

World Pharmacists Day 2018



The Department of Pharmacy organized a day-long event in commemoration of World Pharmacists Day on September 25, 2018. It was a wonderful event that took place over two separate sessions i.e. morning and afternoon.

The morning started with a roundtable discussion featuring prominent members from the pharmaceutical industry. The guests, represented Globe Pharmaceutical Group of Companies Ltd, Sanofi, Beximco Pharmaceuticals Ltd, ACI Pharmaceuticals Limited, Navana Pharmaceuticals Ltd, and Becton Dickinson respectively.

The guests, faculty members and students all participated a highly engaging session where the topic was “How to ensure quality

pharmaceutical products”. The aforementioned experts offered gripping insight on the topic as the entire panel agreed that everyone (students, faculty members, and industry personnel) alike should participate in the continuous improvement of pharmaceutical products in Bangladesh.

The guests were very excited to find out about the day-long activities hosted by the Department of Pharmacy and had a very high appreciation for the first ever prototype on-campus pharmacy booth that was showcased. This booth offered a range of services jointly provided by the appointed pharmacist, the BRACU medical team and the BRACU counseling unit. The on-campus pharmacy catered to a large audience and remained occupied by students and guests throughout the event day. The day also featured the semi-finals and the final debate of the Pharma Debate 2018 competition in which the students debated on contemporary issues in the industry, including but not limited to animal testing in research, cost of end-of-life care, artificial intelligence in medicine, etc. For the case study competition, three out of the eight groups made it to the final case study presentation which was held in the BRACU Auditorium.

The last leg of the afternoon session featured the seminar “The Need and Potential Impacts of Pharmacovigilance in Bangladesh” by Dr. Mohammad Afroz Jalil (Country Manager, Roche Bangladesh) and his team. They answered vital questions regarding the safety and efficacy of available medication in Bangladesh. In addition, they reiterated the importance of reporting any adverse effect of drugs to appropriate authorities and enlightened students regarding the DGDA website and relevant services. The day-long event was closed off with an Award Giving ceremony where Chairperson, Professor Eva Rahman Kabir handed out prizes to the winners of the various competitions.

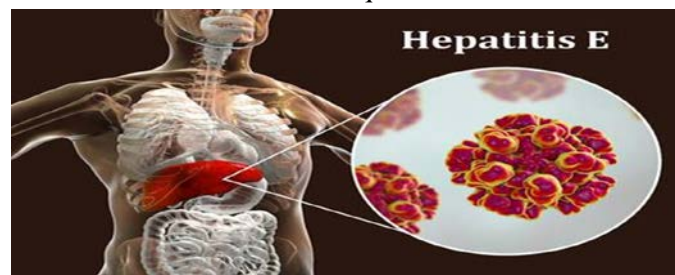
Source: [DoP, BRACU](#)

In a First, Rat Variation of Hepatitis E Found in a Person

In many instances infectious diseases are transmitted from animals to humans which is known as zoonosis. Zoonosis is a major public health threat and zoonotic diseases such as rabies, avian flu and lyme diseases are commonly heard of. But, in a first instance, recently, the rat specific hepatitis E was found to infect a human.

The diagnosis was made in a 56-year-old male from Hong Kong who had gone through a liver transplant surgery and showed abnormal liver dysfunction. The investigators ruled out the possibility of the infection from the transplant itself or the blood donors. During the investigation, samples of rat droppings were collected from the patient’s neighborhood which revealed that at least one rat in the area was infected with the hepatitis E virus and subsequently the patient may have also contracted the disease. WHO says hepatitis E killed 44,000 people in 2015 and people lacking access to clean water are most susceptible to contracting the human

version of the infection. It was believed that rat hepatitis E virus was not compatible with human host. Only in rare cases as this, rat variation of hepatitis E virus jumped to another host species. Dr. Siddharth Sridhar, of Hong Kong University Department of Microbiology, thinks for rare infections such as hepatitis E, even one case is sufficient for both researchers and public health bodies to need to be aware of the consequences of the disease.



Source: [WHO Organization](#)

Novel Mobile Technology Detects HIV

There are two major reasons why it is valuable to detect a human immunodeficiency virus (HIV) infection as soon as possible after it has occurred. Firstly, for those who test HIV-positive, testing early may give them a better sense of how and when they were exposed to HIV and allow them to have early access to access anti-HIV treatment. Secondly, early detection can help prevent further transmission of HIV within the population.

Traditional approaches for detecting HIV include enzyme immunoassays, rapid tests, and western blot. These tests are expensive and some require the use of polymerase chain reaction (PCR). A team led by Hadi Shafiee, PhD, at Brigham and Women's Hospital at Harvard University Medical School, USA, has developed unique cellphone technology capable of serving as a diagnostic tool through the detection of HIV viruses. The technology is cheaper and more mobile. Making it more affordable and accessible to people in developing countries. This new method for detecting acute HIV infection, could reduce the risk of virus transmission and could also be used to detect early treatment failure.

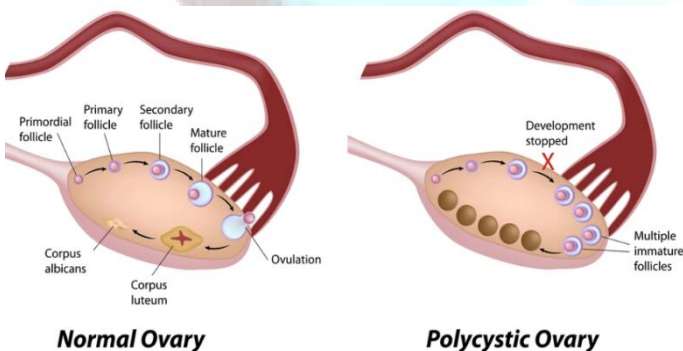
The kit simply consists of a cell phone with a microchip and a 3D-printed phone attachment. The kit would then detect the ribonucleic acid of the HIV virus from a single drop of blood. Specifically, the novel technology would detect the amplified HIV nucleic.

This technology could particularly benefit health workers in developing countries. They could easily use these devices when they travel to perform HIV testing and monitoring. Since the test is rapid, it can be used to make critical decisions about the next medical step on the spot. This would significantly reduce the burden of trips to the medical clinic and provide a more efficient means HIV management.



Source: [Brigham and Women's Hospital, Nature Communications](#)

Likely Cause of Polycystic Ovarian Syndrome Identified



Polycystic Ovarian Syndrome (PCOS) is a problem with hormones that affects women during their childbearing years (ages 15 to 44). Between 2.2 and 26.7 percent of women in this age group have PCOS. In PCOS, many small, fluid-filled sacs grow inside the ovaries. The word “polycystic” means “many cysts”. These sacs are actually follicles, each one containing an immature egg. The eggs never mature enough to trigger ovulation. Without ovulation fertilization cannot occur. So women who don't ovulate regularly don't release as many eggs to be fertilized.

A study has found a possible cause of this disorder, which has been unknown. Researchers from the French National Institute of Health and Medical Research have found that overexposure to a molecule called anti-Mullerian hormone (AMH), leads to PCOS in a mouse model. The investigators also found that pregnant women that have PCOS also have 30 percent higher AMH levels. So the researchers hypothesized that the hormone might be related to the development of PCOS. To test their theory, they used pregnant mice to expose fetuses to high levels of AMH and found that these mice developed conditions similar to PCOS. This suggests that elevated AMH could disrupt signals coming from the gonadotropin-releasing hormone (GnRH) receptor.

This could be a potential therapeutic target for drug development and increase the pregnancy rate in these women. Most importantly the researchers were able to reverse the symptoms of the disease in mice when they used the drug cetrorelix (GnRH antagonist). The scientists hope to start clinical trials by the end of the year.

Source: [New Scientist, Mayo Clinic, Nature Medicine](#)