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A Newsletter on

CLINICAL PHARMA PRACTICE

An Update on Clinical Research and Drug Information



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PHARMACIST DESK

WEST NILE FEVER

West Nile fever is a disease caused by West Nile Virus (WNV), which is a flavivirus related to the viruses that cause St. Louis encephalitis, Japanese encephalitis, and yellow fever. West Nile Virus has an extremely broad host range. It replicates in birds, reptiles, amphibians, mammals, mosquitoes and ticks. West Nile Fever is a disease listed in the World Organisation for Animal Health (WOIE) Terrestrial Animal Health Code and must be reported to the WOIE.

First isolated in Uganda in 1937, West Nile Virus was described as the cause of a West Nile fever epidemic in humans in Israel in 1951. The role of mosquitoes in viral transmission was clearly delineated in Egypt in the 1950s. Wild birds were identified as the reservoir of the virus around the same time.

Transmission

Human infection is most often the result of bites from infected mosquitoes (Culex). Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood for a few days. The virus eventually gets into the mosquito's salivary glands. During later blood meals (when mosquitoes bite), the virus may be injected into humans and animals, where it can multiply and possibly cause illness.

Signs and Symptoms

Fever, headache, tiredness and body aches, nausea, vomiting, occasionally with a skin rash (on the trunk of the body) and swollen lymph glands, neck

stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis

Diagnosis

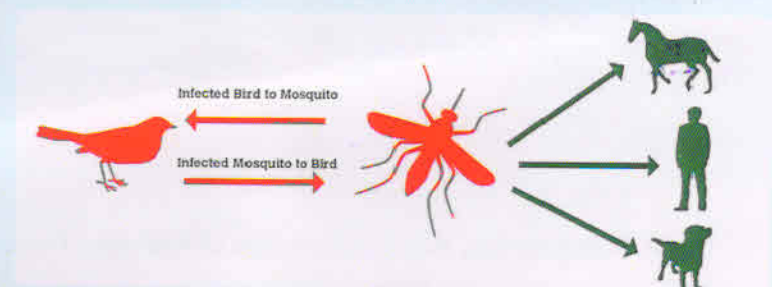
ELISA (IgG and IgM), RT-PCR, CSF, CBC

Treatment and Vaccine

Treatment is supportive for patients with neuro-invasive West Nile Virus, often involving hospitalization, intravenous fluids, respiratory support, and prevention of secondary infections. Over-the-counter pain relievers can be used to reduce fever and relieve some symptoms. Vaccines are available for use in horses but not yet available for humans.

Reducing The Risk of Infection In People

- ❖ Reducing the risk of mosquito transmission. Efforts to prevent transmission should first focus on personal and community protection against mosquito bites through the use of mosquito nets, personal insect repellent, by wearing light coloured clothing (long-sleeved shirts and trousers) and by avoiding outdoor activity at peak biting times.
- ❖ Reducing the risk of animal-to-human transmission. Gloves and other protective clothing should be worn while handling sick animals or their tissues, and during slaughtering and culling procedures.
- ❖ Reducing the risk of transmission through blood transfusion and organ transplant.



CLINICAL RESEARCH

FDA Approves Clinical Trial of Novel Treatment for Fibromyalgia


Fibromyalgia is a debilitating disease that causes substantial pain, chronic fatigue and depression among other symptoms. Patients also incur significant expenses and lost wages. It is a leading cause of disability. There are literally millions of individuals, ranging from paediatric to geriatric ages, who will be candidates to have their fibromyalgia confirmed and then become eligible for this treatment trial.

FDA has given approval for a human clinical trial of BCG (an inexpensive generic vaccine used globally to prevent tuberculosis) to treat fibromyalgia. This trial has the potential to impact the biology of fibromyalgia and now with clinical testing it will be determined over the next four years whether this vaccine has clinical validity as well. The FDA will be looking at indicators to determine if BCG is having a clinical effect with a decrease in pain for fibromyalgia patients and an increase in overall function in the standardized testing for this disease.

Unique immune system, cellular and protein abnormalities are associated with the disease of fibromyalgia. Vaccinations with BCG can activate immune markers which are known to be the same reciprocal defects within the immune systems of people with fibromyalgia.

Mr. S. Anandkumar, Assistant Professor
Ref : www.drugs.com

QUIZ

1. Which of the following antibiotics are known to have bactericidal activity due to its ability to inhibit cell wall synthesis?
 - a. Piperacillin/tazobactam (Zosyn)
 - b. Ciprofloxacin (Cipro)
 - c. Minocycline (Dynacin, Minocin, Solodyn)
 - d. Azithromycin (Zithromax)
2. What can occur if a patient were to continuously use nasal spray topical decongestants for beyond 3-5 days?
 - a. Bradycardia
 - b. Nose bleeds (epistaxis)
 - c. Increased sensitivity to smell
 - d. Rebound congestion
3. Which of following best reflect the mechanism of action of memantine (Namenda) used in the treatment of Alzheimer's disease?
 - a. Inhibitor of acetylcholinesterase enzyme
 - b. Agonist to the D2 receptor in the central nervous system
 - c. Antagonizes the NMDA receptor
 - d. Inhibitor of monoamine oxidase enzyme
4. Which of the following is a long-acting beta-2 receptor agonist (bronchodilator) that can be given by nebulization and as well as a dry powder inhaler (DPI) for the treatment of COPD?
 - a. Formoterol
 - b. Albuterol
 - c. Pulmicort
 - d. Fluticasone
5. Which of the following is a "high-alert" drug meaning, they can cause significant harm when used in error?
 - a. Amiodarone, IV
 - b. Tricalcium phosphate, PO
 - c. Fentanyl, transdermal
 - d. Gabapentin, PO

Answer : Page 4

Dr. M. Rangapriya, Head, Department of Pharmacy Practice
Ref : www.pharmpress.com

RECENTLY APPROVED DRUGS BY CDSCO

S. No.	DRUG NAME	DOSE	DOSAGE	INDICATIONS	APPROVED ON
1.	Dydrogesterone	10mg	Tablet	Luteal support	06-04-2018
2.	Posaconazole	300mg/16.7ml	Injection	Aspergillus and Candida infections	13-04-2018
3.	Apremilast	10mg, 20mg, 30mg	Tablet	Active psoriatic Arthritis	11-05-2018
4.	Tranexamic acid	1000mg	Tablet	Menorrhagia	21-05-2018
5.	Dabrafenib	50mg, 75mg	Capsule	Non-small cell lung cancer	08-06-2018
6.	Trametinib	0.5mg, 2mg	Tablet	Non-small cell lung cancer	08-06-2018
7.	Nilotinib	50mg	Capsule	Philadelphia Chromosome Positive Chronic Myelogenous Leukaemia	22-06-2018

Mrs. T. Kumutha, Assistant Professor,
Ref: www.cdsco.com

NEW DRUG PROFILE

FREMANEZUMAB-VFRM

CATEGORY : Calcitonin gene-related peptide antagonist

MECHANISM OF ACTION : Fremanezumab - vfrm is a humanized monoclonal antibody that binds to calcitonin gene-related peptide (CGRP) ligand and blocks its binding to the receptor.

INDICATIONS : Treatment of migraine in adults

DOSE & DOSAGE : Injection : 225 mg / 1.5 ml solution in a single-dose prefilled syringe. Two subcutaneous dosing options of AJOVY are available to administer the recommended dosage : 225 mg monthly, or 675 mg every 3 months (quarterly)

CONTRAINDICATIONS : Patients with serious hypersensitivity to fremanezumab-vfrm or to any of the excipients.

PRECAUTIONS : Hypersensitivity reactions, including rash, pruritis (itching), drug hypersensitivity, and urticaria (hives).

ADVERSE REACTIONS : Swelling of your face, mouth, tongue, or throat, trouble breathing, injection site reactions and infections.

BRAND NAME : AJOVY

DRUG APPROVED ON : September 14, 2018

MOXETUMOMAB PASUDOTOX

CATEGORY : Antineoplastics, Monoclonal Antibody

MECHANISM OF ACTION : Anti-CD22 recombinant immunotoxin ; after the monoclonal antibody binds to CD22, the molecule is internalized; internalization results in ADP-ribosylation of elongation factor 2, inhibition of protein synthesis, and apoptotic cell death

INDICATIONS : relapsed or refractory hairy cell leukemia (HCL)

DOSE & DOSAGE : For injection : 1 mg lyophilized cake or powder in a single-dose vial for reconstitution and further dilution

PRECAUTIONS :

Renal Toxicity : Monitor for changes in renal function prior to each infusion.

Electrolyte Abnormalities : Monitor serum electrolytes prior to each dose.

ADVERSE REACTIONS : Oedema, nausea, fatigue, headache, pyrexia, constipation, anemia, and diarrhoea, Creatinine increased, ALT increased, hypoalbuminemia, AST increased, hypocalcaemia, and hypophosphataemia.

BRAND NAME : LUMOXITI

DRUG APPROVED ON : September 13, 2018

Mr. Joseph Stalin D, Assistant Professor
Ref: www.cdsco.com

DEPARTMENT ACTIVITIES

Conferences Attended

- ★ IV - Pharm. D students along with 4 M.Pharm students and Faculty of the department actively participated in the World Hepatitis Day Awareness Camp was organised at Government. Elementary School, Kailasampalayam, Tiruchengode on 28th July 2018.
- ★ V - Pharm.D students participated and all the Faculty members of the department actively participated in Refresher course on "Minimising Prescription Errors - Role of Pharmacist" conducted by Cipla Pharmaceuticals Ltd., Mumbai on 2nd August 2018.
- ★ 13 Pharm.D interns along with 02 M.Pharm students and all the Faculty of the department actively participated in the Orientation Programme on "Building Trust & Customer Perception in a Hospital" by Dr. Reddy's Foundation for Health Education on 4th August 2018.
- ★ Dr. M. Rangapriya and Mr. S. Anandkumar actively participated in the guest lecture on "Art of Writing Research Projects" by Dr. K.N. Chidambaramurthy held on 15th September 2018 in Swamy Vivekanandha College of Pharmacy.
- ★ Pharm. D interns along with 04 M.Pharm students and Faculty members of the department actively participated organized the World Pharmacist Day celebration held at Vivekanandha Vidhya Bhavan and made awareness about the Role of Pharmacist in right use of medicines, Menstrual Hygiene, Balanced Diet and Stress Management on 25th September 2018. All the XI and XII Class students in the school were benefitted by the Programme



DIC ACTIVITIES	NUMBER
No. of Patients Counselling	914
Drug Information Queries Answered	34

Answers for Quiz

1. a 2.d 3.c 4.a 5.a



Please send your suggestions to
The Chief Editor

CLINICAL PHARMA PRACTICE NEWSLETTER

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