



US FDA APPROVED DRUGS (APRIL-JUNE 2023)

APPROVAL DATE	DRUG NAME	GENERIC NAME	INDICATION
APRIL 2023	UZEDY	(risperidone)	Schizophrenia in adults
MAY 2023	XACDURO	(sulbactam & durlobactam)	Pneumonia
MAY 2023	PAXLOVID	(nirmatrelvir& ritonavir)	Treatment for COVID-19
MAY 2023	BRIXADI	(buprenorphine)	Opioid use disorder
JUNE 2023	COLUMVI	(glofitamab-gxbm)	Diffuse large B-cell lymphoma

-RAM PRASAD R 4TH PHARM D

INTERESTING MEDICAL FACTS :

- A sneeze generates a wind of 166 km/hrs. (100 min/hrs.), and a cough moves out at a 100 km/ hrs. (60min/hrs.)
- We exercise at least 36 muscles when we smile
- When you blush, your stomach lining also reddens
- There are around 100 receptors in each of our fingertips.
- Nerve impulses travel at over 400 km /hrs.
- Every second, our body produces 25 million new cells.

-PANNEER SELVAM S 4TH PHARM D

OUR ACTIVITIES



Guest lecture on Global Carrier Guidance was conducted by Eazylink Academy, Kerala at Nandha College of Pharmacy on 24.03.2023. Various placements positions and higher study opportunities have discussed in the session.



Our 3rd and 4th Pharm. D students participated in the awareness program on "Pharmacovigilance of ASU and H drugs" at Nandha Siddha Medical College and Hospital on 13.03.2023.

"When u have a drink, you have got to grab it and never let go"

- Carol Burnett

An Exclusive Newsletter from Drug Information Center,
Department of Pharmacy Practice, NANDHA COLLEGE OF PHARMACY,
(B.Pharm - NBA Accredited) Koorapalayam, Erode- 52, Tamilnadu.
Phone: 73737 11224, E-MAIL: dicnandha@gmail.com

**Vol- 12, Issue -2
(April-June 2023)**

Patron : Thiru V.SHANMUGAN, B.Com.,
(Chairman, Sri Nandha Educational Trust)
Editor in chief : Dr. T.SIVAKUMAR, M.Pharm., Ph.D.,
Editorial Board : Dr. S.SENGOTTUVELU, M.Pharm., Ph.D.,
Dr.S.THAMIZHARASI, M.Pharm., Ph.D.,
Dr.T.PRABHA M.Pharm., Ph.D.,
Dr.K.PMOHANRAJ M.Pharm., Ph.D.,
Mr.APOLLOJAMES, M.Pharm.,
Mrs.S.HEMALATHA, M.Pharm.,
Mrs.K.MENAKA, M.Pharm.,
Mrs. T. KUMUTHA, M.Pharm.,
Mrs. PRISCILLA MARY J, Pharm.D
Advisor : Dr.R.DURASAMY M.Pharm., Ph.D.,
Editor : Dr.S.HAJA SHERIEF M.Pharm.,Ph.D.,



IN THE HIGHLIGHTS:

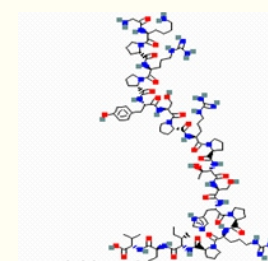
- A Compound from Fruit flies could lead to new Antibiotics
- Patient Selection and Safety Considerations for Multi-Chamber Bag Parenteral Nutrition:
- HIRSCHSPRUNG'S DISEASE
- Medical Facts

A COMPOUND FROM FRUIT FLIES COULD LEAD TO NEW ANTIBIOTICS:

FRUIT FLIES: Drosophila melanogaster is a species of fly in the family Drosophilidae.

The species is often referred to as the fruit fly or lesser fruit fly, or less commonly the "vinegar fly" or "pomace fly".

The natural peptide, called drosocin, protects fruit flies from bacterial infections by binding to ribosomes in bacteria. Once bound, drosocin prevents the ribosome from making new proteins



- Scientists at the University of Illinois Chicago have found that a peptide from fruit flies could lead to new antibiotics.
- The UIC lab, which is co-run by Mankin and Nora Vázquez-Laslop, research professor in the College of Pharmacy, managed to produce the fruit fly peptide and hundreds of its mutants directly in bacterial cells.
- "Drosocin and its active mutants made inside the bacteria forced bacterial cells to self-destruct,"
- The proline-rich antimicrobial peptide (PrAMP) Drosocin (Dro) from fruit flies shows sequence similarity to other PrAMPs that bind to the ribosome and inhibit protein synthesis by varying mechanisms
- Dro arrests ribosomes at stop codons, probably sequestering class 1 release factors associated with the ribosome. This mode of action is comparable to that of apidaecin (Api) from honeybees, making Dro the second member of the type II PrAMP class.

REFERENCE:

<https://www.nature.com/articles/s41589-023-01300-x>
<https://www.technologynetworks.com/tn/news/fruit-flies-could-lead-to-the-next-antibiotics-374330>

-MUGILAN G 4TH PHARM D

HIRSCHSPRUNG’S DISEASE

INTRODUCTION:

Hirschsprung’s disease is a rare disease characterized by the complete absence of ganglionic cells in the colon, thereby causing loss of peristalsis movement of the bowel. Most cases are diagnosed before the age of one. It occurs in 1 in 5000 live births.

ETIOLOGY :

- Genetic mutation
- Congenital
- Non specifically know

SIGNS & SYMPTOMS:

Symptoms that arise include HSCR

- associated enterocolitis
- intestinal obstruction
- intestinal perforation
- Gastroenteritis
- Failure of bowel movement, within 48 hours of birth

Risk factors :

- Having a sibling who has Hirschsprung’s disease. Hirschsprung’s disease can be inherited.
- Being male. Hirschsprung’s disease is more common in males.
- Having other inherited conditions. Hirschsprung’s disease is associated with certain inherited conditions, such as Down syndrome and other abnormalities present at birth, such as congenital heart disease.

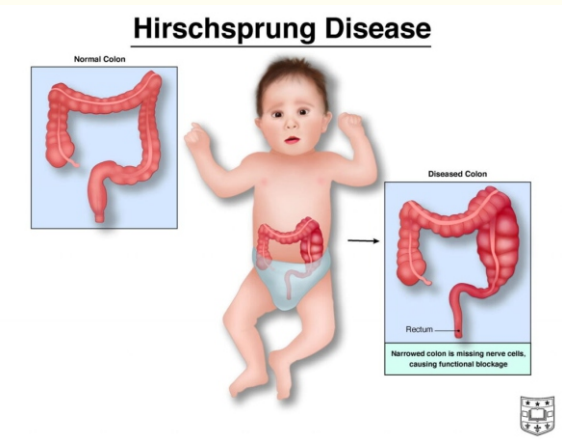
PATHOPHYSIOLOGY:

Due to absence of ganglionic cells There is lack of peristalsis in the affected portion Functional obstruction of colon
 Accumulation of gas & faeces proximal to the defect Enlargement of the colon occurs and called Megacolon

DIAGNOSIS:

PHYSICAL EXAMINATION:

- Reviews child’s height and weight
- Examines child’s abdomen or belly for swelling
- Performs a digital rectal exam having no stool in the rectum or having explosive stool after a rectal exam may be signs of Hirschsprung disease, Anorectal manometry ,Rectal biopsy.



TREATMENT:

- Duhamel procedure
- Pull-through surgery
- Ostomy surgery
- REFERENCE: <https://www.mayoclinic.org/diseases-conditions/hirschsprungs-disease/symptoms-causes/syc-20351556>, <https://teachmepaediatrics.com/surgery/abdominal/hirschsprungs-disease>

• -NAVEEN RAJ M.A 4TH PHARM D

Patient Selection and Safety Considerations for Multi-Chamber Bag Parenteral Nutrition

Commercially available multi-chamber bag parenteral nutrition (MCB-PN) products, formerly known as premixed PN, have seen an increase in use in the United States. This escalation can be attributed to facilities reducing the number of products that require compounding and to recent PN product shortages.

US Product Availability: Two MCB-PN products are available in the United States. A two-chamber MCB-PN product contains dextrose and amino acid in two separate chambers. This product also comes with and without electrolytes. A three-chamber MCB-PN product also is available, with each chamber containing lipid injectable emulsion (ILE), dextrose, and amino acid. Currently, the three-chamber product does not have an electrolyte-free version, and the ILE chamber is filled with soybean oil–based ILE have an electrolyte-free version, and the ILE chamber is filled with soybean oil–based ILE

Safety Concerns:

- MCB-PN deemed less complex than compounded PN, which could lead to issues such as refeeding syndrome, overfeeding, underfeeding,

CHARACTERISTICS	2-CHAMBER MCB-PN	3-CHAMBER MCB-PN
Venous access route	Peripheral or central	Peripheral or central
chamber	Amino acid +dextrose	Amino acid +dextrose +ILE
volume	1000 and 2000 ml	varies
electrolytes	With or without	with
Amino acid concentration	2.75%-8%	34-85g per bag
Dextrose concentration	5%-20%	107-275g per bag



and electrolyte imbalances;

- MCB-PN not activated properly, which could lead to the patient not receiving the prescribed amounts of macronutrients and micronutrients;
- MCB-PN allowed to hang more than 24 hours, leading to an increased risk for infections;
- addition of additives that may alter the stability of the MCB-PN;
- addition of essential components omitted (e.g., multivitamins, trace elements)

REFERENCE: <https://www.pharmacypracticenews.com/Clinical/Article/05-23/Patient-Selection-and-Safety-Considerations-for-MultiChamber-Bag-Parenteral-Nutrition/70258>

-DRISHYA K 4TH PHARM D