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Tirupati, AP, INDIA.

Editorial

Overview of Human Metapneumovirus (hMPV) and Awareness for Prevention

Dr. P Thanay Kumar

Human metapneumovirus (hMPV) is a significant respiratory pathogen that causes illnesses similar to the flu and respiratory syncytial virus (RSV). It belongs to the Paramyxoviridae family and was first identified in 2001. The virus primarily affects young children, elderly individuals, and immunocompromised patients, leading to mild to severe respiratory infections. hMPV is transmitted through respiratory droplets, direct contact with infected individuals, and contaminated surfaces. The virus is known to circulate seasonally, often peaking in late winter and early spring, similar to other respiratory viruses like influenza and RSV [1]. Symptoms of hMPV infection can range from mild to severe. Most individuals experience cold-like symptoms, including cough, nasal congestion, sore throat, fever, and shortness of breath. In more severe cases, especially in infants, elderly patients, and those with underlying lung conditions, the virus can lead to bronchiolitis, pneumonia, and exacerbation of chronic lung diseases such as asthma and chronic obstructive pulmonary disease (COPD). Immunocompromised patients are at a higher risk of severe illness, which may require hospitalization [2].

The diagnosis of hMPV is typically confirmed using molecular diagnostic techniques such as polymerase chain reaction (PCR) tests and antigen detection assays. However, since symptoms overlap with other viral respiratory infections, hMPV is often underdiagnosed or misdiagnosed as the flu or RSV cases may require oxygen therapy. Unlike bacterial infections, hMPV does not respond to antibiotics, making symptomatic management the mainstay of treatment [3]. Patients are advised to rest, stay hydrated, and take over-the-counter medications to reduce fever and alleviate symptoms. Severe Contribution to Knowledge mechanical ventilation, or antiviral treatment in research settings.

Epidemiology and Recent Trends

Recent studies highlight an increase in hMPV infections, particularly in pediatric populations. In India, a notable outbreak between November 2022 and March 2023 revealed the emergence of novel hMPV lineages (A2.2.1 and A2.2.2), indicating genetic evolution and the need for vigilant surveillance. Similarly, a 2023 study in Spain documented a surge in hMPV cases during the COVID-19 pandemic, with more severe symptoms and higher intensive care admissions. Despite being a well-known respiratory pathogen, hMPV has gained attention recently due to a surge in cases globally, including in India and China. In India, recent cases have been reported in Karnataka and Gujarat, affecting both children and adults. The ICMR has been actively monitoring the virus, ensuring early detection and public health measures.

Prevention and Awareness Strategies

1. Hand Hygiene and Respiratory Etiquette: Frequent handwashing, avoiding touching the face, and proper respiratory hygiene (covering mouth and nose when coughing or sneezing) can limit virus transmission.
2. Surveillance and Early Detection: Increased molecular diagnostics and epidemiological studies are crucial for identifying outbreaks and new viral strains.
3. Protecting High-Risk Groups: Immunocompromised individuals, young children, and the elderly should minimize exposure, especially during peak transmission seasons.
4. Public Awareness Campaigns: Educational programs emphasizing preventive measures, symptoms, and when to seek medical attention can reduce disease burden

Vision

To emerge as one of the premier pharmacy colleges in the country and produce pharmacy professionals of global standards.

Mission

1. To deliver quality academic programs in Pharmacy and empower the students to meet Industrial Standards.
2. To build student community with high ethical standards to undertake R&D in thrust areas of national and international needs.
3. To extend viable outreach programs for the health care needs of the society.
4. To develop industry institute interaction and foster entrepreneurial spirit among graduates.

Standard Practice

Drug Information Center
Drug Formulary Management
ADR Reporting
Patient Counseling
Drug Information Resources
Prescription Audit
Medication Error Reporting
Antimicrobial Stewardship
Journal Club Activities

Growth of Digital Therapeutics and At-Home Diagnostics

Dr. B Jyothi

Introduction

The integration of digital health technologies in modern healthcare has led to significant advancements in medical diagnostics and therapeutics. Digital therapeutics (DTx) and at-home diagnostics are among the fastest-growing segments, contributing to patient-centric healthcare solutions. These innovations are transforming disease management, patient engagement, and healthcare accessibility while reducing costs and hospital visits. This article explores the current trends, technological advancements, challenges, and future implications of digital therapeutics and at-home diagnostics.

Digital Therapeutics: Definition and Scope

Digital therapeutics (DTx) refer to evidence-based, clinically validated software-driven interventions designed to prevent, manage, or treat medical conditions. Unlike traditional pharmaceuticals, DTx leverage software applications, artificial intelligence (AI), and machine learning (ML) to deliver personalized therapies. These interventions are regulated by health authorities, such as the U.S. Food and Drug Administration (FDA), ensuring their safety and efficacy.

The global digital therapeutics market was valued at $4.4 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 29.1%, reaching $21.9 billion by 2028. This rapid expansion is driven by the rising prevalence of chronic diseases, increasing adoption of smartphones, and advancements in AI and data analytics.

Applications of Digital Therapeutics

1. Chronic Disease Management: DTx is widely used in managing conditions such as diabetes, hypertension, and cardiovascular diseases. Apps like Omada Health and Welldoc's BlueStar provide real-time monitoring and personalized feedback for diabetes management.
2. Mental Health Support: Cognitive-behavioral therapy (CBT)-based digital interventions such as Woebot and SilverCloud aid in managing depression, anxiety, and post-traumatic stress disorder (PTSD).
3. Neurological Disorders: Digital therapeutics assist in treating neurological conditions like epilepsy and Parkinson's disease through non-invasive, algorithm-based solutions.
4. Substance Abuse Treatment: FDA-approved reSET and reSET-O digital therapies support individuals recovering from substance use disorders by providing tailored behavioral interventions.
5. Physical Rehabilitation: Wearable-integrated digital therapeutics assist in musculoskeletal rehabilitation by tracking movement and providing real-time feedback.

At-Home Diagnostics: Definition and Scope

At-home diagnostics refer to medical tests that can be conducted outside of clinical settings, providing patients with real-time health insights. These include self-administered tests for infectious diseases, metabolic conditions, and genetic predispositions. The demand for at-home diagnostics surged during the COVID-19 pandemic, as self-testing became essential for controlling virus spread.

Advancements in At-Home Diagnostics

1. Wearable Technology: Smartwatches and fitness trackers, such as Apple Watch and Fitbit, monitor heart rate, oxygen saturation, and sleep patterns, aiding early disease detection.
2. Point-of-Care Testing (POCT): Portable diagnostic kits for glucose monitoring, cholesterol levels, and infectious diseases provide immediate results without requiring laboratory visits.
3. AI-Driven Diagnostic Tools: Machine learning algorithms enhance the accuracy of at-home diagnostics by analyzing patient data and providing predictive insights.
4. Genetic Testing: Companies like 23andMe and AncestryDNA offer at-home DNA tests, helping individuals assess genetic risks for diseases.
5. Telemedicine Integration: At-home diagnostics seamlessly integrate with telehealth platforms, enabling remote consultations and data sharing with healthcare professionals.

Challenges and Limitations

Despite the benefits, several challenges hinder the widespread adoption of digital therapeutics and at-home diagnostics:

1. Regulatory Hurdles: The approval process for digital therapeutics and diagnostic devices remains complex, requiring rigorous clinical validation.
2. Data Privacy Concerns: With increasing reliance on digital platforms, ensuring data security and patient confidentiality is paramount.
3. Digital Literacy and Accessibility: A digital divide exists, limiting access to DTx and at-home diagnostics among elderly populations and low-income communities.
4. Reimbursement and Insurance Coverage: Many digital health solutions lack reimbursement policies, making them less accessible to patients.
5. Reliability and Accuracy: At-home tests require high precision to ensure diagnostic accuracy and prevent misinterpretation of results.

Future Prospects and Innovations

The future of digital therapeutics and at-home diagnostics lies in integrating cutting-edge technologies such as:

1. Artificial Intelligence and Machine Learning: AI-driven algorithms will enhance diagnostic accuracy and therapeutic personalization.
2. Blockchain for Data Security: Implementing blockchain technology can improve patient data security and interoperability.

3. Advanced Biomarker Detection: Next-generation biosensors will enable real-time, multi-parameter health monitoring.
4. Expansion of Telemedicine Ecosystems: Seamless connectivity between at-home diagnostics and virtual care will enhance patient engagement.
5. Increased Investment and Collaborations: Pharmaceutical and technology companies are investing in digital health startups, driving innovation and market growth.

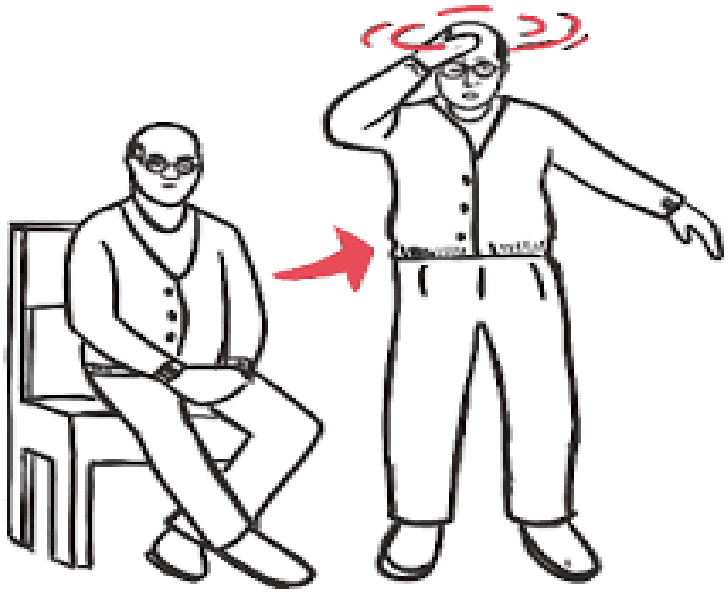
Conclusion

Digital therapeutics and at-home diagnostics are revolutionizing healthcare by making medical interventions more accessible, personalized, and cost-effective. While challenges remain, technological advancements, regulatory frameworks, and increased adoption are propelling these fields forward. As healthcare shifts towards a digital-first approach, DTx and at-home diagnostics will play a crucial role in improving patient outcomes and reshaping the future of medicine.

ORTHOSTATIC HYPOTENSION

Miss. Jalli Hemalatha
Pharm D Pre-Intern

In the older population, especially the hospitalized patients who are prone to dehydration and hypovolemia, orthostatic hypotension (OH) presents as a debilitating disease. In the winter, orthostatic hypotension is a serious risk, especially for elderly people with underlying medical issues. A comprehensive management plan for OH should be individualized, taking into account the patient's underlying medical conditions, medications, and lifestyle factors.



INTRODUCTION

Orthostatic hypotension refers to a drop in blood pressure that occurs when you stand up from a sitting or lying position. It may be acute or chronic. This sudden decrease in blood pressure can lead to dizziness, lightheadedness, or even fainting. It happens because your body doesn't adjust quickly enough to maintain blood flow and blood pressure when changing positions. When compared to blood pressure from the sitting or supine posture, orthostatic hypotension is defined as a drop of 20 mm Hg in the systolic blood pressure or a drop of 10 mm Hg in the diastolic blood pressure within three minutes after standing. It is caused by an insufficient physiological reaction to blood pressure fluctuations brought on by posture.

The number for orthostatic hypotension is not fixed. Orthostatic hypotension is defined by medical professionals based on a patient's blood pressure and how low it drops when they stand up. If your blood pressure decreases by more than 20 millimeters of mercury in the systolic pressure or 10 millimeters of mercury in the diastolic pressure within three minutes of standing up, you have orthostatic hypotension.

CAUSES

When standing from a sitting or lying position, gravity causes blood to collect in the legs and belly. Blood pressure drops because there's less blood flowing back to the heart Usually, special cells (baroreceptors) near the heart and neck arteries sense this lower blood pressure. The baroreceptors send signals to the brain. This tells the heart to beat faster and pump more blood, which evens out blood pressure. These cells also narrow the blood vessels and increase blood pressure.

Orthostatic hypotension can have a variety of causes, ranging from lifestyle factors to underlying medical conditions. Some common causes include:

1. **Dehydration:** When the body doesn't have enough fluids, blood volume decreases, which can lead to a drop in blood pressure when standing up.
2. **Heart problems**: Conditions like heart failure, heart attack, or arrhythmias (abnormal heart rhythms) can lead to poor blood flow, causing drops in blood pressure upon standing.
3. **Endocrine problems**: Disorders like hypothyroidism, adrenaline insufficiency (Addison's disease), or low blood sugar (hypoglycemia) can contribute to orthostatic hypotension.
4. **Nervous system disorders:** Certain conditions, such as Parkinson's disease, multiple system atrophy, or diabetic neuropathy, can affect the body's ability to regulate blood pressure, leading to orthostatic hypotension.
5. **Prolonged bed rest or immobility**: Being inactive for extended periods, such as after surgery or illness, can weaken the cardiovascular system and make it harder for the body to adjust to changes in posture.
6. **Aging:** As people age, the ability of blood vessels to constrict and regulate blood pressure can diminish, increasing the risk of orthostatic hypotension.

7. **Blood loss**: Losing a significant amount of blood (due to injury, surgery, or internal bleeding) can lead to low blood volume, contributing to orthostatic hypotension.
8. **Alcohol:** Drinking alcohol can dilate blood vessels and lower blood pressure, increasing the risk of orthostatic hypotension.
9. **Postprandial hypotension:** A drop in blood pressure that occurs after eating, particularly large meals, as blood is redirected to the digestive system.

RISK FACTORS

The risk factors for orthostatic hypotension include:

- **Age:** Orthostatic hypotension is common in those who are age 65 and older. Special cells (baroreceptors) near the heart and neck arteries that control blood pressure can slow as you age. It also can be harder for an aging heart to speed up to make up for drops in blood pressure.
- **Medications:** These include medications used to treat high blood pressure or heart disease, such as diuretics, alpha blockers, beta blockers, calcium channel blockers, angiotensin-converting enzyme (ACE) inhibitors and nitrates.
- **Other medications:** can increase the risk of orthostatic hypotension include medications used to treat Parkinson's disease, certain antidepressants, certain antipsychotics, muscle relaxants, medications to treat erectile dysfunction and narcotics.
- **Certain diseases**: Diseases that can increase the risk of low blood pressure include some heart conditions, such as heart valve problems, heart attack and heart failure. They also include certain nervous system disorders, such as Parkinson's disease. And they include diseases that cause nerve damage (neuropathy), such as diabetes.
- **Heat exposure**: Being in a hot environment can cause heavy sweating and possibly dehydration, which can lower blood pressure and trigger orthostatic hypotension.
- **Bed rest :** Staying in bed for a long time because of an illness or injury can cause weakness. This can lead to orthostatic hypotension.
- **Alcohol**: Drinking alcohol can increase the risk of orthostatic hypotension.

COMPLICATIONS

Persistent orthostatic hypotension can cause serious complications, especially in older adults. These include:

1. **Falls:** Falling as a result of fainting is a common complication in people with orthostatic hypotension.
2. **Stroke:** The swings in blood pressure from standing and sitting as a result of orthostatic hypotension can be a risk factor for stroke due to the reduced blood supply to the brain.
3. **Cardiovascular diseases:** Orthostatic hypotension can be a risk factor for cardiovascular diseases and complications, such as chest pain, heart failure or heart rhythm problems.

DIAGNOSIS

The diagnosis of orthostatic hypotension (OH) involves measuring blood pressure in different positions. Key steps include:

- Initial Assessment: Measure blood pressure after the patient rests supine for 5 minutes.
- Postural Changes: After standing for 2-5 minutes, measure blood pressure again. A drop of at least 20 mmHg systolic or 10 mmHg diastolic confirms OH.
- Symptom Correlation: Symptoms like dizziness or syncope should be assessed in relation to posture changes.
- Additional Tests: Tilt-table testing may be used for complex cases or to identify delayed responses.

TREATMENT

Pharmacological treatment:

- Fludrocortisone: (0.1mg) which is a synthetic mineralocorticoid, is considered first-line therapy for the treatment of orthostatic hypotension.
- Midodrine: (2.5mg) A peripheral selective alpha-1-adrenergic agonist, significantly increases standing systolic blood pressure and improves symptoms in patients with neurogenic orthostatic hypotension
- Pyridostigmine (Mestinon): (60mg) Pyridostigmine is a cholinesterase inhibitor that improves neurotransmission at acetylcholine-mediated neurons of the autonomic nervous system.

Non-pharmacological treatments

1. Fluid and Salt Intake: Increasing fluid intake and dietary salt can help expand blood volume and improve blood pressure.
2. Compression Garments: Elastic stockings or abdominal binders may help improve venous return and reduce blood pooling in the lower extremities.
3. Positioning: Patients should be advised to rise slowly from a seated or lying position to minimize symptoms.
4. Compression stockings: Wear compression stockings to improve blood flow and reduce venous pooling.
5. Elevated head of bed: Elevate the head of your bed by 4-6 inches to reduce nocturnal polyuria and improve blood pressure regulation.
6. Physical countermeasures: Use physical countermeasures like leg crossing, squatting, or toe raises to increase blood pressure.
7. Avoid prolonged standing: Avoid prolonged standing or sitting, and take regular breaks to move around.

Lifestyle Modifications

- Drink at least 8-10 glasses of water per day to stay hydrated.
- Consume foods rich in electrolytes like sodium, potassium, and calcium.
- Engage in regular physical activity, such as walking, swimming, or yoga, to improve circulation and blood pressure regulation
- Avoid dehydration by avoiding excessive sweating, sauna use, and hot tubs.
- Eat smaller, more frequent meals to avoid postprandial hypotension.

Advances in Pharmacogenomics: The Impact of Genetic Testing on Personalized Drug Therapy Optimization

Miss. Lalini Deva
Pharm D IV Year

Introduction

Pharmacogenomics is a rapidly growing interdisciplinary field that combines pharmacology and genomics to optimize drug therapy based on the genetic makeup of individual patients. This approach is grounded in the idea that genetic differences among individuals play a significant role in determining how drugs are absorbed, metabolized, and eliminated, ultimately affecting their therapeutic efficacy and safety.

By analyzing genetic variations, pharmacogenomics aims to create more personalized treatment strategies that improve drug response, enhance therapeutic outcomes, and reduce the risk of adverse drug reactions (ADRs). As the understanding of genetic influences on drug response deepens, this field has the potential to revolutionize healthcare by moving beyond the traditional "one-size-fits-all" approach to a more individualized model of patient care.

As pharmacogenomics continues to evolve, its applications are becoming increasingly diverse. Technological advancements, such as next-generation sequencing (NGS) and bioinformatics tools, have accelerated the discovery of genetic markers linked to drug responses, making genetic testing more accessible and cost-effective. Moreover, the integration of pharmacogenomic data into clinical practice through electronic health records (EHRs) allows for real-time decision-making, ensuring that drug therapies are tailored to an individual's genetic profile. However, despite its potential, the field faces several challenges, including ethical concerns, regulatory hurdles, and the need for standardized clinical guidelines.

Emerging Technologies in Pharmacogenomics

The field of pharmacogenomics has been greatly enhanced by recent technological advancements, which have not only made genetic testing more precise but also more accessible for routine use in clinical settings.

One of the most significant developments has been the introduction of next-generation sequencing (NGS), which has drastically accelerated the discovery of genetic variations that influence drug responses. NGS allows for the comprehensive and high-throughput analysis of genetic information, enabling researchers and clinicians to identify complex drug-gene interactions more efficiently than ever before. Furthermore, the integration of artificial intelligence (AI) into pharmacogenomics has improved the ability to process and analyze vast amounts of genomic data.

AI algorithms can predict how genetic variations may affect drug efficacy, helping clinicians select the most appropriate therapy for individual patients. The use of these advanced tools has streamlined the process of genetic testing, making it quicker, more accurate, and cost-effective. As a result, pharmacogenomics is increasingly being incorporated into clinical decision-making, offering personalized treatment recommendations based on genetic information.

These advancements pave the way for the widespread adoption of pharmacogenomics In everyday healthcare, ensuring that genetic considerations are integrated into patient care [6,7].

Challenges in Implementing Pharmacogenomics

Despite its potential, the adoption of pharmacogenomics in clinical practice faces several barriers. Ethical issues, such as patient privacy, informed consent, and genetic discrimination, remain significant concerns. Financial constraints, including the high cost of genetic testing and limited insurance coverage, hinder widespread use. Moreover, healthcare systems face challenges in integrating pharmacogenomics, primarily due to the lack of clinician training and standardized guidelines. [8,9]

Future Perspectives

The future of pharmacogenomics lies in expanding its application beyond specialized areas like oncology to include primary and preventive care. Developing global pharmacogenomic databases will enable researchers to explore genetic variations across diverse populations and enhance drug development. Furthermore, integrating pharmacogenomics into electronic health records and clinical decision-making tools will promote its routine use in healthcare. As technology evolves, pharmacogenomics is poised to transform personalized medicine into a standard practice. [10,11]

Conclusion

Pharmacogenomics has revolutionized drug therapy by aligning treatment with genetic profiles, offering the potential to improve therapeutic outcomes and minimize adverse drug reactions. Although challenges remain, advancements in genetic testing technologies and global collaborations are paving the way for integrating pharmacogenomics into everyday clinical practice. This promising field has the potential to redefine precision medicine, ultimately improving patient care and treatment outcomes.

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Nafithromycin: A Next-Generation Ketolide Antibiotic for Community-Acquired Pneumonia

Miss. Harini K
Pharm. D. Intern

Introduction

Community-acquired pneumonia (CAP) is a common yet serious respiratory infection that occurs outside of hospital settings and affects millions worldwide. It is caused by various bacterial and atypical pathogens, leading to lung inflammation, fever, cough, and breathing difficulties. If left untreated, CAP can result in severe complications, including respiratory failure and sepsis.

Challenges in CAP Treatment and the Need for New Antibiotics

Rising antibiotic resistance among common CAP pathogens, such as Streptococcus pneumoniae and Haemophilus influenza, has significantly reduced the effectiveness of traditional macrolide antibiotics like azithromycin and clarithromycin. This growing resistance highlights the urgent need for novel antibiotics with enhanced efficacy and a broader spectrum of activity.

Nafithromycin: A Next-Generation Solution for CAP

Nafithromycin, a newly developed ketolide antibiotic, is emerging as a promising alternative for treating CAP. It is specifically designed to overcome macrolide resistance while maintaining potent activity against both typical and atypical respiratory pathogens, such as Mycoplasma pneumoniae and Chlamydophila pneumonia.

Drug description

Generic Name: Nafithromycin
Brand Name: Miqnaf
Drug Class: Ketolide Antibiotic
Dosage Form: Oral Tablets (150 mg, 300 mg)
Route of Administration: Oral
Manufacturer: Wockhardt Ltd.
Approval Date: Pending final CDSCO approval
Indications: Community-Acquired Bacterial Pneumonia (CABP)

Indications and usage: Nafithromycin (Miqnaf) is indicated for the treatment of mild to moderate community-acquired bacterial pneumonia (CABP) caused by susceptible Gram-positive and Gram-negative bacteria, including Streptococcus pneumoniae, Haemophilus influenzae, Mycoplasma pneumoniae, Chlamydophila pneumoniae.

Dosage and administration

Recommended Dose: 600 mg once daily for 3 days (either as two 300 mg tablets or four 150 mg tablets).

Administration:

- Can be taken with or without food.
- Swallow tablets whole with water; do not crush or chew.

Dosage forms and strengths

- 150 mg film-coated tablets
- 300 mg film-coated tablets

Contraindications

- Hypersensitivity to nafithromycin, macrolides, or ketolides.
- Severe hepatic impairment (Child-Pugh Class C).
- History of QT prolongation or ventricular arrhythmias.

Pharmacokinetics of Nafithromycin

Nafithromycin exhibits favorable pharmacokinetic properties, making it a potent and effective treatment for community-acquired pneumonia (CAP). Its high oral bioavailability, extensive tissue penetration, and prolonged half-life contribute to its efficacy with a short-course regimen.

1. Absorption

Nafithromycin is rapidly absorbed after oral administration, with a high bioavailability (>80%). Peak plasma concentrations (Cmax) are reached within 2 to 3 hours post-administration. Unlike many macrolides, food intake does not significantly affect its absorption, making it convenient for patients.

2. Distribution

Nafithromycin exhibits extensive tissue penetration, particularly into lung tissues, epithelial lining fluid (ELF), and alveolar macrophages which are key sites for treating respiratory infections. Its high intracellular concentration in lung tissues ensures effective bacterial eradication, including macrolide-resistant pathogens. The drug demonstrates a large volume of distribution (Vd ~300-400 L), indicating extensive tissue uptake.

3. Metabolism

Nafithromycin undergoes hepatic metabolism, primarily via the cytochrome P450 (CYP3A4) enzyme system. However, it has a minimal inhibitory effect on CYP3A4, reducing the risk of significant drug-drug interactions compared to other macrolides. Its metabolism produces inactive metabolites, which do not contribute to antimicrobial activity.

4. Elimination

The primary route of elimination is via the feces (~80%), with minimal renal excretion (~5-10%). This makes Nafithromycin a suitable option for patients with renal impairment, as dose adjustments are not typically required in mild to moderate kidney dysfunction. The drug has a long elimination half-life (~15-20 hours), allowing for once-daily dosing and a short treatment duration (3 days).

5. Pharmacokinetic Advantages Over Macrolides

- Higher tissue penetration, leading to improved bacterial eradication.
- Prolonged half-life, allowing for a shorter and more convenient dosing regimen.
- Minimal drug interactions, making it safer in patients on multiple medications.
- Low renal excretion, reducing concerns for nephrotoxicity.

WARNINGS AND PRECAUTIONS

Hepatotoxicity

- Cases of mild, transient elevations in liver enzymes have been reported.
- Monitor AST, ALT, and bilirubin in patients with existing liver disease.

QT Interval Prolongation

- Avoid in patients with existing QT prolongation.
- Use cautiously with other QT-prolonging drugs.

Five-Day Faculty Development Program on Rise of Digital Pharmacy: Transforming Education & Patient Care Concludes Successfully

On

The Department of Pharmacy Practice at Seven Hills College of Pharmacy (Autonomous), in collaboration with Jawaharlal Nehru Technological University Anantapur (JNTUA), successfully organised a five-day Faculty Development Program (FDP) titled Rise of Digital Pharmacy: Transforming Education & Patient Care from November 25th to 29th, 2025.

This FDP, which received ₹80,000 in funding from JNTUA, aimed to equip faculty members with the latest tools and insights into the integration of digital technologies within pharmacy education and patient care. With topics covering digital platforms for patient consultation, the role of artificial intelligence in pharmaceutical services, and telemedicine in education, the program attracted active participation from faculty members across various institutions.

Professor Dr. B. Jyothi, an esteemed faculty member from Seven Hills College of Pharmacy, led the programme. Under her guidance, the event provided an in-depth understanding of the digital revolution in pharmacy practice, inspiring faculty to implement these tools in their teaching methods and patient care practices.

The FDP served as a platform for fostering collaboration among pharmacy educators and will undoubtedly contribute to the growth of digital pharmacy in the region.

Report on 63rd National Pharmacy Week Celebrations at SHCP

The 63rd National Pharmacy Week (NPW) was celebrated from 17th to 23rd November 2024 under the theme "Think Health, Think Pharmacy." This week-long celebration highlighted the vital role of pharmacy in promoting health and patient care. Various institutions across the country, including colleges and universities, organised events like essay competitions, quizzes, elocution contests, and health camps. The theme emphasised the importance of pharmacists in improving healthcare outcomes and fostering public awareness. The celebrations encouraged participation from students and faculty to engage in discussions, activities, and initiatives that showcased the contributions of pharmacy professionals to society. These events underscored the significant role of pharmacists in transforming healthcare and the pharmaceutical field's evolution in addressing global health challenges.

Personality Development Programme on Mastering Your Mind: Strategies for Focus and Control

The Personality Development Programme on "Mastering Your Mind: Strategies for Focus and Control" was conducted on 24th October 2024 at the Prof. K. Chinnaswamy Auditorium, SHCP Campus. The event aimed at equipping participants with valuable tools for improving mental clarity, emotional control, and enhancing personal growth.

The Chief Guest for the event was Swamy Srinivasananda Saraswati Ji from Anandhashrama, Krishnapuram, Srikakulam District. His insightful speech on the power of mindfulness and spiritual discipline highlighted the importance of mental mastery in day-to-day life.

The event also featured two distinguished Guests of Honour: Sri Sri Dayananda Datta Swamiji, from Dattapeetam, Mangalagiri, Andhra Pradesh, and Sri Venkata Dattananda Swamiji from Uttarandhra & Tirumala Tirupati Devasthanam, Andhra Pradesh. Both shared their wisdom on leadership and focus, offering invaluable perspectives on maintaining balance and composure in challenging situations.

The programme included various interactive sessions designed to help attendees develop better focus, discipline, and emotional intelligence, thus helping them excel in both their professional and personal lives.

Graduation Day Celebrations – 2024

The Graduation Day Ceremony for the Pharm.D (2018 admitted batch) at Seven Hills College of Pharmacy (Autonomous), Tirupati, was a momentous occasion filled with pride and achievement.

The event was graced by Dr. K. Umamaheswara Rao, Professor & HoD, Department of Pharmacology, SPMCW-SVIMS, Tirupati, as the Chief Guest. His inspiring speech emphasized the importance of professionalism, dedication, and lifelong learning in pharmacy practice.

Dr. B. Dinaker Babu, Chairman of Sri Vedanrayana Institutions, Puttur, served as the Guest of Honor. He encouraged graduates to uphold ethical values in healthcare and contribute meaningfully to society.

The highlight of the ceremony was the Distribution of Graduation Certificates, marking the culmination of years of hard work and perseverance. The Smt. Mudduluru Jayalakshmi Memorial Awards were presented to outstanding graduates in recognition of academic excellence and contributions to the field of pharmacy.

The event concluded with Cultural Activities, where students showcased their talents, adding a celebratory touch to the occasion. The ceremony was a resounding success, leaving graduates motivated to embark on their professional journey.

The Department of Pharmaceutics, in collaboration with the Research & Development Cell and Institution's Innovation Cell (IIC) of Seven Hills College of Pharmacy (SHCP), successfully organized a Two-Day National Workshop on "Research Presentation Skills" from December 26 to December 27, 2024, at the Prof. K. Chinnaswamy Auditorium, SHCP Campus.

The workshop aimed to enhance the research communication abilities of students, scholars, and faculty members by providing expert guidance on effective research presentation techniques, scientific writing, and public speaking skills. The sessions covered key aspects such as structuring research presentations, designing impactful slides, engaging the audience, and handling Q&A sessions confidently.

Renowned academicians and industry experts delivered insightful lectures, interactive sessions, and hands-on training. Participants actively engaged in practical exercises, including mock presentations and peer feedback, which significantly improved their confidence and presentation style.

The workshop witnessed enthusiastic participation from students and faculty across various institutions, fostering a collaborative learning environment. The event concluded with a certificate distribution ceremony, recognizing the efforts of participants and resource persons. Overall, the workshop was highly beneficial in equipping attendees with essential skills to effectively communicate their research findings at conferences, seminars, and academic discussions.

Adverse Drug Reaction Reported from October to December 2024

S. No.	Department	Adverse Drug Reactions	Reported by
1.	Neurology	Prednisolone induced hypokalaemia	K Harini
2.	Medical Oncology	Gemcitabine induced abdominal pain & constipation	M Mukunda Priya
3.	Medical Oncology	Paclitaxel induced vomiting and fatigue	M C Sai Harshitha
4.	Medical Oncology	Dasatinib induced pleural effusion	M C Sai Harshitha
5.	Medical Oncology	Vincristine associated myalgia	N Triveni Sanjana
6.	Neurology	Hydrocortisone induced hypokalaemia	K Harini
7.	Medical Oncology	Paclitaxel induced peripheral neuropathy	Preethi
8.	Medical Oncology	Paclitaxel + Carboplatin induced DVT	Preethi
9.	Medical Oncology	Paclitaxel induced myalgia	Preethi
10.	Medical Oncology	Osimertinib induced myalgia	M Mukunda Priya
11.	Medical Oncology	Methotrexate induced hepatotoxicity & AKI	B Dinesh
12.	Endocrinology	methylprednisolone induced avascular of femur & Cushing syndrome	T Shamitha
13.	Neurology	Mefenamic acid induced rashes & blister	K Harini
14.	General Medicine	Acitrom induced oral bleeding	T Shamitha
15.	Neurology	ATT drug induced alternation in liver enzymes	K Harini
16.	Endocrinology	Intra buccal injection triamcinolone induced weight gain and amenorrhea	B Shruthi
17.	Medical Oncology	Rituximab induced neutropenia	Preethi
18.	Medical Oncology	Ifosamide induced pulmonary toxicity	Preethi
19.	Medical Oncology	Vancomycin induced red rashes over body	Preethi
20.	Medical Oncology	Gemcitabine induced nausea and loose stools	Preethi
21.	General Medicine	Apixaban induced haematuria	V Lavyana
22.	General Medicine	Bone merrow suppression induced by carboplatin	V Lavyana
23.	General Medicine	ATT induced allergic reactions	V Sai Sreekar
24.	General Medicine	Metoprolol induced hypotension	T Shamitha
25.	General Medicine	Telmisartan induced hyperkalaemia	T Shamitha
26.	Medical Oncology	Paclitaxel induced hepatic dysfunction	M C Sai Harshitha
27.	Medical Oncology	Dasatinib induced thrombocytopenia	M C Sai Harshitha
28.	OBG	Olanzapine induced sedation	M C Sai Harshitha
29.	Medical Oncology	Paclitaxel induced mucositis	N Triveni Sanjana
30.	Medical Oncology	Paclitaxel induced peripheral neuropathy	N Triveni Sanjana
31.	Medical Oncology	Capecitabine induced hyperpigmented lesions	N Triveni Sanjana
32.	Medical Oncology	Paclitaxel + Carboplatin induced paraesthesia	N Triveni Sanjana
33.	Medical Oncology	Docetaxel induced myalgia	N Triveni Sanjana
34.	Emergency	Empagliflozin induced UTI	Shree Vidhya
35.	Psychiatry	Quetiapine induced oromandibular dyskinesia	T Shamitha
36.	Medical Oncology	Paclitaxel induced myalgia & paraesthesia	M Mukunda Priya
37.	Medical Oncology	Imatinib induced indigestion	M Mukunda Priya
38.	Medical Oncology	Vincristine induced neuropathy	M C Sai Harshitha
39.	Medical Oncology	Steroid induced proximal myopathy	M C Sai Harshitha
40.	Medical Oncology	Imatinib induced myelosuppression	M C Sai Harshitha
41.	Medical Oncology	Paclitaxel induced paraesthesia	M C Sai Harshitha
42.	Neurology	Antiplatelet induced haematuria	K Harini
43.	Medical Oncology	EPOCH regimen induced generalized weakness	Preethi
44.	Medical Oncology	Pemetrexed induced vomiting & LOA	Preethi

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