Tom Nolan’s research reviews—28 September 2023

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Goodnight for overnight appendicectomy

How long should people with appendicitis wait before going to theatre? 1822 people with presumed uncomplicated appendicitis admitted to hospital in Norway and Finland were randomised to have an appendicectomy either within 8 hours (which might mean operating overnight) or within 24 hours. There was no statistically significant difference in rates of perforation at appendicectomy between the two groups (8% and 9% respectively) or in outcomes at 30 days. The findings suggest that those with uncomplicated appendicitis—which in this study meant excluding people with a C reactive protein level of >100 mg/L, fever >38.5°C, signs of complicated appendicitis on imaging studies, or generalised peritonitis—can probably wait until morning.

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Private COI

JAMA goes into Private Eye mode this week with a research letter looking at financial conflicts of interests of doctors who comment as part of the National Coverage Determinations (NCD) process for medical devices—similar to the consultation process of the National Institute for Health and Care Excellence (NICE) technology appraisals. From 444 physician commenters, they found that 76% of them had received financial payments from device manufacturers with an interest in the NCD, but only one of them (0.3%) had declared this in their comment. Trebles all round!


Augmenting sinusitis in children

The evidence review for the 2017 NICE guideline on antimicrobial prescribing for acute sinusitis found conflicting evidence on whether antibiotics improved symptoms in children at 10-14 days compared with placebo, and no significant difference in cure rates between antibiotics. The guideline recommends prescribing antibiotics only if the patient is “systemically very unwell, has symptoms and signs of a more serious illness or condition, or is at high risk of complications.” In the US antibiotics are recommended more widely, which may be why a cohort study aimed to determine whether symptoms resolve quicker with amoxicillin or with co-amoxiclav, rather than without them at all. Of the more than 300,000 children and adolescents included, 90% were given a treatment course of 10 or more days of antibiotics. Treatment failure—defined as another course of antibiotics, emergency department encounter, or admission with sinusitis, or a complication of it within 14 days of the initial prescription—occurred in under 2% of both cohorts. How much this is due to the effects of the antibiotics or typically self limiting nature of the illness in most people isn’t discussed.


Assessing risk of admission from covid-19

A new covid treatment guideline from the American College of Physicians aims to keep things simple with just two recommendations for drug treatment in people with mild to moderate covid-19. The guideline recommends considering both molnupiravir and nirmatrelvir-ritonavir within five days of the onset of symptoms in those with mild-moderate covid-19 and at a high risk for progressing to severe disease. This sounds simple enough, but who do we consider at high risk for progressing to severe disease these days? This guideline simply points readers to the Centers for Disease Control and Prevention (CDC) website’s list of risk factors, which includes being “older” and having “underlying health conditions.” The WHO Rapid Recommendation guidelines—which make similar recommendations—define high risk as a 10% risk of admission, but even this seems hard to assess given the uncertainties over current infection and hospitalisation rates.

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Slowing amyloid progression but not preventing Alzheimer’s disease

With all the heat generated in the past year over the US Food and Drug Administration (FDA) approval of lecanemab for Alzheimer’s disease, it’s worth taking a moment to mark the end of the road for the monoclonal antibody’s older sibling solanezumab. A randomised control trial recruited 1169 people with so called preclinical Alzheimer’s disease: people aged 65-85 years with elevated brain amyloid levels on 11C-florbetapir positron-emission tomodraphy (PET), without a clinical diagnosis of dementia according to their clinical dementia rating score and mini-mental state examination.

There was no difference in the primary outcome of change in preclinical Alzheimer cognitive composite (PACC) score after 240 weeks of monthly drug or placebo injections. But what about amyloid levels? Participants had an average amyloid burden of 66 centiloids at the start of the study, which increased by an average of 11.6 centiloids in the solanezumab group versus 19.3 centiloids in the placebo group—a slower increase in the solanezumab group, but not the reduction in amyloid seen with lecanemab that persuaded the FDA to grant it fast-track approval.


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