BSBMB06/07NED3

MEDICAL BULLETIN

HIV AWARENESS MONTH

Dear Dr's and Colleagues,

Time flies over us, but leaves its shadow behind. We are entering the mid of the year and tele-radiology system is progressing in line with the needs.

With minor hiccups in the beginning, a bit of adjustment, a twist and turn to fine tune, soon the system will be connected to all the countries for laboratory testing.

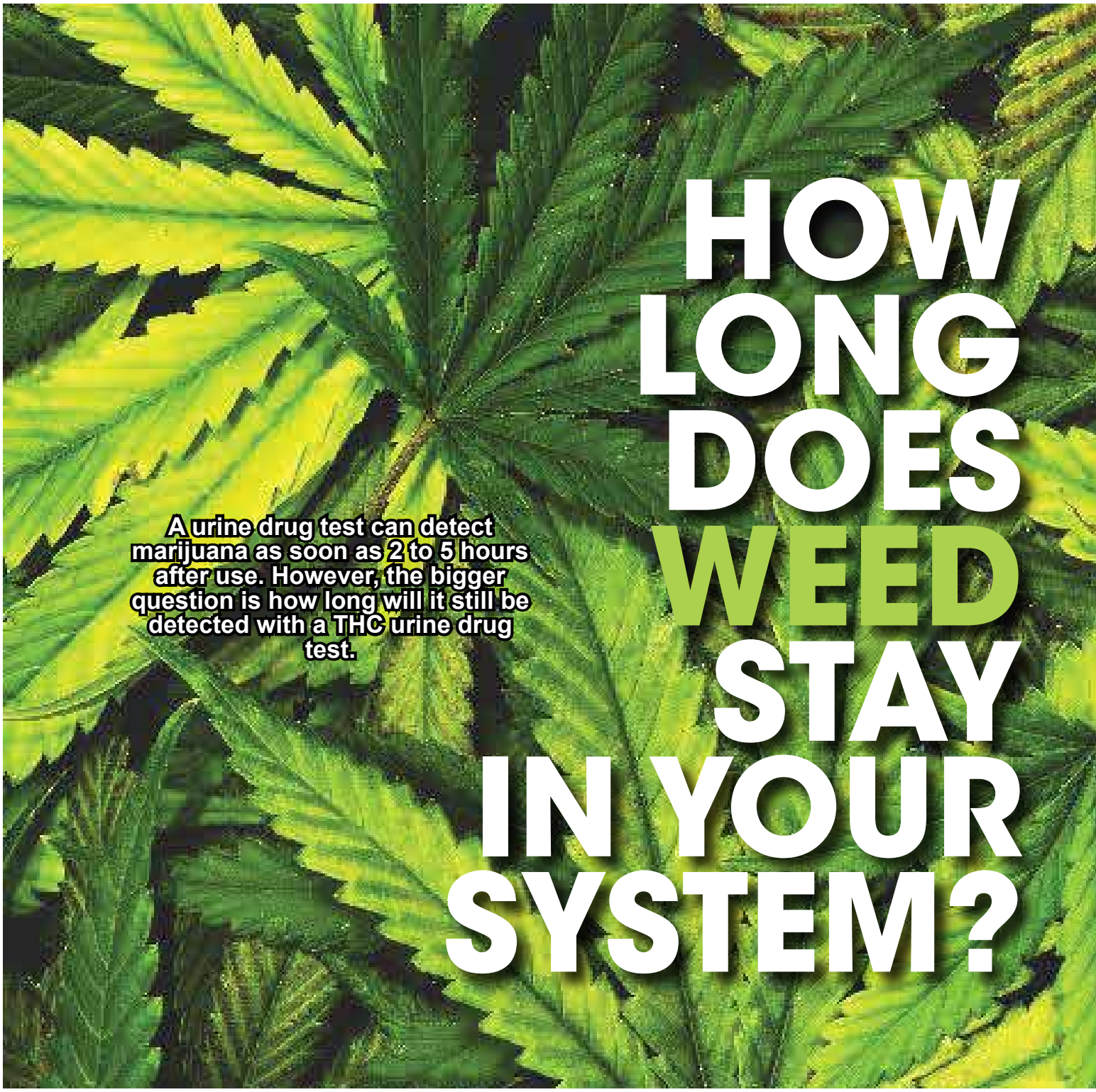
On laboratory studies, we seek your kind support in evaluating of processes, procedures and test results through reliable and valid methodology for consistency in performance.

As a gentle reminder, focusing on the chronic diseases such as Diabetes and Blood Pressure, those found to be uncontrolled or not stabilised are equally found unsuitable for employment. It is best to advise them to be treated before being certified as fit for employment as per required standards. These are usually found as the failures reported in other social bound cases like VDRL, HIV and Hepatitis B.

We hope you will enjoy this bumper issue with more articles and reports to share.

Signing off with warm regards,

Sam SV



HOW LONG DOES WEED STAY IN YOUR SYSTEM?

A urine drug test can detect marijuana as soon as 2 to 5 hours after use. However, the bigger question is how long will it still be detected with a THC urine drug test.

The length of time marijuana is detected in urine depends on the amount used, frequency of use and the user's weight and body fat. The more you use marijuana, the longer it will stay in your system even after you quit using it. For a person that is a heavy weed smoker with frequent use, THC could still be detected up to two months after the last use. For an infrequent user marijuana could stay in your system up to two weeks and for someone who only smoked marijuana one time it may be out of your system in less than a week.

Many factors come into play when trying to determine how long you will test positive for THC and the only reliable answer is to test yourself to find out.

How the test works

A marijuana drug test allows you to learn the test subject's recent drug history through a very simple procedure. To perform the test, at any time of the day collect a urine specimen in a clean and dry container. Dip the drug test card into the urine specimen and after 5 minutes you will be able to check if the result is positive or negative (please follow the detailed directions that come with your test or those in the "Instructions" tab before you perform the test).

Some Facts About Marijuana

Brief description of drug : Mind altering drug due to THC chemical

Typically prescribed for : Pain, anxiety, muscle spasms, nausea from chemo, nerve pain, poor appetite and weight loss caused by chronic illness, seizures, Crohns disease

Effects : Enhanced sensory perception and euphoria followed by relaxation/drowsiness Forms: Greenish-gray mixture of dried, shredded leaves, stems, seeds, and/or flowers; resin (hashish) or sticky, black liquid (hash oil)

Methods of consumption : Smoked, eaten (mixed in food or brewed as tea)

The results of your test are very easy to read. If the result is negative for marijuana, two lines will appear, one in the Control Region of the test card and one in the Test Region. If positive for marijuana, no line will appear in the Test Region of the marijuana drug test, but a line will appear in the Control Region of the drug test to show that the test was conducted successfully. A positive result from your marijuana urine test is called a "non-negative" result and means that the drug concentration in the urine sample is greater than the designated cut-off/detection level for marijuana.

Can secondhand marijuana smoke affect a THC drug test?

No, second hand smoke does not affect the test. Even if you are in an enclosed space, like a car for example, when someone is smoking, the test will not return a positive result. Based on an experiment conducted with our tests, you could be in a room constantly pumping in marijuana smoke for 24 hours and you still wouldn't test positive.

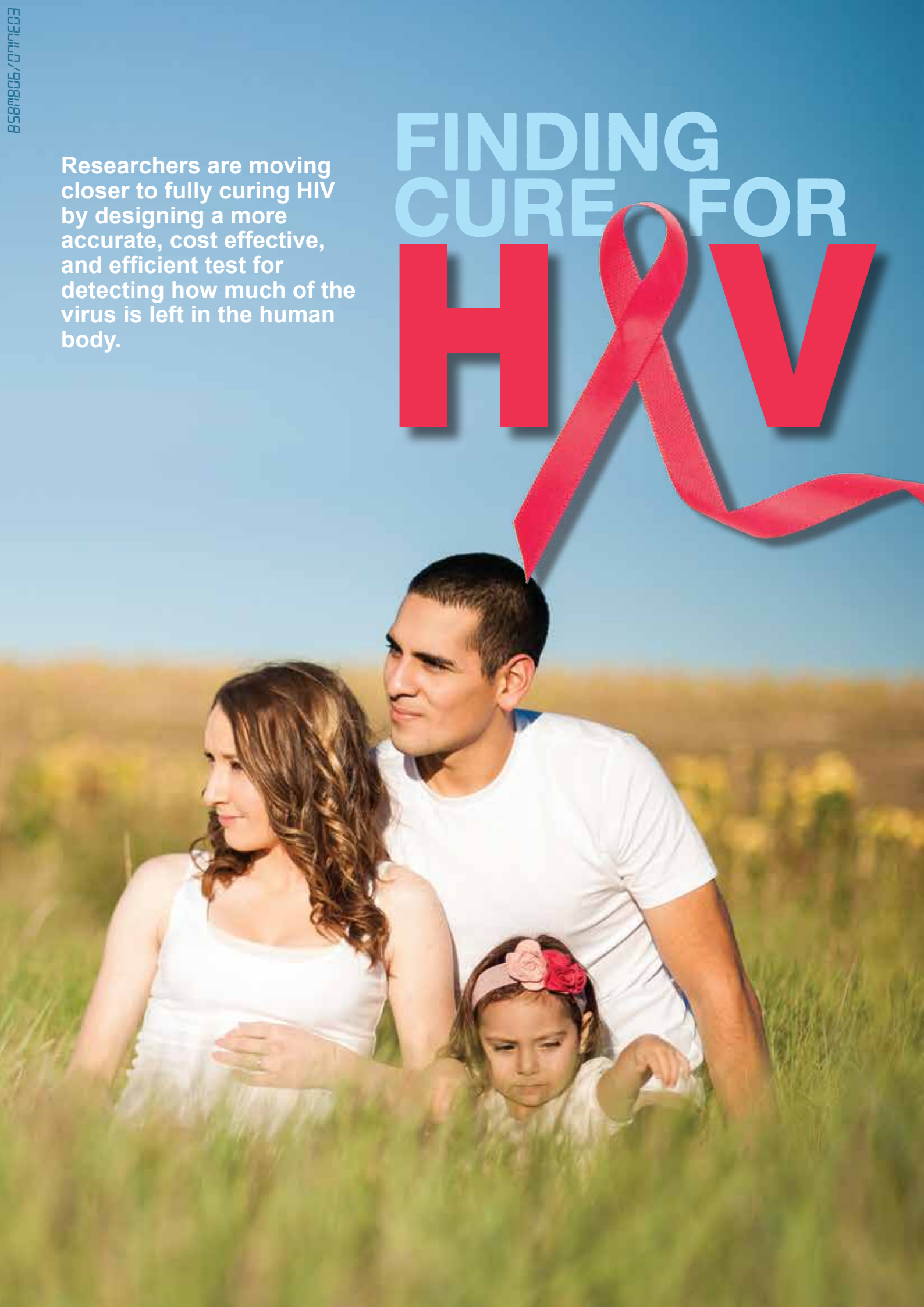
Results from the 2010 National Survey on Drug Use and Health which interviews aprroximately 67,500 people each year indicates an annual rising trend of marijuana use each year since 2007. In 2010, it is estimated that 17.4 million people over age 12 used marijuana in the past month or 6.9% of the group. The study also estimated that 4.6 million persons are using marijuana on a daily or almost daily basis over the last year.

Marijuana use by teens continues to climb and is now more popular than cigarettes. In 2010 more than 1 in 5 high school seniors reported using marijuana in the last month. See more facts about Teen Marijuana Use with data from Monitoring the Future and NIDA.

Some professionals believe the rising trends in adult and teen marijuana use over the last few years may be from a lower perceived risk due to the legalization of medical marijuana.

FINDING CURE FOR HIV

Researchers are moving closer to fully curing HIV by designing a more accurate, cost effective, and efficient test for detecting how much of the virus is left in the human body.



The greatest challenge for researchers who have been hard at work trying to come up with a cure for HIV is detecting the virus after retroviral therapy. HIV can "hide" in immune cells at levels that are hard to identify.

Current anti-HIV therapy suppresses the infection to an almost undetectable level, but the virus can persist in a dormant form in CD4 T cells, which are also called T cells or T helper cells. However, most of the HIV DNA in these cells is defective and cannot cause infection.

CD4 T cells are lymphocytes, which are white blood cells with a key role in protecting the body against infection. T cells "alert" the body that there is an infection, activating its immune response. When the body is infected with HIV, it uses these cells to replicate and spread.

The ability of the HIV virus to lie dormant in a "reservoir" of CD4 cells has been the main obstacle to finding a cure; once a patient starts antiretroviral therapy, it becomes very important to tell how much virus is still left, and whether it can replicate.

Most tests available for detecting the virus are not very cost effective and take a lot of time. The most widely available test at the moment is the "quantitative viral outgrowth assay" (Q-VOA). It requires large amounts of blood, a lot of work, and is quite expensive. Additionally, the Q-VOA may also underestimate the amount of virus left.

But now, researchers from the University of Pittsburgh's (Pitt) Graduate School of Public Health in Pennsylvania announce that they have come up with a quicker, easier, less expensive, and more efficient way of checking whether or not HIV is still hiding in CD4 cells.

The new study - published in the journal Nature Medicine - details the new test, which the researchers have dubbed the "TZA test."

How The New Test Works :

The senior author of the study, Phalguni Gupta, Ph.D., professor and vice chair of Pitt Public Health's Department of Infectious Diseases and Microbiology, explains what motivated him and his colleagues to come up with a new test:

"Globally there are substantial efforts to cure people of HIV by finding ways to eradicate this latent reservoir of virus that stubbornly persists in patients, despite our best therapies. But those efforts aren't going to progress if we don't have tests that are sensitive and practical enough to tell doctors if someone is truly cured."

TZA works by detecting a gene that is active only when replication-competent HIV is present.

The TZA test produces results in 7 days, compared with the 14 days needed by the Q-VOA, and it costs only a third of the Q-VOA price. Additionally, it requires a much smaller amount of blood and number of cells.

Importantly, the TZA test revealed that in people who seem to be almost fully cured of HIV, the amount of latent virus is actually 70 percent higher than what previous tests were able to detect.

Because it needs fewer cells, the TZA might also be useful for detecting HIV in children, write the authors, as well as in tissue where HIV continues to hide.

Prof. Gupta comments on the findings:

"Using this test, we demonstrated that asymptomatic patients on antiretroviral therapy carry a much larger HIV reservoir than previous estimates - as much as 70 times what the Q-VOA test was detecting. Because these tests have different ways to measure HIV that is capable of replicating, it is likely beneficial to have both available as scientists strive toward a cure.

TECHNICAL ADEQUACY

In trying to determine if pathology is present in a chest radiograph several factors must be considered in the overall judgment of the radiograph to determine if the visual findings are pathologic or in part related to the radiograph itself.

Factors to be considered on all chest x-rays include:

- Orientation
- Rotation

ORIENTATION

A PA radiograph is obtained with the x-ray traversing the patient from posterior to anterior and striking the film.

The cardiac border will appear larger on an AP radiograph due to the magnification effect of the more anteriorly located heart relative to the film.

Similarly, an AP radiograph is positioned with the x-ray traversing the patient from anterior to posterior striking the film.

In this we are referring to the position of the patient and the x-ray beam.

Difference between PA and AP view
In PA view

- Clavicles don't project too high into the apices or thrown above the apices (more horizontal)
- Heart wont be magnified over the mediastinum therefore preventing the appearance of cardiomegaly
- Scapula are away from the lung fields
- Ribs are obliquely oriented in PA view
- Spine and posterior ends of ribs are clearly seen

Why is PA preferred over AP?

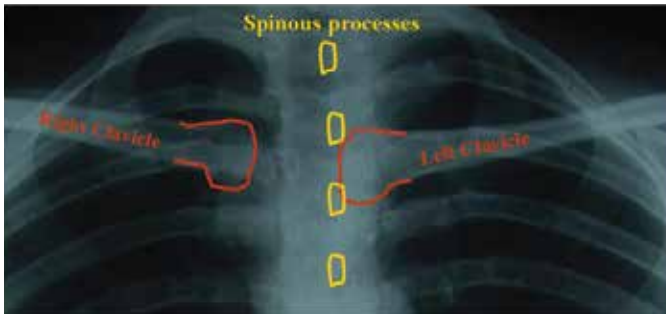
- Reduces magnification of heart therefore preventing appearance of cardiomegaly.
- Reduces radiation dose to radiotion sensitive organs such as thyroid,eyes,breasts
- Visualised maximum areas of lung.
- Moves scapula away from the lung fields.
- More stable positioning for the patient as they can hold onto the unit - this reduces patient movement.
- Compression of breast tissue against the film cassette reduces the density of tissue around the CP bases therefore visualizing them more clearly.

A *: Patient positioned for PA pr ojection of the chest. Anterior aspect of the chest is closes to IR*

B *: Patient positioned for AP projection of the chest. Posterior aspect of the chest is closes to IR*

ROTATION

- Ideally the clavicle heads should be equidistant from the spinous process
- Rotation of the radiograph is assessed by judging the position of the clavicle heads and the thoracic spinous process
- Rotation of patient distorts mediastinal anatomy and makes assessment of cardiac chambers
- Chest wall tissue also contributes to increased density over the lower lobe fields simulating disease



Chest X-ray reveals multiple scattered consolidation lesions involving both lungs

Lung field abnormalities – Consolidation Lymphoma : Imaging Findings

- Mediastinal widening due to mediastinal lymphadenopathy
- Parenchymal lung involvement:
- Multiple nodules
- Consolidation with an air – bronchogram
- Segmental or lobar atelectasis
- Pleural effusions (Mostly small, unilateral, and exudative)
- Destructive rib or vertebral body lesion

FIRST HEPATITIS B PATIENTS TREATED IN STUDY OF NEW THERAPY AT LOWER DOSES THAN STANDARD

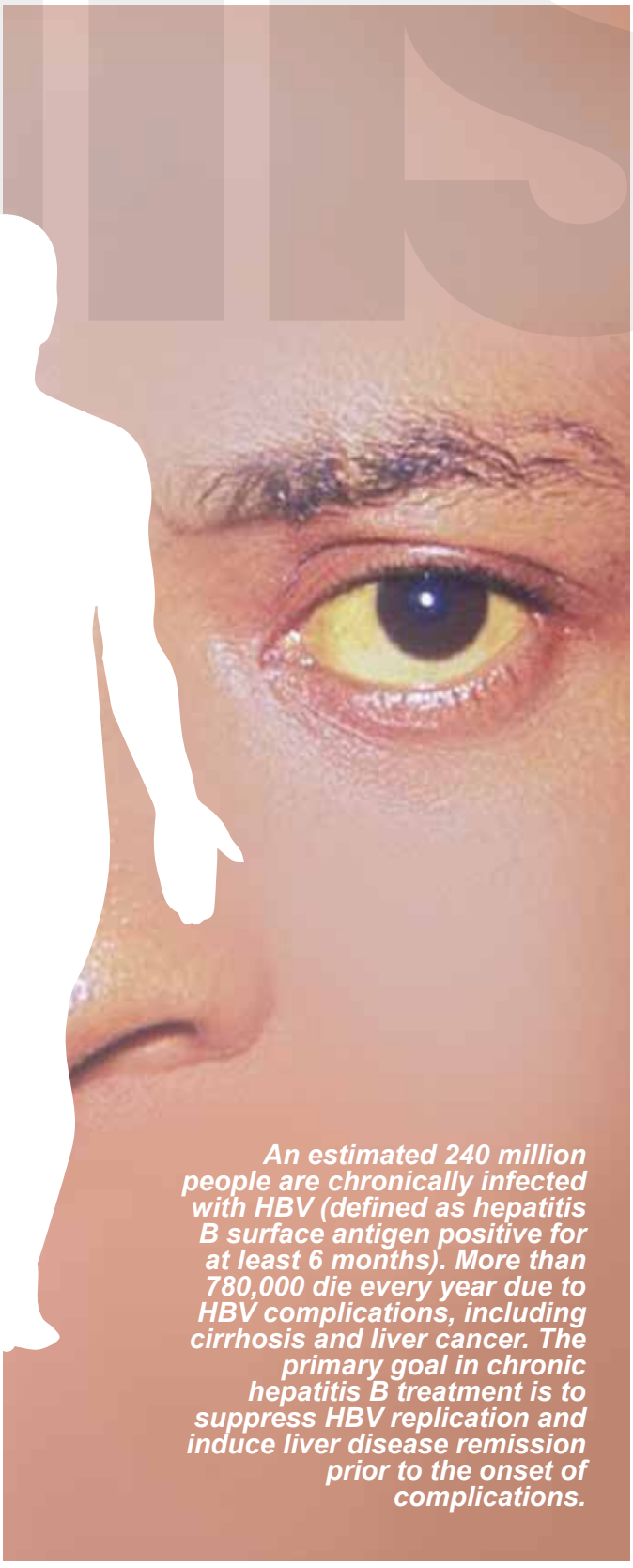
ContraVir Pharmaceuticals announced the dosing of the first patients with chronic hepatitis B enrolled in its head-to-head Phase 2a clinical trial comparing multiple doses of the company's lead candidate CMX157 to tenofovir disoproxil fumarate (TDF), a standard therapy. Specifically, the trial will compare a lower dose of CMX157 to the commonly used dose of TDF (Viread, Gilead Sciences).

CMX157 is a novel lipid acyclic nucleoside phosphonate that delivers high intracellular concentrations of the active antiviral agent tenofovir. The trial will evaluate the potential for CMX157, which the company considers more potent than TDF, to be more effective at lower dose levels, decreasing the circulating levels of tenofovir, lowering systemic exposure, and so reducing the renal side effects associated with the drug. ContraVir plans to conclude the trial, taking place in Thailand, toward the year's end.

A sequential dose escalation safety and tolerability study, the trial (NCT02710604) will enroll 60 treatment-naïve patients chronically infected with hepatitis B virus (HBV). Ten patients per cohort will be given a once-daily dose of either 5, 10, 25, 50 or 100 mg of CMX157 for 28 days, and two patients per cohort will receive 300 mg of TDF, the standard dose for Viread, for 28 days.

CMX157 has completed a Phase 1 clinical trial in healthy volunteers demonstrating a favorable safety, tolerability, and drug distribution profile.
"This marks the first time CMX157 will be dosed in HBV patients," said James Sapirstein, CEO of ContraVir, in a press release. "We anticipate that this study will reflect the positive findings from our animal and in vitro studies, which demonstrated superior potency against HBV and significant liver targeting, allowing the potential for CMX157 to reduce the risk of kidney and bone toxicities by being more effective at lower doses.

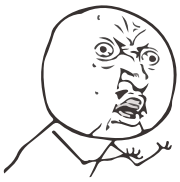
"We expect the current study will validate CMX157's potential to be dosed lower than Viread, and at the same or lower dose than Gilead's tenofovir alafenamide, or TAF," he said. "In addition, we're happy to report that the Phase 1b study continues to advance smoothly and in line with our expectations into the final 100 mg dosing group, without any safety or tolerability concerns."

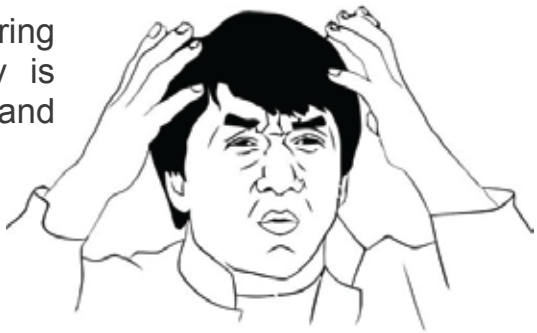


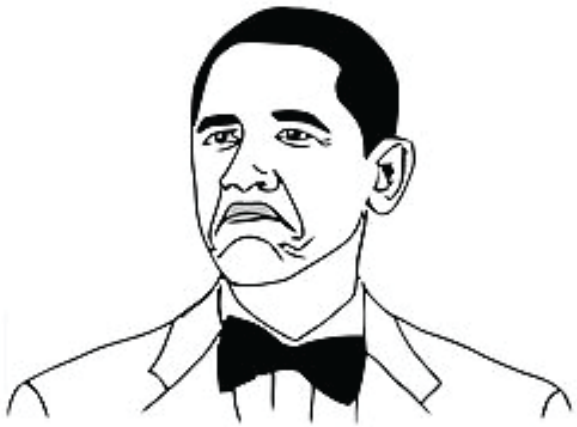
An estimated 240 million people are chronically infected with HBV (defined as hepatitis B surface antigen positive for at least 6 months). More than 780,000 die every year due to HBV complications, including cirrhosis and liver cancer. The primary goal in chronic hepatitis B treatment is to suppress HBV replication and induce liver disease remission prior to the onset of complications.

LAUGHTER

Tomato price gone up... So mummy not preparing tomato dishes. School fees gone up... But why is mummy still sendring me to school. Dont understand this logic!!!

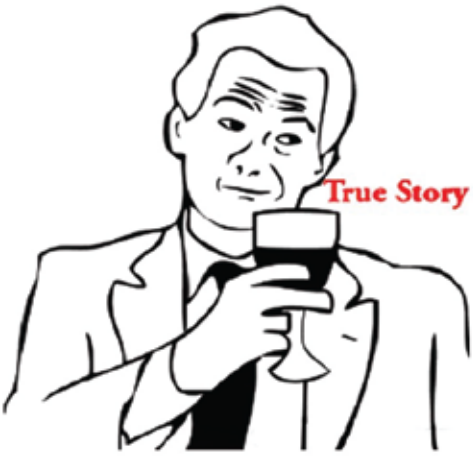


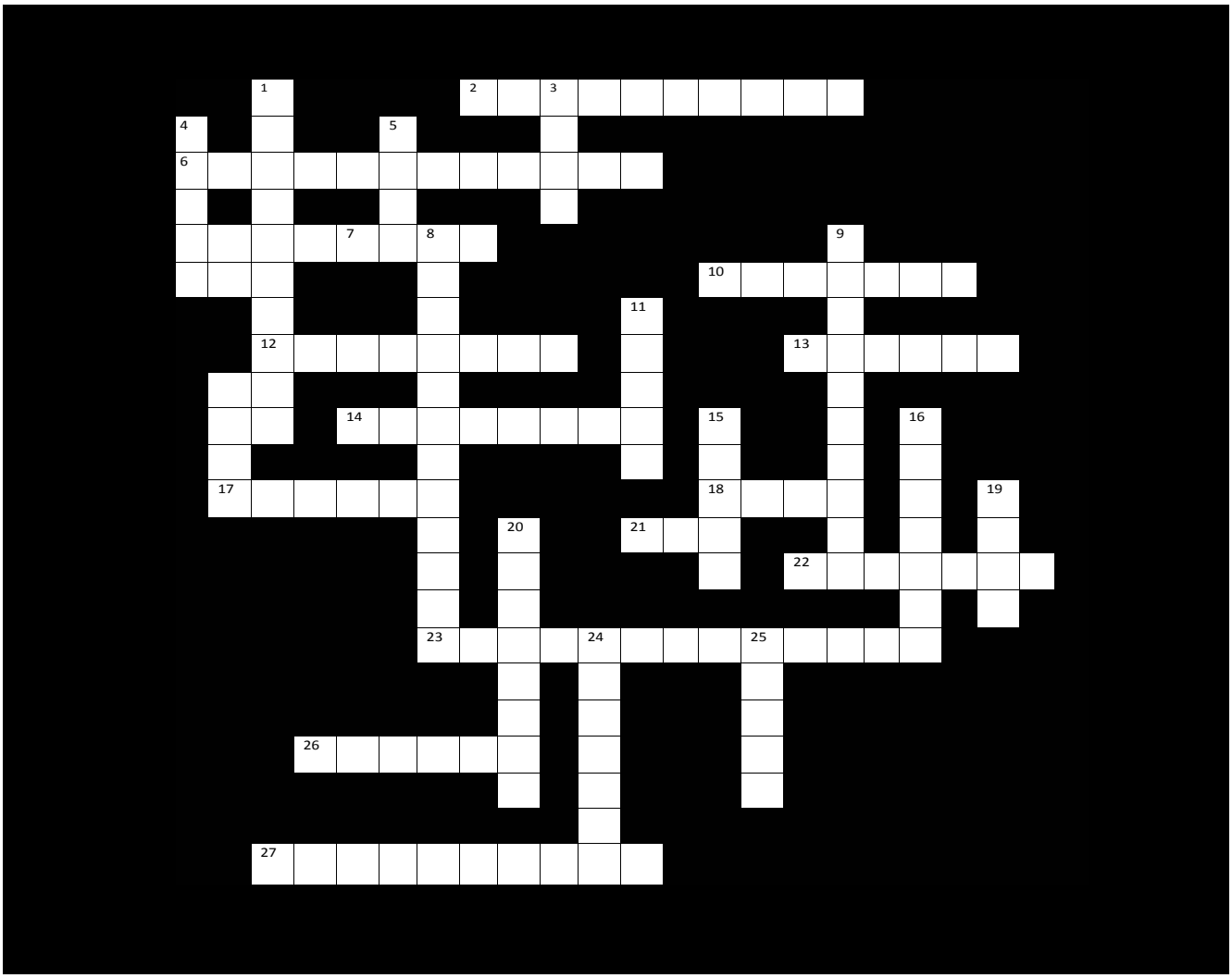




In the USA they invented a machine that catches thieves, they took it out to different countries for a test. In US itself, in 30 minutes the machine caught 20 thieves.
In UK, in 30 minutes it caught 50 thieves.
SPAIN, in 30 mins it caught 65 thieves.
GHANA, in 30 mins it caught 600 thieves.

IN MALAYSIA, THEY CAUGHT NOBODY. In 15 mins, the machine was stolen!!!





MEDICAL INTERPRETING PUZZLE

Across

2.Excision of the bladder
6.Surgical removal of the eyeball
7.Back of the neck
10.Funny bone
12.Suffix for weakness
13.Hidden
14.Instrument placed into the external acoustic meatus for examination
17.An offspring in the early stages of development
18.” The disease of kings”
21.Heart attack
22.Fungal disease
23.Fear of death
26.Presence of spit
27.Joint pain

Down

1.Whispered interpreting
3.Largest organ in the body
4.Watery part of the blood
5.Compulsive eating of non-nutritive substances such as paper or clay
8.Technician that draws blood
9.Disease of the peripheral nerves
11.Absence of breathing
15.Suffix that means pain
16.Malignant tumor of the bone marrow
19.To evacuate, especially urine
20.Localized collection of blood outside the blood vessels
24.Air sacs in the lungs
25.Regulation designed to protect personal information in medical records.

Across:

2.Cystectomy
6.Enucleation
7.Nape
10.Humerus
12.Asthenia
13.Crypto
14.Otoscope
17.Embryo
18.Gout
21.Ami
22.Mycosis
23.Thanatophobia
26.Sputum
27.Arthralgia

Down:

1.Chuchotage
3.Skin
4.Serum
5.Pica
8.Phlebotomist
9.Neuropathy
11.Apnea
15.Algia
16.Myeloma
19.Void
20.Hematoma
24.Alveoli
25.Hippa

FEEDBACK SURVEY

1. Overall, does Medical Bulletin's content and information useful to you?

- ◯ Extremely useful
- ◯ Very useful
- ◯ Somewhat useful
- ◯ Not so useful
- ◯ Not at all useful

2. How easy is it to understand the content and information on Medical Bulletin?

- ◯ Extremely easy
- ◯ Very easy
- ◯ Somewhat easy
- ◯ Not so easy
- ◯ Not at all easy

3. How visually appealing is Medical Bulletin?

- ◯ Extremely appealing
- ◯ Very appealing
- ◯ Somewhat appealing
- ◯ Not so appealing
- ◯ Not at all appealing

4. How likely is it that you would recommend Medical Bulletin to others?

Not at all likely *Extremely likely*

0	1	2	3	4	5	6	7	8	9	10

5. Do you have any other comments about how we can improve Medical Bulletin?

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