# education

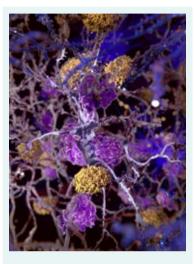
FROM THE JOURNALS Edited highlights of Richard Lehman's blog on http://bmj.co/Lehman

# Five days of nitrofurantoin versus fosfomycin in women's urinary tract infection

Antibiotic "stewardship" means using antibiotics to best advantage, not spreading scare stories about universal resistance. One of the commonest reasons for antibiotic prescribing is to abort the painful and disruptive effects of bladder inflammation in women. Much of cystitis is caused by bacteria from the large bowel, which have been producing strains resistant to natural antibiotics for hundreds of millions of years. Nevertheless, it is quite easy to kill them by switching around antibiotics in response to patterns of local resistance. Here's a study from Switzerland, Poland, and Israel, which found that overall, a five day course of nitrofurantoin was more effective than a single dose of fosfomycin in those countries. Will this apply to the USA, where the article is published? For the UK, I much prefer a study that appeared a few months ago and shows a better grasp of context: "Results: Trimethoprim 200 mg twice daily (for three or seven days) was estimated to be the most cost effective treatment (£70 per infection resolved) when resistance was <30%. However, if resistance to trimethoprim was >30%, fosfomycin 3 g once became more cost-effective; at resistance levels of >35% for trimethoprim, both fosfomycin 3 g once and nitrofurantoin 100 mg twice daily for seven days were shown to be more cost-effective.

Conclusion: Knowing local resistance levels is key to effective and cost-effective empirical prescribing. Recent estimates of trimethoprim resistance rates are close to 50%, in which case a single 3 g dose of fosfomycin is likely to be the most cost-effective treatment option."

- ▶ *JAMA* doi:10.1001/jama.2018.3627
- **▶** *BJGP Open* doi:10.3399/ bjgpopen17X101097



## Verubecestat fails to leave first base

"Adverse events, including rash, falls and injuries, sleep disturbance, suicidal ideation. weight loss, and hair-colour change, were more common in the verubecestat groups than in the placebo group." Well, that doesn't sound very nice. And just what might verubecestat be? It is an oral BACE-1 inhibitor that reduces the amyloid β level in the cerebrospinal fluid of patients with Alzheimer's disease. "Verubecestat did not reduce cognitive or functional decline in patients with mild-to-moderate Alzheimer's disease and was associated with treatment-related adverse events. (Funded by Merck)" So just another failed Alzheimer's drug, joining a hundred others in the would-beblockbuster bin.

● N Engl J Med doi:10.1056/ NEJMoa1706441

#### Frailty, thy score is electronic

In the golden age of my memory, general practitioners would invite hospital consultants to visit patients in their homes. There was a certain etiquette: the GP would often drive

the consultant to the patient and after introducing him/her, would allow the patient to lead, while bringing up the rear. The first important sign was that the patient couldn't make it to the door. The next was that a cup of tea could not be offered. The next was that she couldn't remember what pills she was taking, but they were in the kitchen, where a cupboard would spill a large collection onto the floor. The physical examination would consist largely of inviting the patient to walk across the room. "Frailty" and "multi-morbidity" never needed mentioning because doctors could still connect the two halves of their

It's different in hospitals. It seems you can derive a frailty score by simply looking at the electronic records. The authors of this study even imply that such a score derived from NHS hospital data is generalisable throughout the world. It can "identify a group of patients who are at greater risk of adverse outcomes and for whom a frailty-attuned approach might be useful."

• Lancet doi:10.1016/S0140-6736(18)30668-8

#### Calciphylaxis

Reader, if like me you have spent a lifetime in medicine without ever having heard of calciphylaxis, here is your chance to find out about what you will probably never see. But then if you look after people with advanced renal disease, you might: it is "a rare syndrome of calcification characterised by occlusion of microvessels in the subcutaneous adipose tissue and dermis that results in intensely painful, ischaemic skin lesions. Once calciphylaxis has been diagnosed, the prognosis is generally poor (survival, <1 year)."

▶ N Engl J Med doi:10.1056/NEJMra1505292

#### UNCERTAINTIES

# Do direct acting antivirals cure chronic hepatitis C?



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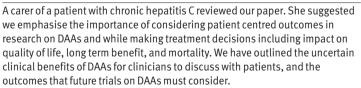
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Coloured CT scan of a patient with hepatitis C, showing cirrhosis of the liver

#### HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE



#### WHAT YOU NEED TO KNOW

- Direct acting antivirals (DAAs) are relatively expensive drugs that have been promoted as a cure for chronic hepatitis C
- There is insufficient evidence to judge if DAAs reduce mortality or other liver related complications from chronic hepatitis C
- Discuss with your patient the uncertain clinical benefit, and the risks and costs of these drugs, to make a shared decision on treatment

Globally, an estimated 71 million people have chronic hepatitis C infection, which corresponds to a prevalence of 1.6%. <sup>12</sup> Nearly 400 000 people with chronic hepatitis C die each year, mostly from cirrhosis and hepatocellular carcinoma. <sup>1</sup> In the US, hepatitis C is the most common cause of chronic liver disease and the most frequent indication for liver transplantation. <sup>3</sup>

Direct acting antivirals (DAAs) are relatively new drugs that have been hailed as a cure for hepatitis C.<sup>1-4</sup> DAAs target specific proteins of the hepatitis C virus, thereby disrupting replication.<sup>2</sup> The drugs are taken orally and the treatment duration varies between eight and 24 weeks. The chosen DAA regimen is based on several factors, including the infecting genotype and pre-existing viral mutations, natural history and stage of the disease, availability of drugs, prior treatment history, and potential adverse effects.<sup>5</sup>

Guidelines from the American Association for the Study of Liver Diseases, the European Association for the Study of the Liver, and the World Health Organization recommend early treatment with DAAs for all patients with chronic hepatitis C.<sup>6-8</sup> These guidelines define successful treatment as sustained virological response—that is, the inability to demonstrate hepatitis C virus RNA in the blood 12-24 weeks after the end of treatment and thereafter.<sup>6-8</sup>

However, the clinical implications of achieving sustained virological response are unclear.<sup>2</sup> The evidence for using sustained virological response as a surrogate marker for improvement in mortality, liver cancer, and liver related complications consists of observational studies that are often uncontrolled and subject to confounding.<sup>9-12</sup> The use of the word "cure" is not adequate because some patients who achieve sustained virological response can relapse years later with genetically identical viruses, suggesting that the virus latently existed in the body during that time, and patients who achieve sustained virological response can progress to end stage liver disease.<sup>13</sup>

It is uncertain if DAAs offer a meaningful clinical benefit in terms of reduced hepatitis related complications and mortality in these patients.

#### What is the evidence of uncertainty?

The Cochrane systematic review (138 randomised clinical trials, 25 232 participants) evaluated 51 different DAAs compared with placebo or no intervention. Eighty four trials involved DAAs on the market or still under development (13 466 participants). Fifty seven trials were on DAAs that have since been withdrawn. Most trials primarily assessed effects on sustained virological response and there were relatively limited data on clinically important outcomes and none on long term effects.

There was no evidence to judge the effects of DAAs on the clinically important outcomes: ascites, variceal bleeding, hepatorenal syndrome, hepatic encephalopathy, and hepatocellular carcinoma. Meta-analysis of the effects of all DAAs on the market or under development showed no evidence of a difference with regard to all cause mortality in DAA recipients compared with controls

(2996 participants, 11 trials, very low quality evidence). The number of patients with hepatitis C morbidity and mortality observed in the trials was low and it is uncertain how DAAs affect these outcomes. DAAs achieved sustained virological response in more patients compared with controls (6886 participants, 32 trials, low quality evidence). Table 1 lists the main results of the Cochrane review.

DAAs do not seem to influence the risk of serious adverse events (for example, death, hospitalisation, persisting adverse events <sup>14</sup>) compared with placebo or no intervention. <sup>2</sup> Several non-serious adverse effects, such as nausea and dizziness, were reported with DAAs but were not systematically assessed in the review.

Follow-up ranged from 1 week to 120 weeks with an average of 34 weeks. All trials and outcome results were at high risk of bias.<sup>2</sup> No blinded trials on health related quality of life were identified.<sup>2</sup>

#### Search strategy and study selection

We have drawn on evidence from our Cochrane review published in 2017 in which we searched for all ongoing, published, and unpublished randomised clinical trials assessing the effects of DAAs compared with placebo or no intervention for chronic hepatitis C. We searched in the Cochrane Hepato-Biliary Group Controlled Trials Register, CENTRAL, Medline, Embase, Science Citation Index Expanded, LILACS, and BIOSIS; three Chinese databases, Google Scholar, TRIP Database, ClinicalTrials. gov, EMA, WHO International Clinical Trials Registry Platform, FDA, and pharmaceutical company sources. We included adults diagnosed with chronic hepatitis C, regardless of sex, ethnicity, occupation, country of residence, duration of infection, and stage of disease. Patients who had received earlier treatment and those who were treatment naive were both included. We have not identified other relevant trials since the review was published.

#### WHAT PATIENTS NEED TO KNOW

- Direct acting antivirals (DAAs) are relatively new but costly drugs for chronic hepatitis C
- DAAs have been shown to eradicate hepatitis C virus from the blood (sustained virological response), but their effects on clinically important outcomes are unknown
- No long term randomised clinical trials have shown whether DAAs reduce mortality, affect the risk of liver complications due to chronic hepatitis C, or improve quality of life
- There is an absence of evidence on whether new drugs for hepatitis C cure the disease

#### **EDUCATION INTO PRACTICE**

- How would you offer treatment advice to a patient with newly diagnosed chronic hepatitis C?
- Based on reading this article, is there anything that you will do differently in your practice?
- How many patients in your practice have hepatitis C? Have they been offered DAAs? How are they being monitored?

#### $Summary\ of\ main\ findings\ from\ Cochrane\ review\ on\ DAAs$

DAAs on the market or under development versus placebo or no intervention for chronic hepatitis C

	Absolute effects				0!!!	
Outcomes	Risk with placebo or no intervention	Risk with direct acting antivirals (95% CI)	Relative effect (95%) CI, (TSA adjusted CI) <sup>1</sup>	No of participants (trials)	Quality of evidence (GRADE)	Comments
All cause mortality at maximum follow-up	2 per 1000	7 per 1000 (1 to 42)	OR 3.72 (0.53 to 26.18), (-)	2996 (11 RCTs)	Very low <sup>2</sup>	It was not possible to perform TSA because of too few events
Proportion of participants with one or more serious adverse events at maximum follow-up	56 per 1000	52 per 1000 (49 to 55)	OR 0.93 (0.75 to 1.15), (TSA adjusted CI 0.71 to 1.33)	15 817 (43 RCTs)	Very low <sup>3</sup>	TSA showed that the boundary for futility was crossed. This leads us to conclude that the possible intervention effect, if any, is less than 20%
Proportion of participants with no sustained virological response at maximum follow-up	541 per 1000	238 per 1000 (200 to 281)	RR 0.44 (0.37 to 0.52), (TSA adjusted Cl 0.42 to 0.55)	6886 (32 RCTs)	Low <sup>4</sup>	TSA showed that the boundary for benefit was crossed. This indicates that DAAs achieve sustained virological response in more patients compared with control if risk of bias and other threats to the validity can be disregarded

GRADE Working group grades of evidence

High quality: we are very confident that the true effect lies close to that of the estimate of the effect

Moderate quality: we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different Low quality: our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect

Very low quality: we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect

#### Footnotes

<sup>&</sup>lt;sup>1</sup> TSA: Trial sequential analysis

<sup>&</sup>lt;sup>2</sup> Downgraded two levels because of very serious risk of bias in the included trials and two levels due to very serious imprecision (none of the TSA boundaries are crossed so the information size is too low)

<sup>&</sup>lt;sup>3</sup> Downgraded two levels due to very serious risk of bias in the included trials and one level due to serious indirectness (the components of this composite outcome consisted of events with very different degrees of severity, which limits the interpretability of this outcome result)

<sup>&</sup>lt;sup>4</sup> Downgraded two levels because of very serious risk of bias in the included trials

CI: confidence interval; OR: odds ratio; RCT: randomised clinical trial; RR: relative risk.

#### Is ongoing research likely to provide relevant evidence?

We identified two ongoing randomised clinical trials assessing the effects of DAAs compared with no intervention in patients with chronic hepatitis C. Both trials assess safety outcomes, such as serious adverse events and adverse events. We do not expect these will contribute to evidence on the clinical effects of DAAs, as both trials plan to randomise approximately 150 participants with chronic hepatitis C and assess sustained virological response (from 4 to 24 weeks after treatment) as the primary outcome.<sup>2</sup>

#### What should we do in light of the uncertainty?

International guidelines recommend early treatment with DAAs in all patients with chronic hepatitis C, <sup>6-8</sup> except those with limited life expectancy as a result of non-hepatic causes.

We suggest doctors discuss with patients the uncertain long term clinical benefit of DAAs, the risks, and the costs of treatment. Explain to your patient that these drugs will likely clear the virus from their blood; however, there is no evidence so far that DAA treatment will reduce long term risks of liver related complications. They might still develop cirrhosis or cancer and could need a liver transplant eventually. Explain measures to decrease the risk of transmission (for example, avoid unsafe injection practices or unsafe blood transfusions) and to curtail behaviours associated with accelerated liver disease (for example, alcohol use, drug abuse, and obesity). 15

Patients will usually require referral to a specialist, either in primary or secondary care, to discuss appropriate treatment options, and to initiate and monitor treatment.

Stakeholders should implement a fairer pricing framework. An analysis of pricing of some of the most commonly used DAAs, sofosbuvir and ledipasvir/sofosbuvir, across 30 countries published in 2016 concluded that DAAs are unaffordable globally. The high costs of these drugs necessitate robust clinical evidence before they can be recommended to all patients with chronic hepatitis C.<sup>2</sup>

Competing interests: We have read and understood the BMJ policy on declaration of interests and declare no competing interests. All authors of this present paper are also authors of the Cochrane review and editors in the Cochrane Hepato-Biliary Group.

#### Cite this as: BMI 2018:361:k1382

Find the full version with references at http://dx.doi.org/10.1136/bmj.k1382

#### RECOMMENDATIONS FOR FURTHER RESEARCH

- Study design: randomised clinical trials with low risks of bias, design errors, and random errors
- Population: patients with chronic hepatitis C1
- Intervention: direct acting antivirals
- Comparison: placebo
- Outcomes: patient centred clinical outcomes such as all cause mortality, serious adverse events, liver morbidity (ascites, variceal bleeding, hepatic encephalopathy, hepatocellular carcinoma), and quality of life<sup>2</sup> in addition to sustained virological response
- <sup>1</sup> Since progression to end stage liver disease occurs over a period of decades, we recommend trials in patients with advanced fibrosis (for example, stage 3 or 4) and/or patients who are at risk of more rapid progression (for example, coinfected with HIV).
- <sup>2</sup> For quality of life trials, we recommend strict blinding of all study participants (including investigators); blinding should include withholding the results of the hepatitis C related tests, including sustained virological response results and other liver related blood tests, from participants.

# WHAT YOUR PATIENT IS THINKING

# When you live with a degenerative illness, no symptoms are mild

Comparing a patient's symptoms to those who are worse off can be far from reassuring, says **Beth McHugh** 

#### **EDUCATION INTO PRACTICE**

- Can you think of times when you have discussed disease severity with patients? How did it go?
- Does this article offer you ideas on how better to discuss and distinguish disease and symptom severity, if it is necessary?
- How do you discuss which management options may be more or less suitable with patients, and the way in which you will work with them to find the best one?
- Does this article offer you any other ideas on how to change your practice?

#### WHAT YOU NEED TO KNOW

- If symptoms affect patients severely, it might harm the doctor-patient relationship to describe the condition as "mild"
- Classifying and talking about the severity of a disease in general may be unhelpful
- It can be helpful to hear that clinicians will work with patients until they find the right treatment; after all, they are on this journey together for a long time



was first given a diagnosis of relapsing remitting multiple sclerosis in my 20s. Four years later, a string of relapses triggered involuntary movements in my arms and legs, and I had pain, visual problems, and debilitating fatigue. When my symptoms were at their peak, I couldn't work as a writer and artist. I couldn't cook for myself, hold my own drinks, or shower without someone in the house. Eventually I had to move back in with my parents. This was devastating, and I felt as if all my worst fears about my illness were coming true.

I have seen several specialists over the years. On one occasion, however, I was told that I didn't qualify for a drug that I was interested in because my symptoms were too mild. These words were devastating to me, although perhaps not for the obvious reason. I didn't mind being told that the drug wasn't suitable—this was probably true. What upset me was my symptoms being categorised in this way.

#### Mild disease can have a severe impact

The immediate effect was that I felt belittled. Was I ridiculous to be wasting precious NHS time and resources given my symptoms? I felt



stupid for letting these symptoms have such a massive impact on my life. I even worried that my doctor didn't believe that I was ill. Being compared to patients with worse symptoms didn't make me feel better; it made me feel more frightened of the future.

The diagnosis of an incurable degenerative illness had already irrevocably altered the life I imagined for myself and put an ever widening gap between me and "normality." Knowledge of the illness alone cast a shadow over my daily life. Every new symptom took me further away from the future that I hoped for and closer to the one I feared. If the symptoms that had destroyed my life were mild then my future looked bleak.

# Consider whether and how to discuss the severity of a disease

The appointment could have been different if I'd been asked "How do these symptoms affect your life?" as well as "What symptoms are you experiencing?" That way I could have explained how my "mild" symptoms, such as dropping my pen every 30 seconds and changes to my vision, had ended the career I'd spent seven years training for. Textbooks might

categorise symptoms on a scale of mild to severe, but that's not always a helpful thing to share with patients. Every new symptom I experience, regardless of severity, has a huge emotional impact on me.

A doctor could suggest that a treatment is inappropriate without referring to a severity scale. For example, I would be happy to hear that the drug I was interested in wasn't right for me because, in the doctor's opinion, the side effects would outweigh the benefits, but that he or she would help me to find one that was more suitable.

When patients have a chronic or incurable illness, they need a good relationship with their doctor. They need to be a team. So please try to avoid comparisons with other patients and, please don't tell patients that they could be worse off. It can be helpful to hear that clinicians will work with patients until they find the right treatment; after all, they are on this journey together for a long time. Fortunately, I was prescribed a different drug, which has been a success and I haven't had a relapse since.

Competing interests: None declared

Cite this as: BMJ 2018;360:k1670

#### **10-MINUTE CONSULTATION**

# Identifying post-traumatic stress disorder in forced migrants

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 $Correspondence \ to \ Man preet. Bain simperial college health partners. com$ 

A 35 year old man, who was recently forced to migrate because of conflict, presents with headaches. Tension headache is diagnosed and review is arranged. On return he reports that the headaches are relieved by the analgesics he was prescribed, but his sleep is poor and he has frequent nightmares, from which he wakes feeling anxious and sweating.

People who have had to undergo forced migration are more likely to have experienced the sort of trauma that would predispose them to post-traumatic stress disorder (PTSD), and are therefore at higher risk of PTSD than the general population in their new country of settlement. However, identifying PTSD is often difficult because vulnerable patients can be reluctant to discuss the details of these traumas without having already established trusting relationships with their doctors.

### HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

A person with lived experience of seeking refuge in the UK was asked to review an early draft of the article and gave feedback, which was incorporated into the final version. The key points they emphasised were the importance of forming a trusting relationship between doctor and patient, and of allowing patients to speak.

#### **EDUCATION INTO PRACTICE**

- How do you approach sensitive topics like mental health and psychological wellbeing if there is a language barrier?
- Where do you refer refugees and asylum seekers for specialist psychological support?
- How might you alter your expectation of what will be achieved in any one meeting with a patient who might have PTSD?



#### HOW THIS ARTICLE WAS CREATED

MB and CS discussed the concept of the article in the context of a presentation to primary care. We searched the literature on PTSD in forced migrants, with regards to diagnosis and management in general practice. TM, CK and KR provided expert advice and guidance on drafts.

#### WHAT YOU NEED TO KNOW

- Post-traumatic stress disorder (PTSD) commonly coexists with other mental health problems
- Consider PTSD if there are risk factors and symptoms of re-experiencing, avoidance, hyperarousal, or a heightened sense of current threat, and difficulties with daily functioning for longer than one month
- Consider whether family members are affected by the same trauma

#### Complex PTSD (cPTSD)

People who have been exposed to a stressor of an extreme, prolonged, or repetitive nature and from which escape is difficult are at risk of complex PTSD. Although not recognised in current diagnostic systems (ICD 10, DSM5), it is likely that cPTSD will be incorporated into ICD-11. It is characterised by the core symptoms of PTSD in addition to

- Severe and pervasive problems in emotional regulation
- Persistent negative self-beliefs and a pervasive sense of shame, guilt, or failure
- Persistent difficulties in sustaining relationships and trusting others

A phased approach is recommended for those with cPTSD, which might include those who have experienced forced migration. This entails three sequential but overlapping phases:

- 1. Stabilisation—practical support (accommodation, financial support, and connecting with family), establishing a relationship, psychoeducation, and emotional stabilisation
- 2. Trauma processing—focussed processing of traumatic memories
- 3. Reintegration—reducing isolation, rebuilding trust and hope, and facilitating re-entry into work and education.

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Identifying PTSD is often difficult because vulnerable patients can

because
vulnerable
patients can
be reluctant
to discuss
the details of
these traumas

#### What you should cover

#### Establish whether there are risk factors for PTSD

If a forced migrant describes specific symptoms of PTSD or symptoms of depression, anxiety, anger, drug misuse, or alcohol misuse, ask sensitive questions about their experience and the events leading up to their forced migration to establish if there is a history of relevant causes, for example, a history of torture and/or sexual assault, or having family members in prison, threatened, tortured, or lost.

#### **Explore symptoms of PTSD**

Take time to explore whether patients have symptoms consistent with PTSD by asking about

- **Re-experiencing symptoms**, which might manifest as nightmares, flashbacks, or intrusive memories accompanied by intense fear or horror
- **Avoidance symptoms**—deliberate avoidance of thoughts, memories, activities, or situations that remind the person of an event; some also report emotional numbing
- Hyperarousal or a heightened sense of current threat—excessive concern and alertness to danger, or reacting strongly to loud noises or unexpected movements
- Difficulties with daily functioning.

If any of the above are present approximately one month after a potentially traumatic event, then PTSD is likely.

Assess the severity and duration of PTSD symptoms based on the degree of distress the person is experiencing, and the degree to which symptoms impair social and occupational functioning. This could include asking questions around quality of sleep, appetite, enjoyment of activities, and changes in communication with friends or family.

#### Assess for secondary psychological disorders

Diagnosing PTSD is often challenging because the condition can overlap with other mental health problems such as depression, anxiety, and psychosis. For example, approximately half of patients with PTSD have concomitant major depressive disorder.

Forced migrants might have had to stop treatment suddenly before fleeing their home country, and current symptoms might be due to a relapse.

#### What you should do

- Assess the risk of harm to self and others. This is usually assessed after exploring the cause of distress or trigger. Is there a need for emergency psychiatric assessment?
- "In these situations some people think of ending their life, have you ever considered it?"
- Assess the impact on others. Determine if there are any safeguarding issues with children or vulnerable adults in the patient's care and follow local safeguarding procedures as needed. Consideration of other family members affected by the same or similar trauma might be necessary to determine whether they require assessment.
- Assess and manage any concurrent physical injuries that might be the physical sequelae of torture.

#### Provide psychosocial support

Patients might require referral to specialist psychological services for further treatment, which could include traumafocused cognitive behaviour therapy and eye movement desensitisation and reprocessing. Referral to further services is warranted for people with symptoms of PTSD lasting more than four weeks, or for those presenting with severe symptoms within four weeks of symptom onset.

All patients should be offered self help advice and information about the availability of self help groups locally. The Royal College of Psychiatrists provides information on how to cope with trauma and the treatments that are available.

However, it might also be necessary to keep patients under primary care review for ongoing management of other mental or physical health issues arising from their experiences.

It is often appropriate to discuss patients' positions regarding access to welfare, health, and care services; subsistence support; accommodation services; and legal support.

"Do you feel safe?"

"Do you have somewhere to stay?"

"Do you have enough money for food and essential items?"

"Do you have people around you that you can go to for help?"

Competing interests: See bmj.com.

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Find the full version with references at http://dx.doi.org/10.1136/bmj.k1608

#### **BMJ.COM HIGHLIGHTS**



#### FROM THE ARCHIVE

### Medicine and the crown

On this day (12 May) in 1937, George VI was crowned king in Westminster Abbey. Readers today might expect such an event to go unremarked in a medical journal, but in the 15 May issue *The BMJ* carried an article especially for this occasion (*Br Med J* 1937;1:1028). "When these words appear in print on Friday," it begins, "full details of the great ceremony... will be known to our readers in every part of the world." The journal notes

that "our weather is capricious," but people's affection is not, and ends by offering "a loyal toast to His Majesty."

At that time, the journal was a respectful commentator of the deaths, marriages, and coronations that shaped the royal family. The previous year (*Br Med J* 1936;1:166), the journal observed how "our profession… mourns the passing of King George V." And in 1953, *The BMJ* celebrated Queen Elizabeth

II's coronation with a themed issue, with articles on "Doctors at court," "Medicine in the time of Queen Elizabeth I," and an article titled simply "The Queen," (*Br Med J* 1953;1:1207) which ended with the acclamation, "Vivat reginal"

In 1947, the then Princess Elizabeth's marriage was greeted with a half page announcement (Br Med J 1947;2:777) on the "royal wedding," with wishes that the couple "may long enjoy years of good health." The author asserted that doctors had "more than ordinary feelings of patriotism and loyalty" for the monarchy, which were accounted for by the "close concern" the throne had shown for the medical profession throughout the centuries. The journal gives examples ranging from Henry VIII, who "played a notable part in regulating the practice of medicine," to Queen Victoria, who "set a courageous example when she received at the hands of John Snow chloroform during the birth of two of her children."

Despite this, *The BMJ* can reveal that it has no plans to cover next week's royal wedding.

#### **MOST READ ONLINE**

Alfie Evans and Charlie Gard—should the law change?

● BMJ 2018;361:k1891

Emollient bath additives for the treatment of childhood eczema

**▶** BMJ 2018:361:k1332



Anticholinergic drugs and risk of dementia

● BMJ 2018;361:k1315

Alfie Evans case: Proposed law aims to prevent conflicts between parents and doctors

**▶** BMJ 2018;361:k1895

#### LATEST PODCAST

# Depression in cancer



Major depression affects up to 15% of people treated for cancer. Up to 73% of these patients, however, do not receive effective psychiatric treatment. In a new podcast, Kate Adlington, clinical editor at *The BMJ*, talks to two consultant liaison psychiatrists about what doctors can do to best support these patients.



Listen to the podcast in full at http://bit.ly/cancer\_and\_depression

**bmj.com highlights** is curated by Kelly Brendel, assistant web editor, *The BMJ* 

#### TWEET OF THE WEEK

# The patients who decide what makes a good doctor

"'Once you start to think about who the healthcare system is for, it's obvious that it's the patients who should be deciding what the standard for doctors should be' #BMJFeature on patient involvement in medical education"

This tweet, one of our most popular of last week, quotes from a feature (BMJ 2018;361:k1829) that looked at how UK medical universities are getting patients involved in developing curriculums and marking assessments. This movement was widely welcomed by readers on Twitter.

Allie Shukraft @Alifrumcally commented that it was "good to see that there are growing ways for patients to be able to shape medical care, as they should be in line with evidence based medicine." While Nicholas Evans @nr\_evans replied to share his experience: "A highlight of when I did stuff with assessments was getting to know the great group of volunteer

patients who come along for our exams—their insights were incredibly useful, and their commitment to training students invaluable."
And Marion Lynch RGN RMN @drmarionlynch observed that this progression was a sign of how we're "taking a look at where the power is positioned in medical education and shifting it towards the patient."

#### **SPOT DIAGNOSIS**

#### Dysphagia and a rash

A 58 year old man presented with a six week history of muscle weakness, dysphagia, and a symmetrical widespread rash on the face, torso, limbs, and hands (fig 1). His creatine kinase was  $7070\,\mu/L$  (reference range 30-175). An oesophagogastroduodenoscopy showed abnormal findings, and a positron emission computed tomography (PET CT) scan was arranged (fig 2). What are this man's dermatological and oesophageal diagnoses?

Submitted by Michael McFarlane and Ben Disney

Patient consent obtained.

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Fig 1 | Dorsum of the patient's right hand



Fig 2  $\mid$  PET CT image

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skin symptoms. Oesophageal cancer is a rare cause of dysphagia in polymyositis/ dermatomyositis. However, dysphagia and abnormal motility can be common symptoms of dermatomyositis if the smooth and striated muscles of the upper gastrointestinal tract are involved.

oesophageal cancer.

Dermatomyositis is an acute inflammatory polymyopathy affecting striated muscle, which occurs in the presence of skin symptoms. It differs from polymyositis, which has the myopathy component with no

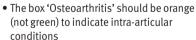
Gottren's papules (fig 1) suggest acute dermatomyositis, and the high uptake of fluorodeoxyglucose in the mid oesophagus (fig 2) suggests

Dysphagia and a rash

SPOT DIAGNOSIS

#### **CORRECTION**

The infographic accompanying a recent article on hip pain in a young adult by Alastair Dick and colleagues (*The BMJ*, 21 April, p 74) contained the following inaccuracies:





- The box 'Infection' should be both green and orange (not purple), to indicate intra or extra-articular conditions
- 'Bursitis' and 'tendinopathy' should be combined in one (green) box 'Bursitis/gluteal tendinopathy' with the risk factor 'middle aged women'
- The bubble 'Lateral hip/thigh pain' should point to the combined 'Bursitis/gluteal tendinopathy' box.

The correct infographic can be viewed at www.bmj.com/content/361/bmj.k1086.





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#### MINERVA A wry look at the world of research

## Hereditary multiple exostosis: an incidental finding on a chest radiograph

A 71 year old woman had an incidental finding on a chest radiograph of an asymptomatic bony outgrowth on the lateral aspect of the chest wall, affecting the third and fourth ribs (figure). She had a lifelong history of painless bony growths, most notably on the distal ulnae and proximal fibulae, and was diagnosed with hereditary multiple exostosis in childhood. The lesion found on the radiograph is likely to be an osteocartilaginous exostosis (osteochondroma).

Exostosis is the benign formation of new bone on the surface of a bone, involving both

medullary and cortical bone with an overlying cartilage cap. Hereditary multiple exostosis demonstrates an autosomal dominant pattern and can present with multiple unusual bony prominences during childhood. It is usually asymptomatic, but can cause deformity. Surgical excision is indicated where substantial deformity, impaired function, or growth disturbance occurs. Malignant transformation of the cartilage cap is thought to occur in 3-5% of patients with hereditary multiple exostosis, compared with 1% of those with solitary osteochondromas.



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#### The genetics of birth weight

High maternal levels of glucose during pregnancy stimulate fetal insulin secretion and have a strong influence on birth weight. Recent large scale genomewide association studies have



shown that fetal genetics makes a substantial contribution to birth weight too (*Diabetes*). Data from more than 2000 mother-child pairs suggests that the two influences are largely independent. A fetal genetic score had an impact on birthweight at all levels of maternal glycaemia and was not associated with insulin or C-peptide levels in cord blood.

#### Paths to obesity

The rising trend in the prevalence of type 2 diabetes reflects the rising prevalence of obesity. But the route that people have taken to becoming obese makes some difference to their individual risk. A survey from the US finds that people who were obese during both young adulthood and midlife have the highest incidence of diabetes (Diabetes Care). Those who hadn't been obese at age 25 but became so later had a lower rate. The reverse trajectory, in which obese people lost weight, reduced the incidence of diabetes considerably, but not to the same level as people who had never been obese.

## C-reactive protein to identify children with severe infection

Early recognition of the small minority of children with serious infection among the large numbers who present with an acute febrile illness is important but not easy to achieve in practice. A study from six Belgian paediatric outpatient clinics finds that point-of-care testing of C-reactive protein on blood obtained by finger prick can usefully stratify children into three risk groups (Arch Dis Child). The investigators suggest that children at the highest risk (CRP >75mg/L) need urgent evaluation by senior paediatricians. Those at low and intermediate risk could have a first clinical assessment from more junior staff.

#### The benefits of fresh blood

Although Minerva doesn't usually pay much attention to animal experiments, her eye was caught by a study that used a mouse model of haemorrhage to investigate the possible benefits of transfusion with fresh (rather than stored) blood. It found that mice that had received stored red blood cells were strikingly more susceptible to lung infection than those transfused with fresh blood (PLoS Med). Further investigation indicated that free haem, arising during blood storage and from haemolysis following transfusion, was the culprit. Haem increased endothelial permeability and reduced bacterial clearance by alveolar macrophages.

# Hip and knee replacement in people with rheumatoid arthritis

Registry data from Denmark show that the introduction of biological disease-modifying anti-rheumatic drugs in the late 1990s coincided with a fall in the rate of total knee replacements among people with rheumatoid arthritis. Whether this is a direct consequence of improved treatment is another matter. Rates of total hip replacement also fell, but this decline began several years before the new disease-modifying drugs became available (*Ann Rheum Dis*).

#### Fly borne disease

In 1909, Dr JTC Nash, the county medical officer of health for Norfolk, published his investigations into house flies as carriers of disease in the Journal of Hygiene. He identified epidemic diarrhoea as the main disease spread by flies, and showed that infants were the most vulnerable group (J Hyg). More than a century later, and with rather more advanced methods, a study in Bangladesh found the same thing. Stored food intended for consumption by young children was frequently contaminated with pathogenic strains of E coli that matched the strains carried by flies caught in the same households (Am J Trop Hvg).

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