

Single-dose dengue vaccine found safe and effective in Bangladesh



In Bangladesh, where dengue is endemic now, a ground-breaking study by researchers from icddr,b and the Larner College of Medicine at the University of Vermont (UVM) has yielded encouraging results for a tetravalent dengue vaccine. The research, recently published in The Lancet Infectious Diseases, focused on evaluating the safety and immune response of the single-dose tetravalent dengue vaccine candidate TV005 in children and adults.

The study followed nearly 200 volunteers from four age groups (1-49 years) over three years, starting in 2016. TV005 demonstrated excellent tolerability, with the most common side effect being a mild rash. After vaccination, antibodies against all four dengue serotypes were detected in most participants, and those who had previously been infected with dengue had higher antibody levels.

Dengue virus (DENV) poses a growing threat to South Asian populations, but few vaccine evaluations have taken place in countries like India, Pakistan, or Bangladesh. TV005, a live, attenuated tetravalent dengue vaccine, was administered to volunteers in this study.

The findings were promising, indicating that the single-dose TV005 vaccine was safe and generated immune responses against all four dengue serotypes in individuals ranging from young children to adults. Additionally, antibody levels remained stable in most adults after three years of follow-up.

This research is a significant step towards combating dengue in regions where it poses a significant health threat. The study's results suggest that TV005 could be a valuable tool in the fight against dengue, offering hope for better protection and prevention in dengue-endemic areas of the world.

Advancement of cardiac care in Bangladesh

DR REYAN ANIS &
DR AYMAN JOARDER

In the heart of Bangladesh, where the vibrant tapestry of life unfolds against a backdrop of lush green landscapes, a silent and formidable adversary has been steadily gaining ground—cardiovascular disease (CVD). This tale is a chronicle of the growing shadow of CVD, particularly the relentless march of Coronary Artery Disease (CAD) that is spreading across the country, affecting both men and women, no matter where they live.

More people in urban areas have heart problems compared to people in rural areas. In cities, about 8 out of every 100 people have heart problems, while in rural areas, the commonest heart problem, worldwide, is coronary artery disease, or what we call, in layman's terms, a heart attack. Coronary artery disease means the deposition of cholesterol in the arteries supplying the heart muscles, which leads to blockage of these arteries. About 21 out of every 100 people are affected by this.

The risk factors for coronary artery disease include high blood pressure, high cholesterol, diabetes, smoking, family history, and obesity. Another very recent addition to this list is often overlooked - vitamin D deficiency. Vitamin D deficiency is a common problem in Bangladesh, as our food is not fortified with vitamin D like in developed countries.

More and more people are now discovering that they have heart problems. Primarily, there are two reasons for this. One of which is better diagnostic facilities for detecting heart disease, and the second is rapid urbanisation and the stress of living in a metropolis. Also, we see an increased incidence of coronary artery disease in foreign wage earners due to stress.

In Bangladesh, now we have all kinds of advanced diagnostic facilities, e.g., echocardiography, computed tomography (CT) angiography, coronary angiography, etc. All these diagnostic facilities are now available in both the private and government sectors throughout the country.

United Hospital in Bangladesh, accredited

by the Joint Commission International (JCI), is a shining example of international-standard healthcare. It has been treating millions of heart patients over the past 15 years. The first successful mechanical heart implantation (IVAD) was performed at United Hospital by Dr Jahangir Kabir and his team. Procedures such as minimally invasive cardiac surgery (MICS), ECMO, TAVI, AICD, and CRTD implantation are all done at United Hospital.

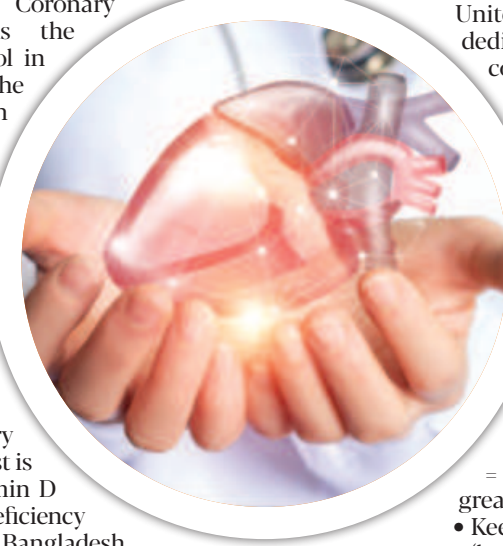
It also offers swift and precise medical services, exemplified by its remarkable 90-minute window for stent placement from the emergency entrance, showcasing efficiency and patient-focused care. The hospital's rigorous "time-out" process, especially crucial in cardiac surgery, ensures that the right patient receives the correct procedure at the designated site, leaving no room for errors.

United Hospital is equally dedicated to maintaining consistency in pre-operative and post-operative care, guaranteeing that all patients receive precise diagnoses and treatments.

Some preventive measure to keep the heart healthy include:

- Keeping body mass index under control (BMI), BMI Ranges Underweight = (18.5; normal weight = 18.5-24.9; overweight = 25-29.9; obesity = 30 or greater.
- Keeping an eye on high blood pressure (hypertension) and high levels of cholesterol (hyperlipidemia)
- Limiting the consumption of excess sodium increases the risk of high blood pressure (hypertension).
- Avoiding a sedentary lifestyle and opting for an active lifestyle by indulging in physical activities
- Monitoring heart health through consultation and awareness programmes
- Eating healthy and balanced diets and avoiding trans-fat and junk foods
- Avoid smoking and alcohol consumption
- Learn to manage the stress and get quality sleep

The writers are Senior Consultant and Senior House Officer of the Cardiology department of United Hospital Ltd.



Osstem Implant hosted meeting on dental solution in Dhaka

Osstem Implant, a globally recognised leader in dental implant technology headquartered in South Korea, successfully organised a seminar in Dhaka, Bangladesh - says a press release.

The seminar provided a comprehensive platform for in-depth discussions on cutting-edge dental implant techniques and technological advancements.

Osstem Implant continues to be at the forefront of dental innovation, fostering collaborative learning, and sharing knowledge with the global dental community. This seminar signifies Osstem Implant's commitment to advancing dental solutions and enhancing the quality of dental care in Bangladesh.



HAVE A NICE DAY

Ageing gracefully

DR RUBAIUL MURSHED

Ageing is a natural process that can lead to new roads later in life. Human beings cannot be owned, and their value does not depreciate like other objects. Actually, elderly individuals can be intangible assets to society. As individuals grow older, their attitudes and viewpoints can be shaped by their emotions. But combining their experiences and practices can give them a significant advantage.

It is never too late to pursue one's dream and leave a mark. Older adults have plenty to share with society, as there are no alternatives to experiences. The skills that were hard-won with maturity can be helpful to those with less experience.

Outreach is vital for a senior's well-being and can take many forms. Being involved in such kind efforts towards vulnerable individuals is also essential for a healthier and happier life. Participating in these activities has proven to boost confidence and mood. It can decrease blood pressure and cortisol, a hormone directly correlated with stress levels.

Hormones coordinate the physiology and behaviour of individuals by regulating and integrating bodily functions. This is also an ideal time for those who enjoy writing. People in this phase ponder deeply about life's meaning. Mark Twain, a late-career bloomer himself, said, "Age is an issue of mind over matter. If you do not mind, it does not matter."

It has been proven that creative energy tends to develop and mature as we age, particularly among the greatest minds. George Orwell wrote "Nineteen Eighty-Four" while suffering from tuberculosis on his deathbed.

As people age, it is important to show them how much they are valued and appreciated. It is often said that one becomes old the moment they stop learning, regardless of their age, be it twenty or eighty.

E-mail: rubaiulmurshed@shomman.org

GLOBAL HEALTH INEQUITY

Low- and middle-income nations ill-prepared to combat CVD

STAR HEALTH REPORT

Most healthcare facilities in many low- and middle-income countries (LMICs) are unprepared to treat patients with cardiovascular diseases (CVD), despite these conditions leading to millions of people dying prematurely every year, a new study reveals.

Experts analysed health survey data from eight LMICs across four World Health Organisation world regions to discover that most facilities are unprepared to deliver services to treat or manage cardiovascular disease risk factors (CVDRF) such as diabetes and hypertension.

However, the increased investment in facilities to treat HIV—received as part of the drive to meet UN Millennium Development Goal (MDG) targets—may form part of a solution to tackle CVDRFs, which have been relatively neglected in terms of receiving global funding and attention. The study authors found that if facilities can provide

HIV care, they are much more able to supply care for CVDRFs.

Publishing their findings in PLOS Global Public Health, an international team of researchers led by the University of Birmingham looked at readiness to provide care for HIV or CVD in Afghanistan, Bangladesh, the Democratic Republic of the Congo (DRC), Haiti, Malawi, Nepal, Senegal, and Tanzania.

They found that despite UN targets to reduce CVDRF, facilities were significantly less ready to provide CVDRF care than HIV care, even though, despite years of investment in HIV, facilities were often not ready to fully provide care for HIV.

The researchers found that in individual countries, readiness across all healthcare facilities to handle CVDRF was generally lower than for HIV. There were consistently weaknesses in information, staffing, and medicines. Lack of readiness of facilities to provide CVDRF care in rural and primary care facilities

threatens SDG 3.8 to provide high-quality universal healthcare for all.

However, with increased focus on non-communicable diseases as part of the SDG agenda and the World Health Organisation's (WHO) vision of reducing the risk of diabetes, there may be greater opportunities for policymakers to improve CVDRF care.

Globally, nearly 18 million premature deaths in 2019 were due to CVD, of which 75% were in LMICs, where they are the leading causes of death and disability-adjusted life years (DALYs) in adults. Diabetes and hypertension are key risk factors for CVD and among the top three risk factors for deaths and disability globally.

Starting in 2015, the SDGs included goal 3.4, aiming to reduce premature mortality by 1/3 due to non-communicable diseases. This requires managing CVD and, importantly, managing CVDRF for the primary prevention of CVD.



Evercare Hospital Chattogram observed World Heart Day 2023

In Chattogram, Bangladesh, Evercare Hospital Chattogram, the city's largest healthcare facility, took the initiative to raise awareness about heart health on World Heart Day 2023, under the theme "Use Heart, Know Heart" - says a press release. The hospital organised a series of health talks and a rally to

commemorate the occasion, with a focus on educating the community about cardiovascular diseases and the significance of early detection and prevention.

During the event, respected speakers shared their insights and experiences related to this year's theme. They emphasised the vital

importance of recognising the risk factors and symptoms of heart diseases, often referred to as silent killers.

The hospital's efforts aim to empower the community with knowledge and promote heart-healthy lifestyles to combat cardiovascular diseases effectively.

United Hospital

Organization Accredited by Joint Commission International

UNITED HEALTHCARE

SURGERY

Major Surgeries and Procedures

Elective Surgeries: All forms of Advanced Laparoscopic Surgery- Hernia, Gallbladder, Colonic malignancy.

Oncological Surgeries: Breast Cancer Surgery - Lumpectomy, Radical Mastectomy | Colorectal Malignant Surgery | Hepatobiliary Surgery - Pancreatic Tumor, Common Bile Duct, Whipple's Procedure | Stomach Cancer- Total and Partial Gastrotomies | Liver Tumor- Hepatectomies, Klatskin Tumor-Hepaticojejunostomy, Gallbladder Cancer, Soft Tissue Sarcoma Surgery.

Plastic & Reconstructive Surgeries: All forms of Plastic & Reconstructive Surgery- Cleft Lip Palate, Burn, Pressure Sore, Abdominoplasty, Aesthetic Surgery.

Paediatric Surgeries: All forms of Paediatric Surgical procedure performed for specific condition and deals with the diseases, trauma and malformations from the foetal period to teenage years.

Emergency Surgeries: All forms of Trauma Surgery- Liver / Spleen injuries / Intestinal injuries.

Experience of
30,000+
Successful Surgeries

Appointment
02 22 22 62 466 | 10666
www.uhlbd.com facebook/uhlbd info@uhlbd.com