



A Newsletter on
CLINICAL PHARMA PRACTICE
An Update on Clinical Research and Drug Information



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PHARMACIST DESK - CASE STUDY



Dr. P. DHIVYAPRASATH, Pharm.D, PgDRA.,
Asst. Professor, Dept. of Pharmacy Practice

A 65 years female patient came to the urology department with the chief complaints of recurrent urinary tract infection, burning micturition, lower abdominal pain in the past 10 days, hematuria on and off and has a history of vomiting. She had a past medical history of T2DM X 10 years and sHTN X 3 years and was taking Tab. Metformin 500mg and Tab. Amlozaar-H respectively. During the physical examination the patient was conscious, oriented and afebrile. Her vital signs included a normal temperature of 98.6°F a normal pulse. rate of 74 beats per minute, a normal respiration rate of 22 breaths per minute, and elevated blood pressure of 140/90 mmHg. The complete USG Abdomen report shows that left renal cortical cyst and cystitis and oedematous left VUJ. The imaging findings were compatible with the diagnosis of Pyeloureteritis Cystica. During hospitalization, the patient was administered with Inj. piptaz 4.5gm, Inj. Tramadol 50mg, Inj. emeset 4mg, Inj. pan 40mg, Tab. fluconazole 150mg.

CONCLUSION

In conclusion, this case study highlights the manifestation of pyeloureteritis cystica, characterized by the inflammatory reaction of the urothelium in response to factors like infection or mechanical irritation, such as nephrolithiasis. Presently, the preferred treatment involves a conservative approach, utilizing antibiotics when infection is detected and conducting repeated intravenous pyelography for follow-up assessments.

DRUG MONOGRAPH

EXBLIFEP

CATEGORY : CEPHALOSPORINS, 4th GENERATION

INDICATION : Treatment of complicated urinary tract infections (cUTI), including pyelonephritis, caused by *Escherichia coli*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Proteus mirabilis*, and *Enterobacter cloacae* complex

MECHANISM OF ACTION : Cefepime penetrates the cell wall of most gram-positive and gram-negative bacteria to bind penicillin-binding protein (PBP) targets. Cefepime is stable to hydrolysis by some beta-lactamases, including penicillinases and cephalosporinases produced by gram-negative and gram-positive bacteria, with the exception of extended-spectrum beta-lactamases (ESBL), some oxacillinases, and carbapenem hydrolyzing beta-lactamases. Beta-lactamase inhibitor that protects cefepime from degradation by certain serine beta-lactamases, such as ESBL.

DOSAGE : Dosage Forms & Strengths : cefepime / enmetazobactam injection, powder for reconstitution: 2g/0.5g (2.5g/vial)

CONTRAINDICATION : History of serious hypersensitivity reaction to components of cefepime / enmetazobactam or other beta-lactam antibiotics

CAUTIONS : Many cephalosporins, including cefepime, have been associated with decreased prothrombin activity; monitor prothrombin time in patients at risk (eg, renal or hepatic impairment, poor nutritional state, protracted course of antibiotics); administer exogenous vitamin K as indicated

ADVERSE EFFECTS : Blood and lymphatic system disorders : Agranulocytosis, aplastic anemia, hemolytic anemia, pancytopenia

Nervous system disorders : Encephalopathy (including disturbance of consciousness, hallucinations, stupor, and coma), aphasia, myoclonus, seizures, and nonconvulsive status epilepticus

Immune system disorders : Anaphylaxis including anaphylactic shock, Stevens Johnson syndrome, erythema multiforme, toxic epidermal necrolysis

Hepatobiliary disorders : Hepatic dysfunction including cholestasis

DRUG APPROVED ON : 22nd FEBRUARY 2024

REFERENCE : www.micromedexsolution.com

HEMA V, V-PHARM.D, KAUSHIKA S, V-PHARM.D

PHARMACY NEWS

USFDA Approves for Metastatic Non-Small Cell Lung cancer

The United States Food and Drug Administration (FDA) has granted traditional approval to tepotinib for adult patients with metastatic non-small cell lung cancer (NSCLC) harbouring mesenchymal-epithelial transition (MET) exon 14 skipping alterations. This decision marks a significant milestone in the treatment landscape for this specific subset of NSCLC patients. Tepotinib initially received accelerated approval for the indicated use on 3rd February 2021, based on the initial overall response rate (ORR) and duration of response (DOR) observed in the VISION trial (NCT02864992). The VISION trial was a multicenter, non-randomised, open-label, multicohort study. The conversion to traditional approval was driven by additional data from 161 patients and an extended 28-month follow-up period, providing a more comprehensive assessment of DOR. The efficacy of tepotinib was demonstrated in a total of 313 patients with metastatic NSCLC harbouring MET exon-skipping alterations. Patients received a daily dose of tepotinib at 450 mg until disease progression or unacceptable toxicity. The most common adverse reactions, reported in more than 20% of patients, included oedema, nausea, fatigue, musculoskeletal pain, diarrhoea, dyspnea, decreased appetite, and rash. The safety profile, albeit with some expected side effects, supports the overall benefit-risk assessment for tepotinib in the approved indication. The recommended dose of tepotinib is 450 mg orally once daily with food, providing a convenient and manageable treatment option for eligible patients.

K. LAKSHMI PRABHA, N.J. HARSHA VEENA, V-PHARM.D

DRUG SAFETY ALERTS IDENTIFIED AND ISSUED BY PvPi

ISSUING DATE	SUSPECTED DRUGS	INDICATION(S)	ADVERSE DRUG REACTION
27 th March 2024	Cefuroxime	Antibiotic- Indicated for lower & upper respiratory tract infection, Urinary Tract Infection (UTI), gynaecological infection, skin or soft tissue infection etc.	Acute Generalized Exanthematous Pustulosis (AGEP)
	Dutasteride + Tamsulosin	In the treatment of Benign Prostatic Hyperplasia	Palpitation
	Nimesulide	Use in Inflammatory condition including joint disorders such as Rheumatoid arthritis, post traumatic and post-operative painful condition and fever. ❖ Acute pain in Orthopaedic, ENT, Dental and Post-Operative condition.	Fixed Drug Eruption (FDE)
	Beta blockers (Metoprolol, Propranolol, Atenolol)	Metoprolol : For the treatment of essential hypertension in adults, functional heart disorders, migraine prophylaxis, cardiac arrhythmias, prevention of cardiac death and reinfarction after the acute phase of myocardial infarction, stable symptomatic CHF. Propranolol : Cardiac arrhythmias; tachycardia; hypertrophic obstructive cardiomyopathy; pheochromocytoma; thrombosis; management of angina; essential and renal hypertension; prophylaxis of migraine. Atenolol : For the treatment of hypertension, angina pectoris, cardiac arrhythmias	Erectile dysfunction (Reversible)

DEPARTMENT ACTIVITIES

IV, V-Pharm.D, M. Pharm Students participated in the Certificate Course in Clinical Data Management Organized by the department of pharmacy practice in association with IIT, Hyderabad E- cell Make Intern from 08th February 2024 to 10th February 2024.



STUDENTS' PARTICIPATION



V & VI – Pharm.D Students participated one day conference entitled “Steeping forward to promote safety of Medical Device MvPI “ organized by Royal care hospital, Coimbatore on 16th February 2024.

V & VI –Pharm.D Students participated three days International conference on global collaboration in pharmaceuticals: Bridging Borders, Breaking Barriers (ICGCP 4B - 2024) from 15th March 2024 to 17th March 2024 at JSS Ooty.



STUDENTS' ACHIVEMENT



Ms. Angeline grace, Ms. Thanuvardhini and Ms. Rabiya Riswana from V - Pharm.D and Ms. Kirubadevi and Ms. Lakshaya from IV – Pharm.D has participated in the National Zonal championship competition held at IIT, Delhi during 17th March 2024 and 18th March 2024 organized by IIT, Delhi.

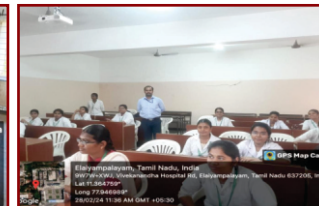
Pharm.D students won 1st prize in dance during intercollegiate competition held at Excel college of pharmacy, Erode from 20th March 2024 to 22nd March 2024



ISPOR ACTIVITIES

ISPOR - SVCP Student chapter organized various events during National Science Day on 28th February 2024, our SVCP students participated in multiple events, the winners were awarded with cash prizes of ₹5000, ₹3000 and ₹2000

THEME : "INDIGENOUS TECHNOLOGIES FOR VIKSIT BHARAT"



OUT REACH ACTIVITIES

WORLD CANCER DAY

II- Pharm.D Students organized a World Cancer Day with the theme "close the care gap" on 05th February 2024 at Erode Cancer Center, Erode.



PUBLICATIONS

- ★ Sharmila Nirojini P, Kanaga K, Devika S, Pradeep P, Exploring the impact of Artificial Intelligence on Patient Care : A Comprehensive Review of Healthcare Advancements. Sch Acad J Pharm, 2024 FEB 13(2): 67-81.
- ★ Shangavi V, Kalpitha Mirinali V.B., Kowsalya V., Krithika K., Lavanya S., and Madhumitha V. A Review on Pericarditis. International journal of pharmacy and pharmaceutical research. 2023: 29(1):88-96.
- ★ Prathap, Kalpitha Mirinali V.B., Kowsalya V., Krithika K., Lavanya S., and Madhumitha V. An overview of carpal tunnel syndrome's characteristics and impacts. World Journal of Pharmacy and Pharmaceutical Science. 2024;13(1):219-231.
- ★ Vangiliappan K, Raju N, Rajan RJ, Kartik NS. Cerebral Mucormycosis: Navigating Fungal Intrusion, Immune Challenges and Vascular Consequences: A Multifaceted Case Report. Indian J Pharmacy Practice. 2024;17(1):78-82.
- ★ Redlin Jani Rajan, Dhivyaprasath Palaniappan. Chronopharmacology in cancer treatment: Optimizing drug timing for improved efficacy and reduced toxicity. Open Access Research Journal of Biology and Pharmacy. 2024; 10(2).001-012.
- ★ P. Dhivyaprasath, Divya R. P , Sneha B, Narmadha S, Aswini Suresh and Jensilin Devakumari T. Exploring Pyeloureteritis Cystica: A Captivating Case Study. World Journal of Pharmacy And Pharmaceutical Sciences. 2024 April. 13(4).1713-1716.
- ★ Redlin Jani Rajan, Neesha Solanky Kartik, Narmadha Udhayakumaran, Manisha Bheema, Ramya Arulmurugan, Prathap Arumugam* Assessment of Pre- and post- Operative Quality of life in Geniratric Patients Undergoing Arthroplasty for Osteoarthritis in a Rural Area: A Pilot study. Indian Journal of Pharmacy Practice. 2024;17(2):133-139.



Book Post

Please send your suggestions to The Chief Editor

CLINICAL PHARMA PRACTICE NEWSLETTER

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