Lemons, limes, and flu

Key lemon pie? Lime meringue? I’ve been trying all week to think of recipes where you could swap the lemons for limes, or vice versa, and still have a tasty bite to eat. In 2014, Sally Davies, England’s chief medical officer at the time, argued that you couldn’t judge the benefits of oseltamivir in pandemic flu based on studies of oseltamivir in seasonal flu as they were “a bit like lemons and limes. They are both citrus fruits and you can use them for the same recipes, but they are different.” She was referring to the conclusions of a Cochrane review that found no good evidence to support claims that oseltamivir reduced hospital admissions when given for seasonal influenza.

Nine years later, a new systematic review and meta-analysis of outpatients with confirmed influenza asked to take oseltamivir or placebo or a nonactive control concludes, once again, that: “oseltamivir was not associated with a reduced risk of hospitalisation.” To justify its use, say the authors, an adequately powered trial in a suitably high risk population is needed. Meanwhile, in my unsystematic search of lemon and lime recipes I only found that “nothing can fully replace the zing of a lime,” and there’s no flu remedy called Limesip.


Hard to admit

There are so many factors influencing clinical decision making that we either can’t measure or don’t measure. When it comes to a decision to admit a patient to hospital, how often are factors beyond the cold, objective, and easy to record measures of blood pressure, pulse, oxygen saturation, etc, that swing the decision? A cohort study in the United States examined over 40,000 emergency department visits by older patients with an average age of 77 years. They authors found that having difficulty with five activities of daily living and having dementia each increased the chances of being admitted, while living with a spouse and having children living within a 10 mile radius were associated with a reduced likelihood of admission. Factors that didn’t seem to make a difference to admissions include recent falls, depression, and polypharmacy.


Corticosteroids for chronic subdural haematoma

Early observational data in the 1970s suggested that corticosteroids could help improve outcomes, and sometimes avoid the need for surgery, in people with symptomatic chronic subdural haematoma. Now the first randomised trial to compare dexamethasone with surgery (burr hole drainage) has found that dexamethasone is not non-inferior (that is, isn’t as good). This trial was terminated early due to safety concerns in the dexamethasone group; more people died in the dexamethasone arm of the study (8 out of 126 versus 2 out of 124 in the surgery group), functional outcomes were worse, hospital stays were longer, and more than half of the group ended up having surgery in any case.


AI passes without distinction

Computers have been able to beat humans at chess for decades, yet more people than ever watch humans play chess against one another. Maybe the inevitable layer of AI diagnosis that we’ll all have to get past to access healthcare will drive more people than ever before to want to see a human doctor? One point that comes up frequently in the endless speculation about how AI will affect us, is that we seem less forgiving of mistakes made by AI than those made by humans. For instance, in many medical school or postgraduate exams, getting 60% of the answers right may be enough to pass, but somehow that seems a bit disappointing for a computer.

A research letter in JAMA tested Chat GPT (GPT-4) on the New England Journal of Medicine’s clinicopathologic conferences—tricky cases that typically anti-climax with a diagnosis you’ve never heard of, such as Erysipelothrix rhusiopathiae infection or cerebral amyloid angiopathy-related inflammation. Chat GPT managed to get the correct diagnosis 39% of the time (27/70 cases) and had the correct diagnosis on its list of differentials 64% of the time—not bad for a human, but should we expect more from a machine?


Recovery from craniectomy and craniotomy

A new randomised controlled trial compared craniectomy with craniotomy for acute subdural haematoma. What’s the difference? In a craniotomy the bone flap is replaced, whereas the bone flap is not replaced in a craniectomy. As you might expect, those who had a craniectomy had higher rates of postoperative wound complications including site infections (12.2% vs 3.9%). However, they were also less likely to need further surgery within two weeks (6.9% vs 14.6%). Overall, there was no difference between the two surgical procedures in the primary outcome of functional recovery, as assessed with the Extended Glasgow Outcome Scale (GOSE). Just over 30% of patients had died within a year in both arms of the study.

OPINION

Competing interests: None declared

Provenance and peer review: Not commissioned; not peer reviewed