Workshop Title:
ACUTE NON-INVASIVE VENTILATION WORKSHOP – USING THE ICEMAN ALGORITHM

Workshop Date / Time:
June 1, 2024 / 08:00- 17:00

Workshop Type:
In-person Full-Day Workshop

Workshop Organizer:
Manu Sundaram

Workshop Moderator:
Marti Pons Odena & Sekhar Venkataraman

Workshop Facilitators:

1. Dr Marti Pons Odena from Barcelona, Spain (Spanish & English)
2. Dr Nestor Sorino from Mexico (Spanish & English)
3. Juan Carlos, respiratory therapist, from Mexico (Spanish & English)
4. Dr Manu Sundaram from Doha, Qatar (English)
5. Dr Arun Bansal from India
6. Dr Sekhar Venkataraman from USA
7. Dr Kandamaran Krishnmurthy from Barbados, Caribbean Islands
8. Nithin George, Respiratory therapist, USA
9. Dr Ayesha Bibi Khan from South Africa

Learning objectives:

1. Recognize indications for NIV
2. Setting up and initiating NIV and to titrate the therapy
3. Identifying failure of NIV and need for invasive ventilation
4. Introduction to various NIV interfaces
5. Introduction to NIV machines
   a. Ventilator NIV
   b. BiPAP
   c. Bubble CPAP- installation of the device and titration of therapy
   d. Heated humidified high flow nasal cannula therapy

WORKSHOP DESCRIPTION

Non-invasive ventilation (NIV) is widely used in Paediatric home care but not ordinarily used clinically with acute patients. Over the years, there has been an increase in the use of non-invasive ventilation in acute settings. This experience of the use of acute non-invasive ventilation over the last decade has brought new evidence supporting the safe use of non-invasive ventilation in acutely unwell children. Many guidelines and books have been written on the subject using non-invasive ventilation.

The Spanish Paediatric Intensive Care Society (SECIP) respiratory working group has developed workshops and courses to educate and encourage NIV for acute patient care. This training has been combined with the expert knowledge of the European Society of Paediatric and Neonatal Intensive Care (ESPNIC) respiratory group.

This workshop aids in learning the safe usage of NIV in acute settings as well. This workshop combines lectures on the principles of NIV and clinical hands-on workshops for NIV care.

In the workshop, three skill stations (paediatric, infant, and neonates) will be used to teach the interfaces and ventilator choice, setting modalities, parameters and respiratory monitoring. Failure analysis will also be done with interactive clinical cases during skill stations.

WHY ATTEND?
Non-invasive modes of ventilation are being increasingly used in acute care settings and are becoming more common in-home-based setting as well. NIV is particularly challenging in children because of the size of the patient. Understanding the various options, equipment, modes of delivery, effective monitoring and analysing failures will definitely go a long way in providing this care more effectively with less failure.

HIGHLIGHTS OF THE WORKSHOP:
1. Interactive Hands-on training on various NIV machines and live demonstration.
2. Hands-on training on machines
3. Case-based discussions
4. Manual on NIV

Program

Time	Duration	Topic
08:00 – 08:30	30m	Registrations and Breakfast
08:30 – 08:45	15m	Introductions
08:45 – 09:05	20m	Relevant Lung physiology and basic concepts of NIV
09:05 – 09:25	20m	How to begin NIV and modes. ICEMAN
09:25 – 10: 00	20m	Indications and contraindications through cases
10:00 – 10:20	20m	Analysis. HFNC and CPAP in critical care

10: 20 – 10:30 Coffee Break

10:40 – 13:00 Practical demonstration station: Hands on equipment handling (35 mins each)

Time	Group	Topic
1040-1115	**Both**	Patient connection: interface and ventilator choice
11:15 – 11:50	**Blue**	NIV with Home ventilator/ specific NIV ventilator
11:50 – 12:25	**Green**	NIV with conventional ventilator with NIV option
12;25-13:00	**Yellow**	NIV with NIV specific ventilator

13: 00 – 13:30 LUNCH BREAK

13:30 – 14:00 Asynchrony. Learning through analysis of videos

14:00 – 17:00 Clinical scenario-based simulation (Four stations of 40 minutes each)

Time	Group	Topic
14:00 – 14: 40	**Green**	Pneumonia
14:40 – 15: 20	**Blue**	Bronchiolitis
15:20 -15:40		COFFEE
15:40 – 16:20	**Green**	Bronchiolitis
16:20 – 17:00	**Blue**	Pneumonia

17:00 – 17:20 Future Research collaboration in the field of NIV- Dr Venkataraman

17:20 – 17:30 Feedback and closing remarks- Dr Pons