Clinical Pharmacy Newsletter

A Newsletter of Drug and Prescribing Information
Published by
Clinical Pharmacy Services Department, Govt. Head Quarters Hospital, Ooty
(A Unit of Department of Pharmacy Practice, JSS College of Pharmacy, Ooty)

JSS ACADEMY OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY) MYSURU

VOLUME XXV ISSUE 03 JULY-SEPTEMBER 2019

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INSIDE THIS ISSUE:

Delicate Balance: Aspirin Reduces Events, Increases Bleeding

Aspirin for primary prevention reduces nonfatal ischemic events but significantly increases nonfatal bleeding events, a new meta-analysis suggests. Investigators analyzed 15 randomized controlled trials (RCTs), comparing approximately 83,000 patients taking aspirin with 82,000 control patients and found that aspirin and control were associated with similar rates of all-cause death, cardiovascular (CV) death, and non-CV death, but aspirin was associated with a lower risk for nonfatal myocardial infarction (MI) and transient ischemic attack (TIA).

In contrast, aspirin (especially at higher doses) was associated with a 32% relative increase in intracranial bleeding risk (including hemorrhagic stroke) and a more than 50% increase in the risk of major GI bleeding. There were no differences between the aspirin and control groups in total cancer and cancer-related deaths during the study period.

The study analyzed 15 carefully selected RCTs, including over 165,000 participants, and based on analysis, concluded that use of aspirin for primary prevention reduces nonfatal ischemic events but increases nonfatal bleeding events, some with quite major significance. And the analysis came to a decision that the use of aspirin for primary prevention should be tailored to individual patients who are high risk of developing a cardiovascular event.

Variable Findings: Aspirin for secondary prevention of MI, stroke, or TIA is well established, but the efficacy of aspirin for primary prevention varies among RCTs, creating "significant variability in societal guidelines. Aspirin is commonly used for primary prevention for cardiovascular disease in a variety of subjects, but studies have shown that repeated use of aspirin may not be appropriate and may even be harmful.

To investigate the question, the researchers identified 9838 citations on the subject and narrowed their review to 15 studies comparing participants treated with aspirin to control subjects. The included studies encompassed a total of 165,502 participants (n = 83,529; mean age, 61.6 ± 5.6 years; and n = 81,973; mean age, 61.5 ± 5.5 years, respectively). Included were findings from the recently reported ASPREE, ASCEND, and ARRIVE trials.

The current meta-analysis represents the largest and most contemporary examination of long-term outcomes with aspirin use for primary prevention of CVD. Study populations in the aspirin and control groups were "well balanced" for CV risk factors.

The main efficacy outcomes included all-cause death, CV death, MI, stroke, TIA, and major adverse CV events (MACE), and safety outcomes included major bleeding, intracranial bleeding, fatal bleeding, and major GI bleeding, with all outcomes analyzed by intention-to-treat (ITT).The researchers also evaluated cancer incidence and cancer-related death. Five trials were deemed at low risk and 10 at intermediate risk for bias; however, the body of evidence for outcomes reached a "level of high quality."

Modest Protection: Aspirin was associated with similar all-cause death (4.75% vs 4.82%; risk ratio [RR], 0.97; 95% CI, 0.93 - 1.01; P = .13; I^2 = 0%) and non-CV death (3.3% vs 3.3%; RR, 0.98; 95% CI, 0.92 - 1.05; P = .53; I^2 = 29%).There was a "modest" reduction in CV death with aspirin, compared with the control group, but it was not considered to be statistically significant.

Aspirin use was associated with lower risk for total MI (2.07% vs 2.35%; RR, 0.85; 95% CI, 0.76 to 0.95; P = .003; I^2 = 60%), which was driven by a lower risk of nonfatal MI in the aspirin group, compared with the control group (1.37% vs 1.62%; RR, 0.82; 95% CI, 0.72 - 0.94; P = .005; I^2 = 58%).The risks of fatal MI, angina pectoris, coronary revascularization, and symptomatic peripheral arterial disease were similar in both groups. Total stroke rates, including fatal and nonfatal stroke, were likewise similar in the aspiring and control groups (1.82% vs 1.86%; RR, 0.97; 95% CI, 0.89 - 1.04; P = .37; I^2 =10%; RR, 1.03; 95% CI, 0.84 - 1.26; P = .81; and RR, 0.94; 95% CI, 0.85 - 1.02; P = 0.15, respectively).
By contrast, the risk for TIA was lower in the aspirin than in the control group (1.06% vs 1.33%; RR, 0.79; 95% CI, 0.71 - 0.89; P < .001; I2 = 0%). Further analysis showed a lower risk for ischemic stroke (1.29% vs 1.49%; RR, 0.87; 95% CI, 0.79 - 0.95; P = .002; I^2 = 0%), but a trend toward a higher risk for hemorrhagic stroke (0.29% vs 0.23%; RR, 1.21; 95% CI, 0.99 - 1.47; P = .059; I^2 = 0%) in the aspirin vs the control group.

Data from five RCTs showed a composite of nonfatal MI, nonfatal stroke, TIA, and CV death to be lower in the aspirin than the control group (3.86% vs 4.24%; RR, 0.903; 95% CI, 0.85 - 0.96; *P* = .001).The study group note that the numbers need to treat (NNTs) to prevent one event of MI, nonfatal MI, TIA, and ischemic stroke were 357, 400, 370, and 500, respectively.

Risk/Benefit Conversation: Major bleeding events were significantly higher in the aspirin than in the control group (1.47% vs 1.02%; RR, 1.50; 95% CI, 1.33 - 1.69; *P* < .001; I^2 = 25%).In particular, aspirin was associated with more intracranial bleeding than control, including hemorrhagic stroke (0.42% vs 0.32%; RR, 1.32; 95% CI, 1.12 - 1.55; *P* = .001; I^2 = 0%), and with more major GI bleeding (0.80% vs 0.54%; RR, 1.52; 95% CI, 1.34 - 1.73; *P* < .001; I^2 = 0%).However, rates of fatal bleeding were similar in the two groups (0.23% vs 0.19%; RR, 1.09; 95% CI, 0.78 -c1.55; *P* = .6; I^2 = 0%).

Aspirin was also associated with increased risk for GI ulcers, compared with the control group (RR, 1.37; 95% CI, 1.07 - 1.76; *P* = .013; I^2 = 80%).Cancer incidence and cancer-related deaths were similar in both groups at a mean follow-up of 6.46 years. A meta-regression analysis found female sex to be associated with a favourable treatment effect on total stroke (*P* = .046).Secondary analyses revealed that aspirin may reduce all-cause death after 5 years of follow-up, and that the trend toward lower risk for CV death with aspirin is observed only in populations with high estimated 10-year ASCVD risk. It also showed that the lower risk for total and nonfatal stroke with aspirin use was found only with low-dose aspirin.

Physicians considering using aspirin for primary prevention "should discuss the small benefits and significant bleeding risks with the patient. Additionally, when aspirin is used for primary prevention, "it should be given in a dose of less than 100 mg/day."

Unequal Disability: The physicians needs to obtain the information to assess CVD risk and risk of [GI] bleeding in patients in the potentially eligible age range and only applies to primary prevention, as patients with known CVD are at high risk. Moreover, if the patient has moderate or greater CVD risk — meaning a 10-year risk over 10% after other therapies have been applied — *and* is not at increased bleeding risk (under age 70 *and* no history of GI bleeding or other strong risk factors for bleeding), then discuss aspirin prevention with the patient. At this point, the main deciding factors are the patient's tolerance for risk in both ways — risk of causing and adverse bleeding event and risk of not preventing a CVD event.

The authors conclude that "these findings suggest that the decision to use aspirin for primary prevention should be tailored to the individual patient, based on estimated ASCVD risk and perceived bleeding risk, as well as patient preferences regarding types of event prevented, versus potential bleeding caused."

Reference:

https://www.medscape.com/viewarticle/914336

India is banning all e-cigarettes over fears about youth vaping

India recently announced a complete ban on the sale of all e-cigarettes, saying the devices posed a health risk, especially to young people. "Unfortunately, e-cigarettes got promoted initially as a way in which people can get out of the habit of smoking cigarettes. It was to be a weaning process from using cigarettes," Indian Finance Minister Nirmala Sitharaman said after a Cabinet meeting.

"The Cabinet rightly thought it is time and we immediately took a decision so that the health of our citizens, of our young, is not thrown to a risk," she added. Sitharaman said the deaths of seven people in the US following vaping-related sicknesses had added to local concerns about the impact of e-cigarettes on people's health. Hundreds of people are being treated for lung illness in 36 US states and researchers are investigating if those illnesses are related to the use of e-cigarettes.

A 7th person has died from vaping-related causes. The CDC is stepping up its probe of e-cigarette illnesses. She said that an emergency ordinance banning the use of Electronic Nicotine Delivery Systems (ENDS) will be issued in the coming days. The ordinance will be taken up during the next session of Parliament and converted into law. Sitharaman added that the ban would cover e-cigarette production, manufacturing, import, export, transport, sale, distribution, storage and advertisement. It includes all forms of ENDS, heat-not-burn products and e-hookah devices, according to a press release.

Electronic cigarette devices on display at a vape shop in New Delhi on September 18, 2019

People who violate the ban once could face up to one year in prison or a fine of 100,000 rupees ($1,400) or both. For subsequent offenses, the penalty would be five years imprisonment and a fine of 500,000 rupees ($7,000). Storing e-cigarettes would also be punishable with up to six months in prison and a 50,000-rupee ($700) fine.

"These novel products come with attractive appearances and multiple flavours and their use has increased exponentially and has acquired epidemic proportions in developed countries, especially among youth and children," the government said in the release.

The nationwide move came after almost a dozen Indian states had taken similar action.

The US and UK see vaping very differently. Here's why Vendors with existing stock will have to declare and deposit their remaining e-cigarettes and cartridges at the nearest police station, the statement added. Some 35 million people around the world are believed to be using e-cigarettes or the newer heat-not-burn products, according to data and research company Euromonitor. They are popular among smokers in many places who are trying to kick the habit, as they satisfy the urge for nicotine while removing exposure to the tar and toxins of burned tobacco. But many people worry they're creating new addictions to nicotine, particularly among young people. According to the Global State of Tobacco Harm Reduction report, 39 countries have banned the sale of e-cigarettes or nicotine liquids.

In the United States, the Centers for Disease Control and Prevention this week activated its emergency operations center to better investigate the outbreak of lung injuries associated with e-cigarettes and the Trump administration has said it is working to ban flavored e-cigarettes. A California man recently became the seventh person to die from a vaping-related illness, health officials said. Some countries like the UK encourage the use of e-cigarettes as a way to quit smoking combustible cigarettes, but the World Health Organization hasn't thrown its weight behind their use as a cessation aid, citing inconclusive evidence and concerns they pose to non-smokers who start to use them.

INTERNATIONAL CLINICAL ROTATION OF STUDENTS FROM HOWARD UNVERSITY, USA

As a part of MOU between JSS Academy of Higher Education & Research, Mysuru and Howard University, USA, two students Ms. Alisha Bailey and Ms. Ngozika Blessing visited the Department of Pharmacy Practice, JSS College of Pharmacy, Ooty. The objective of the experiential program is to expose the students to an international rotation focused on public health and infectious diseases that are common in developing countries. The students arrived to Ooty on 24/08/2019 and left on 28/08/2019. During the rotation, the students were introduced to various activities of Clinical Pharmacy department. They were taken to Medicine ward and Intensive care unit of Government Head Quarters Hospital, Ooty. They were actively involved in discussion with Pharm. D V year students and Case presentations by Pharm. D VI year students.

Ms. Alisha Bailey & Ms. Ngozika Blessing of Howard University, USA along with few staff and Pharm. D students at Dept. of Pharmacy Practice, JSS College of Pharmacy, Ooty

INTERNATIONAL VISIT OF STUDENTS FROM LA TROBE UNIVERSITY, AUSTRALIA

As a part of MOU between JSS Academy of Higher Education & Research, Mysuru and La Trobe University, Australia, Dr. Richard Summers (Faculty of Pharmacy) and spouse along with students pursuing Pharmacy, Dental and Physiotherapy courses from La Trobe University, Australia visited JSS College of Pharmacy, Ooty. Participants were Ms. Maegan Kaye Johnson, Ms. Sophie Ellen Keating, Ms. Aleena Alphonse Mathew, Ms. Amitha Maria Chandy (Pharmacy Students), Ms. Maree Anthea Ioannou, Mr. Michael Milan Eshetu- Mulugeta, Ms. Natalie Louise Michelle Parham, Ms. Joanna Kai-En Beh, Mr. Srosh Mukhles (Physiotherapy students), Ms. Claire Elizabeth Hammond, Ms. Venuka Logeswaran, Ms. Amelia Tan, Ms. Sandeepa Devmini Suriyage (Dental students).

The main objective of the visit was to understand various activities of Healthcare system within India and how clinical services are delivered to patients in developing countries. The students observed how the patients are treated within Govt. Headquarters Hospital, Ooty. The team also interacted with the postgraduate and Research scholars of JSS College of Pharmacy, Ooty along with a local tour in and around Ooty.

Dr. S. P. Dhanabal, Principal, JSS College of Pharmacy along with few Staff and La Trobe University team at JSS College of Pharmacy, Ooty.

DRUG PROFILE

PITOLISANT

Class: Histamine-3 receptor antagonist
Indication: Treatment of excessive daytime sleepiness (EDS) in adult patients with narcolepsy

Mechanism of Action:
The exact mechanism of action of Pitolisant is not clearly known till date. However, its efficacy could be mediated through its activity as an antagonist/inverse agonist at histamine-3 receptors.

Dosage form and Administration:
Pitolisant is available in the form of tablets with strengths 4.45 mg and 17.8 mg respectively. Each bottle contains 30 tablets which are white, round, biconvex, film-coated. Each film-coated tablet contains 5 mg or 20 mg of Pitolisant hydrochloride (equivalent to 4.45 mg or 17.8 mg of Pitolisant free base, respectively).
4.45 mg tablets are 3.7 mm diameter, marked with "S" on one side and plain on the other side. 17.8 mg tablets are 7.5 mm diameter marked with "H" on one side and plain on the other side.

The recommended dosage range for Pitolisant is 17.8 mg to 35.6 mg orally once daily in the morning upon wakening as per the below said instructions:
Week 1: Initiate with dosage of 8.9 mg (two 4.45 mg tablets) OD
Week 2: Increase dosage to 17.8 mg (one 17.8 mg tablet) OD
Week 3: May increase to the maximum recommended dosage of 35.6 mg (two 17.8 mg tablets) OD

Dose may be adjusted based on tolerability. If a dose is missed, patients should take the next dose the following day in the morning upon wakening. It may take up to 8 weeks for some patients to achieve a clinical response. Tablets should be stored between temperatures of 20° C to 25° C.

Dosing in Hepatic & Renal Impairment:
In patients with moderate hepatic impairment, Pitolisant should be initiated at 8.9 mg once daily and increase after 14 days to a maximum dosage of 17.8 mg once daily. Pitolisant is not recommended for use in severe hepatic impairment.
In patients with moderate and severe renal impairment, Pitolisant should be initiated at 8.9 mg once daily and increase after 7 days to a maximum dosage of 17.8 mg once daily. Pitolisant is contraindicated in severe hepatic impairment. Pitolisant is not recommended for use in patients with end stage renal disease.

Pharmacokinetics:
Pitolisant binds to H3 receptors with a high affinity and has no appreciable binding to other histamine receptors. Following oral administration of pitolisant 35.6 mg once daily, the steady state Cmax and AUC are 73 ng/mL (range: 49.2 to 126 ng/mL) and 812 ng*hr/mL (range: 518 to 1468 ng*hr/mL), respectively. Pitolisant exposure (Cmax and AUC) increases proportionally with dose and steady state is reached usually by day 7.

The median time to reach maximum plasma concentration (Tmax) of pitolisant is 3.5 hours (2 to 5 hours). The oral absorption is around 90%. No clinically significant differences in the pharmacokinetics of pitolisant were observed following administration with a high-fat meal. The apparent volume of distribution of pitolisant is approximately 700 L (5 to 10 L/kg). Serum protein binding is approximately 91% to 96%. After a single dose of 35.6 mg, the elimination half-life of pitolisant is approximately 20 hours.

Pitolisant is primarily metabolized by CYP2D6 and to a lesser extent by CYP3A4; these metabolites are further metabolized or conjugated with glycine or glucuronic acid. None of the metabolites are pharmacologically active. Approximately 90% of the dose is excreted in urine (<2% unchanged) and 2.3% in feces. No clinically significant differences in the pharmacokinetics of pitolisant were observed based on age (18 to 82 years old), sex, race/ethnicity (Caucasians or Blacks), or body weight (48 to 103 kg).

Adverse Reactions:
Headache (18%), Insomnia, Nausea (6%), Upper respiratory tract infection, Musculoskeletal pain, Anxiety (5%), Increased heart rate, Hallucinations, Irritability, Abdominal pain, Sleep disturbance, Decreased appetite (3%), Cataplexy, Dry mouth, Rash (2%).

Contraindications:
- Pregnancy: Pitolisant should not be used during pregnancy. No adequate clinical data on exposed pregnancies are available for Pitolisant.
- In animal reproductive studies, administration of pitolisant during organogenesis caused maternal and embryofetal toxicity in rats and rabbits at doses ≥13 and >4 times the maximum recommended human dose of 35.6 mg based on mg/m2 body surface area, respectively.
- Pitolisant is contraindicated in patients with severe hepatic impairment.

Precautions:
- Pitolisant prolongs the QT interval. The use of Pitolisant should be avoided in patients with known QT prolongation or in combination with other drugs known to prolong QT interval.
- Pitolisant should also be avoided in patients with a history of cardiac arrhythmias or in patients with risk of the occurrence of torsade de pointes or sudden death, including symptomatic bradycardia, hypokalemia or hypomagnesemia.
- Patients with hepatic or renal impairment should be carefully monitored for increased QTc.

Drug Interactions:
- Concomitant administration with strong CYP2D6 inhibitors increases Pitolisant exposure by 2.2-fold. [Ex: Paroxetine, Fluoxetine, Bupropion].
- Concomitant use with strong CYP3A4 inducers decreases exposure of Pitolisant by 50%. [Ex: Rifampin, Carbamazepine, Phenytoin].
- Pitolisant increases the levels of histamine in the brain; hence, H1 receptor antagonists and other centrally acting drugs that cross the blood-brain barrier may reduce effecttiveness. [Ex: Pheniramine maleate, Diphenhydramine, Promethazine (anti-histamines) Imipramine, Clomipramine, Cirtazapine (tri or tetracyclic anti-depressants)]
- Pitolisant is a borderline/weak inducer of CYP3A4. Reduced effectiveness of CYP3A4 substrates may occur when used concomitantly. (Ex: Midazolam, Hormonal contraceptives, Cyclosporine)

Reference:

- https://www.aoporphan.com/at_en/individual-treatments/neurology-metabolic-disorders/wakix
- https://www.accessdata.fda.gov/drugsatfda_docs/label/2019/211150s000lbl.pdf

EVENT CORNER

REPORT

Dr.G.K. Sadagoban, Lecturer, Dept. of Pharmacy Practice, JSS College of Pharmacy, Ooty attended the national level workshop on 'Economic Basis of Health Care Intervention' organized by Community Health Training Centre between 29th – 31st July, 2019 at Christian Medical College, Vellore.

Dr. K.P. Arun, Assistant Professor, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty acted as a Resource person and delivered a talk on 'NAAC Health system Manual-An Orientation' organized by Vinayaka Mission's College of Pharmacy, Salem on 31st July, 2019.

Dr. M. Deepalakshmi, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty acted as a member of organizing committee at the conference 'APP 8th Annual Convention' organized by APP West Indies International branch & Tamil Nadu State branch in collaboration with APP Pharmacy Division at JSS College of Pharmacy, Ooty on 24th & 25th July, 2019.

Dr. K.P.Arun, Asst. Professor, Dr. M.Deepalakshmi, Lecturer, Dr. Khayati Moudgil, Resident, Dr. Keerthana, Resident, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty attended the national level conference 'Organ Donation Awareness symposium' organized by Rotary Nilgiris West, Mohan Foundation and JSS College of Pharmacy, Ooty on 24th August 2019.

Dr. G.K. Sadagoban, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty acted as a 'Resource person' and delivered a talk on 'Roles, Responsibilities and Scopes of Clinical Pharmacist in India' during the Pharm. D induction program organized by Jamia Salafia Pharmacy College , Kerala on 21st August, 2019.

Dr. S. Ponnusankar, Professor & Head, Dr. M. Deepalakshmi, Lecturer, Dr. Aneena Suresh, Lecturer, Mr. Vishwas. H N, Lecturer, Dr. Santhosh, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty attended a national level seminar 'One day National level seminar on Current Scenario of Patient safety Vigilance activities in India' organized by Department of Pharmacy Practice, KMCH College of Pharmacy, Coimbatore. The event was held at KMCH Medical College Hospital, Coimbatore on 3rd September, 2019.

Students of IV Pharm D and Staff of Dept. of Pharmacy Practice, JSS College of Pharmacy, Ooty at 'One day National level seminar on Current Scenario of Patient safety Vigilance activities in India' at KMCH Medical College Hospital, Coimbatore on 3rd September, 2019.

Dr. M. Deepalakshmi, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty presented a paper entitled 'Efficacy of Trigger Tool in Identification of Suspected Adverse drug reaction in Tuberculosis Patients' at national level seminar 'One day National level seminar on Current Scenario of Patient safety Vigilance activities in India' organized by Department of Pharmacy Practice, KMCH College of Pharmacy, Coimbatore. The event was held at KMCH Medical College Hospital, Coimbatore on 3rd September, 2019.

Dr. S Ponnusankar, Professor & Head, Dr. K.P. Arun, Assistant Professor, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty participated in the national level workshop, 'Workshop on Mind Map Creation' organized by Centre for Continuous Learning for Professional Excellence, JSS Academy of Higher Education & Research and Medical Education Unit held at JSS Medical College, Mysuru on 13th September, 2019.

Dr. S Ponnusankar, Professor & Head, Ms. Roopa B S, Lecturer, Mr. Vishwas H N, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty attended the national level conference 'AICTE Sponsored National Conference on Pharmacoepidemiology & Pharmaco-economics' organized by Department of Pharmacy Practice, JSS College of Pharmacy, Mysuru held between 26th to 28th September, 2019.

Dr. S Ponnusankar, Professor & Head, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty acted as a Chair-person during a scientific session. Ms. Roopa B S, Lecturer, Mr. Vishwas H N, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty acted as 'Poster presentation evaluator' at the national level conference 'AICTE Sponsored National Conference on Pharmacoepidemiology & Pharmacoeconomics' organized by Department of Pharmacy Practice, JSS College of Pharmacy, Mysuru held between 26th to 28th September, 2019.

Dr. S. Ponnusankar, Ms. Roopa BS, Mr. Vishwas H N at the Poster presentation sessions at 'AICTE Sponsored National Conference on Pharmacoepidemiology & Pharmacoeconomics at JSS College of Pharmacy, Mysuru

Dr. K. P. Arun, Asst. Professor and Dr. M. Deepalakshmi, Lecturer, Department of Pharmacy Practice, JSS College of Pharmacy, Ooty received the 'Nation Builder Award' in the event 'Nation Builder-2019' organized by Rotary Nilgiris West, on the occasion of Teachers Day celebration.

PUBLICATIONS FROM THE DEPARTMENT OF PHARMACY PRACTICE (July-September, 2019)

1. Moudgil K, Chandu DN, Hamid A, Vijayakumar PRA: Surveillance and assessment of adverse drug reactions and comparison with the retrospective studies in a Secondary Care Hospital. Int J Pharm Sci & Res 2019; 10(7): 3434-39.
2. Lalramengmawii, Lalduhawmi TC, Moudgil K. A Case of Astraphobia Induce Severe Anxiety in Human. J. Pharm. Sci. & Res. 2019; 11(7), 2632-2633.
3. Deepalakshmi M, Kumar P, Arun KP, Ponnusankar S. Impact of Continuing Pharmacy Education on the Knowledge, Attitude and Practice of Community Pharmacists about ADR Monitoring and Reporting. Indian Journal of Pharmaceutical Sciences. 2019; 81(4):633-639.
4. Basutkar RS, Sudarsan P, Vinod CE, Varghese R, Perumal D, Sivasankaran P. The risk of antenatal depression among the iron deficient anaemic pregnant women: An evolving correlation. Current Medicine Research and Practice 2019; 9(4): 150-155.
5. Anusha J, Moudgil K. Accidental paraquat induced hypersalivation: a case report. DARU Journal of Pharmaceutical Sciences. 2019; 5:1-4.

SUSPECTED ADVERSE DRUG REACTIONS REPORTED FROM THE DEPARTMENT OF PHARMACY PRACTICE (July-September, 2019)

DRUG/S	ADVERSE DRUG REACTIONS
July-2019	
Inj.Labetalol	Bradycardia
T.Atenolol	
T.Metoprolol	
T.Azithromycin	Abdominal pain
T.Nifedipine	Severe headache
Inj.Dexamethasone	Hypertension
Inj.Ampicillin	Rashes
Inj.Heparin	Hematuria
Inj.Dexamethasone	Hypertension
IVF RL and DNS	Hypertension
T.Ranitidine	Swelling of face and lips (allergic reaction)
Inj.Dexamethasone	Hypertension
August-2019	
T. Sodium valporate & Phenytoin	Hepatotoxicity
T. Phenytoin	Recurrent episiodes of seizure
T. Phenytoin	Elevation of SGOT & SGPT
Inj.Tranexamic acid	GI Irritation(stomach burning)
T.Losartan	GI Irritation(stomach burning)
Inj. Dopamine	Tachycardia
T. Diclofenac	GI Bleeding
T. Bisacodyl	Diarrhea
Inj. Metronidazole	Headache, cough and dry mouth
T. Ferrous sulphate	Black tarry stools
T.Propranolol	Exfoliative Dermatitis
Inj.Ranitidine	Headache
September-2019	
Inj.Ciprofloxacin	Anaphylactic reactions, Itching and rash
T. Efavirenz and Tenofovir	Nausea and Vomiting
Neb. Salbutamol	Sinus Tachycardia with Tremors

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