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Seven Hills College of Pharmacy, Tirupati,
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VISION

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

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M1: To deliver quality academic programs in Pharmacy and empower the students to meet industrial standards.

M2: To build student community with high ethical standards to undertake R&D in thurst areas of national and international standards.

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Study of Utilization of Antimicrobial Agents in Surgical Units at a Tertiary Care Teaching Hospital, Tirupati

Dr S Sirisha

Objectives: The main objective of the study was to determine the prescribing patterns of antimicrobial agents in General Surgery department and to identify the drug related problems.

Study site: Surgical Unit-1 & Surgical Unit-2 in Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupati.

Procedure: A prospective, observational study was conducted to evaluate the utilization of antimicrobial drugs and writings patterns of the prescription conducted in Surgical Unit-1 & Surgical Unit-2 in SVIMS, Tirupati. The study was planned over a 6months period. Ethical clearance was obtained from the Institutional Ethics Committee (IEC) before starting the study. Patients of above 15 years and who are admitted in surgical units were included. Treatment charts without antimicrobial agents (AMAs) and pregnant women were excluded from the study. In this study, a total number of 240 prescriptions were analyzed during the study period which includes 92 male and 148 female patients.

Results: Frequently used antimicrobial agents were Ceftriaxone 50 (12.5%) and Ciprofloxacin 40 (10%) and less frequently used antimicrobial agents were Colistin 03 (0.75%) and Azithromycin 05 (1.25%). Most frequently used Antimicrobial combinations were Amoxicillin + Clavulanic acid 15 (30%) and Cefoperazone + Sulbactum 10 (20%) and less frequently used antimicrobial combination were Imipenum + Cilastatin 03 (6%). Amoxicillin clavulanate was resistant to microorganisms in most of the cases (26.6%).

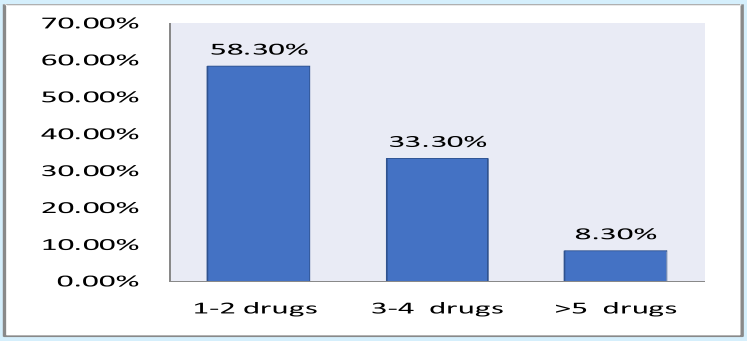

Fig.1.Antimicrobials prescribed in General Surgery department

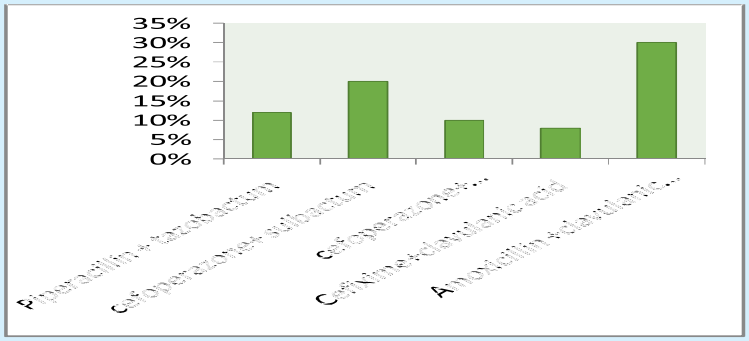

Fig.2.Antimicrobial combinations prescribed in General Surgery department

Conclusion: The study concluded that the utilisation of Antimicrobial agents was rational with the interventions of clinical pharmacist.

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3. Bincy B, B Sajeev K, Padmaja U, V.B. Narayana Swamy et.al., "Comparative Drug Utilization of Antimicrobial Agents in Medical and Respiratory Intensive Care Units of a Tertiary Care Teaching Hospital in South India". Indian Journal of Pharmacy Practice: 2016; 9(2): 123-130.

AWARENESS ABOUT BANNED DRUGS: A REVIEW

R BHAVYA SREE Pham D 5th Year

WHY INDIA STILL SELLING BANNED DRUGS

India has become a dumping ground for banned drugs. The irony is that very few people know about the banned drugs and consume them unaware, causing a lot of damage of themselves. The issue is severe and we must not delay in spreading the warning message to the offenders and innocent people.

MOST OF THE DRUGS BANNED IN OTHER COUNTRIES BUT AVAILABLE IN INDIA:

Drug	Comment
FURAZOLIDONE	Furazolidone is a Nitrofuran antibacterial. It is marketed under the brand name furoxone. Furazolidone has been used to treat diarrhoea and enteritis caused by bacteria or protozoans. It has been used to treat cholera, bacteremic salmonellosis and helicobacter pylori infections. It has many side effects generally, minimum inhibitory concentrations (MIC) also produce systemic toxicity, tremors, convulsions, peripheral neuritis, gastrointestinal disturbance.
CISAPRIDE	Cisapride is a "PROKINETIC AGENT" used for treatment of gastro esophageal reflux disease (GERD). Evidence for its use in constipation is not clear. It has been found to cause cardiac arrhythmias.
PIPERAZINE	Piperazine was first introduced as an anthelmintic and is used in the treatment of worm infections. Side effects: blurring of vision, tingling feeling of the skin, fever, irregular twisting movement, joint pains and itching.
PHENYL PROPANOLAMINE	Phenyl propanolamine is a "PROKINETIC AGENT" that used for treatment of GERD. But it can cause heart stroke and heart attack.
DROPERIDOL	Droperidol is an Antidopaminergic drug used as an antiemetic and antipsychotic. It also often used for sedation in intensive-care treatment. But it causes dysphoria, hypotension resulting from peripheral alpha adrenoreceptor blockade, prolongation of QT interval which can lead to extra pyramidal side effects.

REGULATIONS AND GUIDELINES

Process of banning drug in India is done by DTAB (Drug technical advisory board) which is the final authority on imposing a ban. Drug controller general of India (DCGI) notifies all state drug authorities and manufacturer about ban on the drug.

SUMMARY AND CONCLUSION

Though each country has its own list of banned drugs, it is worrisome that some drugs that are banned in other countries for proven adverse effects are still available in the Indian market. Some of these drugs are available over – the – counter (OTC) and people may take it without realizing the risk. A note of caution on these drugs could help patients in deciding whether they want to take the drug. Unpredictable and unmonitored strength and purity of drugs has risks of addiction, infection, and other side effects. The Central Drugs Standard Control Organization (CDSCO) run by the government of India has to make a strict guideline over the list of drugs that have been banned by European Union and USA.

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1. World Health Organization. WHO expert committee on drug dependence. Sixteenth report (Technical Report series. No 407). Geneva: World Health Organization, 1969.
2. http://www.indianexpress.com/; "All eyes on banned drugs", 2011.
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DRUG PROFILE : ROMOSOZUMAB FOR OSTEOPOROSIS IN POSTMENOPAUSAL WOMEN AT HIGH RISK OF FRACTURE

Dr P Roopika

Approved Date: April 09, 2019
Brand Name: Evenity
Generic name: Romosozumab
Manufacturing Company: AMGEN INC
Dosage Form: Injection
Molecular Formula: $C_{6452}H_{9926}N_{1714}O_{2040}S_{54}$
Molecular Weight: 145.9 kg/mol g·mol−1
Storage: Refrigerate at 2-8°C (36-46°F) in the original carton to protect from light. Do not freeze. Do not shake.

Dosage : Injectable solution
·105mg/1.17mL (single-use prefilled syringe)
Osteoporosis: 210 mg SC qMonth x 12 months
Adequately supplement patient with calcium and vitamin D during treatment.

Indications : To treat osteoporosis in postmenopausal women at high risk of fracture

Mechanism of action: Monoclonal antibody (IgG2) that binds sclerostin, a regulatory factor in bone metabolism. Sclerostin inhibition increases bone formation and, to a lesser extent, decreases bone resorption

Pharmacokinetics:
Absorption: Peak plasma time: 5 days
Peak plasma concentration: 22.2 mcg/mL
Distribution : Vd: ~3.92 L
Metabolism
Not characterized; IgG2 expected to be degraded into small peptides and amino acids via catabolic pathways similar to endogenous IgG
Elimination
Half-life: 12.8 days
Clearance: 0.38 mL/hr/kg

Adverse Drug Reaction: Arthralgia (8.1-13.1%), Headache (5.2-6.6%), Hypersensitivity (6.5%), Injection site reactions (4.9%)

Contraindications : Hypocalcemia; pre existing hypocalcemia must be corrected before initiating
Systemic hypersensitivity (ex- angioedema, erythema multiforme, urticaria)

Pregnancy and Lactation
Not indicated for use in women of reproductive potential

Black Box Warnings
• May increase the risk of MI, stroke, and CV death, • Do not initiate in patients who have had an MI or stroke within the preceding year. • Consider whether the benefits outweigh the risks in patients with other CV risk factors.
• If a patient experiences an MI or stroke during therapy, discontinue drug immediately.

Perfect Clicks

Graduation Day Celebrations of Pharm.D

Campus Placement drive for B.Pharmacy Graduates

A guest lecture on Holistic Approach in Learning Methodology

A guest lecture on Research Hypothesis and Variables

Continuing Education Programme (CEP) inaugurated by honourable chief guest Prof.Chinnaswami garu

Blood donation camp conducted in college campus

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Pharmacist Role In Assessing The Prevalance And Management Of Steroid Induced Decrease In Bone Strength

Dr.Robin George

Background

Steroids are the treatment for many inflammatory, infective, transplant and autoimmune cases, they also exhibit many side effects mainly it contribute the development of osteoporosis and fragility fractures.

The combined effect of higher dose, longer duration and continuous pattern further increased the risk to 7-fold for hip, 17-fold for vertebral fractures, which can be attributed to the deleterious effects of glucocorticoids on Bone Mass Density (BMD).

Objective

To assess the prevalence and determine the efficacy of Calcium and Vitamin D supplementation in the treatment of steroid induced decrease in bone strength.

Methodology

Prospective open label Interventional study conducted at a tertiary care teaching hospital. Patients having minimum medication history of steroid administration for past 3 months were enrolled into the study. DEXA scan is done at the baseline level and after the six month of intervention with Calcium and vitamin D supplementation, the reduction in T score will show the effectiveness of intervention.

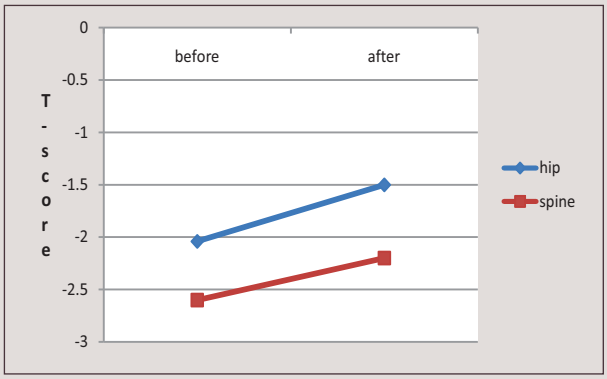
Result

The intervention have transformed many patients from osteoporotic to ostiopenic, followed by osteopenic to risk and risk to normal categories. The mean reduction in T score obtained before and after intervention for the Hip and Spine were 0.5 and 0.4 respectively. This has shown the effectiveness of pharmacist intervention in improving the bone mineral density which was also supported by statistically significant p value by paired student t test.

Table 1: Paired sample t-test T-Score statistics

PAIRED SAMPLE STATISTICS : SPINE						
	MEAN	SD	MEAN DIFFERENCE	D.F	t-VALUE	P-VALUE
BEFORE	-2.6	1.35	0.4	21	-8.75	0.000
AFTER	-2.2	1.28				
PAIRED SAMPLE STATISTICS : HIP						
BEFORE	-2.04	0.96	0.5	21	-6.59	0.000
AFTER	-1.5	0.90				

Figure 1: Improvement in BMD T-score with pharmacist intervention



Conclusion

Even the deteriorating effect of steroids on bone density is well established, there is only little awareness about this effect among the healthcare professionals and patients, and it is not given much concern in the present medical scenario. Our result shows that, the intervention (calcium vitamin D supplementation) done by the clinical pharmacist is producing a significant improvement in the T score and their by reducing the fracture risk

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Nipah Virus-No Treatment, No Vaccine Only Supportive Care

B. Mohana Lakshmi, Pharm D V year

INTRODUCTION

Nipah virus (NiV) is a zoonotic virus i.e., transmitted from animals to humans and can also transmit through contaminated food or directly between people.

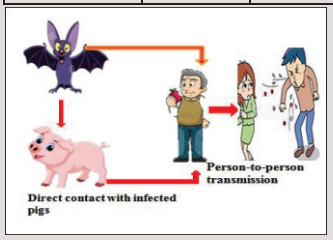
ORIGIN

Fruit bat of the family Pteropodidae – Pteropus genus. There is no appaent disease in fruit bats.The Nipah outbreak in Malaysia 1999 alerted the global public health community to the severe pathogenic potential and widespread distribution of these unique paramyxo viruses.

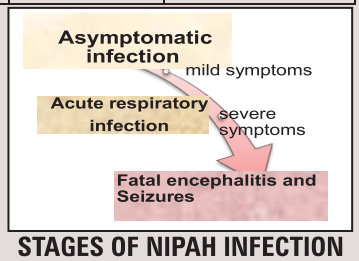
PAST OUT BREAKS IN INDIA

On 19 May,2018 NiV out break reported from Kozhikode district of Kerala, India. This is the first outbreak in South India. There have been 17 deaths and 18 confirmed cases as of 1 June, 2018.

Month/Year	Location	No. of cases	No. of deaths	Case fatality rate
2001	Siliguri	66	45	68%
2007	Nadia	05	05	100%
2018	Kerala	14	12	86%
2019	Kerala	01	-	-



MODES OF TRANSMISSION



STAGES OF NIPAH INFECTION

INCUBATION PERIOD: 14-45 days

DIAGNOSIS

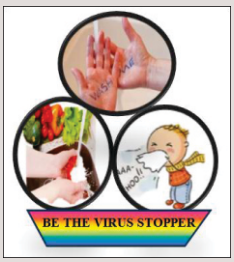
Initial signs and symptoms are non-specific and the diagnosis is often not suspected at the time of presentation.

LABORATORY TESTS

- Real-Time Polymerase Chain Reaction (RT-PCR) from bodily fluids.
- ELISA
- Virus isolation by cell culture.

PREVENTION

In the absence of a vaccine, the only way to prevent infection in people is by raising awareness about the risk factors and educating people about the measures they can take to reduce exposure to the Nipah virus.



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www.who.int/news-room/fact-sheets/detail/nipah-virus

Tafamidis Meglumine to treat Heart Disease (Cardiomyopathy) caused by Transthyretin mediated Amyloidosis (ATTR-CM) in adults

V. Sai Nelatha, Pharm D Internee

Approved Date	:	May 3, 2019
Brand Name	:	VYNDAQEL
Generic name	:	Tafamidis Meglumine
Manufacturing Company	:	Fold Rx Pharmaceuticals
Dosage Form	:	Capsule
Molecular Formula	:	C21H24CI2N2O8
Molecular Weight	:	503.33 g/mol
Storage	:	Store at controlled at room temperature 20°C to 25°C; excursions permitted to 15°C to 30°C

Dosage:

For Cardiomyopathy (ATTR-CM):- Recommended doses 80 mg orally once daily.

Mechanism of action:

- Tafamidis is a selective stabilizer of TTR.
- Tafamidis binds to TTR at the thyroxin binding sites, stabilizing the tetramer and slowing dissociation into monomers, the rate-limiting step in the amyloidogenic process.

Drug Interactions:

Cytochrome P450 Enzymes: Tafamidis induces CYP2B6 & CYP3A4.

UDP:

Glucuronosyltransferase (UGT):

Tafamidis inhibits intestinal activities UGT1A1.

Transporter Systems:

Tafamidis Inhibits breast cancer resistant protein (BCRP).

Indications:

Indicated for the treatment of the Cardiomyopathy of wild type or hereditary Transthyretin mediated amyloidosis (ATTR-CM) in adults.

PHARMACOKINETICS

Absorption

Peak plasma time : 4 hours

Peak plasma concentration:

30.4 ng/mL (2mg/day over 10 days).

Distribution : Vd: ~18.5L

Protein bound : >99%; primarily binds to TTR.

Elimination

Half-life : 49hours

Oral Clearance : 0.263 L/hr.

Drug Accumulation:

The degree of drug accumulation at study state after repeated daily dosing is approximately 2.5 fold greater than that absorbed after a single dose.

Metabolism:

Glucuronidation has been absorbed.

Excrertion:

Feces (~59%; mostly unchanged); Urine (22% ; mostly as glucuronide metabolite), After a single oral dose of tafamidis meglumine 20 mg.

Departmental Activities for May and June 2019

Activities	Patient Counselling	Drug Information services	Adverse Drug Reactions	Medication Errors
Number	1536	44	22	07

Perfect Clicks

NBA Peer Review team visit to the Seven Hills College of Pharmacy

International Yoga Day Celebrations

Establishment of Solar Plant and Open Gym and Fitness centre in College campus