



RADIENZA

A quarterly Pharmacy Practice update for all health care professionals

Department of Pharmacy Practice , KVM College of Pharmacy, Cherthala.

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Statins linked to higher diabetes risk



A new study report that Statin use is linked to an increased risk of type 2 diabetes among high-risk individuals. Statins are cholesterol-lowering drugs prescribed to reduce cardiovascular risks, but a variety of studies have

shown the drugs have an association with type 2 diabetes development. These new findings were from a long-term US study of 3,234 patients at high risk of type 2 diabetes, all of whom had elevated BMIs and blood sugar levels.

Participants took part in the US Diabetes Prevention Program Outcomes Study (DPPOS) and were randomised to receive different interventions to prevent type 2 diabetes. These included an intensive lifestyle programme, metformin treatment or a placebo drug. They were then followed for an average of 10 years. Overall, statin use was associated with a 36 per cent increased risk of type 2 diabetes development compared to those who did not take the drugs. No link was observed between statin potency in diabetes risk, nor in regard to LDL cholesterol.

While this was an observational study and no causal link between statin use and diabetes risk can be made, the researchers point to evidence suggesting that statins can impair insulin production. The researchers explained that several observational studies had identified an elevated risk of incident type 2 diabetes in statin users. They said the findings underlined the importance of managing lifestyle factors when treating patients with statins.

Contributed by,

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New Drug

Letermovir is approved for cytomegalovirus prophylaxis. Letermovir is an inhibitor of cytomegalovirus terminase. This inhibition interferes with the maturation of viral DNA.

New Drug

The FDA has approved the drug Tagraxofusp, a CD123-directed cytotoxin, for Blastic plasmacytoid dendritic cell neoplasm (BPDCN) which is a rare, aggressive hematologic malignancy of skin and/or bone marrow

NPPA has reduced the prices for nearly 400 Cancer Drugs



The National Pharmaceutical Pricing Authority (NPPA) restricted trade margin on Maximum Retail Price (MRP) of 42 non-scheduled anti-cancer medicines up to 30% to curb profiteering from life-saving medicines. With the order, MRP of the drugs has come down by up to 85% and the revised prices have kicked into effect from March 8. The manufacturers of these 42 drugs have been directed not to reduce production volumes of brands under regulation. This will benefit 22 lakh cancer patients in the country and will result in net savings of approximately Rs 800 crore.

Revised MRP of Non-Scheduled Anti-Cancer Medicines w.e.f. 08.03.2019 is available in the website given below: <http://www.nppaindia.nic.in/wp-content/uploads/2019/03/Brands-List-for-OM.pdf>

Contributed by,

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Why do we love coffee and beer?

Why do you swig bitter, dark roast coffee while your coworker guzzles sweet cola? Scientists searched for variations in our taste genes that could explain our beverage preferences, because understanding those preferences could indicate ways to intervene in people's diets. But to scientists' surprise, the study showed taste preferences for bitter or sweet beverages aren't based on variations in our taste genes, but rather genes related to the psychoactive properties of these beverages.

Poor sleep can change your reaction to pain

Lack of sleep may make you more sensitive to pain, according to a study in the Jan. 28, 2019, issue of *The Journal of Neuroscience*. Researchers found that poor sleep interferes with certain pain centers of the brain and can change how a person perceives and reacts to discomfort. In the study, scientists scanned the brains of 25 healthy adults in two sleep environments: first, after they slept eight hours, and again after they were kept awake for 24 to 28 hours. The scans showed that when the group was sleep-deprived, they had a 120% increase in the activity of their somatosensory cortex, the brain region that interprets what pain feels like. This means their pain threshold was lower than it had been after they had slept for eight hours. When the group was sleep-deprived, they also had a 60% to 90% drop in activity in their striatum and insula, two

brain areas that when activated typically dampen the perception of pain. The scientists noted that lack of sleep makes the body less resilient and that people who suffer from pain often can be aided by improving their sleep.

While the type of sleep disruption the study examined is not typical, in another study the researchers found that even subtler changes in sleep quality — similar to waking up repeatedly during the night — also are linked with next-day pain.

Contributed by, **Mr. Lijo Joseph, Asst. Professor,**
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What's new in the field of medicine

Needle-Less Device Make Life Easier for People with Diabetes

Portal Instruments, an MIT start-up company, has secured a commercial deal for their jet-injection device with hopes of reducing the pain and anxiety many patients experience with injections, according to a company press release.

The device works by delivering a “rapid, high-pressure stream of medicine, as thin as a strand of hair” through the skin, the press release states.

Advancing cell therapy for diabetes

Date: May 8, 2019. Source: Harvard University

Researchers used single-cell sequencing to identify a protein expressed uniquely by insulin-producing beta cells created from stem cells in the laboratory. By targeting the protein and adding a physical enrichment method, the purity of beta cells improved from 30 to 80%. Improved control over the beta cell production process will allow researchers to refine cell therapy for patients with type 1 diabetes.

Cocktail Offers Rare Neuropathy Patients New Hope

A cocktail of three repurposed drugs targeting multiple disease pathways appeared effective in treating Charcot-Marie-Tooth type 1A. The investigational combination of baclofen, naltrexone, and sorbitol known as PXT3003, given as a twice-daily oral solution, offered the first evidence of meaningful improvement for patients with Charcot-Marie-Tooth type 1A .

Charcot-Marie-Tooth type 1A is a rare, chronic peripheral neuropathy that affects one in 5,000 people. It is caused by peripheral myelin protein-22 (*PMP-22*) overexpression, which leads to defects in peripheral myelination. Patients experience distal-dominant muscle atrophy, which affects their gait, activities of daily living, and overall quality of life. No treatment has stabilized or reversed the disease to date. In preclinical studies, PXT3003 inhibited *PMP-22* overexpression and alleviated neuromuscular symptoms. PLEO-CMT, a pivotal, international, multicenter, double-blind phase III study was launched in December 2015 to assess the safety and efficacy of two doses of PXT3003 -- dose 3 and dose 4 -- in people with mild-to-moderate, genetically confirmed Charcot-Marie-Tooth type 1A. Dose 3 was 6 mg baclofen, 0.70 mg naltrexone, and 210 mg sorbitol; dose 4 was twice as much as dose 3. Both doses were given twice daily for up to 15 months.

The primary endpoint was the effect of the drug on disability, measured by the mean change from baseline on the 12-point Overall Neurology Limitations Scale (ONLS). The FDA and the European Medicines Agency (EMA) pre-specified that a 0.3 point mean ONLS difference versus placebo would be clinically meaningful. In this study, 90% of patients had baseline ONLS scores from 2 to 4.

The researchers randomized 323 patients 1:1:1 to each of the two doses and placebo. Patients were age 16 to 65 years and characteristics of the three groups were comparable at baseline.

The long-term safety of PXT3003 currently is being evaluated in PLEO-CMT-FU, an open-label follow-up extension study of patients who completed PLEO-CMT. In February 2019, the FDA granted PXT3003 Fast Track designation. The drug previously had been granted orphan drug status by the FDA and EMA .

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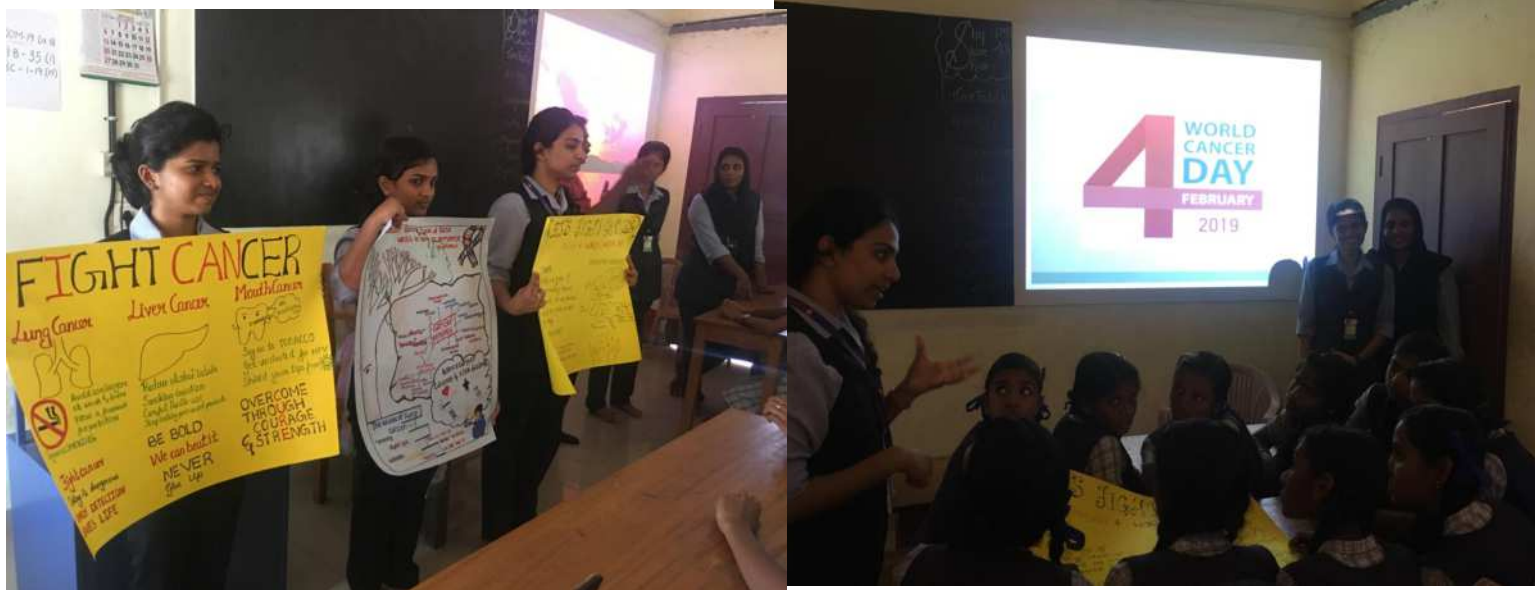
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Clinical Pearls-

- Nitroglycerin NOT Furosemide Should Be First-Line in Treatment of CHF and Pulmonary Edema
 - Recurrent erythema multiforme can be a skin sign of HSV infection. .
- Antibiotics are not indicated in most cases of acute rhinosinusitis, regardless of whether symptoms last longer than 7 days.

Department Activities

World Cancer Day



Department of Pharmacy Practice observed world cancer day by conducting an awareness program for school students. Govt. Higher secondary school for girls, Cherthala was selected for the program. Pharm. D students along with faculty visited the school and enlighten the students about cancer and its prevention. It was an interesting session for both young students and future Pharmacists. We thank the school administrators for extending their support for the program.