

Nitrous Oxide and Oxygen – Concerns During Covid-19



Mike Civitello – Sales Manager

Topics:

- Overview of use of N₂O / O₂ in the US
- Increase of use for Labor and Delivery
- SOAP “Message” Addressed
- Infection Control Concerns / Guidance

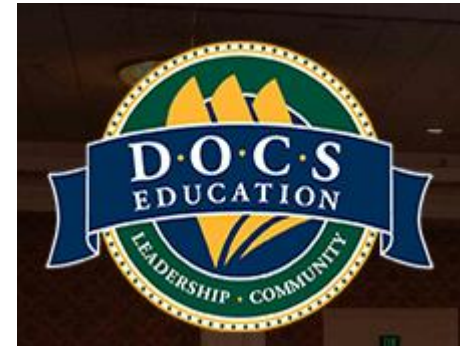
Mike Civitello – Sales Manager - Porter Patient Gas Delivery Business

- Porter – 10 Years
 - Responsible for PGD Business (Dental and Medical - Global)

- Prior:
 - DOCS Education – 5 Years
 - Conscious Sedation Training (dental)

PORTER
NITROUS SYSTEMS

The Trusted Name In Nitrous



- *20+ years marketing / sales*

Porter Nitrous Oxide Systems

- ***Where Porter N₂O/O₂ Systems Are Used:***
 - *Hospitals: Labor and Delivery, Emergency Dept, Radiology, Oncology, Burn Unit*
 - *Physician Market: Dental, Birth Centers, Podiatry, Vein Clinics, Dermatology, Plastic Surgery, Pain Clinics, Cosmetic / MedSpa, ENT, OBGYN, etc*
 - *Short minimally invasive procedures where patients are dealing with anxiety and pain.*



Porter Nitronox™ - Demand Flow

- Patient Self Administered – Demand Flow
- Fixed 50/50 N2O/O2
- Ideal for Pain Management



L&D Use Of Nitrous – where it all started 8 years ago.....



Judith Rooks CNM – Retired

“I’m going to make nitrous available in the US before I die”....



**Judith Bishop CNM – UCSF
(semi-retired??)**



**Sarah Starr – Vanderbilt OB
Anesthesia (now retired)**



**Michelle Collins, PhD, CNM
Vanderbilt (now at Rush)**



Use of N2O / O2 in L&D

- 2012: Approximately 5 Hospitals
- 2020: Over 1000 Hospitals and Birth Centers



SOAP COVID Guidance Statement



www.soap.org

9. There is currently insufficient information about the cleaning, filtering, and potential aerosolization when using nitrous oxide in labor analgesia systems in the setting of COVID-19. As such, individual labor and delivery units should discuss the relative risks and benefits and consider suspending use.

Cleaning, Filtering, and Potential Aerosolization

Response from SOAP

- Porter requested: studies, data, and literature to support recommendation.
 - *SOAP refused to provide*
- Porter addressed each of the concerns and why the guidance should be revised.
 - *SOAP refused to acknowledge and said they were not making any further edits*

Addressing SOAP Commentary:

- Cleaning:
 - Patient does not come into contact with a Nitronox system. They don't touch it and cannot exhale back to the device.
 - Device should be treated just like any other device in the patient room that a healthcare professional handles. Follow MFG instructions for disinfection.
 - *Use surface wipes / disinfectants that the facility has approved for use in the patient care environment.*

Addressing SOAP Commentary:

- Filtering:
 - Concerns for filtering arise when using breathing circuits and devices where patient exhalation can travel back to the device and can be recirculated through the device.
 - Anesthesia systems, capnography pump, etc
 - There is no need for filtering with a Nitronox system. Breathing circuit is single use – and no exhalation travels back to the device. All flow paths are one-way directional flow.

Addressing SOAP Commentary:

- Potential Aerosolization:
 - Aerosolization is caused from “aerosol producing procedures” such as: intubation, positive pressure gas administration, nebulizers, and procedures such as cutting, drilling, and sawing (that may cause spray).
 - Using N2O/O2 in this setting – the **patients inhale and exhale normally**. No gas is “forced” into the patient. If anything – improvement of safety – as a mask is over patients mouth.
 - If there are concerns of a patient using N2O/O2 – then we should be concerned about any patient sitting in a room and breathing.....

Infection Control Guidance with Nitronox

- Only use approved single use disposable breathing circuits and single use masks / mouthpieces.
 - *If using old style Nitronox with hand held demand valve – stop – and retrofit to newer style.*
- Wipe down device with approved surface wipes – as you would any other device that is handled in a patient room.



Use approved single patient use breathing circuit with single use mouthpiece or mask





Thank You NACPM!

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