

Capnography what do we know

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Abstract

The value of Capnography is very well appreciated in the operating rooms and anesthesiologists have been well trained to rely on this valuable source of information in decision making. However, when the patient arrives into the Pediatric intensive care unit (PICU), the patient is deprived of the benefits of this valuable monitor. This is most likely due to the paucity of capnographs in PICU, lack of hands on practical experience with capnography among Pediatric intensivists and PICU nurses, lack of adequate maintenance of the capnography system resulting in malfunctions and subsequent nonuse, and deeply enrooted protocol driven PICU's with a historical tradition of depending heavily on the excessive use of arterial blood gases. This presentation will focus on reinforcing the value of capnography in the PICU's and discuss several potential benefits it could offer in the management of critically ill pediatric patients.

The measurement of carbon dioxide (CO₂) in expired air directly indicates changes in the elimination of CO₂ from the lungs. Indirectly, it indicates changes in the production of CO₂ at the tissue level and in the delivery of CO₂ to the lungs by the circulatory system. Capnography is a non-invasive monitoring technique that allows fast and reliable insight into ventilation, circulation, and metabolism. Capnographs provide both a waveform and digital reading of end-tidal CO₂ (ETCO₂ - maximum concentration of carbon dioxide at the end of a breath). The digital reading for ETCO₂ is often displayed as mm Hg (partial pressure of CO₂ in exhaled gas) or as % in exhaled gas.

Dr Mohamed graduated from Alexandria Faculty of Medicine, Egypt one of the largest and reputable University hospital in Egypt. He completed a residency programme at Alexandria University Children's Hospital and obtained his master's degree in paediatrics and neonatology.

Dr Mohamed also is a membership of royal colleague of pediatric and child health London UK.

Dr. Mohamed was working as senior specialist in Kuwait for more than 13 years in both NICU and PICU in one of the major governmental hospital. Dr. Mohamed has an interest in PICU and management of acute bronchial Asthma, ARDS, DKA, status epilepticus and all metabolic emergencies.

[3rd Global Nursing Summit](#); Webinar- November 09-10, 2020

Abstract Citation:

DR Mohamed Ebraheem Elmesserey, Capnography what do we know, Nursing and Healthcare 2020, 3rd Global Nursing Summit; Webinar- November 09-10, 2020

<https://healthcare.nursingmeetings.com/2020>



Biography:

Dr. Mohamed is a Paediatric Intensivist at Al Jalila Children's with more than 20 years of experience in both Pediatric intensive care unit and neonatal intensive care unit.