

## Secondary hypertension in young adults often remain undiagnosed



The prevalence of secondary causes of hypertension varies depending on the studied population. Data suggest that 10% of adults with hypertension have secondary causes, although this percentage likely is an underestimate. Current American College of Cardiology/American Heart Association guidelines recommend screening for secondary causes of hypertension in patients who are younger than 30.

In a cross-sectional study, investigators aimed to characterise the prevalence of secondary causes in 2,000 young adults (age, 18-40) with confirmed hypertension who were seen in French hypertension referral centers.

### Key findings were as follows:

- Secondary hypertension was noted in 30% of patients overall. Notably, patients who were 30 to 40 years old were more likely to have secondary causes than were those who were 18 to 30 years old.
  - Secondary hypertension was more common in women, patients with body-mass index  $\leq 25$  kg/m<sup>2</sup>, and those with diabetes.
  - Among patients with secondary causes, more than half had primary aldosteronism, and 20% had renovascular hypertension.
- Secondary causes for hypertension, particularly primary aldosteronism, remain underdiagnosed. Early detection is critical, as many secondary causes have targeted treatments which are different from standard first-line therapies.

## WORLD PNEUMONIA DAY 2024 Championing the fight to stop PNEUMONIA

DR RAHAT BIN HABIB & DR ARM LUTHFUL KABIR

Pneumonia remains a leading cause of morbidity and mortality worldwide, especially in low- and middle-income countries like Bangladesh. The 2024 theme for World Pneumonia Day (November 12), "Championing the Fight to Stop Pneumonia," highlights the urgent need to address this preventable and treatable disease.

Pneumonia accounts for a substantial proportion of deaths among children under five, particularly in Southeast Asia and sub-Saharan Africa. In Bangladesh, pneumonia is the leading cause of childhood mortality, followed by diarrhoeal diseases. According to the World Health Organisation (WHO), approximately 18% of all child deaths in the country are attributed to pneumonia.

Each year, an estimated 80,000 children in Bangladesh are hospitalised due to pneumonia, with around 16,000 of them succumbing to the

illness. The incidence is notably higher in remote and underserved areas where access to healthcare is limited, and contributing factors like

malnutrition and air pollution are prevalent. In Southeast Asia, pneumonia also represents a significant health burden, with nearly 5 million new cases reported annually. Factors such as overcrowded living conditions, poor sanitation, limited healthcare access, and high levels of indoor air pollution—particularly from cooking with solid fuels—further

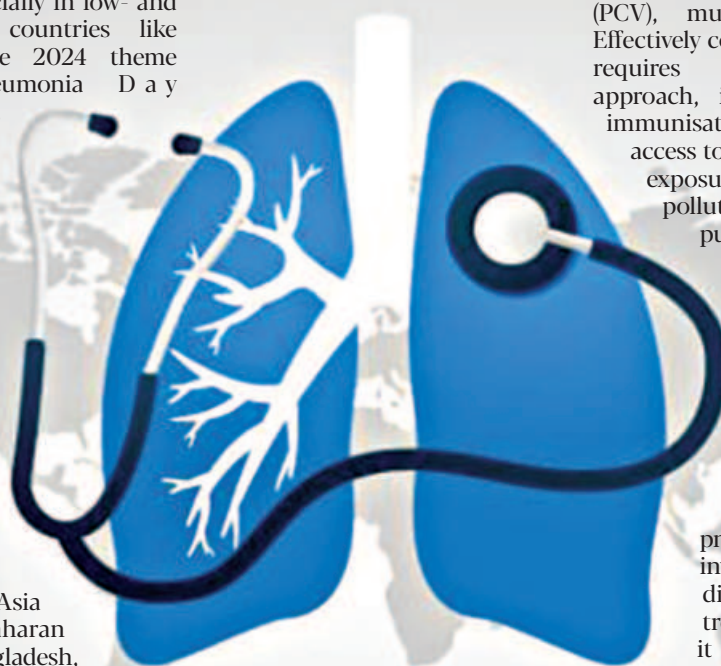
exacerbate the disease's impact.

While progress has been made in expanding vaccination coverage through initiatives like the Pneumococcal Conjugate Vaccine (PCV), much work remains. Effectively combating pneumonia requires a comprehensive approach, including improving immunisation, enhancing access to antibiotics, reducing exposure to indoor air pollution, and increasing public awareness.

This year's World Pneumonia Day (November 12) calls on governments, healthcare providers, and communities to champion the fight against pneumonia. By investing in prevention, diagnosis, and treatment strategies, it is possible to significantly reduce the burden of pneumonia, saving countless lives in Bangladesh and beyond.

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## Can poor blood flow in the brain raise the risk of dementia?

A new study suggests that problems with blood vessels in the brain may increase the risk of developing dementia. While it is well-known that clogged arteries can lead to strokes, this research looks at whether similar issues in smaller brain vessels might also be linked to memory problems and cognitive decline.

Researchers followed a group of older adults over several years to see if those with poor blood flow in their brains were more likely to develop dementia. They found that even after considering other risk factors like high blood pressure or diabetes, people with signs of narrowing or thickening in the brain's blood vessels were still more likely to experience memory loss and other signs of dementia.

Although the study did not specify the exact types of dementia involved, it suggests that keeping the blood vessels in the brain healthy might help reduce the risk. These findings point to the importance of overall cardiovascular health—not just for the heart but also for the brain.

The study adds to the growing evidence that taking care of your brain's blood supply could play a role in protecting against dementia as you age. More research is needed to fully understand how problems with brain circulation contribute to cognitive decline, but this connection underscores the importance of managing risk factors like high cholesterol, smoking, and lack of exercise.

## Addressing dengue fever in pregnancy



MOSTOFA TAMIM

Dengue fever, transmitted by mosquitoes, presents significant challenges for public health, particularly during pregnancy. While many women may experience a mild illness, severe dengue can lead to serious complications that affect both maternal and foetal health.

### What are the risks and complications?

Severe dengue can result in life-threatening complications such as shock, organ failure, and severe bleeding. Prompt medical intervention is essential to protect maternal health and reduce the risk of mortality.

Dengue can have serious implications for the foetus. Risks include preterm labour, low birth weight, and foetal distress. In severe cases, the likelihood of miscarriage or stillbirth may increase, highlighting the importance of careful monitoring and management.

### How to manage it?

Close observation of pregnant women is crucial. Severe cases often require hospitalisation to ensure both mother and baby receive appropriate care and monitoring.

Maintaining hydration is essential, as dehydration can exacerbate complications associated with the illness.

Paracetamol is typically recommended for the safe

management of fever. Medication should not be administered without consulting a physician.

### How to prevent it?

Effective prevention is key to reducing the risk of dengue during pregnancy. Minimising exposure to mosquitoes is critical. Strategies include using insect repellents, wearing protective clothing, and eliminating standing water around homes to prevent mosquito breeding.

Public health initiatives aimed at educating communities about dengue transmission, symptoms, and preventive measures can empower pregnant women and their families to take proactive steps in mitigating risks.

Pregnant women should seek medical care immediately if they suspect a dengue infection. Early diagnosis and supportive care can significantly improve outcomes for both mother and child.

Raising awareness and encouraging community involvement in preventive measures are essential to addressing the risks associated with dengue fever in pregnancy and safeguarding maternal and foetal health.

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## Is virtual early palliative care an option for advanced cancer?

Guidelines recommend early integration of palliative care for patients with advanced cancer, given evidence for improved quality of life (QOL). However, most patients do not receive early palliative care due to limited access and resources. To assess whether early palliative delivered via video could be an option to overcome these barriers, researchers conducted a multicenter trial in patients with advanced non-small-cell lung cancer (NSCLC) and their caregivers. Between 2018 and 2023, 1,250 patients within 12 weeks of diagnosis were randomly assigned to meet with a palliative care clinician



every 4 weeks through the course of the disease, either via video or in the outpatient clinic.

The primary outcome of the self-reported QOL in week 24 was equivalent in the virtual and in-person groups. Topics discussed at palliative care visits were similar in the two groups. The groups did not differ in depression and anxiety symptoms or perceptions of the goal of treatment or curability of their cancer. However, caregivers attended more in-person visits than video visits.

Patients with advanced cancers carry a significant burden of in-person visits for cancer-directed therapy. This study demonstrates that virtual visits can be a helpful option to support palliative care needs. Although more caregivers participated in in-person visits than virtual visits, the virtual model may help extend palliative care resources to better serve more patients with advanced cancer.

## The hidden dangers of sugar

RAISA MEHZABEEN

Sugar has become one of the most pervasive ingredients in modern diets. From soft drinks to packaged snacks, added sugars are ubiquitous, contributing to a public health crisis that is gradually escalating. According to the World Health Organisation (WHO), excessive sugar consumption is directly linked to non-communicable diseases such as obesity, heart disease, and diabetes. The question arises: why are we consuming so much sugar, and how can we reduce it?

The sugar epidemic is not a new phenomenon. Over recent decades, sugar consumption has surged globally, with many countries reporting a concerning increase in the intake of sugary foods and beverages. In Bangladesh, for example, sugary snacks and soft drinks have become increasingly common, particularly among younger populations. The consequences include alarming rises in obesity and diabetes rates, which have placed significant strain on public health systems and imposed a considerable financial burden on families, particularly in low-income communities.

At the heart of the problem is the overconsumption of "hidden

sugars." These sugars are found not only in candies and cakes but also in processed foods that are part of many people's daily diets. Items such as bread, sauces, and even yoghurt often contain substantial amounts of added sugars. A typical soft drink can contain up to 10 teaspoons of sugar, far exceeding the WHO's recommended daily limit of 6 teaspoons for women and 9 for men. This excessive sugar intake increases the risk of developing chronic conditions like Type 2 diabetes, which is increasingly affecting younger generations.

Reducing sugar intake is a societal responsibility, not merely an individual one. While there is no quick fix, effective strategies can make a significant difference. First, public awareness campaigns are vital in educating people about the dangers of excessive sugar consumption. As a dietitian in rural Bangladesh, I have seen how education can influence dietary habits. Many people in these areas are unaware of hidden sugars,

and once they understand the risks, they are more likely to make healthier choices.

The food industry must also take responsibility. Manufacturers should reformulate products to reduce added sugar content, and governments can encourage this through taxes on sugary products, as seen in countries like Mexico. Such taxes have proven effective, with Mexico reporting a 7.6% decline in sugary drink consumption.

Ultimately, reducing sugar consumption requires a multifaceted approach involving individuals, the food industry, and governments. Through awareness, policy changes, and personal responsibility, we can reverse the sugar epidemic and create a healthier future for all.

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## Novel Radiotracer PET-CT Imaging to characterise small renal masses

Detection of small renal masses (i.e.,  $\leq 4$  cm) is increasing, partly due to widespread use of abdominal computed tomography (CT) and magnetic resonance imaging (MRI) and an aging population. Current imaging technologies cannot distinguish between benign and malignant lesions.

Investigators conducted a multicenter phase 3 trial of positron-emission tomography (PET)-CT imaging using [<sup>89</sup>Zr]-girentuximab, a chimeric monoclonal antibody directed against an antigen associated with renal cell carcinoma, to determine its sensitivity and specificity in detecting clear-cell renal cell carcinoma.

Histopathological confirmation by pathologists blinded to patient information served as the gold standard. A single dose of [<sup>89</sup>Zr]-girentuximab followed by PET-CT

was administered to 332 patients with evidence of a solitary, localised indeterminate renal mass  $\leq 7$  cm suspicious for renal cell carcinoma who were scheduled for nephrectomy.

Among the key findings:



- Patients' mean age was 61, 71% were male, and images were evaluable in 96%.
- Mean sensitivity of [<sup>89</sup>Zr]-girentuximab PET-CT imaging was

85.5%; specificity was 87.0%.

- Mean positive and negative predictive values in all patients were 92.9% and 75.2%, respectively.
- Mean positive and negative predictive values in patients with renal mass  $\leq 4$  cm were 93.2% and 78%, respectively.

- All PET-positive lesions were malignant.
- No safety issues were associated with the imaging agent.

This well-done study provides evidence that [<sup>89</sup>Zr]-girentuximab PET-CT imaging is an important development in the management of small renal masses. Urologists who typically manage patients with this entity have historically used lesion size, characteristics, and rate of change on CT/MRI to make therapy recommendations, with tissue confirmation required in the setting of local ablative interventions.