Opioid-sparing postoperative protocols
Might introducing opioid-sparing postoperative analgesia protocols help to reduce long term opioid use? According to a study in the US, standard analgesia after knee or shoulder arthroscopy is 20-80 tablets of oxycodone, codeine, or hydromorphone to be taken on an as needed basis.

Two hundred patients undergoing one of these procedures were randomised to either standard care or an opioid-sparing regimen of naproxen 500 mg twice daily, pantoprazole 40 mg once daily, and paracetamol 1 g four times daily. The latter group also had a rescue opioid to be taken only if the non-opioid analgesia wasn’t effective, and were given an infographic about pain management strategies. Those allocated to the opioid-sparing group not only took fewer opioids (most took none at all) but also had better pain scores through the recovery period.

Making things doubly complicated for UTI treatments
How do you define a complicated urinary tract infection (UTI)? Judging by the inclusion criteria of a randomised control trial of new antibiotic cefepime/enmetazobactam versus piperacillin/tazobactam to treat complicated UTI, the answer is, well, complicated. As well as debatable inclusion criteria, the study recruited mostly white (94%) and young patients, specified a seven day course of intravenous antibiotics, and had a not-very-applicable-in-real-life composite primary endpoint of complete resolution of symptoms and signs and microbiological eradication of the infection.

Although cefepime/enmetazobactam came out as non-inferior to piperacillin/tazobactam, how these findings can be applied to practice seems unclear.

SGLT too much?
Once sodium–glucose cotransporter-2 (SGLT2) inhibitors come off patent and get a bit cheaper, is this likely to affect their place in the pecking order for drug treatment of type 2 diabetes?

A modelling study in the US, where care for people with diabetes accounts for around 1 in 4 healthcare dollars spent, estimates that the cost of SGLT2 inhibitors will need to drop by 70% for them to become cost effective as first line treatment. Useful to know if you’re a generic manufacturer eyeing up this lucrative market.

Little protection from cerebral embolic protection
I recently found myself sieving milk to remove any creamy bits that might render a bowl of Rice Krispies inadequate, and I realised I’d long since lost my authority as a parent.

In cardiac surgery, they use the same principle (sieving out unwanted bits, rather than submissive parenting) in cerebral embolic protection (CEP) devices, designed to collect the debris that gets chucked into the carotid and vertebral arteries during transcatheter aortic valve replacement (TAVR).

Use of CEP is supposed to reduce the risk of periprocedural stroke, an often devastating complication in around 4% of these procedures. A US based registry found that, since CEP devices were commercially approved, around 13% of TAVR procedures have used them.

Unfortunately, the first randomised controlled trial of a CEP system has found no difference in the primary endpoint of a stroke within 72 hours or discharge from hospital between those randomised to having a TAVR with a CEP system and controls. Disabling stroke, one of the 15 secondary endpoints, did occur in fewer of the CEP patients, but the number needed to treat to prevent one disabling stroke was 125.

Are doctors a risk factor for melanoma?
Is exposure to the sun or to a doctor more likely to lead to a diagnosis of melanoma? A provocative cross-sectional analysis of county-level data in the US suggests it might be the latter. This ecological study used proxies for sun exposure (such as temperature variability) and “diagnostic scrutiny” (median household income and physicians per 100,000 residents) and assessed their association with melanoma incidence in the non-Hispanic white population.

It concludes that the “current pattern of melanoma incidence in the US is apparently less associated with UV radiation exposure, and more so with medical practice. Whether high diagnostic scrutiny provides any meaningful benefit in reducing melanoma mortality remains open to serious question.”

The authors call on researchers interested in sun exposure to “focus on the feared outcome of the disease” rather than the diagnosis, and for clinicians and public health officials “not to exaggerate the magnitude of cancer risk factors, particularly for exposures as ubiquitous as the sun.”

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Recurrent facial paralysis and weakness

A woman in her 50s presented with a history of at least five paroxysmal episodes of facial paralysis and weakness over 25 years. She first experienced symptoms at age 26, which were bilateral and more severe on the right. No other physical findings were documented during the initial presentation.

The severity of symptoms increased with each episode along with complete facial paralysis and were not always followed by full recovery, with intervals between episodes lasting more than eight weeks. About 48 hours before onset of facial paralysis and weakness, the patient usually experienced pain behind the left ear and on the lateral part of the neck. She did not report any skin lesions, fissured tongue, or swelling of the lips or tongue.

The box summarises the neurological findings of the most recent presentation.

She had a history of anxiety, depression, and hypertension for which she was taking citalopram and amlodipine. She also had a history of shingles.

Eight years previously, the patient underwent magnetic resonance imaging of the brain and lumbar puncture, with no abnormalities detected and no oligoclonal bands identified, respectively. Serology for Lyme disease was negative, as were results of polymerase chain reaction (PCR) tests for herpes simplex, herpes zoster, and enteroviruses. Tests for antinuclear antibodies and serum angiotensin converting enzyme levels were also normal, making an autoimmune cause or sarcoidosis unlikely.

1. What is the most likely diagnosis?
2. What are the differential diagnoses of facial nerve palsy?
3. How would you manage this condition?
MINERVA

Armour-like hyperkeratosis
This is erythrodermic psoriasis on the chest of a man in his 30s. The patient had a 14 year history of chronic plaque psoriasis and arthritis in both hands. For four years he had used methotrexate and acitretin but abruptly stopped treatment on deterioration of his mental health. Over the six months after withdrawal, erythema gradually became widespread and confluent. Physical examination showed erythroderma with patchy thick silvery scale involving more than 90% of body surface area. The patient had no fever, chills, or pustules.

Erythrodermic psoriasis is a severe subtype of psoriasis, characterised by widespread, confluent erythema with scaling and desquamation of the skin and is usually associated with fever, chills, and malaise. Erythrodermic psoriasis can be triggered by sudden withdrawal of systemic drugs, infection, alcohol consumption, and stress. Differential diagnoses include crusted scabies, pityriasis rubra pilaris, and cutaneous T cell lymphoma. Patients should be counselled on how the sudden withdrawal of long term treatment for psoriasis might trigger severe variants such as erythrodermic psoriasis. Increased support in maintaining a drug regimen might be required when patients are undergoing stressful life events or have mental health problems.

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Patient consent obtained.

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Risk of diabetes was doubled among people who reported that they were lonely

Loneliness and diabetes
Five per cent of participants in a large Norwegian survey developed type 2 diabetes over the 20 year duration of the study. They were more likely to be older, male, married, and to have had low levels of education than those without type 2 diabetes. They were also more likely to suffer from loneliness. After adjusting for age, sex, and education, risk of diabetes was doubled among people who reported that they were lonely (Diabetologia doi:10.1007/s00125-022-05791-6).

Cardiovascular events in astronauts
Astronauts get through the selection process only if they are fit and have low levels of cardiovascular risk factors. However, spaceflight exposes them to stress, impaired sleep, ionising radiation, and changes in patterns of exercise and diet. A longitudinal study finds that cardiovascular events were roughly twice as common in astronauts as in a matched control group (Mayo Clin Proc doi:10.1016/j.mayocp.2022.04.003).

Low income in midlife
People in low wage jobs in middle age are more likely to experience memory decline as they get older, according to data from the US Health and Retirement Study. Among 3000 people whose memory function was measured regularly over 12 years, low income in midlife was associated with a downward trajectory of memory performance in older age even after adjustment for education, skill level of occupation, and household wealth (Am J Epidemiol doi:10.1093/aje/kwac166).

PERINATAL

Perinatal influences on risk of thyroid cancer
The incidence of thyroid cancer is higher in women than men. Registry data from four Nordic countries suggest that perinatal influences are part of the story. Older age at first pregnancy, postpartum haemorrhage, and giving birth to high birth weight and large-for-gestational-age babies carry an increased likelihood of later thyroid cancer. Being unmarried, smoking in pregnancy, and having a preterm birth are associated with a decreased risk (Am J Epidemiol doi:10.1093/aje/kwac163).

Ockham’s razor
Ockham’s razor is often quoted by doctors when struggling to come up with a diagnosis: try to find a single explanation for a multiplicity of signs and symptoms. An intriguing re-interpretation argues that the razor shouldn’t be thought of as an implement to cut away unnecessary entities but as a reference to the scraping knife used by medieval scribes to correct errors when writing on parchment. Ockham’s razor is often quoted by doctors for a multiplicity of signs and symptoms.

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Allocating funding for research
Anyone who has ever written a research proposal knows that success depends on more than the quality of the application. Luck and the biases of the review panel also play a large part. The British Academy, the UK’s national academy for humanities and social sciences, has tacitly acknowledged this by introducing a lottery to determine which applications will be funded when they are judged of similar quality (www.nature.com/articles/d41586-022-02959-3).

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