

# 30 days in medicine

## Don't avoid all nuts – advice for patients with nut allergies

Patients with a peanut or tree nut allergy should not be advised to avoid all nuts – so says the first single guidance on managing and preventing nut allergy. The guideline was drawn up by the British Society for Allergy and Clinical Immunology (BSACI) and states that although complete nut avoidance is the safest approach, this is difficult in the real world and can lead to a severely restricted diet. The advice is that patients can carry on eating nuts that they know are safe at home, but should avoid nuts when out because of the risk of cross-contamination.

Nut allergy is common, affecting at least one in 50 children and one in 200 adults. Most patients do not outgrow the allergy. Because most patients are looked after by health professionals with no formal training in allergy, they receive inconsistent care and advice.

The BSACI guidelines were developed over the past 5 years and state that all patients should have a comprehensive management plan, including advice on avoiding nuts, recognising individual nuts, treating allergic reactions and training in using adrenaline self-injectors.

Introducing peanuts early in the weaning diets of infants at high risk of peanut allergy can prevent the allergy from developing, and there is no evidence to support the delayed introduction of peanuts into an infant's diet.

Stiefel G, Anagnostou K, Boyle RJ, et al. BSACI guideline for the diagnosis and management of peanut and tree nut allergy. *Clin Exp Allergy* 2017;357:719-739. <https://doi.org/10.1111/cea.12957>

## Smaller doses, in combinations of medicine, may be effective in treating hypertension

Quarter-dose combinations of antihypertensives appear effective in treating hypertension and have fewer side-effects than a single dose of one drug, according to research published in the journal *Hypertension*. Researchers analysed and compared results from 42 trials, including 20 284 people with hypertension who were treated with various medications in varying doses, or taking no medication. The review included medications from the five main classes of antihypertensives, including angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, beta-blockers, calcium channel blockers and thiazides.

They found that two medications in combination, each at a quarter dose, were as effective as one medication at standard dose. Four medications in combination, each at a quarter dose, were nearly twice as effective as taking one medication at standard dose. The side-effects from single and dual quarter-dose therapies were about the same as those of placebo and far less than those from a standard dose of a single antihypertensive.

Bennet A, Chow CK, Chou M, et al. Efficacy and safety of quarter-dose blood pressure-lowering agents: A systematic review and meta-analysis of randomized controlled trials. *Hypertension* 2017;70:85-93. <https://doi.org/10.1161/HYPERTENSIONAHA.117.09202>

## Thrombocytosis points to cancer

Patients with a blood test showing thrombocytosis should be screened for occult cancer. This is the finding of research from Exeter, UK. Researchers used the UK Clinical Practice Research Datalink and the English Cancer Registry to look for a link between the results of full

blood counts taken in primary care and a diagnosis of cancer during the following year. They compared 40 000 patients aged >40 years who had a first thrombocytosis event – a platelet count of more than  $400 \times 10^9/L$  – recorded from 2000 to 2013 with 10 000 matched controls with a normal platelet count.

They found that 1 098 of 9 435 men with thrombocytosis had cancer diagnosed during the following year, compared with 106 of 2 599 men without thrombocytosis. Results were similar in women. A second raised platelet count within 6 months raised the risk of cancer further, to 18.1% in men and 10.1% in women.

The cancers commonly diagnosed in patients with thrombocytosis were lung and colorectal, and a third of these patients had no other symptoms indicating malignancy. Thrombocytosis has previously been recognised as associated with lung, colorectal and urogenital cancers, and this is the first study to estimate the overall risk of cancer in patients with thrombocytosis.

Bailey SER, Ukoumunne OC, Shephard EA, Hamilton W. Clinical relevance of thrombocytosis in primary care: A prospective cohort study of cancer incidence using English electronic medical records and cancer registry data. *Br J Gen Pract* 2017;67(659):e405-e413. <https://doi.org/10.3399/bjgp17X691109>

## Chronic pain may contribute to dementia

A study published in *JAMA Internal Medicine* suggests that older people with persistent pain show faster declines in memory as they age and are more likely to have dementia later than those without pain, suggesting that chronic pain may be related to the changes in the brain that contribute to dementia.

The researchers analysed data from 10 000 participants aged  $\geq 60$  for 12 years. Those who said they were persistently troubled by moderate to severe pain in both 1998 and 2000 had a 9.2% faster decline in memory over the next 10 years than those who did not have pain. The patients who complained about persistent pain also had a small but significantly increased likelihood of developing dementia.

The additional amount of memory decline in those who reported persistent pain suggested that these patients would be likely to have a harder time with tasks of daily living, such as independently managing their medications and finances.

Whitelock EL, Diaz-Ramirez LG, Glymour MM, et al. Association between persistent pain and memory decline and dementia in a longitudinal cohort of elders. *JAMA Int Med* 2017;(pub 5 June 2017). <https://doi.org/10.1001/jamainternmed.2017.1622>

## Half a million children die from diarrhoeal diseases each year

Although the number of child deaths caused by diarrhoea fell by a third between 2005 and 2015, mortality rates remain high in some of the world's poorest countries, with diarrhoea killing almost half a million children under 5 years each year. This is according to a Global Burden of Disease study published in *Lancet Infectious Diseases*.

The study found that diarrhoea is the fourth leading cause of death for children and responsible for 8.6% of all deaths aged <5 years. Forty-two percent of these deaths occur in India and Nigeria. It estimated that there were 2.39 billion episodes of diarrhoeal disease globally in 2015, with 957.5 million of these in children, resulting in 1.31 million deaths, including 499 000 deaths in children.

Although mortality rates have reduced substantially – by 20.8% overall and 34.3% in children – the incidence of disease has not fallen

as fast (5.9% reduction overall and 10.4% reduction in children). As a result, diarrhoea still causes significant morbidity, mainly in children aged <5 years.

Between 2005 and 2015, the largest reductions occurred in sub-Saharan African countries, where the mortality rate reduced by more than 100 deaths per 100 000 in western (from 445 to 277 deaths per 100 000), eastern (from 243 to 131 deaths per 100 000), and southern sub-Saharan Africa (from 214 to 113 deaths per 100 000).

Globally, unsafe water and sanitation were still the leading risk factors for diarrhoea in 2015. However, better access to clean water, improved sanitation, and fewer cases of malnutrition are likely to be responsible for the reductions in mortality rates for children aged <5 years.

Rotavirus was the main cause of diarrhoeal death for children, causing 146 000 deaths in 2015 despite mortality rates falling by

44% since 2005. The authors note that this is the only cause that has seen a reduction, and this is probably because of the rotavirus vaccine, which had been introduced in 91 countries by March 2017. Based on this, they suggest that the development of further vaccines may be warranted – for example against cryptosporidium, which is the second-biggest cause of diarrhoeal death among children aged <5 years (causing 60 400 deaths in 2015) and has few treatment options.

GBD Diarrhoeal Diseases Collaborators. Estimates of global, regional, and national morbidity, mortality, and aetiologies of diarrhoeal diseases: A systematic analysis for the Global Burden of Disease Study 2015. *Lancet Infect Dis* 2017;(epub 1 June 2017). [https://doi.org/10.1016/S1473-3099\(17\)30276-1](https://doi.org/10.1016/S1473-3099(17)30276-1)

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