

New hope for long COVID relief: How antiviral treatments could make a difference

As the world continues to navigate the aftermath of the COVID-19 pandemic, long COVID—where symptoms persist for weeks or months after the acute phase—remains a major public health challenge. Fatigue, brain fog, and other long-lasting symptoms affect millions globally, straining healthcare systems and disrupting daily lives. However, recent evidence suggests that early antiviral treatment might offer a pathway to relief.

Molnupiravir, an antiviral medication initially developed to treat acute COVID-19, has shown promise in reducing the risk of persistent symptoms. In the large PANORAMIC randomised trial, conducted between December 2021 and March 2022, researchers enrolled 26,000 participants who tested positive for SARS-CoV-2. The majority were vaccinated, aged 50 or older, or younger with underlying risk factors. Participants were randomly assigned to receive either molnupiravir in addition to standard care or standard care alone.

The trial's initial findings, published in *The Lancet* (2023), revealed that molnupiravir significantly accelerated recovery from acute COVID-19. Now, follow-up data at 3 and 6 months provide additional insights: patients who received molnupiravir had fewer and less severe persistent symptoms, reported better quality of life, and made fewer healthcare visits compared to those on standard care alone.

Although the differences were small, the study's findings highlight the potential of early antiviral treatment to reduce the impact of long COVID. These results pave the way for future research aimed at refining treatment strategies to alleviate the lingering effects of the virus.



The DASH diet

A blueprint for healthier living in Bangladesh

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In recent years, Bangladesh has seen an alarming rise in lifestyle-related diseases, particularly hypertension and cardiovascular issues. The prevalence of these conditions can be attributed to rapid urbanisation, increasing intake of processed foods, and sedentary lifestyles, especially in cities.

The DASH diet was developed in the 1990s by researchers funded by the U.S. National Institutes of Health to combat high blood pressure. Its main objectives are to reduce sodium intake and increase the consumption of fruits, vegetables, and whole grains.

Adapting the DASH diet to Bangladeshi culture: While the core principles of the DASH diet—low sodium, high potassium, and a focus on fruits and vegetables—are universal, they must be adapted to local food habits. Bangladesh is rich in agricultural produce, with rice, lentils, fish, and vegetables forming the base of most meals. By slightly modifying these traditional meals, it is possible to follow a DASH-like dietary pattern without compromising on cultural food preferences.

Rice: The primary staple in Bangladesh is white rice, which lacks the fibre and nutrients found in whole grains. While it might be difficult to replace rice entirely, switching to brown rice or mixing white rice with whole grains like quinoa or buckwheat can be a healthier alternative. Brown rice is rich in fibre, magnesium, and potassium—all essential for managing hypertension. Additionally, smaller portions of rice can be balanced with a larger intake of vegetables and protein-rich foods.

Lentils (Dal): Lentils, a key protein source in Bangladesh, are naturally low in fat and sodium, making them an excellent choice for a DASH-friendly diet. By minimising the use of excessive salt and oil, lentils can be consumed in a healthier form. Incorporating a variety of dals, including red lentils (masoor dal) and mung beans, can diversify the diet and ensure a wider intake of nutrients.

Vegetables: Bangladesh's fertile land yields a variety of vegetables such as spinach, gourds, and okra. The DASH diet encourages the consumption of 4-5 servings of vegetables per day. By emphasising local, seasonal vegetables, individuals can follow DASH recommendations without additional cost. A shift toward steaming, boiling, or lightly stir-frying vegetables with minimal oil can help retain their nutrients.

Fruits: Fruits like bananas, papayas, and guavas are widely available and affordable in Bangladesh. These fruits are rich in potassium, which helps counteract the effects of sodium on blood pressure. The DASH diet recommends 4-5 servings of fruit daily, a target that can be easily met



by adding fruits as snacks or dessert alternatives.

Fish: Bangladesh is known for its freshwater fish, including species like hilsa and rohu. Fish is an excellent source of lean protein and omega-3 fatty acids, beneficial for heart health. Grilled or baked fish, seasoned with herbs and spices rather than salt, can be a hearty alternative to fried fish preparations.

Sodium intake - A critical adjustment: One of the major challenges in Bangladesh is reducing sodium intake. A traditional Bangladeshi diet often includes high levels of salt, whether from pickles, salted fish, or added salt in cooking. The DASH diet recommends keeping sodium intake below 2,300 mg per day, or even 1,500 mg for those looking to lower their blood pressure further. To achieve this, avoiding processed and packaged foods and using herbs and spices as alternatives to salt can help.

A path forward for Bangladesh: In a country where traditional food habits run deep, the DASH diet provides a flexible approach to improving public health. By making small changes to dietary habits, individuals can reduce their risk of hypertension, cardiovascular disease, and diabetes. The DASH diet offers a blueprint for healthier living that is both achievable and sustainable in the Bangladeshi context.

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NEW GUIDELINES

Stomach infection linked to ulcers and cancer

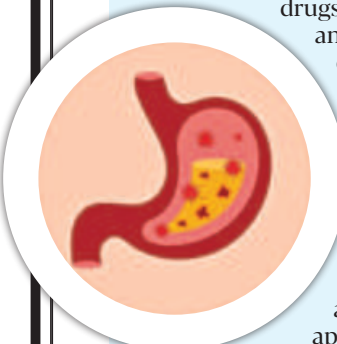
A common stomach infection caused by *Helicobacter pylori* is known to lead to serious problems like ulcers and even stomach cancer if left untreated. As this infection becomes harder to treat due to increasing resistance to common antibiotics, experts have updated the guidelines for managing it, marking the first major changes since 2017.

The revised advice emphasises that anyone who tests positive for *H. pylori* should be treated to prevent potential complications. For first-time treatment, a combination of four medications is recommended for 14 days. This includes a stomach-protecting medication, an ingredient that helps the other drugs work better, and two antibiotics. Shorter 10-day treatments are no longer considered effective, and switching certain antibiotics weakens the results.

There are also newer options for those who might not be able to use the standard approach. These include alternatives that use different stomach-protecting medicines or special antibiotics, particularly for people who struggle with standard treatments.

After treatment, it is important to confirm that the infection has cleared. This should be done at least a month after completing the medication, using a test that checks for the bacteria, either through a breath sample, stool sample, or tissue sample from the stomach.

If the infection does not go away with the first treatment, the guidelines suggest trying another round with the four-drug approach or using other combinations of antibiotics, as long as tests show they will be effective. With growing resistance to commonly used antibiotics, testing the bacteria to see which drugs will work best can help guide the next steps.



International lead poisoning prevention week 2024: Bright futures begin lead free

The twelfth International Lead Poisoning Prevention Week (ILPPW) will take place from October 20-26, 2024, under the theme "Bright futures begin lead free." This year's campaign aims to raise awareness of the significant risks posed by lead exposure and the urgent need for action to safeguard children's health. It builds on previous successes, such as the global ban on leaded petrol and the implementation of laws limiting lead in paints, particularly those frequently used in homes, schools, and playgrounds.

The issue of lead exposure: Lead is a well-known toxic substance with harmful effects on multiple bodily systems, including the brain, heart, kidneys, and blood. Children are especially vulnerable to lead poisoning because they absorb lead more easily than adults, leading to severe and irreversible brain damage that can affect their intellectual development.

According to the Institute for Health Metrics Evaluation (IHME), over 1.5 million deaths globally in 2021 were linked to lead exposure, primarily due to cardiovascular issues. Furthermore, lead exposure accounted for more than 33 million years lost to disability worldwide.

Despite a growing awareness of lead's dangers and various international efforts to mitigate exposure, lead poisoning remains a pressing concern for health professionals and public health officials. Common sources of lead exposure include:

- Environmental contamination from mining, smelting, manufacturing, and recycling.
- Consumer products, including lead-acid batteries, paints, pigments, ceramics, jewellery, and cosmetics.
- Drinking water contaminated by lead pipes or solder.

Campaign goals and activities: International Lead Poisoning Prevention Week is held annually during the third week of October. This year, it marks 12 years of efforts to eliminate lead paint from use. The campaign has several objectives:

- To raise awareness about the health impacts of lead exposure.
- To showcase the initiatives by countries and partners aimed at preventing lead exposure, especially in children.
- To encourage the completion of regulatory actions necessary to eliminate lead paint.

Governments, civil society organisations, health partners, and individuals are urged to organise campaigns during ILPPW.

Policy context: WHO identifies lead as one of the ten chemicals of major public health concern requiring immediate action by Member States to protect vulnerable populations, including children and women of childbearing age. The global elimination of lead in petrol in 2021 and reductions in the use of lead in paints and plumbing have led to a significant decrease in population-level blood lead levels.

However, substantial sources of exposure remain, especially in low- and middle-income countries.

Further efforts are crucial to continue reducing lead exposure, particularly for children and women. Key interventions include:

- Banning non-essential uses of lead, especially in paints.
- Ensuring safe recycling of lead-containing waste.
- Educating the public about proper disposal and recycling of lead-acid batteries and electronic equipment.

• Monitoring blood lead levels in children and women of childbearing age to identify those needing medical intervention.

Eliminating lead paint will help achieve Sustainable Development Goals (SDGs), specifically:

- Goal 3.9: By 2030, reduce the number of deaths and illnesses from hazardous chemicals and pollution.
- Goal 12.4: By 2020, ensure the environmentally sound management of chemicals and significantly reduce their release into air, water, and soil.

Together, these initiatives are critical in creating a lead-free future for generations to come.

Source: World Health Organisation



Single-dose HPV vaccine for cervical cancer prevention

The World Health Organisation (WHO) has announced the approval of Cecolin® as the fourth prequalified human papillomavirus (HPV) vaccine for use in a single-dose schedule. This decision is based on new data meeting WHO's 2022 criteria for alternative vaccine schedules, and it marks a significant step toward increasing the sustainable supply of HPV vaccines, particularly in low- and middle-income countries.

Cervical cancer, which affects over 660,000 women globally each year, is largely preventable through HPV vaccination. Tragically, 90% of deaths from cervical cancer occur in low-resource settings, with 19 of the 20 hardest-hit countries located in Africa.

Since 2018, HPV vaccine rollouts have faced global supply shortages, further impacted by production issues earlier this year. However, the approval of Cecolin® for single-dose use provides countries with an additional option, allowing them to vaccinate more girls against HPV, a key step in eliminating cervical cancer.

Dr Tedros Adhanom Ghebreyesus, WHO Director-General, emphasised the goal of eradicating cervical cancer, highlighting the impact of the new vaccine schedule. In 2023, global HPV vaccine coverage among girls aged 9-14 years increased to 27%, with 57 countries adopting the single-dose schedule by September 2024.

In addition, WHO has prequalified a fifth HPV vaccine, Walrinvax®, which is currently available in a two-dose schedule. Ongoing research will determine its potential for single-dose use in the future.

Source: World Health Organisation

DENGUE IN BANGLADESH

A persistent health challenge

MOSTOFA SHARIAR TAMIM

Dengue fever, a mosquito-borne viral disease, has emerged as a serious public health concern in Bangladesh. The disease, caused by the dengue virus and primarily transmitted by the *Aedes aegypti* mosquito, has seen an alarming rise in cases, especially during the monsoon season. While dengue was once considered a seasonal issue, Bangladesh is now experiencing year-round cases, intensifying the need for effective disease control measures.

The growing threat of dengue: Dengue was first identified in Bangladesh in 2000. Since then, the country has faced almost yearly outbreaks. The situation worsened in 2019, when more than 100,000 cases and over 150 deaths were reported, marking the worst dengue outbreak in the country's history.

Several factors have contributed to this rise. Rapid urbanisation, poor waste management, and lack of sanitation create ideal breeding conditions for *Aedes* mosquitoes. These mosquitoes lay eggs in stagnant water found in household items like flowerpots, tires, and open containers. High population density in urban areas, especially in Dhaka, has made the virus easier to spread.

Symptoms and severity: Dengue fever typically causes flu-like symptoms, including high fever, headaches, joint and muscle pain, rash, and mild bleeding. Most people recover within two weeks. However, in severe cases, the disease can progress to dengue hemorrhagic fever (DHF) or dengue shock syndrome (DSS), both of which can be fatal without prompt medical treatment. The rise in severe cases has stretched Bangladesh's healthcare system, especially during peak outbreaks.

Impact of climate and urbanisation: Bangladesh's tropical climate, characterised

by heavy monsoon rains from June to September, provides an ideal breeding ground for mosquitoes. Climate change has further extended the dengue season, with cases now being reported throughout the year. Urbanisation has also played a major role, as cities like Dhaka struggle with unplanned development, inadequate drainage, and poor waste disposal. These issues lead to a proliferation of mosquito breeding sites.

Prevention and control efforts: The government has initiated several measures to combat dengue. These include:

- **Eliminating breeding sites:** Public health officials promote community efforts to clear stagnant water and clean up potential breeding grounds.
- **Insecticide spraying:** Fogging operations help reduce adult mosquito populations, especially during outbreak periods.
- **Public awareness campaigns:** Educational programs highlight the importance of using mosquito nets, wearing protective clothing, and seeking early medical treatment.

However, controlling dengue remains challenging due to the resilience of the *Aedes* mosquito and the need for continuous community involvement.

Conclusion: Dengue fever continues to pose a growing health threat in Bangladesh, driven by urbanisation, climate change, and limited healthcare resources. To effectively control dengue, Bangladesh must focus on long-term strategies, including improving urban infrastructure, enhancing public health awareness, and strengthening healthcare systems. Without sustained action, the country will struggle to manage this persistent health crisis.

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