increased risk, such as HIV infection and diabetes mellitus. The identification and management of TB in migrant populations can be complicated by existing barriers to accessing healthcare (particularly in those with no recourse to public funds), including stigma, limited language services, cultural and information barriers, and fear that a positive diagnosis might affect the right to remain in the UK. These can affect adherence to treatment, follow-up and continuity of care. Migrants are more likely to have extrapulmonary TB, which is more difficult to diagnose, and both drug resistance and HIV co-infection are more common.

UK National Institute for Health and Care Excellence guidelines provide care pathways for the screening, diagnosis and treatment of latent and active TB, including for underserved, high-risk groups, as well as recommendations for bacille Calmette–Guérin vaccination and raising awareness of TB. Screening for latent TB infection in migrants from countries with a TB incidence >150 per 100,000 is cost-effective, and all 16–35-year-olds arriving in the UK from such countries or from sub-Saharan Africa should be tested and, if indicated, treated for latent TB.

HIV

In the UK, it is estimated that 17% of people living with HIV are unaware of their infection. Furthermore, a significant number of HIV infections in the UK are diagnosed late, which is associated with increased morbidity and mortality compared with early diagnosis. In 2015, 35% of adults newly diagnosed with HIV were diagnosed at a late stage of infection (CD4 count <350), and 21% were severely immunocompromised at diagnosis (CD4 <200 cells/mL). Most individuals diagnosed late were of black African ethnicity. HIV should be considered in all people accessing healthcare who have migrated from countries of high HIV endemicity. Reducing barriers to HIV prevention and testing services in this population deserves

particular focus. Updated information on global HIV epidemiology is available from UNAIDS (www.unaids.org/en/dataanalysis/knowyourepidemic/).

In high-incidence areas of the UK (where the local population prevalence is >2 per 1000), universal HIV testing is recommended for all new patients registering with a GP and for all medical admissions, to reduce stigma and to promote early diagnosis. Opt-out antenatal HIV testing in the UK reduced the proportion of vertical transmissions from HIV-infected mothers from 2.1% in 2000–2001 to 0.27% in 2012–2014. Point-of-care testing is used increasingly in settings where individuals are at risk of being lost to follow-up.

All patients with a positive HIV test should be urgently referred to specialist HIV services, regardless of immigration status (Case 2). There is no convincing evidence for 'health-tourism' for HIV treatment;⁵ the average time to HIV diagnosis in new arrivals in the UK is >9 months.

Malaria

Malaria (see pages xx to xx) should be suspected in all people presenting with a fever who have lived in, or travelled through, a malaria-endemic country. If a healthcare provider is unaware of the countries through which a person has transited *en route* to the UK, this risk may be overlooked and could prove life-threatening. Access to malaria prevention (e.g. insecticide-treated bed nets), diagnosis and treatment may be limited when journeying through endemic countries, especially when living in temporary or makeshift accommodation. Caution should be exercised in considering any degree of partial immunity to infection; there is significant micro-geographical heterogeneity in prior exposure to malaria and notably, whilst migrating, people may be exposed to different species of malaria.

Enteric fever, helminth infection and eosinophilia

Up to 20% of migrants have helminth infections on their arrival in the UK. These are usually asymptomatic, although they can also cause non-specific gastrointestinal symptoms, lethargy and malaise. They are typically self-limiting but schistosomiasis can last for decades, and *Strongyloides stercoralis* infection can persist for life if untreated. *Strongyloides* infection can become more serious in those who are immunosuppressed, and migrants from tropical areas should be actively screened. A raised eosinophil count ($>0.45 \times 10^9/\text{litre}$) may be the only clinical manifestation and should prompt screening according to the region of exposure (see eosinophilia article pXXX).

Sexual and reproductive health

The diagnosis and treatment of sexually transmitted infections (STIs) is free to all overseas visitors. A sexual history should be considered in all patients, using an independent professional translator if necessary. All patients at risk of STIs (including inpatients) should be referred to a genitourinary medicine clinic to assess risk, to test (regularly) for infections, to discuss hepatitis B vaccination if indicated and to offer information about sexual health and risk-reduction strategies. All migrant patients should be asked about sexual and gender-based violence and referred to appropriate support organizations. Women >25 years of age should be offered a smear test and annual screening for *Chlamydia*. Contraceptive options and choices should be discussed with women of reproductive age.

Female genital mutilation (FGM) is a significant problem in the UK. It is practised in >29 countries. Women from high-incidence countries (Africa, parts of the Middle East, South-East Asia) should be asked about FGM, and all cases must be referred to the home

office. Clinicians should ensure that there are no risks to younger female household members. FGM carries a risk of adverse pregnancy outcomes as well as chronic urogynaecological complications and psychiatric morbidity.

Pregnancy

According to the UK Office for National Statistics, over a quarter of live births in England and Wales in 2015 were to women born outside the UK. Pregnant migrants to the UK, especially recent migrants, asylum-seekers and refugees, have poorer pregnancy outcomes. A study by Doctors of the World in 2014 found that entitlement checks and charging were a deterrent to vulnerable pregnant migrant women accessing early pregnancy care, leaving them at risk of complications. Language barriers can present difficulty in understanding the information and choices that are available on pregnancy and childbirth. Women of black African and black Caribbean origins have a higher risk of maternal mortality in the UK than women from other ethnic backgrounds. Useful information on maternity entitlements is available from www.maternityaction.org.uk.

Viral hepatitis

Viral hepatitis is a leading cause of death globally, with a toll exceeding that of HIV (1.3 million deaths), TB (1.2 million deaths) and malaria (0.5 million deaths). In the European Union/ European Economic Area, the burden of hepatitis B (25%) and hepatitis C infection (14%) attributable to migrants exceeds the proportion of the general population who has migrated from countries that are highly endemic for hepatitis B and C, suggesting that migrants are disproportionately affected, but these estimates may be affected by increased ascertainment of hepatitis status in migrants.

Hepatitis B

Most chronic hepatitis B infections diagnosed in the UK (>95%) occur in migrants who acquired their infections in childhood. Testing for hepatitis B should be offered to migrants from countries with a prevalence of infection of >2%. This includes all countries in Africa, Asia, the Caribbean, Central and South America, Eastern and Southern Europe, the Middle East and the Pacific islands. In the absence of infection, hepatitis B vaccination should be offered, and practical counselling should cover the routes and risks of transmission.

Routine antenatal testing has proven effective at reducing the rate of vertical transmission of hepatitis B.

Hepatitis C

Hepatitis C is a curable infection, one which the WHO is targeting for elimination as a public health threat by 2030. Globally, hepatitis C is most prevalent in North Africa and East Asia, but studies in the UK have shown that people of South Asian origin are among those at highest risk of hepatitis C infection. Pakistani and Bangladeshi men with hepatitis B or C infection have the highest rates of infection-related cirrhosis and hepatocellular carcinoma in the UK.

Hepatitis E

Screening for hepatitis E is important for all cases of suspected acute viral hepatitis. Most imported infections are in people who have recently travelled from South Asia. Secondary cases can also occur. Although most infections are asymptomatic, there is a risk of

significant morbidity and mortality in pregnant women and in the context of pre-existing liver disease.

Non-communicable diseases

NCDs contribute a significant burden of disease in migrants. Important morbidities are cardiovascular disease, respiratory disease, metabolic disease and cancer. Four major risk factors have been identified by the WHO: smoking, physical inactivity, excess use of alcohol and unhealthy diet, particularly excess salt intake. Smoking-related illness is common in migrants from many developing countries (it is almost twice as common in men of Bangladeshi origin as in the general UK population). High rates of diabetes mellitus and hypertension in people from the Indian subcontinent, Africa and the Caribbean contribute to cardiovascular morbidity (Case 3). A better understanding of the risks and patterns of NCDs in different migrant populations is vital for shaping healthcare policy and practice in order to limit the burden of these diseases.

Haemoglobinopathies, such as sickle cell anaemia, thalassaemia and glucose-6-phosphate dehydrogenase deficiency, are prevalent in many tropical regions. Nutritional deficiencies can result from dietary inadequacy (e.g. vitamin A) or cultural practices, or from being housebound (vitamin D). The Healthy Start programme offers vouchers for free vitamins and fruits and vegetables for pregnant women and children who qualify. Migrant communities can also be at higher risk of exposure to chemical hazards, such as heavy metal poisoning in alternative health medicines, unregulated cosmetic products or domestic, environmental or occupational exposures. Problems with hearing and vision should also be considered.

Mental health

There is an increased risk of schizophrenia and psychotic symptoms in adults and children who have recently migrated, particularly in people of Afro-Caribbean origin. Refugees and asylum-seekers can be exposed to risk factors for mental disorders before, during and after their migration, and anxiety, depression, substance misuse and post-traumatic stress syndrome are probably more prevalent in those migrating from adverse conditions. In the context of asylum-seekers who have been victims of torture, the physician can be an important advocate of the patient in identifying clinical evidence of abuse or torture. There are cultural variations in the way mental illness may be expressed, and it can manifest as physical complaints. Stigma can inhibit people from accessing services.

Figures 1 and 2

Figure 1: Unsanitary and unsafe living conditions in the Calais camp, which has since been demolished, February 2016. From "Unsafe Borderlands-Filling data gaps relating to women in the Calais camp", published with kind permission of the Refugee Rights Data Project

Figure 2: Women who are displaced, asylum-seekers and refugees are at particular risk of violence and sexual exploitation. From "Unsafe Borderlands-Filling data gaps relating to women in the Calais camp", published with kind permission of the Refugee Rights Data Project

<http://refugeerights.org.uk/about/> [[full written permission awaited]]

Two photographs for the article. Please note, I am unsure of exactly what permissions you would require for these, but can obtain an e-mail from the refugee data project who have provided them.

ATTACHED

Case 1

A 28-year-old Eritrean woman presented in labour at 7 months' gestation. She had not booked her pregnancy, and had no GP. She spoke little English and had no relatives present. On arrival, she was informed that she would have to pay for her care, but was admitted as an emergency. She was unaware of her HIV status. No interpreter was available. Following an emergency caesarean section, her baby required intensive care. Urgent HIV and hepatitis B tests were negative. On the postnatal ward, she was seen by a midwife who arranged an interpreter service and carried out a full assessment of her mental health, finding her to be at risk of postnatal depression. She was informed that, as an asylum-seeker, she was entitled to free maternity care and all other NHS services. The midwives explained how to register with a GP. Following discharge, she was followed up by a health visitor who put her in touch with a support group. After a few visits, she disclosed a history of sexual assault in Libya on her route to the UK. She was referred to a sexual health clinic and given counselling with the assistance of a translator.

Table 1

Barriers to timely and effective healthcare in recent migrants from resource-poor countries

- **Eligibility** to healthcare – asylum-seekers are entitled to full NHS care. Failed asylum-seekers and undocumented migrants are entitled to free primary care at the discretion of the provider and to free care for emergency treatment, family planning, treatment for communicable diseases, diagnosis and treatment of HIV, and mental healthcare if detained under the Mental Health Act 1983, and to treatment as part of a court probation order (National Health Service (Charges to Overseas Visitors) Regulations 2011)
- **Cultural** – perceptions of the doctor–patient relationship can be different on both sides. Patients can have different expectations based on their experience in other countries. Doctors can misinterpret culturally sensitive complaints; for example, in some cultures, somatization is more common in psychosocial disorders.
- **Language** – speak clearly and slowly when speaking to people whose first language is not English, and take care when using family members as interpreters: people may not wish to disclose confidential information in front of their family. The General Medical Council recommends using interpreting services wherever possible. Avoid using euphemisms when referring to stigmatizing diseases as this can cause misunderstanding
- **Dispersal programmes** – these result in interruption of treatment, particularly important in the case of chronic infections such as HIV and hepatitis B and C, and also in terms of poor continuity of healthcare and loss to follow-up
- **Poverty** – asylum-seekers, failed asylum-seekers and undocumented migrants are not permitted to work in the UK so are often destitute; many other migrants are poor. Accessing healthcare is often considered less important than finding enough money to live on, resulting in late and emergency presentations to the NHS
- **Stigma** – fear of the social implications of certain diagnoses (e.g. HIV, tuberculosis) within one's own cultural community results in delayed presentations to healthcare services, and patients can be reluctant to talk about certain aspects of their illness.

Table 2

Access to NHS care

- Anyone living in the UK can register with a GP. A person does not need to be ordinarily resident in the UK to be eligible for NHS primary care. Asylum-seekers, refugees, overseas visitors, international students and homeless people, irrespective of their immigration status, are eligible to register with a GP even if they are ineligible for free secondary NHS care²
 - There is no contractual requirement to provide proof of address or immigration status for GP registration. Some people, owing to the nature of their circumstances, e.g. domestic violence, trafficking or homelessness, may not be able to provide documentation
- Treatment of certain communicable diseases (including TB, hepatitis B, measles, HIV and sexually transmitted infections), compulsory mental health treatment and accident and emergency department care are available free of charge for all patients
- Asylum-seekers, refugees and those in immigration detention are entitled to receive free NHS hospital treatment
- Full entitlement to NHS care is available to women who are victims of trafficking/modern slavery and to victims of violence (domestic violence, sexual violence, female genital mutilation or torture)
- Refused asylum-seekers are entitled to completion of treatment free of charge if it had been initiated at the time their claim was rejected
- Doctors of the World UK (www.doctorsoftheworld.org.uk) run clinic and advocacy programmes in London and provide medical care, information and practical support to marginalised people such as destitute migrants, sex workers and people with no fixed address.

Table 3

Assessment of new migrant health needs

- Recent migrants need the same health checks as all registering patients, but they may have additional care needs stemming from events before migration, the circumstances of their migration and their living situation in the UK
- Recent migrants may need an explanation of how the NHS works and how they can access NHS care
- It is important to enquire sensitively:
 - How long they have been in the UK and the circumstances of their migration
 - Their current living circumstances and social situation
 - How they are integrating into UK society
- What immunizations have they been given?
- Are there any dental health issues?
- Are there problems with hearing and vision?
- Are they at risk of infectious diseases (from exposures in their country of origin or on their journey)?
- Does their ethnicity/background imply a higher risk of non-communicable diseases such as diabetes mellitus, cardiovascular disease or metabolic conditions, or of psychiatric illness and traumatic stress?
- Does their sexual history make them vulnerable to sexually transmitted infections and HIV?
- Do they have contraceptive needs?
- Are they pregnant?
- Do they plan on returning to their country of origin to see friends and relatives, and do they understand risks of infections like malaria?

Source: Adapted from Public Health England: Migrant Health Guide published 2014.

Box 5 (deleted)

Case 2 (deleted)

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Further Reading

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TEST YOURSELF

To test your knowledge based on the article you have just read, please complete the questions below. The answers can be found at the end of the issue or online [here](#).

Question 1

A woman from Zimbabwe had entered the UK on a 6-month visa. HIV was diagnosed during an emergency admission and she was treated for cryptococcosis. Her CD4 count was 64 _ 106/litre and viral load >500,000 copies/ml. HIV specialists recommended that she start antiretroviral therapy (ART), but she declined treatment as she was informed that she would have to pay. Her condition subsequently deteriorated, and she was admitted for 3 months including a long stay in intensive care. Following this, she was able to claim asylum and had entitlement to treatment on the NHS. It was estimated that, had she been given ART after her initial admission, the saving to the NHS would have been £28,350.

What is the correct advice to offer about the costs to the patient of treating HIV in the UK??

- A. HIV treatment in the UK is free for everyone
- B. HIV treatment is free only for UK/EEA citizens
- C. HIV treatment is free only for UK/EEA citizens and for non-EEA citizens who have paid their immigration health surcharge
- D. HIV treatment is free to UK/EEA citizen and non-EEA citizens who have paid their immigration health surcharge and those exempt from paying it
- E. HIV treatment in the UK is chargeable to all non-UK/ EEA citizens except for pregnant women

Correct answer: A. Since 1st October 2012, an amendment to the NHS (Charges to Overseas Visitors) means that HIV treatment is not chargeable to any overseas visitors

Question 2

A 42-year-old man presented with recurrent fevers. He had been having fevers every other day for the previous 2 weeks and had mild abdominal pain and myalgia. There was no significant past medical history. Originally from India, he had been living in the UK for over 20 years. However, around 9 months previously he had gone back to visit relatives in Calcutta for 1 month. He had not felt unwell since returning until now. On clinical examination, there was splenomegaly, but examination was otherwise unremarkable.

Investigations

- Haemoglobin 122 g/litre (130–180)
- White cell count 10.8×10^9 /litre (4.0–11.0)
- Neutrophil count 5.8×10^9 /litre (1.5–7.0)
- Lymphocyte count 3.2×10^9 /litre (1.5–4.0)
- Platelets 78×10^9 /litre (150–400)

Which investigation is the most likely to yield the likely diagnosis?

- A. Flavivirus serology
- B. Stool microscopy
- C. Terminal urine microscopy
- D. Blood film for malaria parasites
- E. HIV viral load

Correct answer: D.The history and blood profile is compatible with *Plasmodium vivax* infection. The incubation period is too long for flavivirus infection. Stool microscopy would not be diagnostic of an invasive amoebic liver abscess (a differential diagnosis). Schistosomiasis does not typically cause a fever, except, rarely, early in infection (Katayama fever). Whilst HIV may predispose to infections causing these symptoms or cause in a seroconversion illness, a viral load would not yield a full diagnosis.

Question 3

A 28-year-man presented with fatigue. He had recently migrated from Nigeria. Full blood count results were unremarkable other than an eosinophil count of $1.8 \times 10^9/\text{litre}$ (0.04–0.40) On further questioning, he said he had had increased frequency of micturition for some time, and had also had some episodes of terminal haematuria.

Which of the following is the most likely causative organism?

- A. *Ancylostoma duodenale*
- B. *Ascaris lumbricoides*
- C. *Schistosoma haematobium*
- D. *Strongyloides stercoralis*
- E. *Trichuris trichiura*

Correct answer: C.*Schistosoma haematobium* causes inflammatory changes in the urinary tract causing haematuria. Although fatigue and eosinophilia may occur in the other conditions listed, haematuria is not a feature of infection with *ancylostoma duodenale* (hookworm), *Ascaris lumbricoides* (intestinal roundworm), *Strongyloides stercoralis* or *trichuris trichiura* (whipworm).