

First guideline on digital health interventions

STAR HEALTH DESK

The World Health Organisation (WHO) released new recommendations on 10 ways that countries can use digital health technology, accessible via mobile phones, tablets and computers, to improve people's health and essential services.

"Harnessing the power of digital technologies is essential for achieving universal health coverage," says WHO Director-General Dr Tedros Adhanom Ghebreyesus. "Ultimately, digital technologies are not ends in themselves; they are vital tools to promote health, keep the world safe, and serve the vulnerable."

Over the past two years, WHO systematically reviewed evidence on digital technologies and consulted with experts from around the world to produce recommendations on some key ways such tools may be used for maximum impact on health systems and people's health.

One digital intervention already having positive effects in some areas is sending reminders to pregnant women to attend antenatal care appointments and having children return for vaccinations. Other digital approaches



reviewed include decision-support tools to guide health workers as they provide care; and enabling individuals and health workers to communicate and consult on health issues from across different locations.

For example, the guideline points to the potential to improve stock management. Digital technologies enable health workers to communicate more efficiently on the status of commodity stocks and gaps.

However, notification alone is not enough to improve commodity management; health systems also must respond and take action in a timely manner for replenishing needed commodities.

Digital health interventions are not sufficient on their own. The guideline demonstrates that health systems need to respond to the increased visibility and availability of information. People also must be assured that their own data is safe and that they are not being put at risk because they have accessed information on sensitive health topics, such as sexual and reproductive health issues.

Health workers need adequate training to boost their motivation to transition to this new way of working and need to use the technology easily.

The guideline stresses the importance of providing supportive environments for training, dealing with unstable infrastructure, as well as policies to protect privacy of individuals, and governance and coordination to ensure these tools are not fragmented across the health system.

The guideline encourages policy-makers and implementers

to review and adapt to these conditions if they want digital tools to drive tangible changes and provides guidance on taking privacy considerations on access to patient data.

The guideline also makes recommendations about telemedicine, which allows people living in remote locations to obtain health services by using mobile phones, web portals, or other digital tools.

WHO points out that this is a valuable complement to face-to-face interactions, but it cannot replace them entirely. It is also important that consultations are conducted by qualified health workers and that the privacy of individuals' health information is maintained.

The guideline emphasises the importance of reaching vulnerable populations, and ensuring that digital health does not endanger them in any way. This guideline represents the first of many explorations into the use of digital technologies and has only covered a fraction of the many aspects of digital health.

Source: World Health Organisation
The guideline is available on <http://bit.ly/whoDHI>

FISTULA

Anal fistula and its treatment

PROF DR RAQIBUL ANWAR

Anal fistula is the medical term for an infected tunnel that develops between the skin and anus. Most anal fistulas are the result of an infection that starts in an anal gland located midway in the anus. This infection results in formation of an abscess that drains spontaneously or is drained surgically through the skin next to the anus. The opening then forms a tunnel under the skin and connects with the infected gland forming a fistula.

Diagnosis of anal fistula: The opening of the channel at the skin (external) generally appears as a red, inflamed area that may ooze pus and blood. This external opening is usually easily detected. Finding the fistula opening in the anus is more complicated.

Most simple fistula are diagnosed by symptoms and signs and is confirmed by examination under anaesthesia. Complex and recurrent fistula use the latest technology, including Magnetic Resonance Imaging (MRI) for mapping the fistula tract and providing detailed images of the sphincter muscles, endoscopic ultrasound and fistulogram.

Treatment: Treatment of low anal fistula is relatively straight forward; cutting the fistula's tract called fistulotomy. However, that of high variety and complex fistulas are difficult to treat and should be attempted only by a skilled colorectal surgeon to avoid incontinence of stool.

Interventions include insertion of seton, fibrin glue, ligation of the intersphincteric fistula tract (LIFT) advancement flaps, diversion colostomy etc. and requires the help of experienced and skilled surgeons expert in anal fistula management.

The writer is a Colorectal Surgeon at the Rahetid-R A Hospital.

HEALTH bulletin



Positive airway pressure might reduce mortality in sleep apnoea

Positive airway pressure is associated with lower mortality in obese patients with severe obstructive sleep apnoea (OSA), according to findings in JAMA Otolaryngology — Head & Neck Surgery.

Using data from an observational study, researchers matched some 80 obese patients with OSA who were prescribed positive airway pressure to 310 who were not. During roughly 11 years' follow-up, the mortality rate was nearly twice as high among those not prescribed positive airway pressure (25 per 1,000 person-years, vs. 13 per 1000 with positive airway pressure).

After adjustment for prevalent cardiovascular disease and other confounders, the treatment group saw a 62% reduction in all-cause mortality — a benefit that appeared about 6 to 7 years after the prescription.

The authors note that treatment adherence could not be verified. Nonetheless, a commentator says the study will make "clinicians' jobs a little easier by enabling them to present to their patients' evidence that [positive airway pressure] may be associated with reduced mortality."

Management of endometriosis

RIASHAD MONJUR

Endometriosis is a common chronic disorder affecting up to 1 in 10 women of reproductive age globally. Despite this, it lacks adequate awareness in the Indian subcontinent largely because it relates to two highly stigmatised topics in the region: menstruation and infertility.

What is endometriosis?
Each month, endometrial tissue which lines a woman's womb or uterus grows and sheds resulting in the woman's monthly period. Endometriosis is defined as the presence of this endometrial tissue outside the uterine cavity. This abnormal endometrial tissue can be anywhere in the body but is most commonly found in the woman's ovaries and ligaments surrounding her reproductive organs or bowels. Each time a woman undergoes her monthly periods, the abnormal endometrial tissue will also react to the hormonal cycle resulting in cyclical growth and shedding. Over the time, this can also lead to inflammation and damage to the surrounding tissues.

Signs and symptoms
The above understanding can help one appreciate the mechanism of the symptoms that accompany endometriosis.

Typically, endometriosis presents with disabling and cyclic pelvic pain that starts prior to each menstrual cycle and continues throughout menses. In addition, the patient may experience pain on intercourse, pain during defaecation or urination and increased bleeding during

periods. While these symptoms alone can have a significant impact on the lives of women and their families, around 30-40% of women with endometriosis also experience infertility, that is, the inability to conceive a child after 12 months of trying.

The lack of awareness, poor education and the significant stigma surrounding these symptoms in developing countries such as Bangladesh can make it difficult for women to seek the necessary help which in turn contributes to poorer outcomes.

Diagnosis and management
Endometriosis is usually suspected based on the patient's history and physical examination by a physician. The physician may then order an ultrasound to further assess the pelvic organs to look for any signs of abnormal endometrial tissue.

However, the definitive diagnosis of endometriosis involves a laparoscopic procedure to directly visualise endometrial lesions in the abdominal cavity and take a biopsy sample for pathology. Typically, this diagnostic step is also part of the management process which involves excision and ablation (burning) of the abnormal endometrial tissue during the same procedure.

Not all women with endometriosis require such an invasive procedure as many are managed via medications such as NSAIDs and paracetamol accompanied by hormonal treatment such as the oral contraceptive pill.

As endometriosis is a condition dependant on the woman's monthly hormonal cycles, the condition usually subsides following menopause.

Riashad Monjur is a fourth year medical student at the University of Newcastle, Australia.
Email: riashad@hotmail.com



Physical symptoms of anxiety

Anxiety is a normal and often healthy emotion. However, when a person regularly feels disproportionate levels of anxiety, it might become a medical disorder and there might be physical symptoms. Some of them are listed below:

Rapid heartbeat: When something scares you suddenly, like a loud noise, it triggers stress hormones (adrenaline, noradrenaline, cortisol) that make your heart beat faster and harder.

Fast breathing: Along with a pounding heart, you might start breathing more quickly when you are scared or anxious, or feel like you cannot get enough air.

Fight or flight response: Your fright triggers the release of certain hormones that send signals through your brain, spinal cord, and nerves. Blood and fuel (glucose) floods to your arms and legs to prepare to meet the threat with one of two options: fight or run away.

Tense muscles: Your body gets ready to protect itself when you are anxious. If you are really startled, your muscles tense all at once.

High blood sugar: Stress hormones can give you a burst of this instant fuel when you are scared or anxious. It is helpful in emergency situation.

Sleep problems: Worry can keep you up at night. Poor sleep can ramp up anxiety even more, especially if you have to work the next day. A to-do list might lessen anxiety by breaking down problems to solve.

Upset stomach: Stress and anxiety can make you feel like you have knots in your belly. Some people feel nauseated and even vomit.

Bowel problems: Anxiety can make you constipated. Doctors are not sure exactly why, but it may be that being anxious changes the way you use the muscles that control how you poop. It can also give you diarrhoea because it changes the way your body absorbs certain nutrients.

Weight gain: Part of the problem is that anxiety can sometimes make you eat more. It also may lead you to seek foods with lots of fat and sugar, which have more calories.

[f](#) [t](#) /StarHealthBD

Hyperemesis Gravidarum

Hyperemesis gravidarum is extreme, persistent nausea and vomiting during pregnancy. It can lead to dehydration, weight loss, and electrolyte imbalances.

Signs and symptoms of HG include

- Prolonged and severe nausea and vomiting - some women report being sick up to 50 times a day
- Dehydration - not having enough fluids in your body because you can't keep drinks down; if you're drinking less than 500ml a day, you need to seek help
- Ketosis - a serious condition that results in the build-up of acidic chemicals in the blood and urine; ketones are produced when your body breaks down fat, rather than glucose, for energy
- Weight loss
- Low blood pressure (hypotension)

Treatment

If your nausea and vomiting causes you to become dehydrated, you will receive fluids through an IV. You also may be given anti-nausea medicine. If nausea and vomiting is so severe that you and your baby might be in danger, you will be admitted to the hospital for treatment. If you can't eat enough to get the nutrients you and your baby need, you may get extra nutrients either through an IV or a tube placed into your stomach.

To help manage symptoms at home, try these tips.

Avoid triggers. You may notice that certain things can trigger nausea and vomiting. These may include:

- Certain noises and sounds, even the radio or TV
- Bright or blinking lights
- Toothpaste
- Smells such as perfume and scented bathing and grooming products
- Pressure on your stomach (wear loose-fitting clothes)
- Riding in a car
- Taking showers

Eat and drink when you are able.



In Search of Excellence