

Introduction of rotavirus vaccine: how far is the journey?

DR TAREQ SALAHUDDIN

Bangladesh has been planning to introduce the rotavirus vaccine for quite a long time. But it does not seem to be very fast. Children are getting sick from rotavirus diarrhoea despite an effective vaccine is in the market and there are mechanisms for funding a national immunisation programme.

In early 2016, thousands of children got access to rotavirus vaccines in India with the start of a national introduction that marks Asia's largest to date. But over 90 million children around the world still lack access.

Despite the fact that it can be prevented and treated, diarrhoea continues to take its devastating toll on children around the world. It is a leading cause of child death and is responsible for hospitalising millions of children, especially for countries like Bangladesh where poor water, sanitation and hygiene contribute to the fact to some added folds.

Rotavirus, the most common cause of severe and deadly diarrhoea, claims the lives of more than 200,000 children each year and hospitalises hundreds of thousands more. This one virus is responsible for nearly



40 percent of all diarrhoea hospitalisations.

A recent multi-country study showed that children who developed moderate to severe diarrhoea had an eight-and-a-half times higher risk of dying in the subsequent two months compared to children who did not suffer from diarrhoea.

While improvements in hygiene, sanitation and drinking water are important to prevent diarrhoea in general, they cannot stop the spread of rotavirus. That is why preventing rotavirus infections is essential. And vaccination is the best tool available today to protect children from rotavirus.

Rotavirus is one of the several viruses known to cause a self-limited gastroenteritis,

better known as diarrhoea. Fluid stool losses may be dramatic, and death from dehydration is not uncommon, particularly in developing countries like Bangladesh.

More than 80 percent of children get infected by 5 years of age. Around 40 percent of the diarrhoeas in the world are due to rotavirus. In 2013, rotavirus killed 215,000 young children worldwide.

There are dramatic reductions of diarrhoeal deaths among children under five, through providing oral rehydration solution (ORS), increasing access to clinical facilities, and improving water and sanitation programmes. However, too many children still suffer growth and cognitive impairments from

serious and repeated diarrhoeal diseases.

Dr Shams El Arifeen, Senior Director and Senior Scientist at the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) recently shared his view with Star Health about the introduction of rotavirus vaccine in Bangladesh.

He told that rotavirus diarrhoea is very common under two years of age and a major cause of hospitalisation in that age group. Since the overall diarrhoea related mortality has gone down in general, children no longer die of diarrhoea in large numbers - in that sense rotavirus is not a major killer in Bangladesh as is seen in many other countries but it is still a major cause of hospitalisation.

Although it is taking some time, the process of introduction of rotavirus vaccine in Bangladesh for the public system has been started.

He is hopeful that the government is convinced about the introduction of vaccine by now - it may not prevent the mortality but it can save many hospitalisation and can save a lot of money.

Dr Shams is very hopeful about lowering the price by negotiating with the companies. The large number of birth of children in Bangladesh every year is fair enough to convince them for a reduced price. Moreover, if we could make a coalition with the neighbouring countries in the Saarc region, the job would be much easier.

Finally, he suggested that rotavirus diarrhoea is not something that could be prevented only by hygiene practice. The effective preventive tool is vaccination.

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The full interview can be found at <https://youtu.be/JH5BS0IA-Fc>; alternatively you can scan the QR code.



DID YOU KNOW?



Type 2 diabetes mellitus is associated with doubled risk for severe liver disease

STAR HEALTH REPORT

Type 2 diabetes mellitus (T2DM) is associated with risk for non-alcoholic fatty liver disease (NAFLD) and considered a major risk factor for clinically significant liver disease. Therefore, routine screening for NAFLD in this population has been recommended. Because screening would be resource-intensive, identifying those at highest risk would assist in targeting screening initiatives.

Using data from the Swedish National Diabetes Register, researchers compared the incidence of severe liver disease (defined as development of cirrhosis or hepatocellular carcinoma [HCC], liver failure, or liver-related death) in over 400,000 individuals with T2DM and over 2 million individuals without T2DM, matched on age, sex, and county of residence (controls). They also assessed risk factors for severe liver disease in the T2DM group.

During a median follow-up of 7.7 years, 1.3% of patients with T2DM and 0.6% of controls developed severe liver disease (hazard ratio, 2.3; P<0.001). HCC rates were also significantly higher in individuals with T2DM versus controls (0.26% vs. 0.08%), as were liver-related death rates (0.49% vs. 0.22%).

Among those with T2DM, independent predictors of severe liver disease included male sex, older age, higher body-mass index, hypertension, and renal abnormalities (lower glomerular filtration rate and microalbuminuria), whereas statin use was a protective factor.

HEALTH bulletin



Whole body MRI may help to detect spread of cancers more quickly

Trials with people with newly-diagnosed colorectal and non-small cell lung cancer suggest that whole body Magnetic Resonance Imaging (MRI) could reduce the time it takes to diagnose the stage of cancers.

The results are from two prospective trials with nearly 500 patients across 16 UK hospitals, published in The Lancet Gastroenterology & Hepatology and The Lancet Respiratory Medicine journals.

Whole body MRI scans reduced the average time to determine the size of tumours and how much they had spread by five days for colorectal cancer patients and six days for lung cancer patients.

The treatments decided upon were similar, since results from MRI were as accurate as from standard investigations, but the costs per patient were reduced by nearly a quarter in the case of colorectal cancer and were almost halved for lung cancer.

Too many babies are born too small

STAR HEALTH DESK

More than 20 million babies were born with a low birth weight (less than 2500g; 5.5 pounds) in 2015—around one in seven of all births worldwide according to the first-ever estimates documenting this major health challenge.

These findings and more are documented in a new research paper developed by experts from the World Health Organisation (WHO), UNICEF and the London School of Hygiene & Tropical Medicine, published in The Lancet Global Health.

More than 80% of the world's 2.5 million newborns who die every year are of low birth weight. Those low birth weight babies who survive have a greater risk of stunting, and developmental and physical ill health later in life, including diabetes and cardiovascular disease.

"Low birth weight is a complex clinical entity composed of intrauterine growth restriction and preterm birth," says co-author Dr Mercedes de Onis from the Department of Nutrition at WHO.

"This is why reducing low birth weight requires an understanding of the underlying causes in a given country. For example, in Southern Asia a large proportion of low birth weight babies are born at term but with intrauterine growth restriction, which is associated with maternal under-nutrition, including maternal stunting.

"Conversely, preterm birth is the major contributor to low



birth weight in settings with many adolescent pregnancies, high prevalence of infection, or where pregnancy is associated with high levels of fertility treatment and caesarean sections (like in USA and Brazil). Understanding and tackling these underlying causes in high-burden countries should be a priority."

Although close to three-quarters were born in Southern Asia and sub-Saharan Africa, the problem remains substantial in high-income countries in Europe, North America, Australia and New Zealand. High-income countries have seen virtually no progress.

What is being done to tackle this major public health problem
Reducing the incidence of low birth weight requires a comprehensive global strategy, which must include improving maternal nutritional status; treating pregnancy-associated conditions such as pre-eclampsia (hypertensive disease of pregnancy); and providing adequate maternal

care, perinatal clinical services and social support.

Affordable, accessible and appropriate health-care is critical for preventing and treating low birth weight. Reductions in death, illness and disability in newborn babies will only be achieved if pregnancy care is fully integrated with appropriate care for low birth weight babies.

With continued momentum on child survival and health, including early childhood development, these new LBW estimates provide an opportunity to advance the agenda and call on all stakeholders to take concerted action in the effort to ensure that every newborn is weighed at birth, and that the information is collated and used for local action and accountability at the household, community, district, national, and global levels. At the same time, we must improve care for the 20.5 million LBW infants and their families each year.

International Nurses Week celebrated at Asgar Ali Hospital



PHOTO: COURTESY

Asgar Ali Hospital recently commemorated 'International Nurses Week', says a press release. On this occasion the hospital conducted various activities for the community, hospital employees and nurses. Prof Dr Zabru SM Haque, CEO and Director Medical Services, Asgar Ali Hospital participated in the celebration.

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Ramadan & Diabetes

Ramadan is a month long period of fasting

There is often discussion about whether people with diabetes should fast during Ramadan or not. Ramadan is a month long period of fasting during the daylight hours.

Fasting during Ramadan is undertaken to promote chastity and humility and as an act of submission to Allah.

Ramadan takes place on the 9th lunar month of the Islamic calendar. As a result, the date varies amongst the western (Gregorian) calendar.

Is fasting with diabetes dangerous to health?

Fasting during Ramadan could compromise one's health.

Those on blood glucose lowering medication should consult their GP about whether it will be safe for them to fast and what precautions can be taken to prevent blood glucose levels from going either too low or too high.

Continuing to take blood glucose lowering medication during the daylight hours of fasting may present a particular risk of low blood glucose;

hypoglycemia.

During the hours of night, when the day's fast can be broken, the body may need to take in more food than would normally be eaten, as a result, this may lead to higher blood glucose levels during the night time hours.

Controlling your blood sugar levels through Ramadan

- It is advisable to test your blood sugar levels more often than normal through Ramadan.
- Be aware of the symptoms of high and low blood sugar
- Have your testing kit ready if you notice you may be either too high or low on sugar.



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