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CLINICAL PHARMACY NEWSLETTER

A Newsletter of Drug and Prescribing Information
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INSIDE THIS ISSUE

LARGER ABSOLUTE RIVAROXABAN BENEFIT IN DIABETES: COMPASS TRIAL OUTCOME

In the COMPASS trial of patients with stable coronary or peripheral artery disease (PAD), the combination of Aspirin plus Rivaroxaban, 2.5 mg twice daily, provided a larger absolute benefit on cardiovascular endpoints — including a threefold greater reduction in all-cause mortality — in patients with diabetes compared with the overall population.

Use of dual pathway inhibition with low-dose Rivaroxaban plus Aspirin is particularly attractive in high-risk patients such as those with diabetes The COMPASS trial was first reported in 2017 and showed a new low dose of Rivaroxaban (2.5-mg twice-daily; plus Aspirin, 100 mg once daily, was associated with a reduction in ischemic events and mortality and a superior net clinical benefit, balancing ischemic benefit with severe bleeding, compared with Aspirin alone for secondary prevention in patients with stable atherosclerotic vascular disease. But clinicians have been slow to prescribe Rivaroxaban in this new and very large population and in particular the diabetes subgroup may be "the tipping point that will make people aware of Rivaroxaban and then that may trickle down to other patients".

In PAD/vascular medicine there are a lot of patients with stable coronary arterial disease at high ischemic risk who could take Rivaroxaban, but its use is bound to be limited by it being a branded drug and the fact that there is a bleeding risk. Patients with the highest ischemic risk and focus drugs such as these with a financial cost and a bleeding risk on those who most likely will derive the greatest absolute reduction in risk in the PAD and the diabetes subgroup. And there is no incremental bleeding risk in this group over the whole population, so they get a much greater benefit without a greater risk. This helps get Rivaroxaban at the new lower dose used much more often.

A total of 18,278 patients were randomly assigned to the combination of Rivaroxaban and Aspirin or Aspirin alone in the COMPASS trial. Of these, 6922 had diabetes mellitus at baseline and 11,356 did not have diabetes. Results from the current analysis show a consistent and similar relative risk reduction for benefit of Rivaroxaban plus Aspirin vs placebo plus Aspirin in patients both with and without diabetes for the primary efficacy endpoint, a composite of cardiovascular death, myocardial infarction (MI), or stroke, with a hazard ratio of 0.74 for patients with diabetes and 0.77 for those without diabetes.

Because of the higher baseline risk in the diabetes subgroup, these patients had numerically larger absolute risk reductions with Rivaroxaban than those without diabetes for the primary efficacy endpoint at 3 years (2.3% vs 1.4%) and for all-cause mortality (1.9% vs 0.6%). These results translate into a number needed to treat (NNT) with Rivaroxaban for 3 years to prevent one CV death, MI, or stroke of 44 for the diabetes group vs 73 for the non-diabetes group; the NNT to prevent one all-cause death was 54 for the diabetes group vs 167 for the non-diabetes group.

Because the bleeding hazards were similar among patients with and without diabetes, the absolute net clinical benefit (MI, stroke, cardiovascular death, or bleeding leading to death or symptomatic bleeding into a critical organ) for Rivaroxaban was "particularly favorable" in the diabetes group (2.7% fewer events in the diabetes group vs 1.0% fewer events in the non-diabetes group), the researchers added.

In the COMPASS trial there was an overall positive result with Rivaroxaban in the whole population. And now the patients with diabetes had an even greater absolute risk reduction. That pattern has also been seen with other classes of agents including the statins, PCSK9 inhibitors, and icosapent ethyl. The challenge with Rivaroxaban is that there is no test of thrombosis risk that would prompt the physician to take action. Basically, the physicians has to remember to consider whether patients are at low bleeding risk and are still at high ischemic risk despite controlling other risk factors and, if so, then add this low dose of Rivaroxaban. It is not as easy as with other drugs as there is always a bleeding trade-off with an antithrombotic. So, patients need careful assessment when considering prescribing Rivaroxaban and regular reassessment over time to check if they have had any bleeding.

Ref: https://www.medscape.com/viewarticle/927726

PHOSPHODIESTERASE-5 INHIBITORS DON'T HELP EVERYONE WITH ERECTILE DYSFUNCTION

Phosphodiesterase 5 (PDE5) inhibitors do not appear to benefit certain subgroups of men with erectile dysfunction (ED), according to a systematic review and meta-analysis.

It is important to acknowledge the main factors underlying ED in a particular individual. Some patients might benefit more from a non-pharmacological intervention, e.g., psychotherapy, and some patients might benefit more from a medication. Erectile dysfunction can result from numerous physical causes, but it can also be of psychogenic origin. Numerous trials have demonstrated the benefits of PDE5 inhibitors in men with ED, but there has been little analysis of placebo effects.

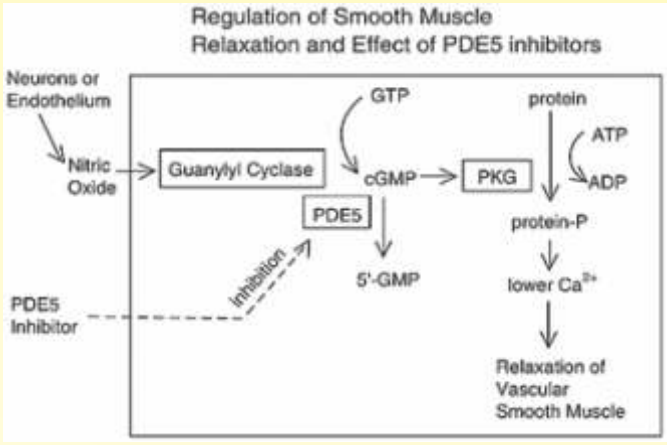
Researchers evaluated the change in erectile function, as measured by the erectile function domain of the International Index of Erectile Function (IIEF-EF) questionnaire, among patients in the placebo arm of randomized clinical trials of PDE5 inhibitors. Their analysis included 63 studies with a total of more than 12,000 men with ED. The mean study duration was 14 weeks (range, 4-104 weeks).

Researchers reported that, the overall effect size in the treatment arm of the 59 studies that did not follow prostate-cancer treatment was large (Hedges g, 1.25), whereas the effect size in the placebo arm showed a small to moderate improvement of erectile function (Hedges g, 0.35), with a large difference in favor of active drug (Hedges g, 1.04). In patients with posttraumatic stress disorder (PTSD), there were large responses in both the treatment arm (Hedges g, 1.12) and the placebo arm (Hedges g, 0.77), with only a moderate effect size in favor of the PDE5 inhibitor (Hedges g, 0.40). The results seen for the PTSD-related ED trials might indicate that ED caused by mainly psychogenic factors might be subjected to a larger influence by the placebo effect. It would be interesting to understand the effect size would be in the placebo arm in a clinical trial with younger patients who would have mainly performance-anxiety-related reasons for ED. In contrast, there was no significant difference in effect size between PDE5 inhibitors and placebo in the recovery of erectile function after prostate surgery or radiotherapy.

PDE5 inhibitors are very effective in many patients, but they also have side effects, which in rare cases can be serious, and it is important to consider what would be the best treatment option for each individual patient, in particular younger patients without significant comorbidities could benefit well from non-pharmacological treatment options. The practice with daily administration of PDE5 inhibitors for recovery of nerve function after surgery or radiotherapy is put into more questions, since it does not seem to be backed by strong evidence.

Viagra and other PDE5 inhibitors showed a much larger effect than placebo in many of the trials included in analysis and that these drugs are very effective in many patients beyond a potential placebo component.

Ref: https://www.medscape.com/viewarticle/927750.



Mechanism of Action of PDE-5 Inhibitors in Erectile dysfunction
(Adopted from Research article: https://www.nature.com/articles/3901205)

DIABETES DRUG SLOWS KIDNEY DISEASE: DAPA-CKD TRIAL STOPPED EARLY

DAPA-CKD trial (Phase 3) for Dapagliflozin (Farxiga) in patients with chronic kidney disease has been halted (Astra Zenecca) early because of overwhelming efficacy of the drug, at the recommendation of an independent data monitoring committee.

DAPA-CKD is an international, multicenter, randomized, double-blinded trial in 4,245 patients with stage 2-4 chronic kidney disease. Patients received either 10 mg of the Dapagliflozin once-daily or a placebo. The primary composite endpoint is worsening of renal function, defined as a composite of an estimated glomerular filtration rate decline of at least 50%, onset of end-stage kidney disease, and death from cardiovascular or renal cause.The decision to stop the trial came after a routine assessment of efficacy and safety that showed Dapagliflozin's benefits significantly earlier than expected. AstraZeneca will initiate closure of the study, and results will be published and submitted.

Dapagliflozin is a sodium-glucose transporter 2 inhibitor currently indicated for the treatment type 2 diabetes patients with inadequately controlled type 2 diabetes and for reduction of the risk of hospitalization for heart failure. In August 2019, the drug was granted Fast Track status by the Food and Drug Administration for the treatment of chronic kidney disease. In January 2020, the agency also granted Fast Track status for the reduction of risk of cardiovascular death or worsening of heart failure in adult patients, regardless of diabetes status, with heart failure with reduced ejection fraction.Chronic kidney disease patients have limited treatment options, particularly those without type-2 diabetes. The data monitoring committee concluded that patients experienced overwhelming benefit. Dapagliflozin has the potential to change the management of chronic kidney disease for patients

Ref: https://www.medscape.com/viewarticle/927820

HOW FACE MASKS CAN HELP PREVENT THE SPREAD OF COVID-19

As communities and businesses reopen amidst the pandemic, masks—in addition to other social distancing measures—are crucial for preventing new outbreaks.**F**ace masks have been a matter of intense debate during the COVID-19 pandemic. Early on, several government officials and health authorities were discouraging healthy people from wearing masks—noting that there was little evidence for the practice's ability to prevent spread among the general public and citing concerns that protective face coverings, which were desperately needed by healthcare workers, were in short supply. Gradually, however, governments began to either require or recommend that their citizens wear face masks in public. In June, the World Health Organization (WHO) recommended widespread mask-use as a way to prevent coronavirus transmission. One model estimates that if at least 95 percent of people wear masks in public between June and October, approximately 33,000 deaths could be avoided in the US.

There are three broad categories of face coverings: tight-fitting masks known as N95 respirators that are designed to filter out both aerosols (often defined as particles that are smaller than 5 micrometers in diameter) and larger airborne droplets, loose-fitting surgical masks that are fluid resistant and capable of filtering out the bigger particles, and cloth masks, which vary widely based on how they're made.

Different Types of Masks

N95 respirator: Tight-fitting single-use masks typically made with synthetic materials such as polyester and polypropylene. These masks are able to filter out at least 95 percent of both large airborne droplets and aerosols.

Surgical/medical masks: Loose-fitting single-use masks made with three or more layers of synthetic materials. These can filter out large airborne particles, but some aerosols can leak through, and particle-containing air is able to flow around the edges.

Fabric masks: These often-homemade masks vary widely in their construction and effectiveness. Aerosols are likely to leak through, and particle-containing air is able to flow around the edges. With appropriate washing or a couple of days to decontaminate, fabric masks are reusable.

A growing body of research supports the use of all three types of masks, though the quality of evidence varies. One of the most comprehensive examinations to date, published in The Lancet in early June, systemically assessed 172 observational studies—mostly conducted in healthcare settings—looking at the effect of physical distancing, face masks, and eye protection on the transmission of SARS-CoV-2 and two related coronaviruses. The results revealed that N95 respirators provided 96 percent protection from infection and surgical masks (or comparable reusable masks made with 12 to 16 layers of cotton or gauze) were 67 percent protective.

While research on cloth masks is much more limited, one group of researchers demonstrated that, in the lab, multilayer masks made of hybrid materials (cotton and silk, for example) could filter up to 90 percent of particles between 300 nanometers and 6 micrometers in size. However, it's important to note this is only the case when there are no gaps around the edges of the mask, which are often present when people wear cloth or surgical masks. Indeed, the researchers' findings suggest that gaps around any mask can reduce filtration by 60 percent or more. Still, scientists using computational models have reported that, in general, widespread use of facemasks, when combined with lockdowns, may help prevent future waves of infection.

“We're recommending that N95s still be primarily saved for the healthcare situation,” says Kirsten Koehler, a professor of environmental health and engineering at Johns Hopkins University. “For individuals in the public, wearing a fabric mask is probably still the way to go.”

None of these masks are going to be perfect, especially against the aerosols.

—Kirsten Koehler, Johns Hopkins University

There are several factors, including the number of layers and type of material they are made from, that contribute to how effective a mask will be, explains Raina MacIntrye, a professor of global biosecurity at the University of New South Wales in Australia. According to the WHO, fabric masks should ideally have at least three layers: an inner layer made with absorbent material (e.g., cotton), an outer layer with water-resistant material (e.g., polyester), and a middle layer (made with absorbent or water-resistant material) to act as a filter. In addition, MacIntrye adds, “the design should fit around the edges of the face because air will flow down the path of least resistance.” In other words, if there are gaps on the sides of your mask, your breath will slip through those cracks instead of being filtered through the mask itself.

Although evidence is building to support the use of masks to stem the coronavirus' spread, many questions remain, such as whether the coronavirus spreads through aerosols or just through larger respiratory droplets. There is also little research on the efficacy of face masks, particularly cloth oAnes, in stopping the spread of COVID-19 in community settings, Julii Brainard, a senior research associate at Norwich Medical School in the UK, tells *The Scientist* in an email.

Amidst the uncertainty, what is clear is that mask wearing is not the only action people should take to slow the spread of COVID-19, Koehler says. “None of these masks are going to be perfect, especially against the aerosols. You want to continue to encourage people to work from home, avoid being crowds—things like that are going to work, regardless of how good your mask is.”

Reference: https://www.the-scientist.com/news-opinion/ how-face-masks-can-help-prevent-the-spread-of-covid-19-67646

DRUG PROFILE

BEMPEDOIC ACID AND EZETIMIBE

Class:
Adenosine triphosphate-citrate lyase (ACL) inhibitor and a cholesterol absorption inhibitor combination

Indication:
Indicated as an adjunct to diet and maximally tolerated statin therapy for adults with heterozygous familial hypercholesterolemia or established atherosclerotic cardiovascular disease who require additional lowering of low-density lipoprotein cholesterol (LDL-C)

Mechanism of Action:
Bempedoic acid is an Adenosine triphosphate-citrate lyase (ACL) inhibitor that lowers LDL-C by inhibiting cholesterol synthesis in the liver. ACL is an enzyme upstream of 3-hydroxy-3-methyl-glutaryl-coenzyme A (HMG-CoA) reductase in the cholesterol biosynthesis pathway. Bempedoic acid and its active metabolite, ESP15228, require coenzyme A (CoA) activation by very long-chain acyl-CoA synthetase 1 (ACSVL1) to ETC-1002-CoA and ESP15228-CoA, respectively. ACSVL1 is expressed primarily in the liver, but absent in most peripheral tissues.

Ezetimibe blocks GI cholesterol absorption via NPC1L1 (Niemann-Pick C1-Like 1) inhibition, reducing cholesterol deliver to the liver. This action reduces hepatic cholesterol stores and increases LDL receptors, resulting in clearance of cholesterol from the blood. NPC1L1 is a sterol transporter that mediates intestinal cholesterol absorption.

Dosage form and Administration:
Bempedoic acid and Ezetimibe is available as tablet with strength of 180 mg Bempedoic acid and 10 mg Ezetimibe. Tablets are blue colored, oval shaped, debossed with “818” on one side and “ESP” on the other side. Tablets should be taken orally once daily with or without food.

Each film-coated tablet contains 180 mg of bempedoic acid and 10 mg of ezetimibe, and the following inactive ingredients: colloidal silicon dioxide, hydroxy propyl cellulose, lactose monohydrate, magnesium stearate, microcrystalline cellulose, povidone K30, sodium lauryl sulfate, sodium starch glycolate.

Dosing in Hepatic& Renal Impairment:
No dosage adjustment is necessary in patients with mild hepatic impairment (Child-Pugh A). Bempedoic acid and Ezetimibe combination is not recommended in patients with moderate or severe hepatic impairment (Child-Pugh B or C) due to the unknown effects of the increased exposure to ezetimibe No dosage adjustment is necessary in patients with mild or moderate renal impairment. There is limited experience with bempedoic acid in patients with severe renal impairment (eGFR < 30 mL/min/1.73 m2), and bempedoic acid has not been studied in patients with end-stage renal disease (ESRD) receiving dialysis

Pharmacokinetics:
The bioavailability of Bempedoic acid and Ezetimibe tablets was similar relative to that from the individual tablets,coadministered. Maximum plasma concentration (Cmax) values for bempedoic acid and its activemetabolite (ESP15228) were similar between formulations, but ezetimibe glucuronide andezetimibe Cmax values were approximately 22% and 13% lower, respectively.
For Bempedoic acid and Ezetimibe tablets, relative to the individual tablets, co-administered. Given a similar overall extent of ezetimibeglucuronide and ezetimibe exposure (as measured by AUC), a 22% lower Cmax is unlikely to beclinically significant.
The bempedoic acid apparent volume of distribution (V/F) was 18 L. Plasma protein binding of bempedoic acid, its glucuronide and its active metabolite, ESP15228, were 99.3%, 98.8% and 99.2%, respectively.Ezetimibe and ezetimibe-glucuronide are highly bound (> 90%) to human plasma proteins. The steady-state clearance (CL/F) of bempedoic acid was 11.2 mL/min after once-daily dosing;renal clearance of unchanged bempedoic acid represented less than 2% of total clearance. The mean ± SD half-life for bempedoic acid in humans was 21 ± 11 hours at steady-state. Both ezetimibe and ezetimibe-glucuronide are eliminated from plasma with a half-life ofapproximately 22 hours for both.
The primary route of elimination for bempedoic acid is through metabolism to the acyl glucuronide. Bempedoic acid is also reversibly converted to an active metabolite (ESP15228) based on aldo-keto reductase activity observed in vitro from human liver. Ezetimibe is primarily metabolized in the small intestine and liver via glucuronide conjugation with subsequent biliary and renal excretion.

Following single oral administration of 240 mg of bempedoic acid (1.3 times the approved recommended dose), approximately 70% of the total dose (bempedoic acid and its metabolites) was recovered in urine, primarily as the acyl glucuronide conjugate of bempedoic acid, and approximately 30% was recovered in feces. Following oral administration of 14C-ezetimibe (20 mg) to human subjects, total ezetimibe (ezetimibe + ezetimibe-glucuronide) accounted for approximately 93% of the total radioactivity in plasma. Approximately 78% and 11% of the administered

radioactivity were recovered in the feces and urine, respectively, over a 10-day collection period.

Adverse Reactions:
Most common (incidence ≥ 2% and greater than placebo) adverse reactions were upper respiratory tract infection, muscle spasms, hyperuricemia, back pain, abdominal pain or discomfort, bronchitis, pain in extremity, anemia, elevated liver enzymes, diarrhea, arthralgia, sinusitis, fatigue, and influenza.

Contraindications:
- Pregnancy: Pitolisant should not be used during pregnancy. No adequate clinical data on exposed pregnancies are available for Bempedoic Acid and Ezetimibe Tablets

- In animal reproduction studies, bempedoic acid was not teratogenic in rats and rabbits when administered at doses resulting in exposures up to 11 and 12 times, respectively, the human exposures at the maximum clinical dose, based onAUC. In oral (gavage) embryo-fetal development studies of ezetimibe conducted in rats and rabbits during organogenesis, there was no evidence of maternal toxicity or embryo-fetal teratogenic or toxicologic effects at exposures up to 10 and 150 times the human exposure, respectively, based on AUC

- Bempedoic acid and Ezetimibe tablets are contraindicated in patients with a known hypersensitivity to ezetimibe tablets

Precautions:
- Hyperuricemia:Bempedoic acid inhibits renal tubular OAT2 and may increase blood uric acid levels. In clinical trials, 26% of bempedoic acid-treated patients with normal baseline uric acid values (versus 9.5% placebo) experienced hyperuricemia one or more times, and 3.5% of patients experienced clinically significant. Hyperuricemia was reported as an adverse reaction (versus 1.1% placebo). Increase in uric acid levels usually occurred within the first 4 weeks of treatment initiation and persisted throughout treatment. After 12 weeks of treatment, the mean placebo-adjusted increase in uric acid compared to baseline was 0.8 mg/dL for patients treated with bempedoic acid. Elevated blood uric acid may lead to the development of gout

- Tendon rupture: Bempedoic acid is associated with an increased risk of tendon rupture or injury. In clinical trials, tendon rupture occurred in 0.5% of patients treated with bempedoic acid versus 0% of placebo-treated patients and involved the rotator cuff (the shoulder), biceps tendon, or Achilles tendon. Tendon rupture occurred within weeks to months of starting bempedoic acid. Tendon rupture may occur more frequently in patients over 60 years of age, in those taking corticosteroid or fluoroquinolone drugs, in patients with renal failure, and in patients with previous tendon disorders.

Drug Interactions:
- Concomitant use of Bempedoic acid and Ezetimibe tablets with simvastatin causes an increase in simvastatin concentration and may increase the risk of simvastatin-related myopathy

- Concomitant use of Bempedoic acid and Ezetimibe tablets with Pravastatin causes an increase in Pravastatin concentration and may increase the risk of Pravastatin-related myopathy

- Concomitant use of Bempedoic acid and Ezetimibe tablets with cyclosporine increases ezetimibe and cyclosporine concentrations

- Co-administration of Bempedoic acid and Ezetimibe tablets with fibrates other than fenofibrate is not recommended. Both fenofibrate and ezetimibe may increase cholesterol excretion into the bile, leading to cholelithiasis.

- Concomitant use of Bempedoic acid and Ezetimibe tablets with cholestyramine decreases ezetimibe concentration. This may result in a reduction of efficacy.

Reference
https://www.accessdata.fda.gov/drugsatfda_ocs/ label/2020/ 211617s000lbl.pdf https://www.nexletol.com/nexlizet

EVENT CORNER

- Staff of the Department of Pharmacy Practice actively participated in more than 40 various Webinars, and other scientific programs organized by reputed organizations across India.

- Staff of the Department of Pharmacy Practice participated in webinar 'Understanding Practice school & Its Concept in UG Pharmacy Education' organized by Pharmacy Council of India is association with Rajiv Gandhi University of Health Sciences, Bengaluru, and JSSAHER, Mysuru on 23rd May 2020.

- Dr. Keerthana, Resident and Mr. Vishwas H N, Lecturer, Department of Pharmacy Practice participated and completed e-Module on 'NSAIDs Safety with Preeclampsia' organized by Centre for Health Education Awareness Resources and services during first week of May, 2020.

- Mr. Vishwas H N, Lecturer, Department of Pharmacy Practice participated in e- FACULTY DEVELOPMENT PROGRAMME on "Redefining the role of Educator in Covid-19 outbreak era" organized by Gujarat Technical University and Anand College of Pharmacy between 11/05/2020 to 16/05/2020.

- Dr. K.P.Arun, Asst. Professor and Dr. Deepalakshmi. M, Lectuerer,Department of Pharmacy Practice participated in One Week Online IFDP PER- 2020 organized by Bapatla College of Pharmacy, Andhra Pradesh, India between 13th- 18th May 2020.

- Staff of Department of Pharmacy Practice participated Webinar on 'Dissecting Pharm D Internship during COVID-19 pandemic' organized by JSS Academy of higher Education & Research in association with Pharmacy Council of India on 30/05/2020.

- Dr. S Ponnusankar, Professor & Head, Department of Pharmacy Practice delivered a talk on 'Case discussion' in the Webinar on 'Dissecting Pharm D Internship during COVID-19 pandemic' organized by JSS Academy of higher Education & Research in association with Pharmacy Council of India on 30/05/2020.
- Dr. K.P.Arun, Asst. Professor, , Department of Pharmacy Practice delivered a talk on 'Video reflection' in the webinar Webinar on 'Dissecting Pharm D Internship during COVID-19 pandemic' organized by JSS Academy of higher Education & Research in association with Pharmacy Council of India on 30/05/2020.

- Dr. Keerthana C, Resident, Department of Pharmacy Practice delivered a talk on 'Clinical Accuracy Checking' in the webinar Webinar on 'Dissecting Pharm D Internship during COVID-19 pandemic' organized by JSS Academy of higher Education & Research in association with Pharmacy Council of India on 30/05/2020.

- Dr. Sadagoban GK, Lecturer, Department of Pharmacy Practice delivered a talk on 'Use of Technology for Internship Activities' in the webinar Webinar on 'Dissecting Pharm D Internship during COVID-19 pandemic' organized by JSS Academy of higher Education & Research in association with Pharmacy Council of India on 30/05/2020.

- Ms. Roopa B S presented a Research paper entitled, 'The relationship between iron deficiency anemia and antenatal depression amongpregnant women' in the online conference, 'HEOR: Advancing Evidence to Action' organized by ISPOR on 18/05/2020.

- Staff of Department of Pharmacy Practice attended the webinar on 'Interprofessional Education' organized by JSSAHER in association with Pharmacy Council of India, New Delhi on 13/06/2020.

- Dr Arun K P, Asst. Professor, Department of Pharmacy Practice attended the online program on 'Managing Online Classes and Co-Creating MOOCS: 2.0' organized by Teaching Learning Centre, Ramanujan College, University of Delhi (Sponsored by MHRD, Govt. of India) from May 18- June 03, 2020
- Dr. M. Deepalakshmi, Lecturer, Department of Pharmacy Practice attended One Week Online International Faculty Development Program on "Emerging Innovations and Insights in Pharmaceutical Sciences" organized by Jawaharlal Nehru Technological University Kakinada and V. V. Institute of Pharmaceutical Sciences, Gudlavalleru from 08/06/2020 to 13/06/2020.

- Dr.M.Deepalakshmi, Dr. Swathi Swaroopa B, Dr. Aneena Suresh, Mr. Vishwas H N, Lecturers, Department of Pharmacy Practice attended one week e-Faculty and Student Development Program (e-FSDP) On "Recent Updates in Pharmacy Practice" organized by G. Pulla Reddy College of Pharmacy, Hyderabad, In association with Indian Pharmaceutical Association (IPA)-TS from 25th to 30th June 2020

- Dr.M.Deepalakshmi, Lecturer, Department of Pharmacy Practice presented a Research paper entitled, 'Role of sIg A in COVID-19' at National Level Online E Poster Presentation on "Prevention and protection from Covid–19 using herbal medicine as a Immunity Booster" organized by SankaralingamBhuvaneswari College of Pharmacy, Sivakasi, on 22/06/2020.

- Dr. G K Sadagoban, Lecturer, Department of Pharmacy Practice acted as resource person and delivered a talk on 'Clinical Pharmacy Practice in Indian Healthcare System' inOnline Webinar organized by Erode College of Pharmacy, Tamilnadu on 19/06/2020.

- Dr. G K Sadagoban, Lecturer, Department of Pharmacy Practice acted as resource person and delivered a talk on 'Applications of Pharmacoepidemiology in Pharmacy Practice' during the online Webinar organized by G Pulla Reddy College of Pharmacy, Hyderabad on 25/6/2020.

- Dr. K.P.Arun, Asst. Professor, Department of Pharmacy Practice acted as resource person and delivered a talk on 'Therapeutic Drug Monitoring :an Overview' Therapeutic Drug Monitoring : An Overview' organized byKarpagam College Of Pharmacy, In Association With Indian Pharmaceutical Association Coimbatore Local Branch, on 02/06/2020.

- Dr. K.P.Arun, Asst. Professor, Department of Pharmacy Practice acted as resource person and delivered a talk on 'Challenges & Opportunities in Therapeutic Drug Monitoring - The Indian Perspective Challenges & Opportunities in Therapeutic Drug Monitoring - The Indian Perspective' organized by Department of Pharmaceutics, School of Pharmaceutical Sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai-600117, India on 08/06/2020.

- Dr. M. Deepalakshmi, Lecturer, Department of Pharmacy Practice acted as a resource person and delivered a talk on 'Basics of Interprofessional Practice Education' during the Webinar on Interprofessional Education (IPE) organized by JSS AHER in association with Pharmacy Council of India, New Delhi, on 13/05/2020.

PUBLICATIONS FROM THE DEPARTMENT OF PHARMACY PRACTICE (April-June, 2020)

1. Basker V, Moudgil K. Idiopathic Late-Onset Cerebellar Ataxia with Phenytoin: A Case Report. Journal of Young Pharmacists. 2020;12(1):102.

2. Basutkar RS, Eipe T, Perumal D, Wilfred P, Sam KK, Varghese RC, Ponnusankar S. Effect of Daily Oral Supplementation of Vitamin D3 in Iron and 25 Hydroxyvitamin D Deficient Pregnant Women: a Randomized Placebo-Controlled Study. Latin American Journal of Pharmacy. 2020;39(2):318-30.

3. Mawii L, Moudgil K. Corpus callosum agenesis with chorioretinal abnormality (Aicardi syndrome): An educational review. Pharmacophore. 2020;11(2).

4. Deo S, Rai SK, Moudgil K. Red man syndrome in vancomycin care patients-A critical review. Journal of Critical Reviews. 2019;7(5):2020.

5. Vinod CE, Saju SJ, Moudgil K. The Phenomenon of External Pressure RumpelLeede Sign: A Review. Journal of Pharmaceutical Sciences and Research. 2020 Mar 1;12(3):433-5.

6. Basutkar R. The relationship between iron deficiency anaemia and antenatal depression among pregnant women. Value in Health. 2020: 23(1):S207.

For clarifications/ feedback, write to:
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