

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by Paul Hellyer.

How real is reported 'antibiotic allergy'?

Xiang Y Y, Heriot G S, Jamrozik E. Ethics of antibiotic allergy. *J Med Ethics* 2023; DOI: 10.1136/jme-2022-108648.

Some re-thinking required.

Approximately 10% of hospitalised patients report penicillin allergy. Only 5% of these have true allergy after testing. Thus only 1% of people have confirmed allergy and only 0.0001 to 0.0005% of these will have an anaphylactic reaction. For patients presenting with a bacterial infection which warrants antibiotic treatment, and with a history of penicillin allergy, the doctor has two choices (ignoring the option for allergy testing) – prescribe first line penicillin-based treatment and risk allergic reaction OR prescribe second line antibiotics, and risk a lower chance of cure, associated with adverse drug reactions, longer treatment durations, greater healthcare costs and increased prevalence of resistant bacteria.

The authors argue that allergy history is a weak predictor of harms to patients whereas use of second line treatments is associated with well-described harms. Therefore, one might expect that doctors would prescribe first line treatments even in the presence of an allergy history. However, that doesn't seem to happen, possibly due to lack of awareness of the relevant data, professional norms and medico-legal issues and cognitive bias from both the doctor and the patient. The authors recommend changes to clinical practice, medical education and clinical guidelines.

<https://doi.org/10.1038/s41415-023-6176-z>

Prescribing antibiotics for children

Nazar S, Dave M, Barry S. Antibiotic prescription practices among dentists treating children in the UK. *Faculty Dent J* 2023; DOI: 10.1308/rcsfdj.2023.22.

Continuing education is needed.

Over-prescription of antibiotics may increase the risk of antimicrobial resistance (AMR). AMR has been described as one of the top ten global public health threats. Dentists contribute 10% of global antibiotic prescriptions and in the UK many of these are inappropriate.

This questionnaire study, sent to 454 full members of the British Society of Paediatric Dentistry (response rate = 45%) showed that the majority of respondents followed national guidelines when prescribing antibiotics. For those allergic to penicillin, most prescribed metronidazole but around 25% would prescribe erythromycin or clindamycin which are not recommended.

One-third of respondents did not follow the recommended dosage of 500 mgs amoxicillin 3 times a day for 5 days, one respondent would give antibiotics for pulpitis, 24% would prescribe antibiotics for an acute periapical abscess before drainage was established and 5% would prescribe for a chronic apical abscess.

<https://doi.org/10.1038/s41415-023-6178-x>

Patient information via apps

Prithviraj D, Smyth R S, Sharif M O. Orthodontic apps: An assessment of content accuracy and validity. *J Orthod* 2023; **50**: 166–167.

Many are inaccurate.

Mobile apps may improve clinician-to-patient communication, feedback and monitoring, as well as providing health care information.

Sixteen orthodontic patient-focused apps were assessed for presence and accuracy of relevant information about oral hygiene, dietary advice, fixed appliances, orthodontic retention and emergency situations. Of the 16, 8 provided generic information about treatment, 5 were reminder apps and 3 contained games and timers for toothbrushing. Five apps contained an oral hygiene section of which only one scored fair-to-excellent (information present and mostly accurate). Six apps contained dietary advice, all of which was scored overall as poor. For fixed appliances (7 apps), retention (8 apps) and emergency situations (8 apps), all were scored overall as poor, information being absent or present but not accurate.

There is a need for high-quality, evidence-based orthodontic apps with the aim to improve patient compliance but until that time, a mix of information delivery tools will need to be used including YouTube videos and traditional paper information leaflets.

<https://doi.org/10.1038/s41415-023-6177-y>

Helmets are important

Goh E Z, Beech N, Johnson N R. E-scooters and maxillofacial fractures: a seven-year multi-centre retrospective review. *Aust Dent J* 2023; **68**: 113–119.

Accidents are increasing.

E-scooters are being used increasingly as a cost-effective and environmentally friendly means of transport, but come with high risk of injury to the head and upper and lower extremities, commonly due to falls. Risk factors include alcohol use, impairing judgement and compromising neuromuscular reflexes to protect the head and not wearing a helmet. Injury to the cranio-facial region may be fatal or cause significant facial scarring.

Data from 2 hospitals in Queensland, Australia showed that there were 18 cases of maxillo-facial fractures due to e-scooter accidents from 2018 to 2020 (2018 = 3, 2019 = 7, 2020 = 8). Ride sharing schemes began in 2018 and there were no cases recorded from 2014 to 2017. Sixty-six percent of the cases were male with a mean age of 35 (range 19 to 63 years). In the majority of cases, there was evidence of alcohol use and lack of a helmet. Middle third fractures were more common than lower third involvement. There were no associated long bone injuries.

Evidence from bicycle sharing schemes suggest that provision of and promoting the use of a helmet with the scooter and fines for intoxication may be effective preventive strategies.

<https://doi.org/10.1038/s41415-023-6179-9>