

Salt, sugar and water avert diarrhoea deaths

REUTERS, Geneva

A pinch of salt, a handful of sugar and some clean water is all that is needed to save up to two million children who die each year from diarrhoea, the World Health Organisation (WHO) expressed recently.

Diarrhoea causes one-fifth of child deaths worldwide, and in poor countries children suffer the dehydrating condition about four times a year, according to the United Nations agency.

Instead of focusing on ways to stop diarrhoea from striking, the WHO said health authorities ought to ensure care-givers know how to use the rehydrating recipe, which can be home-made.

Health and aid workers typically hand out pre-packaged "oral re-hydration salts" and zinc tablets to fight diarrhoeal outbreaks.

But the home-made version of the re-hydrating solution could also save lives, said WHO child health expert Olivier Fontaine, who called for more efforts to educate parents and caregivers about the often-overlooked treatment option.

Breastfeeding can also fortify infants against potential health hazards they encounter later in life, according to the PLoS study experts at the WHO as well as hospitals and research centers in the United States, Britain, India, Mexico, Brazil, South Africa, Bangladesh, the Philippines and Croatia.

"Given the consequences of the disease in terms of persisting child mortality, the level of urgency in dealing with this problem is very different than for other chronic diseases," the authors of a study in the PLoS (Public Library of Science) Medicine journal said.

Diarrhoea is defined by the WHO as the passage of three or more loose or liquid stools per day, normally the symptom of gastrointestinal infection which can be caused by bacterial, viral and parasitic organisms.

It can spread through contaminated food or drinking water, or from person-to-person with bad hygiene. When left untreated, severe fluid loss from diarrhoea can cause lead to death.

The International Federation of the Red Cross (IFRC) said recently that more than half of its disaster response work is now related to diarrhoeal disease outbreaks, such as Zimbabwe's ongoing cholera epidemic that has infected about 90,000 people and killed more than 4,000.

"We have noticed a significant increase in the number of operations undertaken to respond to acute situations," said Uli Jaspers, an IFRC water and sanitation expert. "This trend is the combined result of poor hygiene practices, lack of awareness of disease transmission and a shortage of safe water."

Still, the IFRC said that given nearly 1 billion people worldwide lack access to safe drinking water, care-givers must also know to treat water before using it as part of any remedy.

"Ensuring that people have basic knowledge to avoid infection from water-borne diseases is fundamental if we are to reduce the number of deaths caused by consumption of infected water," the IFRC's Dominique Naplan said.

Leading nations pledged a decade ago at the United Nations to reduce the number of child deaths by two-thirds by 2015. Without major gains against diarrhoea, the WHO said "the world will fail to achieve" that Millennium Development Goal.

Combating chronic kidney disease in children

PROF GOLAM MUIN UDDIN

Just like adults, Chronic Kidney Disease (CKD) can affect children and may be catastrophic and life threatening incident that leads to high morbidity and mortality.

Paediatric renal disease accounts for approximately 5-7 percent of hospital admissions in a pediatric unit of tertiary hospitals in Bangladesh. Statistics says that about 2 crore population have been suffering from kidney related problems and a significant number of the patients are children. About one-third cases of renal insufficiency occur due to genetic or hereditary causes. These are largely preventable if detected early.

Chronic Kidney Disease (CKD) is used to describe patients with kidney damage or decreased level of renal function for three months or more, irrespective of the underlying condition and is defined as the presence of kidney damage.

The most common causes of CKD in children are obstructive uropathy and glomerulopathies. These two abnormalities account for more than 50 percent of the reported cases of end-stage renal disease in children. The other major causes are hereditary nephropathies and renal hypoplasia and dysplasia. CKD may also develop from acute renal failure due to diarrhoea or dysentery, post

febrile, insect bite.

Children with chronic kidney failure may not have any symptoms until about 80 percent of their kidney-function is lost. Then they may feel tired, fail to thrive, may have nausea or vomiting, have difficulty concentrating or experience confusion. Accumulated fluid appears as swelling in the face, skin, abdomen, leg and fluid congestion in the lungs and high blood pressure. At this stage (called End-Stage Renal Disease or ESRD), all children must receive dialysis or transplant to sustain life.

The two forms of dialysis are hemodialysis and peritoneal dialysis. Peritoneal dialysis is still the favored mode of dialysis in younger children than haemodialysis. Peritoneal dialysis uses the body's own peritoneal membrane — beneath the outer layers of the abdominal wall — to filter the blood. It requires fewer dietary and fluid restrictions and offers more lifestyle flexibility.

Needs of kids with chronic kidney disease often include dietary changes. Ensuring that they get adequate calories and proper amounts of various nutrients can be a challenge. Supplementing your child's diet with extra carbohydrate and fat might help to increase calorie intake.

The kidneys cannot easily remove excess water, salt or



potassium, so their intake need to be limited. Dairy products have to be restricted because they contain large amounts of phosphorus. Too much phosphorus may lead to calcium deposits in the eyes, heart, skin and joints and may leach calcium from bones, which can increase the risk of broken bones. But eliminating dairy foods can make it difficult for kids to get enough calcium to maintain bones and support other body functions, particularly those affecting growth.

In kids with more severe kidney failure, reducing the intake of dairy products and other protein-rich foods (such as meat, fish or eggs) can make the filtering work of the kidneys easier and can

sometimes delay the need for dialysis. Some kids with kidney disease, particularly those with high blood pressure, may need to restrict their intake of sodium, which is found in table salt and many foods. Read food labels and talk to your doctor or a dietitian about the sodium content of various foods.

Consult your Nephrologist about an appropriate diet that meets your child's need for calories and nutrients while minimising damage to kidneys and avoiding other complications.

Exercise will help your child perspire to get rid of excess fluid and flush out toxins through the skin. Beyond physical concerns, kids should be encouraged to

express their feelings. Try to find well-adjusted young adults who had chronic kidney disease during childhood to talk with you and your child. It is important for kids to see that the symptoms of the disease can be managed and controlled and that they can live a full life.

The outcome of children with severe CKD is highly dependent on the economy and availability of health care resources. Approximately 90 percent of treated ESRD patients come from such families who can not afford the cost of Renal Replacement Therapy (RRT).

At government hospitals, kidney transplantation costs about taka 2 lacs. Post-transplant medicare costs 10-15 thousand taka per months up

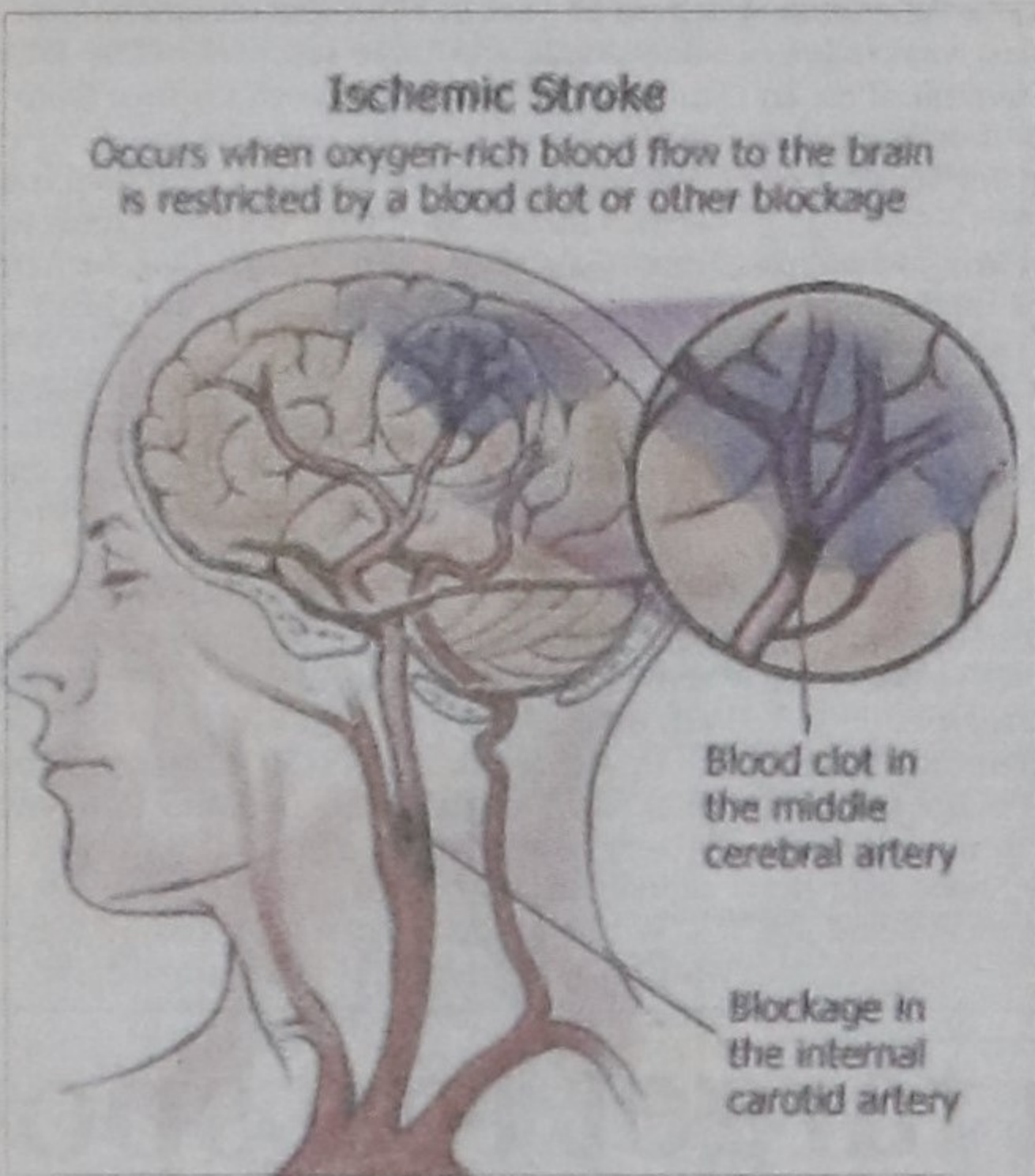
to 6 months and around 10 thousand taka for the rest of life. For dialysis 2 lacs taka is needed per patient per year.

The most favored renal replacement modality in children is renal transplantation in all paediatric age groups. All types of renal replacement therapy for children are available in Bangabandhu Sheikh Mujib Medical University (BSMMU), National Institute of Kidney Disease & Urology (NIKDU) and Dhaka Shishu Hospital.

Dialysis and transplantation ensures 80 to 90 percent of rehabilitation, but it is expensive and it is not available everywhere. So, prevention and early detection is essential to prevent kidney disease in children of Bangladesh. Following measures can be taken for prevention of kidney disease in children:

- Epidemiological survey of kidney diseases
- Early detection and referral to tertiary hospital
- Antenatal screening for renal anomalies
- Appropriate fluid balance during diarrhoea/dysentery
- Prohibition of drug sale without prescription of registered physician
- Awareness by health education and mass propaganda

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Warning signs of stroke

DR MD RAJIB HOSSAIN

Most people do not know the warning signs of stroke and what to do if they suspect one — especially those most likely to suffer one, according to research presented at the American Stroke Association's International Stroke Conference 2009. Researchers also found that people with lower income and less education are less aware of stroke symptoms than those who earn more money and are more educated.

Older people and those who have already had a stroke were among the groups found to be least able to recognise the symptoms of a stroke and know to immediately call emergency service.

According to The American Stroke Association, the warning signs of stroke include:

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
- Sudden confusion, trouble speaking or understanding.
- Sudden trouble seeing in one or both eyes.
- Sudden trouble walking, dizziness, loss of balance or coordination.

•Sudden, severe headache with no known cause.

"We have to make sure that people know the signs and symptoms of stroke because the patient would need to get to the hospital as soon as possible to have a much higher chance of survival and avoiding potential disabilities," the survey's lead author, Dr Jing Fang, an epidemiologist in the division for heart disease and stroke prevention at the US Centers for Disease Control and Prevention in Atlanta, said.

Race, education, income, gender and even marital status also played a large role in determining which people could correctly spot the stroke warning signs.

Experts urge primary care doctors and other physicians that they should ensure patients to understand what a stroke might look like and should give more educational materials. There is a big disparity in age, gender, race, income and education. If we want to improve awareness, we should be more focused on those populations who were less aware of the signs.

Egg freezing and preserving fertility in women

DR FATIMA MONTAZ

Fertility preservation via egg freezing allows women to store their eggs at a younger age for future use and is now an important modality of modern treatment. Whether eggs are being cryopreserved as a medical emergency in the setting of a newly-diagnosed cancer or for personal reasons, the technology holds great promise for women at their peak reproductive age.

Just couple of years before, effective and reliable egg freezing for fertility preservation was an elusion. But recent advancements in reproductive science have been changing hopes into realities in a consistent manner for last few years.

To date, there have been over 1000 births worldwide via egg freezing since first baby in 1986. To put egg freezing into context, it is interesting to consider that human sperm has been successfully frozen since 1950s and the first successful pregnancy generated using frozen embryo in Monash IVF was in 1984.

Despite this success, advances in the field of egg cryopreservation were slow, marred by the decreased

fertilisation rates due to zona hardening, temperature sensitive meiotic spindle and increased aneuploidy.

Medical indications

- Cancer patients before going under potentially sterilising therapy such as gonadotoxic medications
- Surgical removal of ovaries
- Genetic diseases associated with premature ovarian failure (POF), for an example mosaic Turner's syndrome
- Extensive endometriosis involving ovaries such as chocolate cysts

IVF indications

- Potential preservation of fertility in the absence of current male partner
- Lack of sperm at egg pick up in the setting of severe male infertility
- Failed testicular sperm extraction
- Women under the pressure of having to choose between a career and a family
- Pursuing advanced degrees and don't know when will have children
- Not having found the right person yet

Ethical, moral and religious point of view

In routine IVF, disposal of excess frozen embryos create a difficult religious, moral

and ethical issue when embryo is considered as potential future baby. The ability to freeze unfertilised eggs offers a positive solution for many people.

Success rates and safety

It has been published in different medical journals that few egg freezing centres in the USA, UK, Italy and Australia have reached live birth rate per embryo transfer at 67% with the vitrification method. However, most of the publications have shown that the age of the women is below 35.

Among 1000 births worldwide, the rate of birth defects and chromosomal defects have been no higher than that of which we see in the general population. Additionally, genetic screening of embryos is available if required.

Worldwide hope for cancer women

Around the world, many thousands of women of childbearing age are diagnosed with cancer each year. Fertility preservation is a significant concern for young women when making decisions about their cancer treatment.

Until now fertilised embryos preservation was

the only option. But for women without partners, embryo freezing is not possible for religious, moral and ethical grounds. Another option is to have ovarian tissue frozen and then reimplanted in the body on suitable time. But there are fears of reintroducing cancer to the body.

Recent advancement in egg freezing gives hope to cancer survivors who now have the chance to continue their family line by harvesting eggs before chemo and radiotherapy. So, egg freezing and fertility preservation of women is no longer a myth to date. Even though human egg freezing has not yet reached such consistency level like embryo or sperm freezing, but it is an insurance policy against cancer survivors and age-related infertility worldwide.

There is no doubt that with more standard techniques in upcoming years, egg freezing will be revolutionary not just in its technology, but in the freedom it can offer allowing women to postpone childbearing and in carrying biogenic child in cancer survivor women.

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Nations should reject UN Drug Policy: IAS

New 10-year plan omits critical protections on HIV and human rights

STAR HEALTH DESK

The new UN Political Declaration on Drugs, designed to guide drug policy for the next 10 years, lacks critically important measures for treating and stemming the spread of HIV, Human Rights Watch, the International AIDS Society, and the International Harm Reduction Association said in a statement.

The groups said that respect for human rights and HIV prevention should be at the heart of the policy, but that critical elements had been stripped from the final declaration. They called on member governments to refuse to support the declaration, which is being considered at the high-level segment of the Commission on Narcotic Drugs (CND) this week in Vienna.

"Government delegations could have used this process to take stock of what has failed in the last decade in drug-control efforts, and to craft a new international drug policy that reflects current realities and challenges," said Prof. Gerry Stimson, executive director of the International Harm Reduction Association. "Instead, they produced a declaration that is not only weak — it actually undermines fundamental health and human rights obligations."

What is at issue is a series of measures known collectively as "harm reduction services," which have been endorsed by UN health and drug-control agencies, including the UN Office on Drugs and Crime, UNAIDS and the World Health Organisation. These measures include needle and syringe exchange and medication-assisted therapy (for example, with methadone), both inside and outside prisons, as essential to address HIV among people who use drugs. The groups noted that a wealth of evidence proves harm reduction is essential to HIV prevention for people who use drugs. The action was taken against the direct

advice of UNAIDS, the Global Fund to fight AIDS, Tuberculosis and Malaria, and the UN special rapporteurs on health and on torture.

The political declaration also fails human rights. In country after country around the world, abusive law enforcement practices conducted under the banner of the "war on drugs" result in extensive, and often horrific, human rights violations. In addition, overly restrictive interpretations of the international drug-control treaties at national level result in the denial of access to essential pain medications to tens of millions of people worldwide.

"Given the widespread human rights abuses around the world directly resulting from drug enforcement, human rights must be placed at the heart of UN drug policy," said Joseph Amon, director of Human Rights Watch's health and human rights division. "But the political declaration makes scant reference to the legal obligations of member states under international human rights treaties, nor does it insist on respect for human rights in drug policy."

The international community should recognise that the current approach to international drug policy has failed, the organisations said. Concrete steps should be taken to set forth a drug policy framework incorporating evidence-based measures to address drug-related harm and the human rights obligations of states, and of the UN as an international organisation, at its heart.

The groups called on member states not to lend their names to a political declaration that does not sufficiently prioritise the centrality of harm reduction and human rights within the global response to drugs, and join the call from other civil society organisations for further efforts across the UN system to find a more effective, coherent, and relevant response to drugs.

