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Official Voice of
Academic College of Emergency Experts
(ACEE)
&
Emergency Medicine Association (EMA)
An INDUSEM Undertaking

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From the Editor's desk...

Hello Doctors,

Wishing you and your family a healthy and wealthy new year 2023!

NEED OF THE HOUR : National Emergency Life Support



Disaster & Emergency doesn't arrive with prior notice and health is the first casualty of disaster. Strengthening of health care disaster preparedness is therefore the need of the hour to give the matching human response to the vicissitude of the disaster. In times of emergency, the ability to provide immediate and effective medical care can mean the difference between life and death. The first and the foremost of any disaster/emergency management is deployment of disaster / emergency and quick medical services to the affected person on urgent basis. This is where National Emergency Life Support NELS comes into play. National Emergency Life Support is a system of medical care that provides trained professionals, nurses, paramedics and doctors, with the knowledge and training necessary to assess a situation, prioritize care, & quickly and efficiently provide the appropriate interventions to stabilize a patient.

In any emergency situation, the first few minutes are critical. In fact, the chances of survival decrease by 10% for every minute that passes without proper medical attention. This means that quick and effective medical care can truly mean the difference between life and death. The importance of NELS can not be overstated, in addition to providing life-saving care, national emergency life support can also help to reduce the severity of injuries and improve the overall outcome for patients. For example, in cases of trauma, quick and efficient management can help to prevent secondary injuries and reduce the risk of long-term complications.

In India, National Emergency Life Support is indispensable given the country's size and diverse population. With a population of over 1.3 billion people, India is home to a variety of healthcare challenges, ranging from chronic diseases to natural disasters. Therefore, it is crucial to have a robust national emergency life support system to provide timely and effective medical care during emergencies.

As a teaching faculty member at NELS program, IMS BHU, from the paving stone times, I have actively seen the critical role of NELS in preparing healthcare professionals to manage emergency medical situations and provide life support to patients. We, as a team developed course materials, training manuals, delivered lectures on Basic Cardiopulmonary Life Support (BCLS), Comprehensive Cardiopulmonary Life Support (CCLS), Maternal & Child health Emergency conducted practical training sessions, stayed up-to-date with the latest developments in emergency medical care life support and incorporated the knowledge into your teaching and practice, we also collaborated with other faculty members to develop and improve the NELS program at IMS BHU. Once in conversation

with Dr.Sagar Galwankar, my mentor, my confidante, whose ideation and cerebration specifically in growth of National Emergency Life Support in India is colossal and gratifying, he said –“One of the key benefits of National Emergency Life Support in India is that it can help reduce the burden on the healthcare system”. India has a shortage of doctors and medical facilities, particularly in rural areas. In such situations, NELS trained individuals, nurses, paramedics and doctors, with the skills and knowledge to provide immediate medical attention can help bridge the rural-urban gap , stabilize patients and reduce their risk of long-term complications needing more advance medical care.

Therefore, realising Honourable Prime Minister of India's policy of “Make in India” and “Aatma Nirbhar Bharat” , the Union Minister of state for health and family welfare has launched NELS national emergency life support which will provide a standardised curriculum creating a world class, efficient, professional and integrated system enabled by technology based on Indian context and developed in India. Medical emergencies, surgical emergencies, cardiac emergencies, respiratory emergencies (including ventilator management protocol for COVID-19 and other diseases), trauma-related emergencies, obstetric emergencies, paediatric emergencies, insect/animal bites, poisoning, and other medical emergencies are all covered in the NELS course along with setting up and equipping skill training centres in medical colleges under Center/States for all categories of Healthcare functionaries.

In conclusion, national emergency life support is of utmost importance in India. A robust national emergency life support system can help to provide timely and effective medical care during emergencies and The National Emergency Life Support program will eventually form a giant national pool of trained doctors, nurses, and paramedics who will be able to offer standardised emergency life support and minimise mortality from emergencies which will help with overall disaster preparedness and response in terms of emergency clinical care.



Another Year Another Virus : Influenza Updated

Dr Manisha Singla, Dr Jyoti Sharma



As the flu season approaches, I want to bring your attention to the H3N2 virus, a subtype of the influenza A virus. It's common flu virus creating huge chaos in developing nations like ours. H3N2 has been identified as a significant cause of illness and death in past flu season and is a cause for concern this year as well.

According to WHO, seasonal influenza is an acute respiratory infection caused by influenza viruses. There are 4 types of seasonal influenza viruses, types A, B, C and D. Influenza A and B viruses circulate and cause seasonal epidemics of disease. Influenza A viruses are further classified into subtypes according to the combinations of the hemagglutinin (HA) and the neuraminidase (NA), the proteins on the surface of the virus. The variant H3N2 virus is a descendent of a lineage of a triple-reassortant H3N2 virus with human, avian, and swine segments that began widely circulating in North American pigs in 1997-1998.

The first human infection caused by this variant was not recognized until 2005 in Kansas, and only sporadic human cases were recognized before 2011. In 2010, the virus was observed to have acquired the M (matrix) segment from the pandemic H1N1 virus and to have become more frequent in swine, raising concerns about enhanced transmissibility and an increased burden of disease in humans. After that reassortment event was recognized in swine, 12 human cases were recognized in 2011 in five states.

In 2012, a multistate outbreak of influenza caused by a swine-origin (variant) influenza A (H3N2) virus occurred in the United States, with 307 recorded cases in 11 Midwestern and Middle Atlantic states, disease occurred mostly in children and agricultural event exposure was prominent with limited person-to-

person transmission. Swine flu viruses do not normally infect humans. However, sporadic human infections with influenza viruses that normally circulate in swine and not people have occurred. When this happens, these viruses are called "variant viruses." They also can be denoted by adding the letter "v" to the end of the virus subtype designation. Human infections with H1N1v, H3N2v and H1N2v viruses have been detected in the United States. Most commonly, human infections with variant viruses occur in people with exposure to infected pigs (e.g., children near pigs at a fair or workers in the swine industry). This is thought to happen mainly when an infected pig coughs or sneezes and droplets with influenza virus in them spread through the air. If these droplets land in your nose or mouth, or are inhaled, you can be infected. There also is some evidence that you might get infected by touching something that has virus on it and then touching your own mouth or nose. A third way to possibly get infected is to inhale particles containing influenza virus. Scientists aren't really sure which of these ways of spread is the most common. Swine influenza has not been shown to be transmissible to people through eating properly handled and prepared pork (pig meat) or other products derived from pigs.

Symptoms



Cough



Diarrhea



Headaches



Fever



Sore Throat



Vomiting



Weakness



Muscle Aches

High risk individuals according to US body Centers for Disease Control and Prevention :

- Although all children younger than 5 years old are considered at higher risk of serious flu complications, the highest risk is for those younger than 2 years old, with the highest hospitalization and death rates among infants younger than 6 months old.
- Adults 65 years and older
- Asthma
- Neurologic and neurodevelopment conditions
- Blood disorder (such as sickle cell disease)
- Chronic lung disease (such as chronic obstructive pulmonary disease COPD and cystic fibrosis)
- Endocrine disorders (such as diabetes mellitus)
- Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)
- Kidney diseases
- Liver disorders
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)

- People who are obese with a body mass index [BMI] of 40 or higher
- People younger than 19 years old on long-term aspirin- or salicylate-containing medications.
- People with a weakened immune system due to disease (such as people with HIV or AIDS, or some cancers such as leukemia) or medications (such as those receiving chemotherapy or radiation treatment for cancer, or persons with chronic conditions requiring chronic corticosteroids or other drugs that suppress the immune system).

The severity of H3N2 flu can vary from person to person, and while most people who contract H3N2 flu will experience mild to moderate symptoms while the high risk individuals can develop severe illness that may require hospitalization and intensive care stay. The severity of illness and need for ICU care can also be influenced by factors such as the individual's overall health, the effectiveness of the antiviral medication used, and the timing of treatment.

Don't's



Avoid shaking hands with others



Do not spit in public places (Helps virus to spread faster)



Do not take antibiotics or other medications without consulting your doctor



Do not share personal items



Do not eat together sitting close to others



Avoid sitting close to others in public places

Do's



Wash your hands regularly with Soap and Water



Wear masks and avoid meeting people and crowded places



Cover your mouth and nose while sneezing and coughing



Stay hydrated, drink plenty of fluids



Avoid touching your eyes and nose



Talk to your doctor for medication, and do not self-medicate

PRECAUTIONS:

- Don't take food or drink into pig areas; don't eat, drink or put anything in your mouth in pig areas.
- Don't take toys, pacifiers, cups, baby bottles, strollers, or similar items into pig areas.

- Wash your hands often with soap and running water before and after exposure to pigs. If soap and water are not available, use an alcohol-based hand rub.
- Avoid close contact with pigs that look or act ill.
- Take protective measures if you must come in contact with pigs that are known or suspected to be sick. This includes wearing personal protective equipment like protective clothing, gloves and masks that cover your mouth and nose when contact is required.
- To further reduce the risk of infection, minimize contact with pigs in the pig barn and arenas.

PREVENTION :

- It's pivotal to educate patients and patient attendants the importance of practicing good hygiene habits. Taking proper rest, drinking lots of fluids and using over-the-counter painkillers like acetaminophen or ibuprofen to lower fever are all part of the H3N2 influenza treatment regimen.
- If a patient has severe symptoms or is at a high risk of problems, a doctor may also recommend antiviral drugs such as oseltamivir and zanamivir. WHO further says that in suspected and confirmed cases, neuraminidase inhibitors should be

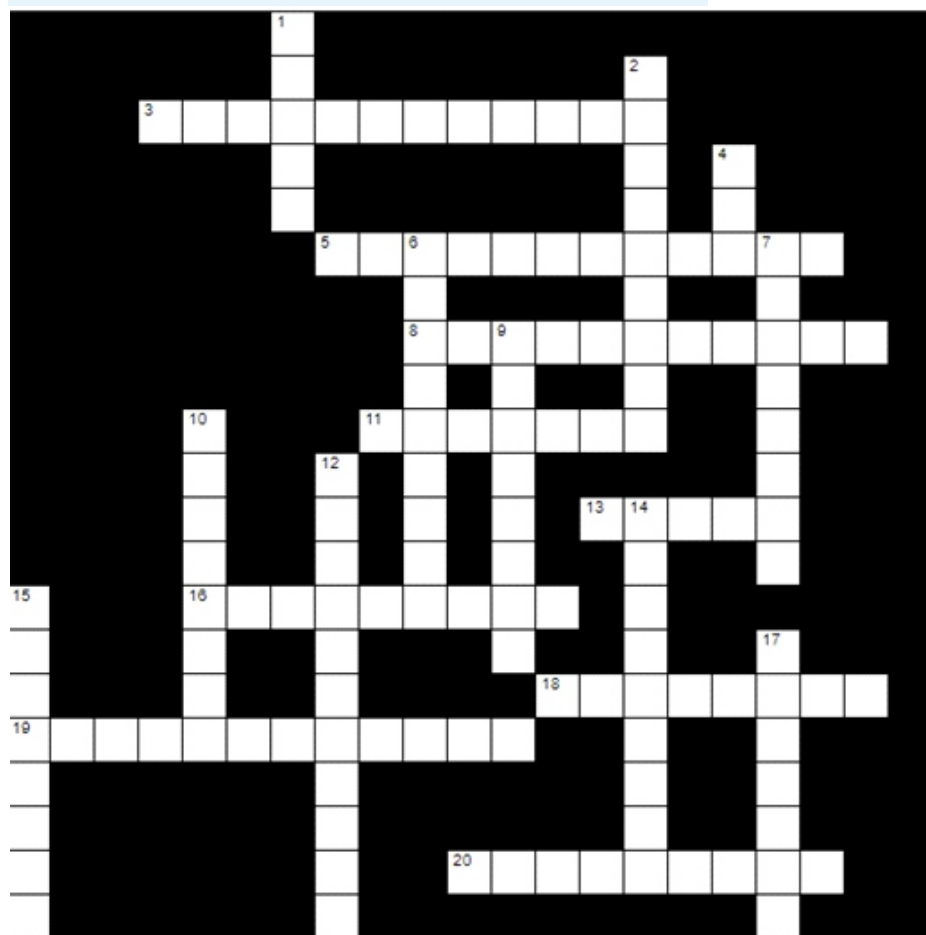
prescribed to maximize therapeutic benefits. The Antiviral medications may help reduce the severity and duration of your symptoms. These drugs are most effective when given within the first 48 hours of symptoms appearing, and early treatment can reduce the severity and duration of symptoms and prevent complications, so it is essential to seek medical attention promptly.

- Emergency departments are often the first point of contact for patients with flu-like symptoms, and it is essential to be prepared for an influx of patients presenting with H3N2 and other flu viruses. To ensure the safety of patients and healthcare providers, it is crucial to follow appropriate infection prevention and control measures, such as wearing personal protective equipment (PPE), frequent hand washing, and isolating suspected or confirmed cases of H3N2.
- Emergency departments should also be prepared to administer antiviral medications to patients with suspected or confirmed H3N2 infections promptly.

In conclusion, H3N2 virus is a significant cause for concern this flu season, and emergency medicine and intensive care providers must be prepared to efficiently manage it while ensuring their safety.

Thank you for your hard work and dedication to patient care.

CROSSWORD



Across

- 3 incision into the trachea (12)
 5 collapsed lung (12)
 8 sore throat (11)
 11 difficult breathing (7)
 13 OSA obstructive sleep_____ (5)
 16 nosebleed (9)
 18 pertaining to the chest (8)
 19 infectious lung disease (12)
 20 rapid breathing (9)

Down

- 2 difficult speaking (9)
 4 abbrev chest radiograph (3)
 6 type of COPD (9)
 7 ABGs_____ blood gases (8)
 9 suffocation (8)
 10 measures oxygen (8)
 12 infected tonsils (11)
 14 COPD chronic obstructive_____ disease (9)
 15 ARDS acute respiratory_____ syndrome (8)
 17 low CO2 in blood (7)