education

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

Et tu, apalutamide

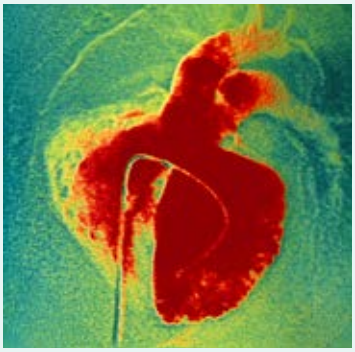
"In this international, placebo controlled, randomised trial involving men with castration-resistant prostate cancer, the risk of metastasis or death was more than 70% lower with apalutamide than with placebo, and the median metastasis-free survival was more than 2 years longer (40.5 months *v* 16.2 months)." Now this is a really impressive effect size, and if apalutamide was first in a new class of anti-androgen non-steroidal drugs, it would be hailed as a breakthrough. But of course, it isn't. The first drug in this class was flutamide (1983), and the standard since the late 1990s has been bicalutamide, which costs less than £10 per month in the UK. Apalutamide is a me-too drug and as such needs to prove its superiority over others in the class: but in this manufacturer funded study it was compared with placebo rather than bicalutamide.

N Engl J Med doi:10.1056/NEJMoa1715546

Avoid ICDs in heart failure with renal impairment

About a third of people with the label of heart failure also carry the label of chronic kidney disease (CKD). These people also tend to be the poorliest and carry the highest risk of sudden cardiac death. Logic dictates that they are the ones who would benefit most from implantation of a cardiac defibrillator (ICD), provided that they wish to. But logic is turned on its head by this large, Kaiser Permanente observational study of community based patients with heart failure and CKD. "ICD placement was not significantly associated with improved survival but was associated with increased risk for subsequent hospitalization due to heart failure and all-cause hospitalization. The potential risks and benefits of ICDs should be carefully considered in patients with heart failure and CKD." I think I would rephrase that to read: "Unless there is some compelling reason to believe an ICD might benefit a patient with heart failure and CKD, the offer should not be made. If it is, it should be carefully discussed with the use of a decision aid including these data."

JAMA Intern Med doi:10.1001/jamainternmed.2017.8462



PFOs and preventable flying objects

I recently read that one person in four has a hole between their right and left cardiac atrium. But in this cohort study, just 1% of the 150 000 patient cases analysed had a diagnosis of patent foramen ovale (PFO) before undergoing various kinds of non-cardiac surgery. In absolute terms, the incidence of perioperative stroke in patients with known PFO was 3.2% compared with 0.5% in those without a known PFO. But they were older, sicker, and taking more medications. As with most things to do with PFOs, it is hard to know what to make of these new data. These people probably represented less than 5% of the total number with PFOs. Do we need better preoperative case finding and observation? Some kind of perioperative intervention? You'll still be reading about this in 10 years' time.

JAMA doi:10.1001/jama.2017.21899

Prazosin and nightmares

In the years after 1945, the whole of Europe was in a state of post-traumatic stress disorder (PTSD). For years people would scream in the night but refuse to talk about what they had seen and experienced; and if you watch any recorded recollections about the second world war the phrase "I still have nightmares about it" will always come up. In this trial, 304 modern day American service personnel with PTSD were given prazosin or placebo to alleviate disturbed sleep and reduce nightmares. Both were equally ineffective over six months.

N Engl J Med doi:10.1056/NEJMoa1507598

The inhaler's new particles

Chiesi pharmaceuticals have brought out a new inhaler with extrafine particles of beclometasone dipropionate, formoterol fumarate, and glycopyrronium (BDP/FF/G). At 187 sites across 17 countries, they tested it against an inhaler delivering indacaterol plus glycopyrronium (IND/GLY) once daily as a dry powder, in people with moderate to severe chronic obstructive pulmonary disease. So they were comparing both the additional steroid and the type of particle delivered. It's a baffling study design for a paper that has reached the *Lancet*, because there are too many variables to inform clinical practice. In the first year, moderate to severe exacerbation rates were 0.50 per patient per year for BDP/FF/G and 0.59 per patient per year for IND/GLY. Clinical significance? Your call. Statistical significance: P=0.043. After one year? Your guess.

Lancet doi:10.1016/S0140-6736(18)30206-X

Antibiotics after incision and drainage for uncomplicated skin abscesses

CPD READING
0.5 HOURS

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This *BMJ* Rapid Recommendation article is one of a series that provides clinicians with trustworthy recommendations for potentially practice changing evidence. *BMJ* Rapid Recommendations represent a collaborative effort between the MAGIC group (www.magicproject.org) and *The BMJ*. A summary is offered here and the full version including decision aids is on the MAGICapp (www.magicapp.org), for all devices in multilayered formats.

What role do antibiotics have in the treatment of uncomplicated skin abscesses after incision and drainage? A recent study suggested that, for small uncomplicated skin abscesses, antibiotics after incision and drainage improve the chance of short term cure compared with placebo. Triggered by this trial, the Rapid Recommendation team produced a new systematic review. Relying on this review and using the GRADE framework according to the *BMJ* Rapid Recommendation process, an expert panel makes a weak recommendation in favour of trimethoprim-sulfamethoxazole (TMP-SMX, co-trimoxazole) or clindamycin in addition to incision and drainage over incision and drainage alone (infographic p 285). For patients who have chosen to initiate antibiotics, the panel issues a strong recommendation for TMP-SMX or clindamycin rather than a cephalosporin and a weak recommendation for TMP-SMX rather than clindamycin.

WHAT YOU NEED TO KNOW

- For uncomplicated skin abscesses, we suggest using trimethoprim-sulfamethoxazole (TMP-SMX) or clindamycin in addition to incision and drainage rather than incision and drainage alone, and emphasise the need for shared decision making
- TMP-SMX or clindamycin modestly reduces pain and treatment failure and probably reduces abscess recurrence, but increases the risk of adverse effects including nausea and diarrhoea
- We suggest TMP-SMX rather than clindamycin because TMP-SMX has a lower risk of diarrhoea
- Cephalosporins in addition to incision and drainage are probably not more effective than incision and drainage alone in most settings
- From a societal perspective, the modest benefits from adjuvant antibiotics may not outweigh the harms from increased antimicrobial resistance in the community, although this is speculative

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

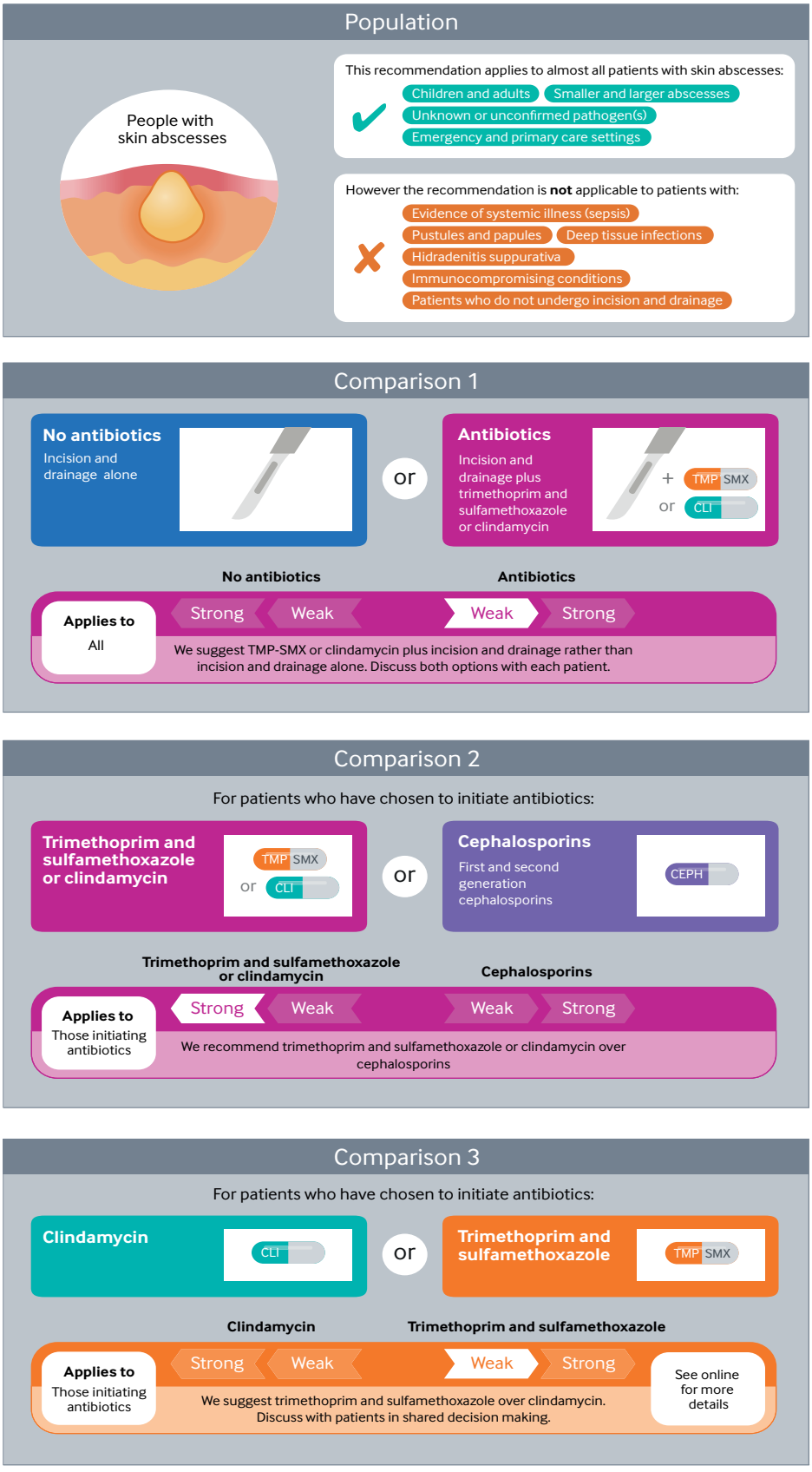
Three people with lived experience of skin abscesses were full panel members: two had previously experienced skin abscesses (one with recurrent abscesses), and one person is a parent of a child who experienced a skin abscess. These panel members identified patient-important outcomes, and led the discussion on values and preferences. These patient partners agreed that, although pain reduction was the most important outcome to them, these values may not be shared by all patients. The close balance between desirable and undesirable consequences made it difficult for them (and the panel) to decide which options most individuals would choose.

EDUCATION INTO PRACTICE

- Do you currently consider antibiotics for patients with uncomplicated skin abscesses after surgical treatment?
- What information could you share with your patient to help reach a decision together?
- Would you consider using online decision aid tools (such as the one available on MAGICapp) to facilitate shared decision making?

LINKED ARTICLES IN THIS *BMJ* RAPID RECOMMENDATION CLUSTER

- Vermandere M, Aertgeerts B, Agoritsas T, et al. Antibiotics after incision and drainage for uncomplicated skin abscesses: a clinical practice guideline. *BMJ* 2018;360:k243
  Summary of the results from the Rapid Recommendation process
- Wang W, Chen W, Liu Y, et al. Antibiotics for uncomplicated skin abscesses: systematic review and network meta-analysis. *BMJ Open* 2018;8:e020991
  Review of all available randomised trials that assessed antibiotics for uncomplicated skin abscesses
- MAGICapp (http://magicapp.org/goto/guideline/jlRvQn/section/ER5RAn)
  Expanded version of the results with multilayered recommendations, evidence summaries, and decision aids for use on all devices



Current understanding

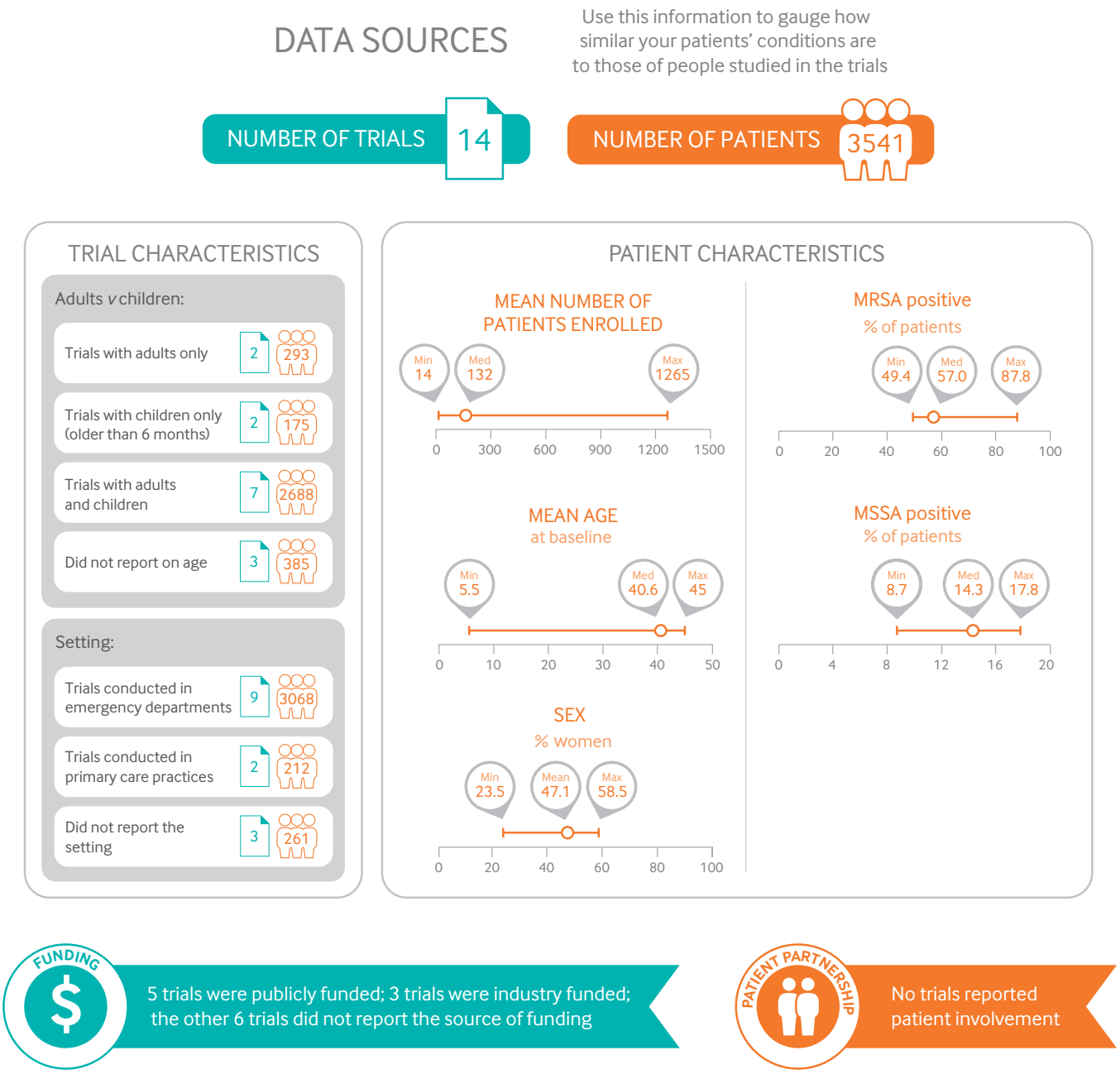
Uncomplicated skin abscesses are collections of pus within the skin structures and are usually caused by bacterial infections. Careful history and clinical examination are usually sufficient to diagnose a skin abscess.[1-3] Skin abscesses present as single or multiple tender, erythematous, indurated nodules, often surrounded by an area of erythema or swelling, and typically fluctuant.[1] More than 4% of people seek treatment for skin infections annually in the United States,[5] whereas approximately 0.5-0.6% do so in Belgium and the Netherlands.[6-8] The most common pathogen is *Staphylococcus aureus*, most often meticillin resistant (MRSA).[1 9]

The evidence

A large RCT published in March 2016 suggested that TMP-SMX resulted in a higher cure rate than placebo among patients with a drained cutaneous abscess.[16] Another RCT published in June 2017 found that, compared with incision and drainage alone, clindamycin or TMP-SMX in addition to incision and drainage improved short term outcomes in patients who had an uncomplicated skin abscess.[5] The Rapid Recommendations team believed these two trials, in addition to the existing body of evidence, might change practice.[17]

The figure on p 286 gives an overview of the characteristics of patients and trials included in the linked systematic review of the effects of antibiotics on uncomplicated skin abscesses. There were 14 RCTs: eight included a comparison of antibiotics versus no antibiotics, and seven included a comparison of two different antibiotics. The largest trial specifically focused on small abscesses (all <5 cm diameter and about half ≤2 cm).[5]

Eleven trials reported study setting, of which nine were conducted in emergency departments.[5-23] Almost all patients underwent incision and drainage for their skin abscess. The most common pathogen was MRSA (49-88%) followed by meticillin sensitive *Staphylococcus aureus* (MSSA, 9-18%).



Characteristics of patients and trials included in systematic review of the effects of antibiotics on uncomplicated skin abscesses. (MRSA=meticillin resistant *Staphylococcus aureus*; MSSA=meticillin susceptible *S aureus*)

Understanding the recommendation

Absolute benefits and harms

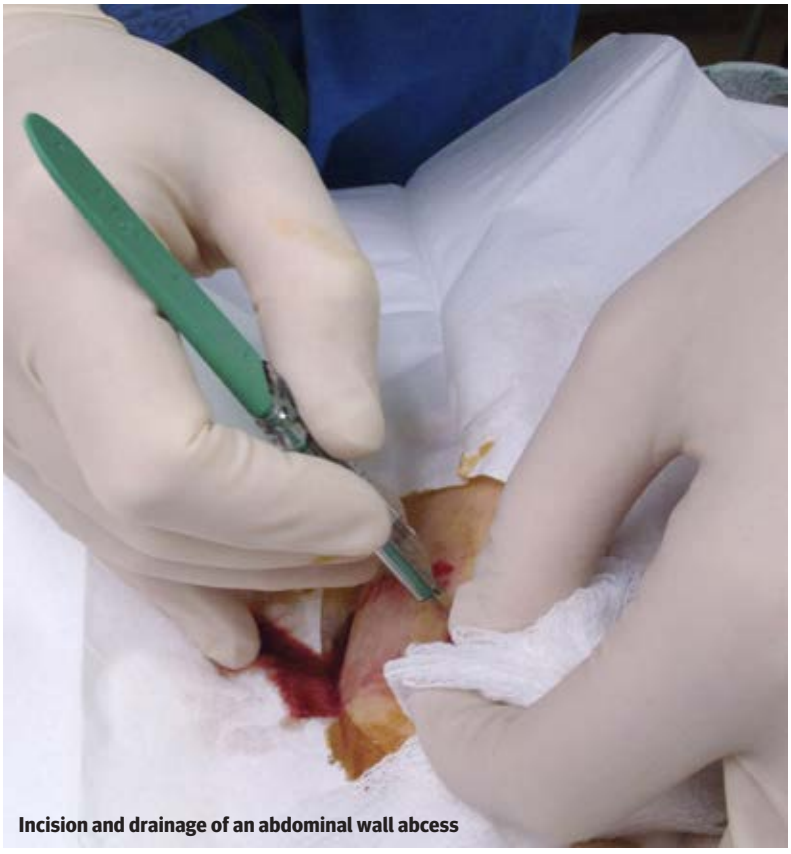
The infographic (p 285) provides an overview of the recommendations and the absolute benefits and harms of different antibiotics. This clinical practice guideline does not apply to patients with evidence of systemic illness (such as sepsis), deep tissue infections, superficial infections (such as pustules and papules), hidradenitis suppurativa, or immunocompromising conditions, and patients who do not undergo incision and drainage.

The panel makes a weak recommendation for adjuvant TMP-SMX or clindamycin over no antibiotics in addition to incision and drainage. The effects of other antibiotics are speculative, except for cephalosporins, which are probably less effective or not effective (see recommendation no 2). Compared with no antibiotics, TMP-SMX or clindamycin reduces the absolute risk of treatment failure by 5% at one month (high quality evidence) and the risk of recurrence at three months by 8% (high quality evidence). TMP-SMX or clindamycin probably provides a modest reduction in pain (tenderness) during treatment (7% fewer), and a small reduction in hospitalisation (2% fewer) and in infections among household contacts (2% fewer) (all moderate quality evidence). Antibiotics probably do not reduce the risk of serious or invasive infections or death (moderate quality evidence).

HOW THE RECOMMENDATION WAS CREATED

The scope of the recommendation and the outcomes important to patients were defined by an international guideline panel consisting of three people with lived experience of skin abscesses, five general practitioners, three paediatric or adult infectious disease physicians, four general internists, a general paediatrician, a dermatologist, and several health research methodologists. They requested a systematic review on the benefits and harms of different antibiotics to inform the recommendation.[15] As with all *BMJ* Rapid Recommendations, no panel member had financial conflicts of interest; intellectual and professional conflicts were minimised and managed (see appendix 1 on bmj.com).[17]

The panel followed the *BMJ* Rapid Recommendations procedures for creating a trustworthy recommendation, including using the GRADE approach to critically appraise the evidence and to move from evidence to recommendations (appendix 2 on bmj.com).[17-33] When creating the recommendation, the panel considered the balance of benefits, harms, costs, burdens of the treatments, the quality of evidence for each outcome, typical patient values and preferences and their expected variations, as well as acceptability.[34] Recommendations can be strong or weak, for or against a course of action. The recommendations take a patient-centred perspective which de-emphasises public health, societal, and health payer point of view.



Incision and drainage of an abdominal wall abcess

SPL

The occurrence of adverse effects depends on the antibiotic. With clindamycin, the risk of gastrointestinal side effects (predominately diarrhoea) is approximately 10% higher than with no antibiotics (high quality evidence). TMP-SMX probably increases the risk of gastrointestinal side effects by a smaller amount (approximately 2%; moderate quality evidence).

Overall, there is no important difference in treatment failure between TMP-SMX and clindamycin (high quality evidence). In patients who were initially cured, one study suggested that clindamycin may reduce the risk of early recurrence at one month by approximately 7% (low quality evidence),[5] but the confidence interval was wide and this result is inconsistent with indirect evidence from other RCTs that compared either antibiotic to placebo. Local resistance patterns may affect the relative effectiveness of each antibiotic.[27-30] Clindamycin has a 10% higher risk of antibiotic associated diarrhoea than TMP-SMX (high quality evidence).

The panel also considered evidence for cephalosporins compared with TMP-SMX and clindamycin used for uncomplicated skin abscesses. The network meta-analysis suggested that, at least in settings with a substantial prevalence of MRSA (such as >10%), cephalosporins in addition to incision and drainage probably do not reduce treatment failure compared with incision and drainage alone (moderate quality evidence). Although this was not reported in the RCTs, the panel felt that cephalosporins were unlikely to provide any other benefits if they do not reduce the risk of treatment failure compared with placebo (low quality evidence).

Values and preferences

The panel believes that there is a high degree of variability between patients, thus warranting shared decision making to ensure that each individual's decision is in line with their values. The expected benefit of antibiotic therapy in reducing pain, risk of treatment failure, and recurrence is modest, but large enough that the panel anticipates that most fully informed patients would value these benefits sufficiently to choose antibiotic treatment. This might particularly be the case when, for example, the abscess is very painful.

Given that cephalosporins probably do not provide any additional benefit beyond incision and drainage alone, the panel felt that all or almost all patients would rather use antibiotic options with proven efficacy (TMP-SMX or clindamycin).

Person-centred versus societal perspective

The use of antibiotics is associated with the emergence of antibiotic resistance within the community and may increase the risk of antibiotic resistant infections in community members. From a societal perspective, the modest benefits from adjuvant antibiotics might not outweigh the impact on antimicrobial resistance in the community, however this is highly speculative.

Practical issues and other considerations

A reasonable antibiotic course is approximately five to 10 days. TMP-SMX may slightly increase the risk of congenital malformations, including neural tube defects, when prescribed to pregnant women.

Cite this as: *BMJ* 2018;360:k243

Find the full version with references at http://dx.doi: 10.1136/bmj.k243

WHAT YOUR PATIENT IS THINKING

Appointment day—the tip of an iceberg

CPD READING
0.5 HOURS

Anya de Iongh gives a snapshot of what a rare appointment with a consultant feels like for the patient, and suggests how to make things better

WHAT YOU NEED TO KNOW

- Acknowledging patient's emotions and the stress of appointments can build rapport and trust
- Supporting patients to prepare for appointments can mean they are less likely to leave with unanswered questions and worries
- Consider organisational changes to make it easier for patients to contact services about appointments and follow-up to reduce stress for patients

To you, my appointment might just be another slot in a hectic day. My perspective is different. As a person with long term conditions, my one hospital appointment a year with a consultant is an important event, with a build-up, an aftermath, and a barrage of emotions.

D Day –7: A sheet of paper on my kitchen table is full of questions to ask. I need to cut them down to what can be covered in an appointment—that is, very few of them. The appointment is already dominating conversations in our house. I wonder how often doctors support patients to prepare for appointments like this, perhaps by sharing an agenda.

D Day – 6: I'm worried because I've agreed to do something the day after my appointment, but I know I will be wiped out; emotionally, mentally, and physically.

D Day –5: How am I going to relay all my problems to the consultant in a few minutes?

How can I cope if I don't get answers and have to carry on like this for another year or more until I see him or her again?

D Day –4: What if I see a registrar instead and spend 90% of the appointment going through my history and a few seconds at the end with the registrar repeating what the consultant has already told me? Can doctors find a way to save us from having to repeat our story so often?

> When you only see a consultant for a few minutes each year and the consequence of that appointment affects you every day, it needs serious planning

D Day –3: My heart is racing. I've spotted a missed call on my phone. Was it from my specialist nurse or a secretary? Neither tend to leave messages and rarely call back. Returning the call involves pressing lots of option 1 and 2 buttons. The caller only wanted me to confirm the appointment. It would be helpful if I could give consent for clinicians to leave messages on my phone, and I was provided with a direct number to use.

D Day –2: When you only see a consultant for a few minutes each year and the consequence of that appointment affects you every day, it needs serious planning. The hardest thing is prioritising the questions. What could I survive the next year not knowing?

D Day 1: I'm terrified of not getting my tone right. It's a fine line between getting angry because I am so upset about my situation and appearing overly grateful. I have to be honest, but I'm so used to protecting friends and family from the worst of my illness, that it's easier said than done.

D Day: The appointment comes and goes. My parents and I walk in silence to a nearby cafe. I hardly slept last night, and I'm tearful, overwhelmed, and exhausted, and rerunning the appointment in my head means I will struggle to sleep tonight. The consultant listened to me about my symptoms, but didn't acknowledge my emotions. Even "How are you feeling about this?" or "I know these appointments can be stressful" would have helped me to feel understood, relax, and probably engage better in the consultation.

D Day +1: During breakfast, I write a list of things I didn't fully understand and questions that the appointment has generated. I don't know what to do. I wish my consultant would tell me it is OK to ask him follow-up questions by phone or email.

D Day +2: Tearful all day. Daunted by the prospect of another year with the same symptoms and no prospect of change.

D Day +3: Cross with myself. Could I have done more to express how much I am struggling? What could have happened if I had?

D Day +4: My parents admit they feel drained by the experience. It would have been helpful if the consultant acknowledged the impact on them. We are a team.

D Day +5: Feeling low. I try to do all the right things to manage my conditions, but think that I get little

ROSE LLOYD

EDUCATION INTO PRACTICE

- What understanding does this article offer you about patients' preparations and reactions to their appointments?
- How could you alter your manner or questioning to encourage patients who have further questions and concerns to discuss them during an annual appointment?
- How might you show a patient that you understand how difficult an appointment can be for her or him?
- What might you consider doing differently as a result of reading this article?

The consultant listened to me about my symptoms, but didn't acknowledge my emotions

recognition for my efforts. If the doctor mentioned them it would boost my confidence and motivate me.

D Day +6: Kicking myself for not asking the consultant more questions when he mentioned a new drug. An information sheet would have been useful.

D Day +7: Still thinking about the "what ifs."

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Competing interests: see bmj.com for full details
www.bmj.com/about-bmj/advisory-panels/patient-panel-members/anya-de-iongh

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10-MINUTE CONSULTATION

Managing migraine in pregnancy

CPD READING
0.5 HOURS

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This is part of a series on common problems in primary care. The *BMJ* welcomes contributions from GPs.

A 36 year old woman who is 17 weeks pregnant with a 15 year history of migraine presents with an episode of a frontal unilateral headache. It is associated with nausea and visual aura consisting of mainly zigzag lines. She says that this headache is similar to her usual migraines. Clinical examination is normal, including blood pressure and urine analysis.

Migraine is one of the commonest neurological complaints in pregnancy, and most affected women either self manage or are managed by non-specialists.[1] Many women with a pre-existing history of migraine attacks will see an improvement during pregnancy (particularly those with menstrual related migraine), while those who have migraine with aura are more likely to have an unpredictable course. For a few women, migraine may occur for the first time during pregnancy, which causes anxiety and poses a diagnostic challenge.[1] The urgent priority when a patient presents with a headache during pregnancy should be to distinguish primary causes (such as migraine, tension headaches, and cluster headaches) from serious secondary causes. Secondary causes of headaches (such as pre-eclampsia and cerebral venous thrombosis) require urgent assessment and are more likely to occur after 12 weeks gestation (box 1, see bmj.com).[2]

EDUCATION INTO PRACTICE

Do you feel confident prescribing treatments for migraine in your pregnant patients?

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

We sought comments from patients who have had migraine during the pregnancy. Patients felt that reassurance from the doctor (after ruling out more serious causes) and a simple explanation about migraine in pregnancy can reduce patient stress. They felt the issue of medication safety in pregnancy was important.

Professional UK guidelines and resources on headache

- Scottish Intercollegiate Guidelines Network. Diagnosis and management of headache in adults, a national clinical guideline (publication no 107). 2008. www.sign.ac.uk/guidelines/fulltext/107/index.html
- National Institute for Health and Care Excellence. Headaches in over 12s: diagnosis and management (clinical guideline 150). 2016. www.nice.org.uk/guidance/cg150
- National Institute for Health and Care Excellence. Headaches overview. https://pathways.nice.org.uk/pathways/headaches

WHAT YOU NEED TO KNOW

- Exclude more serious causes of headache such as cerebral venous thrombosis before confirming a diagnosis of migraine
- Women with premenstrual migraine and migraine without aura are more likely to see an improvement in symptoms during pregnancy
- Many therapies for treating and preventing migraines can be safely used in pregnant women

Box 3 | Red flag symptoms in a patient with headache in pregnancy (adapted from SIGN and NICE guidelines[3 4]) and other considerations

Red flag symptoms

- Sudden onset headache reaching maximal intensity in <1 minute
- New onset of severe headache or significant changes in headaches
- Worsening headache with fever, meningism
- Headache suggestive of raised intracranial pressure
- Orthostatic headache (changes with posture)
- New onset focal neurological deficit, cognitive dysfunction, or seizures
- Recent (within the past 3 months) head or neck trauma
- Headache with impaired consciousness or personality changes
- Headache with unusual aura (duration >1 hour or including motor weakness)
- Progressive headache worsening over weeks or months
- Visual disturbance or visual field defect
- Symptoms suggestive of giant cell arteritis or glaucoma

Other considerations

- Is the patient hypertensive?
- History of neurological conditions, pituitary disease, immunocompromise, malignancy, conditions associated with procoagulable state
- Is the patient taking a medication that might cause headaches (such as calcium channel antagonists)?
- Is there a history of medication overuse?
- Is there a family history of intracranial haemorrhage?

Box 4 | Strategies in the prophylaxis and treatment of migraine in pregnancy

Non-pharmacological strategies[5 8]

Hydrate with a minimum of 2 litres of water per day

Avoid skipping meals

Reduce caffeine intake but avoid sudden withdrawal

Sleep hygiene—Avoid bright lights and mobile phone use; have appropriate amount of sleep (7-8 hours a night)

Regular exercise

Treating migraine

- First line analgesia—paracetamol (acetaminophen)[7]
  - Avoid opiates—Although they are considered safe, they can exacerbate nausea and reduce gastric motility
  - If required, consider ibuprofen, although it has less safety data than paracetamol (avoid in third trimester because of risk of premature closure of ductus arteriosus)[7-12]
- Antiemetics such as prochlorperazine, cyclizine (first line), domperidone, ondansetron, and metoclopramide are safe to use in pregnancy. Avoid long term use of metoclopramide because of its extrapyramidal side effects[13]

Migraine prophylaxis

- Aspirin 75 mg once a day is often helpful for migraine prevention in pregnancy. Low dose aspirin has been used safely until 36 weeks' gestation in a recent randomised controlled trial[16]
- β Blockers such as low dose propanolol (10-40 mg three times a day) can be used, and once a day preparations can facilitate adherence.[1-17] Recent studies show use in the first trimester of pregnancy is not associated with a higher risk of specific congenital anomalies[18]
- Low dose tricyclic antidepressants such as amitriptyline 10-25 mg taken at night[11 19]

What you should cover

Ask about the current pregnancy—date of last menstrual period or dating fetal ultrasound scan to estimate gestation.

Even if the patient has a history of migraine, consider the characteristics of her episodes of migraine before the pregnancy and the nature of her current headache.

Characteristics of migraine before the pregnancy:

- Ask her to describe her previous episodes. Were they associated with prodromal symptoms?
- Were her attacks related to her menstrual cycle?
- What medications did she take as prophylaxis or during an acute attack?

Nature of the current headache:

- Assess the onset and character, alterations in headache (such as worsening with posture, coughing, straining, physical exertion, other precipitants)
- Ask about factors that improve symptoms, such as avoiding motion or darkness
- Tempo of headache, such as time to maximal onset of pain
- Are there associated symptoms (including nausea, vomiting, visual symptoms, photophobia, and autonomic features)?
- Are there any visual changes? Clarify the nature of any aura. Are these similar to the aura associated with her migraine before pregnancy?
- Are there any other focal neurological symptoms?
- Are there any cognitive disturbances or changes in behaviour?
- Is there any recent head trauma?
- Any fevers, rashes, or neck stiffness?

Box 2 (see bmj.com) lists the clinical features more likely to be associated with migraine.[3]

What you should do

Examination

Even though a patient may have a longstanding history of migraine, it is important to rule out any red flag symptoms (box 3)[3 4] and consider any other medical conditions or medications associated with headaches. Measure her blood pressure and conduct urine analysis. Perform a neurological examination, specifically assessing for neck stiffness. Test eye movements, visual fields, and pupillary responses and perform funduscopy to rule out papilloedema. Refer women with any focal neurological deficits or signs of raised intracranial pressure for urgent intracranial imaging to rule out secondary causes.

Management

When managing a woman with episodic migraine with aura in the context of the second trimester of pregnancy, consider giving the following advice:

- Migraine may improve during pregnancy (in about 50-75% of women).[5] Improvement typically occurs in the second and third trimesters
- The normal rise in pregnancy hormones can stabilise migraine without aura but has been associated with increased frequency of migraine with aura.
- Lack of sleep can precipitate symptoms
- Treatments that can be used for migraine are summarised in box 4. Advise non-pharmacological measures in the first instance
- Women with migraine in pregnancy may be at increased risk of pre-eclampsia, gestational hypertension, arterial and venous thrombosis.[8 9] Explain the symptoms that might signify this and encourage attendance at regular antenatal checks with monitoring of blood pressure and urine.

Competing interests: None declared.

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Find the full version with references at http://dx.doi.org/10.1136/bmj.k80

CASE REVIEW **A child with a painless, deformed wrist**

A 7 year old boy presented to the emergency department after his mother noticed a painless deformity of his right wrist. The deformity had appeared the day after the child had tripped and fallen on to the wrist while playing at home. He had no known medical problems and was developing well. Specifically, he had experienced no previous injury or pain in his right wrist, although he was brought to the emergency department a few months previously for a minor injury to his right thumb. His father had noted a minor enlargement of the thumb, but the boy had not undergone radiography.

On examination, his right wrist was in radial deviation with prominence of the ulna. There were no areas of focal tenderness. The proximal phalanges of his thumb and index finger were wider in girth than the other fingers, with obvious bony protuberances. He could grasp an object using his fingers and thumb with good strength and no pain. He had a full range of movement of all joints of the hand and at the wrist. There were no skin changes or neurovascular abnormalities.

He was initially seen by the emergency team who took radiographs (fig 1) and referred him to the orthopaedic team for review.

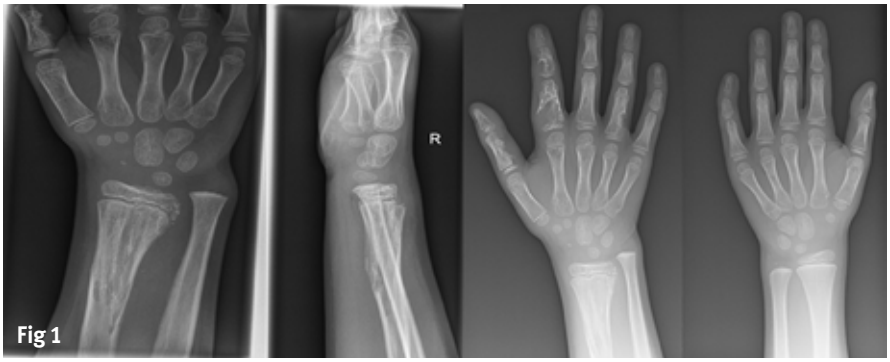

Fig 1

1 What is the diagnosis?

2 What are the complications of this disease?

3 How should this patient be managed?

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Parental consent obtained.

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answers

CASE REVIEW

A child with a painless, deformed wrist

1 The patient presented with a painless wrist deformity and bony lesions in the fingers. The radiographs show multiple, well defined, expansile lytic lesions involving the phalanges, and distal radius (fig 2).
These features are suggestive of Ollier disease (enchondromatosis).

2 Complications of Ollier disease include growth disturbance resulting in limb length discrepancies or angular deformities and pathological fractures. Lesions can undergo malignant transformation to chondrosarcoma. Although lesions can grow and cause pain throughout childhood, they do not undergo malignant transformation until adulthood.

3 The patient has no functional impairment and can therefore be managed conservatively. He should be referred to a specialist multidisciplinary team for regular surveillance to monitor the rate of worsening deformity and functional deficit.

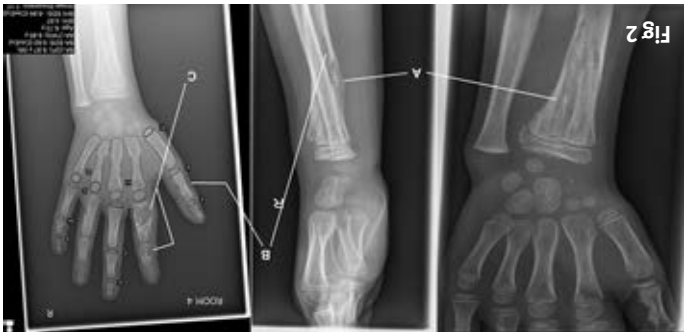
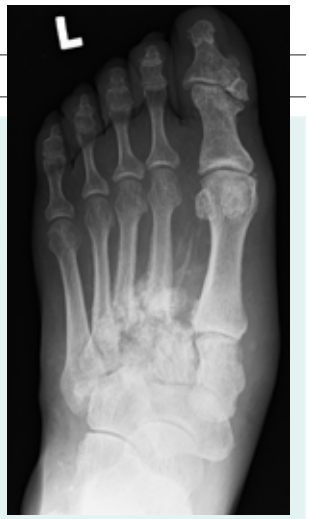


Fig 2

Anterior-posterior and lateral radiograph of the patient's right wrist and anterior-posterior radiograph of the right hand showing radiological findings. (A) Radiolucent longitudinal streaks that involve the metaphysis and extend down into the diaphysis of the radius. (B) Multiple well defined lytic lesions within the medullary canal with thin overlying cortex. (C) The proximal and middle phalanges of the index finger appear shortened and grossly expanded.

Neuroarthropathy 11 years after pancreas transplantation



A 55 year old man presented after two months with a hot, swollen left foot. Radiology confirmed an acute Charcot joint (figure). The patient had developed type 1 diabetes aged 15, and underwent simultaneous pancreas-kidney transplant aged 44, which enabled him to discontinue insulin. Poor glycaemic control before the transplant had caused dense peripheral neuropathy, but his glycaemic control was in the non-diabetic range after transplantation, and he had been discharged from the diabetes service.

Simultaneous pancreas-kidney transplantation is an additional risk factor for developing Charcot arthropathy. Corticosteroids or calcineurin inhibitors, used as part of the immunosuppressive regimen, can have direct effects on bone metabolism, or a directly neurotoxic effect. People with a history of diabetes should remain under review in clinic, because the risk of clinical sequelae of peripheral neuropathy persists for many years after resolution of hyperglycaemia.

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Monitoring blood pressure without a cuff

It's not too difficult to detect changes in volume or flow within an artery non-invasively. But measuring arterial blood pressure, which is what one usually wants to know, is more difficult. A photoplethysmographic method that uses a single sensor to measure pulsatile changes in index finger blood volume might have solved the problem. It needs an initial calibration with traditional inflatable cuff sphygmomanometry, but after that its inventors claim that it can monitor ambulatory blood pressure continuously, comfortably, and accurately (*JACC Basic Transl Sci*).

Sudden cardiac death

Sporting activity has received attention recently as a cause of sudden cardiac death in young people. But a population survey from Portland, Oregon, reports that only a minority of sudden deaths in young people occur while they're engaged in sports (*Circulation*). Instead, the survey found an unexpectedly high prevalence of established risk factors, including obesity, diabetes, hypertension, and hyperlipidaemia. Fifty eight per cent of cases of sudden cardiac death in people under 35 had at least one of these risk factors.

Checking for primary aldosteronism

The Endocrine Society guidelines recommend checking for primary aldosteronism in patients whose blood pressure is sustained above 150/100 mm Hg. A survey from the Netherlands finds that this check is hard to achieve in primary care (*Br J Gen Pract*). Of nearly 4000 people with newly diagnosed, untreated hypertension, fewer than 10% had been investigated with measurement of aldosterone and renin. Among those who were tested, fewer than three in 100 turned out to have primary aldosteronism.

Incretin drugs and pancreatic cancer

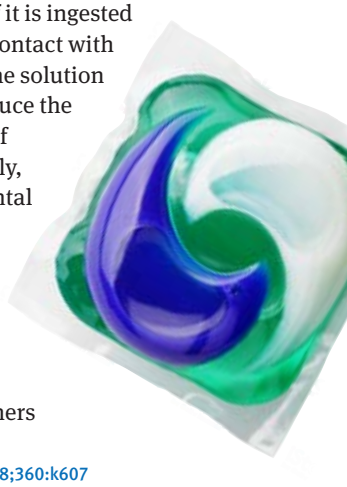
Two database investigations from Italy and Belgium confirm earlier findings of an association between incretin drugs and pancreatic cancer (*Diabetes Care*). What's interesting is that the strength of this association changed over time. The risk of pancreatic cancer was highest in the first three months after an incretin drug was first prescribed, and then fell sharply. One possible explanation is that the relationship between drug and cancer is operating in the other direction. An occult pancreatic cancer provokes or aggravates diabetes, and this leads to the prescription of an incretin drug.

Poor quality CPR on TV

The portrayal of cardiopulmonary resuscitation on television has often come under fire for unrealistically high survival rates. A recent analysis of cardiac arrests in three popular medical dramas finds that the quality of resuscitation can be criticised too (*Postgrad Med J*). Chest compressions were often delivered faster or slower than the recommended rate of 100-120 per minute, and they were usually too shallow to be effective. Minerva is doubtful how much this matters, but the investigators argue that medical dramas are an opportunity for subliminal public education that shouldn't be wasted.

The lure of detergent pods

Laundry detergent is increasingly sold in pods, which is convenient for people with washing machines and good for the environment because it reduces the amount of detergent used. Unfortunately, young children find the coloured liquid inside the pods dangerously attractive and, because the detergent in the pods is concentrated, there's a risk of serious clinical harm if it is ingested or comes into contact with eyes or skin. The solution might be to reduce the visual appeal of the pods. In Italy, rates of accidental poisoning dropped sharply when they were repackaged in opaque containers (*Inj Prev*).



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