education

FROM THE JOURNALS Edited highlights of weekly research reviews

What does winning look like?

What would you do for an 18% chance of winning $5 and a 1% chance of winning $50? This study randomised 552 patients recently discharged from hospital with heart failure and offered those in the intervention arm these incentives each day that they took their heart failure medications and recorded their weight. As well as trying to improve medication adherence, clinicians were alerted to significant weight increases, with the aim of allowing them to intervene early.

These rewards and weight monitoring didn't affect the primary outcome of death or readmission, with 63% in the control group and 64% in the intervention group having at least one of these events within a year. Why this intervention didn't improve outcomes isn't clear, but I'd be interested in hearing from some of the study's participants: how did they feel about being offered cash prizes for taking medication? I'm left wondering if understanding the individual factors that make it hard to take medications or self-manage might be a more fruitful approach, if harder to quantify.

JAMA Intern Med doi:10.1001/jamainternmed.2022.1383

How low can you go?

This analysis of six randomised controlled trials has estimated the time to clinical benefit of intensive blood pressure lowering in people aged 60 years or older with hypertension. For every 100 patients enrolled on studies comparing intensive blood pressure targets (systolic <140 mm Hg) with usual blood pressure targets, it took around 19 months of intensive blood pressure lowering to avoid one major cardiovascular event.

On the surface this seems quite a handy figure, but when you consider that this estimate will vary depending on other cardiovascular risk factors you need to add some pretty wide error bars. Then add the fact that the time to harm—from falls, hypotension, syncope, electrolyte abnormalities, and acute kidney injury—isn't included in this study, but was seen nine months earlier than the decrease in major adverse cardiovascular events in the SPRINT trial, you can see why NICE chose not to lower their recommended target blood pressure in their latest hypertension guideline update.

JAMA Intern Med doi:10.1001/jamainternmed.2022.1657

Waiting relatives

Reading about systems of care for acute stroke in *JAMA* seems a world away from clinical practice at the moment, where a patient referred urgently for suspected rheumatoid arthritis gets an appointment in four months' time, and where children aren't able to attend school due to severe anxiety but still have to wait up to a year to get help from mental health services. Perhaps one day we'll see a randomised control trial where patients get a specialist opinion and treatment in a timely manner versus NHS usual care.

Meanwhile, in the world where response times are measured in minutes rather than months, a new study flew intervention teams out to patients with suspected acute ischaemic stroke in non-urban Germany. The average time from the decision to pursue endovascular thrombectomy to beginning the procedure for these patients was 58 minutes, compared with 148 minutes in those who had a standard ambulance inter-hospital transfer.

JAMA doi:10.1001/jama.2022.5948, doi:10.1001/jama.2022.3820

Which of the following side effects…?

Among the thousands of multiple choice questions I answered when preparing for exams, I remember one about the side effect of the lipid lowering drug ezetimibe that I could never answer correctly. Thanks to a new systematic review and meta-analysis in *BMJ Medicine*, I can put all that behind me now: the study concludes that "ezetimibe results in little to no difference in adverse events or other undesirable effects compared with placebo, usual care or other lipid-lowering agents." The analysis of 48 randomised controlled trials and four cohort studies showed, with moderate to high certainty, that ezetimibe is not associated with cancer or neurocognitive events—one or both of which may have been the correct answer to that MCQ.

BMJ Med doi:10.1136/bmjmed-2022-000134

Blood pressure targets in pregnancy

NICE guidelines recommend offering treatment in pregnant women with chronic hypertension if they have a sustained systolic blood pressure >140 mm Hg or sustained diastolic blood pressure >90 mm Hg. However, higher thresholds for offering treatment are recommended in several other international guidelines.

NICE's approach seems to be supported by a new US based, multicentre, open label, randomised control trial that recruited women under 23 weeks' gestation with mild chronic hypertension. Active treatment involved offering medication to reach a target blood pressure of <140/90 mm Hg, whereas in the control arm treatment was initiated only if blood pressure went above 160/105 mm Hg. The primary endpoint—a composite of pre-eclampsia with severe features, medically indicated preterm birth at <35 weeks of gestation, placental abruption, or perinatal death—was reached in 30.2% in the active treatment group versus 37% in the control group.

N Engl J Med doi:10.1056/NEJMoa2201295

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Frozen shoulder

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CPD READING 0.5 HOURS

LEARNING MODULE

See http://learning.bmj.com for linked learning module

Frozen shoulder is a common and often debilitating condition that lacks a clear consensus on management, partly owing to a lack of high quality evidence on the various treatments options. In this clinical update, we offer an overview of the latest evidence on management of frozen shoulder, incorporating the clinical implications of recently published research, including the UK FROST study—the largest randomised controlled trial in this field to date, which compares surgical treatments with early structured physiotherapy and intra-articular corticosteroid injections.

What is frozen shoulder?

Frozen shoulder is a condition that results in development of thickened, fibrosed joint capsule, contraction of the joint, and reduced intra-articular volume.[1] The exact cause of these changes is unknown, with several possible processes suggested in the literature.[1] Over the years, uncertainty has surrounded the definition and classification of this condition, leading to inconsistencies in both clinical practice and scientific studies.[2] This is partially owing to the wide spectrum of clinical presentations, with patients experiencing different levels and combinations of symptoms. This also means their lives can be affected in many different ways, depending on the severity of the condition and their daily activities.

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

A patient with experience of the condition reviewed a draft of the manuscript. In response to their feedback, we developed the section on management to include more detail about analgesia and adjuncts to physiotherapy.

WHAT YOU NEED TO KNOW

- Patients with diabetes are at higher risk of developing frozen shoulder and having bilateral symptoms than the general population
- Recovery times vary, but can be years, and some patients are left with residual pain or functional impairment
- Physiotherapy is the most commonly used intervention and can be supplemented by intra-articular steroid injections
- Treatments offered in secondary care include joint manipulation under anaesthesia, arthroscopic capsular release, and hydrodilatation
- The UK FROST trial compared manipulation under anaesthetic, arthroscopic capsular release, and early structured physiotherapy with intra-articular corticosteroid injections, and found that none of the interventions were clinically superior

Box 1 | Diagnosis of frozen shoulder[9]

- History—insidious onset of shoulder pain, often anterolateral initially; pain at night; sometimes minimal trauma associated around time of onset
- Examination—painful movement restriction, passive external rotation less than 30°, passive elevation less than 100°; cases in which the disease affects the posterior capsule more than the anterior can present with reduction in internal rotation
- Investigations—plain radiographs are useful to check for arthritic changes in the glenohumeral joint and are recommended by the British Elbow and Shoulder Society[10]; ultrasound and magnetic resonance imaging may be considered depending on the clinical features and differential diagnoses

Who gets it?

The age of onset is usually in the fifth decade of life, with peak incidence between the ages of 40 and 60.[3] Women are more commonly affected than men, with one study reporting the incidence as 3.38 and 2.36 per 1000 person years, respectively.[4]

Patients with diabetes have a 10% to 20% lifetime risk of developing frozen shoulder,[5 6] and are more likely to have bilateral shoulder involvement than the general population.[7] Frozen shoulder has been linked to conditions such as hypothyroidism, hypercholesterolaemia, and heart disease, although evidence is insufficient to determine whether these associations are independent.[8]

How is it diagnosed?

Frozen shoulder is primarily a clinical diagnosis (box 1). Patients can present with a range of symptoms related to the shoulder, although pain is often the initial trigger for presentation. Three distinct phases are commonly described,[11] with each phase typically lasting several months:

- Freezing/proliferative phase—stiffness with progressively worsening pain (usually constant but exacerbated by movement)
- Frozen/adhesive phase—ongoing stiffness with improved pain levels, reduction in range of motion, in particular on external rotation
- Thawing/resolution phase—gradual improvement in range of motion.

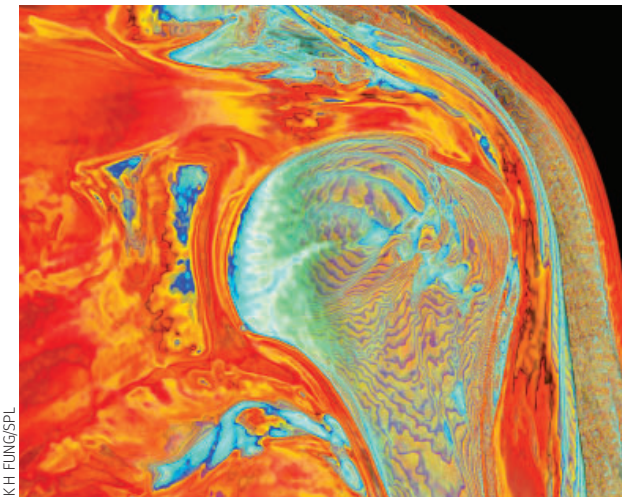
The clinical course can be variable[2] and not all people with frozen shoulder will experience all three of these stages. Pain at night is a common feature, often causing considerable disruption to sleep. Patients can also experience sudden jerking movements associated with pain.[2] Diagnostic pointers for frozen shoulder are summarised in box 2, and differential diagnoses are listed in table 1.

What is the clinical course of frozen shoulder?

Frozen shoulder is often described in literature as a "self-limiting" condition, and patients typically experience resolution of symptoms without or regardless of any treatment.[13] Most people make a full recovery, although recovery time tends to be slow—between one and three years.[14 15] Some experience residual symptoms: the original prospective study on frozen shoulder from 1975 found that half of patients had residual clinical restriction in range of movement after 5-10 years, and 7% had ongoing functional limitation.[11] Similar rates were reported in more recent literature, with one study[6] of patients under the care of a specialist shoulder clinic followed up at average 52 months finding that 41% reported residual symptoms.

Recurrence of primary frozen shoulder after the initial resolution of symptoms is poorly reported in literature, but in our experience is rare. Up to 20% of patients can develop the condition on the opposite side.[5] Patients with diabetes generally have poorer response to treatment and, with interventions such as manipulation under anaesthetic, are at higher risk of requiring further procedures.[16]

Most people make a full recovery, although recovery time tends to be slow—between one and three years



K H FUNG/SPL

Box 2 | When to refer to secondary care

British Elbow and Shoulder Society guidelines[10] advise to refer:

- Cases of atypical presentation or marked functional limitation
- Persistence of pain despite primary care interventions beyond three months

American Family Physician guidelines recommend referral to a shoulder specialist if no improvement is seen with physiotherapy and corticosteroid injections after three months[12]

Table 1 | Differential diagnoses

Differential	Clinical features/diagnostic clues
Septic arthritis	Rapid onset, single swollen joint with restricted movement—both active and passive. Patient may be systemically unwell
Shoulder dislocation	Usually traumatic onset. Typically associated with visible deformity
Glenohumeral osteoarthritis	Insidious onset, pain and limited passive range of motion with degenerative changes at the glenohumeral joint on plain radiographs
Rotator cuff pathology and subacromial impingement	Insidious onset shoulder pain with preserved passive external rotation
Inflammatory arthritis	Usually multiple joint involvement, can be associated with joint warmth and redness, patients can experience systemic symptoms such as fatigue or weight loss. Consider systemic inflammation including polymyalgia rheumatica in bilateral shoulder pain

How is frozen shoulder managed?

After establishing a clinical diagnosis of frozen shoulder, explain the typical progression of the condition. Discuss the range of available management options and the risks associated with each intervention (table 2). An individual approach involving exploring the extent of functional limitation and establishing treatment goals can aid in deciding the appropriate treatment.

Advise patients to continue to use the arm as pain allows.[9] Over-the-counter or prescription painkillers can help to alleviate pain, which is often the most debilitating symptom experienced in the early stages and can limit engagement with physiotherapy. Sleeping on the unaffected side or using pillows for support in bed can help with night time pain. Heat or ice packs over the affected area can be used for additional pain relief. Shoulder stiffness can lead to other musculoskeletal symptoms, most commonly neck and lower back pain, which can also be targeted with physiotherapy. In the early stages, we recommend patients try simple home exercises such as placing things higher up to encourage reaching, gentle stretching, and pendulum exercises.[17]

Physiotherapy

The main role of physiotherapy is in the frozen/adhesive phase (when the initial symptoms of pain have subsided) with stretches and strengthening exercises. This should be sustained with additional resistance based exercises in the thawing/resolution phase.[18] Structured approaches include group or individual physiotherapy, with formal range of motion exercises, soft tissue massage, and trigger point release.[19] The recommended initial treatment course is six to 12 weeks.[5]

Corticosteroid injections

Corticosteroid injections can help in reducing pain and improving range of movement, particularly in the early stages of the condition and when combined with physiotherapy. A 2020 systematic review and meta-analysis on the management of frozen shoulder assessed the effectiveness of available treatment strategies across 65 studies with 4097 patients.[20] The authors found that intra-articular (IA) corticosteroid injections were associated with short term improvement in external rotation and pain compared with no treatment or placebo. IA corticosteroid injections with physiotherapy were found to be superior to IA corticosteroid injections alone for early range of motion only. Physiotherapy with IA corticosteroid injections was found to be superior to physiotherapy alone for short term outcomes using several symptom and functional scoring systems, but not for range of motion or medium term function.

IA steroid injections are associated with better pain relief compared with subacromial injections.[21] Interestingly, a 2021 clinical trial found that, even

Table 2 | Summary of treatment options

Treatment	Advantages	Disadvantages
Supportive management	Can be effective for some patients, owing to the self-limiting nature of frozen shoulder	Full resolution can take more than three years, with resultant lack of function during that time
Structured physiotherapy	Shown to be superior to home exercises alone for improved shoulder function	Access to formal physiotherapy can be difficult owing to limited resources, pain can limit patient engagement
Corticosteroid injections	Associated with improved short term range of motion and pain scores; easy to access in primary or secondary care	Mild adverse effects; can affect glycaemic control in patients with diabetes
Hydrodilatation	May improve pain and functional scores compared with supportive treatment	May not be available in some settings; paucity of evidence with further studies in progress
Manipulation under anaesthetic	Low rates of adverse events compared with ACR; cost effective compared with ACR and structured physiotherapy with corticosteroid injection	Reported adverse effects include worsening of pain symptoms, residual stiffness, and nerve pain
Arthroscopic capsular release	Can be associated with shorter recovery compared with natural progression of disease; some evidence showing improved shoulder function scores compared with hydrodilatation	Most invasive option associated with highest complication rates

though ultrasound guided IA injections were associated with greater accuracy than blind IA injections, no difference was seen between them in pain and functional outcome scores.[22]

Corticosteroid injections are generally considered safe and are associated with mild side effects only. In one study, three of 58 patients (5.2%) reported mild self-limiting nausea and dizziness.[23] Another reported that, of 133 participants, one patient (0.7%) experienced prolonged pain at the injection site, and three patients (2.3%) developed transient facial flushing.[24] Steroid injections can affect blood glucose control in patients with diabetes, particularly in the first day after the intervention.[25]

Surgical options—arthroscopic capsular release and manipulation under anaesthetic

Arthroscopic capsular release (ACR) is a surgical procedure carried out under general or regional anaesthesia. The shoulder capsule is divided using arthroscopic instruments and the shoulder is re-examined to confirm optimal release. Manipulation under anaesthetic (MUA) is a procedure in which the shoulder is manipulated by the surgeon to stretch and tear the joint capsule. It is carried out under general or regional anaesthesia.

The recently published UK FROST study compared ACR, MUA, and early structured physiotherapy with intra-articular corticosteroid injection.[26] The study is the largest randomised controlled trial of these interventions to date, with 503 participants recruited across 35 UK hospitals. In UK FROST, short term outcomes of ACR at three months were overall worse compared with physiotherapy with corticosteroid injection or MUA. However, at 12 months ACR was found to be associated with better functional scores (Oxford Shoulder Score, OSS) compared with both MUA and physiotherapy (OSS difference 2.01 and 3.06, respectively), although this was less than the clinically important effect size of 4-5 OSS points. The study authors concluded that none of the three interventions was clinically superior, but that ACR carried higher risks (3.9% in this cohort had a serious adverse event compared with 1% of those who had MUA), and MUA was the most cost effective intervention.

One weakness of UK FROST is that it was unable to determine to what extent the improvements in outcomes were the result of the interventions rather than the natural course of the condition. A randomised controlled trial of 125 patients in Finland[17] comparing MUA with supportive treatment (home exercises) found no difference in terms of pain levels or functional ability between the two groups at 12 month follow-up; minimal differences were noted in range of motion in favour of the MUA group. Another smaller randomised controlled trial comparing ACR with supportive care did not find any significant differences between the two in functional outcome scores.[27]

Hydrodilatation

Hydrodilatation involves injecting fluid into the shoulder joint to disrupt the capsular adhesions, and is usually performed in a clinic setting. Solutions used and volumes injected vary in literature, but most clinicians use normal saline with local anaesthetic and corticosteroid.[28] Hydrodilatation was not included in the UK FROST study as it was not widely available until recently. It has since become a common management option alongside MUA and ACR in many UK secondary care centres.

A 2008 Cochrane review[29] noted hydrodilatation was associated with short term improvement in pain, function, and range of motion. However, a more recent 2018 systematic review and meta-analysis[28] found that the procedure had an overall insignificant effect on clinical outcomes—the authors noted minimal improvement in pain and range of motion (number needed to treat of 12) with no significant improvement in disability. One small randomised controlled trial[30] comparing MUA and hydrodilatation found that functional scores were significantly better in the hydrodilatation cohort with higher patient satisfaction rates, although the study was conducted in a small patient cohort (38 joints in total). At present, comparisons with surgical treatments are difficult owing to a lack of high quality evidence. A Delphi study[31] backed by the British Elbow and Shoulder Society is under way to help inform future directions of research. Adverse events reported with the use of hydrodilatation include pain, flushing, syncopal episodes, and one case of glenohumeral joint infection.[28]

EDUCATION INTO PRACTICE

- How might you explain the different stages of frozen shoulder to a patient first presenting with the condition?
- What strategies could be used in the community to widen the access to physiotherapy for patients?

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PRACTICE POINTER

Initial health assessments for newly arrived migrants, refugees, and asylum seekers

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CPD READING
0.5 HOURS

Migrant, refugee, and asylum seeker populations in Europe have increased in recent years, including in response to the current conflicts in Afghanistan, Syria, and—more recently—Ukraine.[1-3] Countries neighbouring those in crises, and transit countries, are most affected, but so are many other host nations across the world.[1-3]

People fleeing conflict or humanitarian crisis, undocumented migrants, refugees, asylum seekers, and people who have been trafficked, may be more vulnerable than other migrants.[4] Health service delivery to these groups can be complex and has implications for health systems and front line clinicians tasked with meeting the needs of these diverse populations.

This article outlines how primary care services and multidisciplinary teams can meet the initial healthcare needs of newly arrived migrants. We include some specific new guidance on health provision for newly displaced populations from Ukraine; however, the main focus is on refugees and asylum seekers from Afghanistan who have arrived in the UK in large numbers over the past year or so, and for whom UK GPs have requested specific guidance. That said, the advice presented is broadly applicable to all countries hosting migrant groups from any country.

Evidence regarding best practice for migrants as a patient group is limited. This article draws primarily on the available specialist guidance and the authors' clinical and professional experience.

WHAT YOU NEED TO KNOW

- Consider screening for communicable diseases (including active and latent TB, hepatitis B/C, HIV, and parasitic infections) dependent on country of origin, and offer catch-up vaccinations for all newly arrived children, adolescents, and adults to align with the host nation's schedule
- Non-communicable diseases may be undiagnosed or poorly controlled; maintain and review medication supplies
- Consider nutritional deficiency, oral health, pregnancy, contraception, mental health, and traumatic experiences
- Show kindness and empathy during all encounters, as interaction with healthcare workers can markedly influence migrants' lives in new countries. Take a holistic, person-centred approach, and signpost patients to services, voluntary support, and translated health information

What is an effective consultation?

In the UK, everyone has the right to register and consult with a GP (boxes 1 and 2, bmj.com). Entitlements vary between countries and migrant groups. Where required, provide support in registration, navigation, and attendance of appointments, remembering that digital registration and triage systems introduced during the covid-19 pandemic may pose challenges. All services have a role in signposting and supporting access to a full and holistic assessment, regardless of where patients initially present.

The UK Health Security Agency (UKHSA) recommends inquiring about circumstances before migration, the journey, and current circumstances (including discrimination) within a person centred assessment of any presenting migrant patient.[8]

General Medical Council guidance states that "all possible efforts must be made to ensure effective communication with patients." This should involve use of independent professional interpreters:

- Consider patient preference regarding interpreter dialect, gender, and cultural background, as these may have an impact on trust and disclosure of information
- Book interpreters in advance, particularly for languages where it may be more difficult to find an interpreter
- Record the names and identification numbers of interpreters to allow rebooking and continuity.

In the consultation, enable effective communication by being compassionate, listening actively, gaining trust, and building rapport. Whenever possible, offer longer appointment times and follow-up appointments with the same healthcare professional to enable this, to ensure all health concerns are addressed, and to provide continuity of care.

When referring to specialist services, be open with patients about expected wait times to help manage expectations.

"It is hard for me, telling my story again and again. My doctor knows what happened to me. It is better for me. I don't have to explain everything to her every time." An asylum seeker from Afghanistan.

The following section focuses on the specific needs of migrants from Afghanistan.

What clinical issues to consider

Refugees are often described as facing a "triple burden" of infectious diseases, non-communicable diseases, and mental health issues. Some conditions "cluster," owing to shared exposure to life threatening events, epidemiological burden in the country of origin, and risk factors related to the journey to the host country (examples might include diabetes, depression, and poverty, or diabetes, obesity, and lack of social network) (fig 1).[12] Migrants' health may deteriorate in the host country because of socioeconomic challenges, substandard accommodation, lack of digital access or digital literacy, and restricted access to healthcare, education, and labour opportunities.[13]

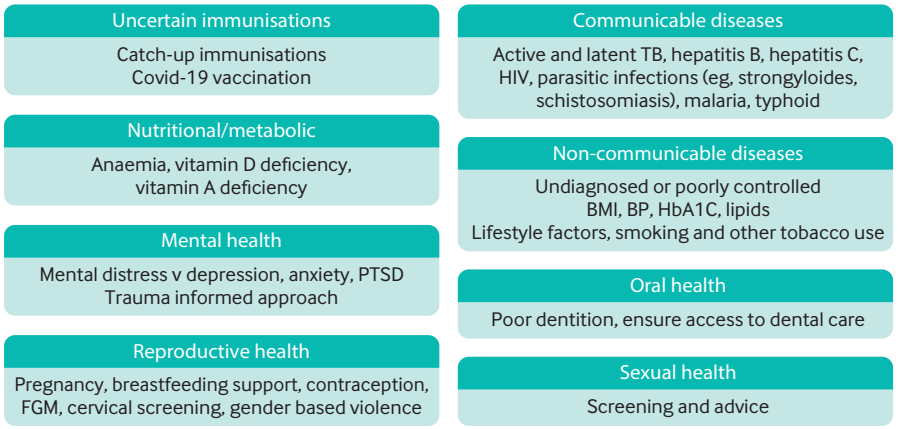


Fig 1 | Key health considerations when assessing newly arrived migrants, refugees, and asylum seekers

Communicable disease

The UKHSA[8] and the European Centre for Disease Prevention and Control (ECDC) offer up-to-date advice on screening for communicable diseases.[14]

The United Nations High Commissioner for Refugees and International Organisation for Migration prescribe pre-entry testing for hepatitis B and C and chest radiography for tuberculosis (TB), but this is not possible for people leaving in emergency evacuation. Furthermore, a delay often occurs between testing and travel of resettled refugees; hence repeat testing may often be required in the host country.

TB screening The incidence of TB in Afghanistan is ~189 per 100 000 population.[15] UKHSA suggests using chest radiography to screen people who are newly arrived from Afghanistan for active TB.[5] However most cases of active TB in the UK are likely due to reactivation of latent infection (LTBI). The National Institute for Health and Care Excellence (NICE) recommends that new entrants aged under 65 from high incidence countries, such as Afghanistan, are screened for latent TB using interferon-gamma release assay via a single blood test; this is most suitable for underserved groups (including refugees and asylum seekers).[16] In England, UKHSA's latent TB testing and treatment programme exists in primary care for people aged 18-35, who have arrived from high incidence countries (including Afghanistan) within the last five years.[17] Uptake of screening is limited in some migrant groups.[14] Challenging the stigma and misconceptions around TB may help to address this.[18] For children, contact local TB services regarding the pathways for LTBI screening.

Hepatitis B screening The ECDC recommends screening for hepatitis B in migrants from countries with intermediate (HBsAg prevalence ≥2%) and high (HBsAg prevalence ≥5%) prevalence.[5 14] The prevalence of hepatitis B in Afghanistan is considered relatively high.[5]

Strongyloidiasis screening Afghanistan has a high probability of being endemic for *Strongyloides*, a potentially serious but commonly asymptomatic infection. ECDC guidance recommends serological screening for strongyloidiasis,[14] irrespective of number of years since leaving endemic countries, particularly in individuals who are immunosuppressed.

Hepatitis C and HIV screening Afghanistan is not considered to have a high prevalence of HIV or to be HCV endemic, and therefore routine screening on arrival is not warranted.[14] Consider testing if other risk factors are present.

Sexual health screening When warranted, offer a full sexual health screen—including testing for HIV, hepatitis B and C, syphilis, chlamydia, and gonorrhoea—as part of an overall health assessment, taking care to be culturally sensitive (for example, some migrants may wish to discuss this only with health professionals of the same gender). Consider that if the person has a history of sexual assault or rape; they may struggle to disclose their trauma. A trauma informed approach is recommended (see below).

Patients who are febrile or unwell Consider a wide range of differentials, including the infections mentioned above, as well as malaria and typhoid.

Catch-up vaccination Some groups may be under-immunised and/or require additional vaccines to align them with host countries' vaccination schedules.[19] The World Health Organization's Immunisation Agenda 2030 calls for greater emphasis on catch-up vaccination across the life course, ie, seeking every opportunity to catch up missed vaccines, doses, and boosters in children, adolescents, and older individuals. Polio is endemic in Afghanistan (41 cases reported in 2021) and measles outbreaks still occur.[20]

The UKHSA advises to assume that patients are unimmunised if they are unable to provide reliable written or verbal vaccination history, and to offer vaccination according to the host country's vaccination schedule.[21] The UK catch-up vaccination schedule for migrants aged 10 years and older is summarised in fig 2.

Some populations might have a low uptake of vaccination for covid-19 (eg, survey data using non-probability convenience sampling found nearly a third of people surveyed in Afghanistan showed limited intent to vaccinate against covid-19[23]). Consider strategies to overcome any barriers to health or vaccine systems (including vaccine hesitancy), eg, through outreach, longer appointment times, and translated patient information.[24] A toolkit to improve vaccine uptake is available from Doctors of the World (see box, 'Additional educational resources') and ECDC.[25 26] The UKHSA provides guidance on managing people who may have been vaccinated in other countries.[27]

Offer written information about testing, treatment, and vaccination for covid-19 in the patient's language.

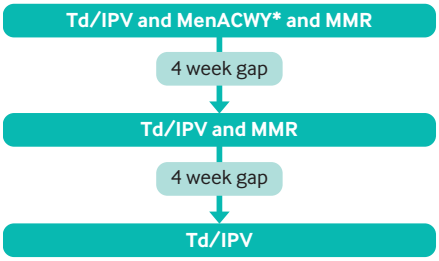
Non-communicable disease

Some patients may present with poorly controlled non-communicable diseases (NCDs), or may be experiencing complications owing to interruption or lack of medical care, loss of medication, and limited access to, or knowledge about, health systems in the host

country.[8] 2016 data from WHO suggest that around 8% of people in Afghanistan had diabetes; ~14% were overweight; ~2% were obese; and, in 2010, NCDs accounted for 35% of deaths.[28] WHO also estimates that 35% of men in Afghanistan smoke.[29] A 2021 cross sectional study of refugees from Afghanistan in Iran noted that 94% had less than adequate fruit or vegetable consumption, 20% had hypertension, 51% had central obesity, and 69% had dyslipidaemia.[30]

Smoking Ask about any tobacco consumption, including sheesha (tobacco smoked through a hookah) and naswar (powdered tobacco usually placed inside cheeks).

Nutritional and metabolic considerations Consider nutritional and metabolic conditions (including anaemia in preschool children and in adults) in all newly arrived migrants (look for pallor, glossitis, dry skin/hair, symptoms of anaemia, etc).[5] If clinically indicated, request iron studies, haematinics, and haemoglobinopathy screening (to check for thalassaemia). Assess for vitamin A deficiency (dry eyes, dry skin/hair, poor night vision/other sight problems). Consider vitamin D testing and/or supplementation, especially if risk factors (such as skin pigmentation and limited sun exposure owing to cultural dress) are present. Consider calculation of body mass index, checking blood pressure, and testing for diabetes and hyperlipidaemia.[5] In children, plot serial weight and height on growth charts, monitor for faltering growth, and consider vitamin supplementation (A, C, and D) for children aged 0-4 (in the UK, this is available for free with the "Healthy Start" programme).[31] Offer lifestyle advice with careful contextualisation and awareness of constraints.



Boosters and subsequent vaccination
First booster of Td/IPV - preferably 5 years following completion of primary course
Second booster of Td/IPV - ideally 10 years (minimum 5 years) following first booster
Subsequent vaccinations - flu, shingles, PPV and covid-19 vaccines as per UK schedule

Human papillomavirus vaccine
All females who have been eligible remain so up to their 25th birthday
Males born on or after 1 September 2006 are eligible up to their 25th birthday

Specific advice regarding vaccination of younger children can be found within same guideline[22]

*Those aged from 10 years up to 25 years who have never received MenC-containing vaccine should be offered MenACWY. Those aged 10 years up to 25 years may be eligible or may shortly become eligible for MenACWY usually given around 14 years of age. Those born on or after 1 September1996 remain eligible for MenACWY until their 25th birthday

Fig 2 | Catch-up vaccinations to consider in migrants aged 10 and older. Reproduced from[22] MMR=measles, mumps, rubella; Td/IPV=tetanus, diphtheria, polio; HPV: human papillomavirus vaccine; PPV=pneumococcal vaccine; MenACWY=meningococcal conjugate vaccine

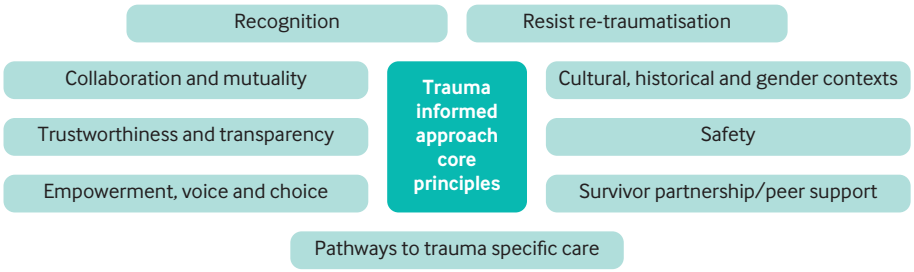


Fig 3 | The core principles of trauma informed approaches, which acknowledge the impact previous trauma may have had on an individual, and offer care in the context of this. The focus is on developing relationships, understanding experiences, and building resilience to provide a strong foundation for recovery[34]

Oral health Oral health is often overlooked and some migrant groups may not have had access to dentists for a considerable time. Explore dental symptoms and encourage attendance for routine dental care at the earliest opportunity.[8] All forms of tobacco consumption (see above) can affect oral health.

Medication history Ask about any pre-existing treatment. Patients may be taking medication that is not available in the host country or has an unrecognisable name. In these cases, switch according to best practice guidelines and review response to treatment. Explain where and how to collect medication, how to order repeat prescriptions, and advise about any prescription charges and exemptions.

Mental health

Mental distress does not always equate to mental illness. Cultural and linguistic differences can inappropriately increase the likelihood of a diagnosis of mental illness.[32] On top of the multiple challenges of adapting to living in a new country, people may have experienced conflict, violence, multiple losses, torture, sexual assault, and/or be at risk of exploitative situations.

Be mindful of cultural perceptions/stigma and impacts of mental health presentations and diagnoses.[33]

Patients may present with somatic symptoms, such as headaches, chest pain, back pain, and abdominal symptoms.

Use a trauma informed approach Ask open questions while remaining sensitive to patient cues about topics they may not want to discuss (full details are not essential to assess mental health adequately). Use a trauma informed approach (fig 3). Be alert to symptoms of depression and anxiety, and in the context of trauma, specifically inquire about symptoms of post-traumatic stress disorder.[35]

Ask about trauma Do not be afraid to ask about trauma, but be respectful of potential re-traumatisation. Advise patients that you will be asking difficult questions that they can choose not to answer. Move at the patient's pace, listen, and ensure post-disclosure support.[34]

Reproductive health

When appropriate, consider pregnancy and refer to antenatal services, offer vitamins (folic acid, vitamins C and D), and offer breastfeeding support; contraception, and explain and offer cervical screening.

Abusive situations

People may be victims of gender based violence, domestic violence (spousal or interfamily violence), honour based violence, trafficking or forced migration, modern slavery, and forced marriages.[36] Follow relevant local safeguarding procedures and seek advice if you have concerns.

Female genital mutilation

Consider female genital mutilation (FGM), particularly if the patient is from a region where it is known to be practised, if they have a family history of FGM, or if they present with genitourinary symptoms. Limited information is available about the practice of FGM in Afghanistan. Further resources are available through the UK Home Office's FGM unit.[37]

Box 3 | Clinical considerations for migrants from Ukraine

The ECDC recommends that current healthcare provision for displaced populations from Ukraine[9] (predominantly women, children, and older people at the time of writing) in transit and bordering countries includes access to emergency care, addressing basic needs (food, shelter, ensuring supply of medicines and medical equipment), and access to healthcare professionals. Preventing interruptions in medical supplies and care are essential to avoid excess mortality and morbidity in the coming weeks from cardiovascular disease, and chronic infectious and non-infectious diseases.[10] In the longer term, a more holistic approach might be needed; one that considers catch-up vaccination for both children and older groups (including for polio and measles, as outbreaks of these conditions occur in Ukraine),[9] and access to host health systems.[11]

ALBERT ZAWADA/EPA-EFE/SHUTTERSTOCK

How can we improve access to care?

Use a holistic and patient centred approach to assess patients' needs. Initiatives including the Doctors of the World UK's Safe Surgeries' Toolkit offer advice on overcoming common barriers. Other suggestions include:

- Better support for GPs in understanding the diverse health needs in different migrant groups
- Digital tools that offer GPs immediate tailored advice on screening and catch-up vaccines, based on country of origin (currently being explored[6 38])
- Record patient's spoken and written language preferences, avoiding assumptions regarding literacy
- Encourage staff familiarity with translated written resources (see box, "Patient resources" (bmj.com))
- Training and understanding of best practice in use of professional interpreters[5]
- Offer social prescribing to enable access to relevant services and community groups, such as immigration related support, language classes, financial and educational support, and community participation and socialisation opportunities[39]
- Due to challenging financial situations, signpost to voluntary services and food banks, and explain entitlements to welfare benefits, support with prescription fees, or transport to appointments
- Link newly arrived people and individual family members to the local community (eg, host country language classes, acculturation opportunities).[8]

Signpost to voluntary services and food banks, and explain entitlements to welfare benefits, support with prescription fees, or transport to appointments

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

One of the authors, Haja Ahmed, a journalist from Sudan, is a refugee who resettled in the UK with her four children on a government resettlement scheme five years ago. She provided her personal insights and experiences of arriving in a new country and navigating her way through the NHS.
We also spoke to several refugees and asylum seekers from Afghanistan, specifically asking what issues they had faced with accessing healthcare, and what would be helpful for clinicians to know when seeing newly arrived refugees from Afghanistan. Their advice led to several amendments, including highlighting how healthcare workers' interaction substantially influences patients' new lives in a new country, and the anonymous quotes included. Comments from external patient reviews echoed the views of other patient contributors and were also incorporated.

EDUCATION INTO PRACTICE

- What changes could your department make to ensure migrants' needs are met? For example, what would a "welcome pack" from your practice look like? What cultural competence training do your staff members require?
- What interpreting services and translated health information do your clinical and administrative staff know how to access and use effectively?
- How would you explore the experiences and journey that a refugee patient has taken?

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CASE REVIEW

Discoloured finger in a young girl

A 3 year old girl presented with a one month history of progressive skin discoloration on the index finger of her right hand. Her parents denied any injury or insect bite and did not mention pain, itching, or paraesthesia. The parents reported that their daughter habitually rubbed her scalp with this finger. Physical examination showed a brown patch on the fingertip (fig 1). The other fingers and nails and oral mucosa, teeth, and eyes showed no discoloration. Sweat and urine were reported to be clear. Range of movement in the finger joint was normal. The pigmentation was unaffected by 75% ethanol, excluding exogenous staining. A complete blood cell count was normal.

1 **What is the most likely diagnosis?**

2 **What further investigations are required?**

3 **How is this condition treated?**

Submitted by Yuan Yuan Xiao and Ya Bin Zhou

Parental consent obtained.

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Fig 1 | Brown discoloration of index finger on right hand

If you would like to write a Case Review or Spot Diagnosis for Endgames, please see our author guidelines at http://bit.ly/29HCBAL

answers

CASE REVIEW **Discoloured finger in a young girl**

Fig 2 | Complete remission of lesion, three months after scalp rubbing behaviour ceased

1 What is the most likely diagnosis?

Frictional dermatitis is a common dermatosis caused by recurrent mechanical stress. The clinical manifestation of this case is similar to gamer's thumb, which is a repetitive strain injury involving hyperkeratosis, blisters, or petechiae on the tips of the thumbs.

2 What further investigations are required?

Frictional dermatitis is mainly diagnosed on the basis of clinical findings. Dermoscopy can help in diagnosis, but depends primarily on the skill of the operator. Pinpoint haemorrhagic suffusions and parallel ridge pattern of pigmentation may be observed by dermoscopy.

3 How is this condition treated?

Drug treatment is not needed for frictional dermatitis. Ceasing behaviour that causes friction is sufficient to cure frictional dermatitis.

PATIENT OUTCOME

The lesion had completely resolved three months after the patient stopped rubbing her scalp (fig 2). To ensure cessation of this habit, the parents were asked to distract their daughter when she attempted to rub her scalp. The lesion had not recurred by the four month follow-up visit.

LEARNING POINTS

- Friction lesions in patients who are not video game players might resemble gamer's thumb.
- Ceasing behaviour that causes friction is sufficient to cure frictional dermatitis.

CPD READING
0.5 HOURS

You can record CPD points for reading any article. We suggest half an hour to read and reflect on each.

LEARNING MODULE

Articles with a "learning module" logo have a linked BMJ Learning module at http://learning.bmj.com.

MINERVA

Pigmented macules on the hands and lower lip

This is the left hand and lower lip of a man in his 60s with Laugier-Hunziker syndrome.

He presented to the dermatology department with an 18 month history of pigmented macules on his hands and lower lip that had appeared gradually. He was retired and had well controlled eczema on his hands. On examination, discrete, well demarcated 5 mm brown macules were present on the dorsal and plantar aspect of both hands and lower lip. No nail or mucosal pigmentation was noted.

Laugier-Hunziker syndrome is a benign, sporadic condition that usually presents in adulthood. It is characterised by pigmented macules on the lips and oral mucosa, often associated with brown pigmented lines on the nails. As no diagnostic test exists for Laugier-Hunziker syndrome, it is a diagnosis of exclusion.

The most important differential diagnosis to rule out is Peutz-Jeghers syndrome, which is associated with hamartomatous polyps in the gastrointestinal tract and internal malignancy. This syndrome usually presents earlier than Laugier-Hunziker syndrome, with cutaneous lesions noted during infancy, and it is caused by mutations in the serine/threonine kinase 11 gene (STK11). Gene testing for STK11, the result of which was negative in this man, can help to differentiate between the two syndromes.

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Patient consent obtained.

Cite this as: *BMJ* 2022;377:e068335

If you would like to write a Minerva picture case, please see our author guidelines at http://bit.ly/29HCBAL and submit online at http://bit.ly/29yyGSx

Benefits of bariatric surgery in older people

A study among Medicare beneficiaries in the US shows that bariatric surgery is effective in older patients. Compared with a control group not treated surgically, those who received a bariatric procedure experienced a reduction of around 40% in mortality, incidence of heart failure, and myocardial infarction over four years of follow-up. The mean age of people in this comparison was 63 but the benefits of surgery were seen in people older than this (*J Am Coll Cardiol* doi:10.1016/j.jacc.2022.01.047).

Antiviral effect of lithium

In vitro, lithium inhibits the replication of several RNA viruses. Using electronic health records of 27 000 patients with documented serum lithium levels, investigators explored possible implications in humans. Remarkably, they found that the incidence of covid-19 infection was lower among people whose lithium levels were in the therapeutic range than it was in those with sub-therapeutic levels, regardless of underlying psychiatric diagnosis and vaccination status (*Br J Psychiatry* doi:10.1192/bjp.2022.42).

The incidence of covid infection was lower among people whose lithium levels were in the therapeutic range than in others

The danger of magnets when swallowed

Among nearly 600 patients seen at 25 children's hospitals across the US after swallowing one or more magnets, almost a half needed endoscopy or surgery. Small magnets (5 mm or less in diameter) were more likely to cause trouble than larger magnets, but the greatest risk of gastrointestinal complications occurred when more than one magnet was swallowed (*Pediatrics* doi:10.1542/peds.2021-054543).

Ketogenic diets for multiple sclerosis

Some evidence suggests that ketogenic diets—characterised by intakes high in fat, low in carbohydrate, and modest in protein—are helpful in children with drug resistant epilepsy. Mice with experimental autoimmune encephalomyelitis improved when fed a ketogenic diet. And, in 65 people with relapsing multiple sclerosis who participated in an uncontrolled six month trial of a ketogenic dietary intervention, fat mass declined and improvements were seen in scores of fatigue and depression and in measures of neurological disability (*J Neurol Neurosurg Psychiatry* doi:10.1136/jnnp-2022-329074).

Remission of type 2 diabetes

Remission of type 2 diabetes is uncommon, according to a UK records based study of 2 million people with the condition. Fewer than one in 100 people experience remission each year. The highest rates of remission occur in those who lose a substantial amount of weight shortly after diagnosis (*Diabetes Care* doi:10.2337/dc21-2136).

Harm from blood pressure medications

Last week, Minerva mentioned a trial that showed the effectiveness of a combination pill which contained three antihypertensive drugs. However, multiple drugs may carry an increased risk of harm. In a UK study of older people following discharge from hospital, more than one in 10 experienced an adverse event linked to drugs for lowering blood pressure. People taking multiple drugs were five times more likely to come to harm than those taking one medication (*Age Ageing* doi:10.1093/ageing/afac045).

Talking about nuclear war

In 1985, the Nobel Peace Prize was awarded to the organisation International Physicians for the Prevention of Nuclear War for spreading authoritative information and creating awareness of the catastrophic consequences of nuclear war. It's time for doctors to redouble their efforts. Recent events have made it clear that possession of nuclear weapons does not prevent war. The only solution is to prioritise nuclear disarmament (*Postgrad Med J* doi:10.1136/postgradmedj-2022-141804).

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