Basic course on Home Mechanical Ventilation in Pediatrics

1st Edition

Blended

Online 09.30.2025 10.23.2025

10 teaching hours

On-site 10.23.2025

7 teaching hours



From hospital to home: take control of pediatric mechanical ventilation

Learn how to safely manage home mechanical ventilation in children — from clinical indications to equipment setup, alarm handling, and home follow-up. An essential course to face the new challenges in pediatric respiratory care. Join now and make a real impact in your clinical practice!

Course Director

Martí Pons Òdena. Pediatric Intensivist. Coordinator - Home Mechanical Ventilation Program. SJD Barcelona Children's Hospital.

Aimed at

- Residents and junior doctors, especially those training in:
 - Pediatric pulmonology.
 - Pediatric intensive care.
- Junior nurses working in:
 - Pediatric intensive care units
 - Home mechanical ventilation programs.
- Respiratory physiotherapists involved in the care of ventilated pediatric patient.

Fee: € 150

Registration: https://bit.ly/BasicHM

Contact

SJD Barcelona Children's Hospital Díaz de la Fuente Street, 1 08950 Esplugues de Llobregat, Barcelona Telephone: +34 93 253 21 30 E-mail: hospitalbarcelona.formacion@sjd.es

At the end of this training you will be able to:

Have essential theoretical and practical knowledge on pediatric home mechanical ventilation.

Understand the indications and contraindications for initiating home ventilation in children with complex chronic conditions.

Become familiar with different ventilation modes, equipment, and interfaces used in the home setting.

Develop skills in the initial setup, programming, and adjustment of home ventilators.

Recognize and manage common complications, alarms, and technical issues.

Learn strategies for follow-up, monitoring, and family education to ensure safe care at home.

Learning experience

E-learning platform	
Customized formats	<u> </u>
Collaborative and active learning	
High fidelity clinical simulation	900
Follow up by expert mentors	? <u>`</u>

Speakers

ONLINE

- Dr. **Patricia Corniero**. Pediatric Intensivist. Home mechanical ventilation program. SJD Barcelona.
- Dr. **Refika Ersu**. Pediatric respirologist. Director of the CHEO Sleep Laboratory & Home Ventilation Program. Children's Hospital of Eastern Ontario (CHEO), Ottawa, Canada.
- Dr. **Mirella Gaboli**. Neumologia Pediàtrica / Infectious Diseases & Immunity group, IBIS Instituto de Biomedicina de Sevilla (Hospital Virgen del Rocío)
- RT. **Miguel Gonçalves**. Unidade de Fisiopatologia Respiratória e Ventilação Não Invasiva. CAl_Vent: Centro de Apoio ao doente sob Ventilação Mecânica Prolongada. Centro Hospitalar Universitário de São João.
- Dr. **Omi Narayan**. Director of Pediatrics & Sleep Lab. Associate Professor, American Hospital Dubai. United Arab Emirates.
- Dr. **Martino Pavone**. Pediatric Pulmonology & Cystic Fibrosis Unit, Respiratory Research Unit, Bambino Gesù Children's Hospital, IRCCS. Italy.
- Dr. **Sonia Khirani**. Pediatric Sleep & Non-invasive Ventilation Unit, ASV Santé y Pedia Necker Hospital, Paris.

ONLINE & FACE TO FACE

- Dr. **Maria Cols**. Head of Pulmonology Department. Home mechanical ventilation program. SJD Barcelona. Spain.
- Rt. **Enrique del Campo**. Physiotherapist. Rehabilitation Department. SJD Barcelona Children's Hospital.
- Dr. **Isabel Gascón**. Consultant Pulmonology Department . Home mechanical ventilation program, SJD Barcelona, Spain.
- Dr. **Martí Pons Òdena**. Pediatric Intensivist. Coordinator Home Mechanical Ventilation Program. SJD Barcelona Children's Hospital.
- Dr. **Alba Torrent**. Consultant Pulmonology. Department . Home mechanical ventilation program. Hospital Vall Hebron de Barcelona. Spain.

Nurse **Verónica Barrios**. Home mechanical ventilation program. SJD Barcelona. Spain.





Online from September 30th to October 23rd, 2025

UNIT 1: INTRODUCTION TO HOME MECHANICAL VENTILATION

Topic 1: Indications in children (neuromuscular pathologies, chronic lung diseases, congenital anomalies, etc.): CPAP / NIV / IMV.

UNIT 2: FUNDAMENTALS OF MECHANICAL VENTILATION

Topic 1: Respiratory physiology applied to NIV.

Topic 2: Introduction to airway clearance devices for secretion management.

UNIT 3: VENTILATORY MODES (VCV, PCV, PSV, NAVA, CPAP)

Topic 1: Basic parameters: RR, Vt, PEEP, FiO₂, I:E ratio.

UNIT 4: EQUIPMENT AND INITIAL CONFIGURATION

Topic 1: Types of home mechanical ventilators (CPAP/NIV/IMV).

Topic 2: Selecting the right equipment.

Topic 3: Initial ventilator setting.

Thursday, October 23rd, 2025		
	FUNDAMENTALS	
08:45 - 09:00 h	Welcome and course presentation.	
09:00 - 10:30 h	 Introduction to home mechanical ventilation. Definition and objectives. Indications in children (neuromuscular pathologies, chronic lung diseases, congenital anomalies, etc.): CPAP / NIV / IMV. Contraindications. 	
10:30 - 11:00 h	Coffee Break	
11:00 - 11:45 h	 Fundamentals of mechanical ventilation. Respiratory physiology applied to NIV. Introduction to airway clearance devices for secretion management. 	
11:45 - 12:45 h	Ventilatory modes (VCV, PCV, PSV, NAVA, CPAP). • Basic parameters: RR, Vt, PEEP, FiO₂, I:E ratio.	
12:45 - 13:45 h	Lunch Break	
13:45 - 14:45 h	 Equipment and initial configuration. Types of home mechanical ventilators (CPAP/NIV/IMV). Selecting the right equipment. Initial ventilator setting. 	
14:45 - 15:15 h	Follow-up and Monitoring at home.	
15:15 - 17:15 h	Interfaces and accessories. Interfaces, tracheostomy tubes. Circuits. Humidification, nebulizing.	
17:15 - 17:45 h	Coffee Break	
17:45 - 19:45 h	Hands-on with equipment. • Programming and adjusting a ventilator. • Handling alarms and resolving common problems. • Strategies to manage leaks.	
19:45 - 20:00 h	Closure and wrap-up.	