Office Based Anesthesia (OBA) Virtual Symposium
Saturday, March 19, 2022
@samba_hq

Monitors

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Education:

- Born and raised in Brazil where I obtained my medical degree in 2004
- Catholic University of Parana PUC-PR
- Anesthesiology Residency at the University of Arkansas (UAMS) in 2009
- Academics for 1 year; joined private practice in Charleston in 2010
- I provide care at dental and plastic surgery offices. I also work in endoscopy centers and surgery centers
- I enjoy spending time with my husband and our three teens. I love the water, kitesurfing and I'm involved with outreach projects through Seacoast Church

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Objectives

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- 1- monitors: portability, differences in quality and available options
- 2- capnography: how to assess, sample, interpret waveform and treat tracings you might see in an office setting
- 3- the importance of backup preparedness

*I have NO financial disclosure or conflicts of interest with the presented material in this presentation.

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OBA Monitors

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- Any standard vital sign monitor EKG (3-lead), NIBP, pulse oximeter, capnography (ET CO_2) with or without anesthetic gas analyzer and temperature probe
- Standard of care in the office is the same as in a hospital regardless of ASA 1 or 2 status which includes pre, intra and postoperative phase and transport
- Patient monitors vary in size (think portability), cost and quality
- Whether it's an existing site or a new site, it is advisable to visit and explore your options in advance. Several offices already have some kind of equipment in place. It's often dated and may appear "okay". The following pictures are examples of products that you are likely to see in OBA

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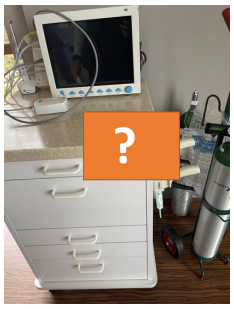

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Contec 12", 9lbs

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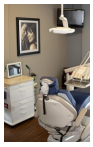

CMS8000 With Capnograph CO2 Patient Monitor ETCO2 Vital Signs 7 Parameters,CONTEC
$749.00

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GE Dash 3000: 8.6", 12lbs

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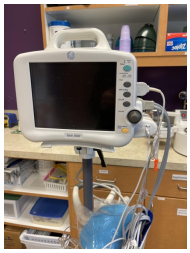

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Criticare: nGenuity 10.4” 14 lbs

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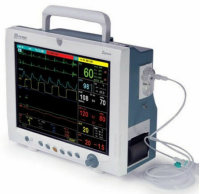
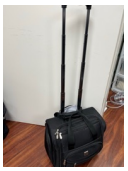
Mindray: pm 9000 12” 16.5 lbs





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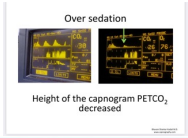
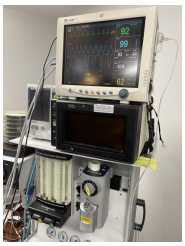
Many other options

- DRE waveline (now Avante)
- separate gas analyzer Datex Ohmeda 5250
- Infinium - waveline Omni Express 7” 5.5lbs





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Capnography and Pulse Oximetry

SpO_2

- alarm limits, sound and pitch, especially in open airway
- placement site (contralateral to the BP cuff, big toe in pediatric and female adults with either thick dipped nails or upper extremity surgery such as liposuction of arms or brachioplasty after bariatric)

CO_2

- non-invasive (nasal cannulae, face mask or dental nasal mask) versus invasive (intubated or LMA) capnography
- CO_2 sampling and waveform -sidestream CO_2 is most common; filters and water trap variations; **turn it on early to warm up and test waveform!**

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Capnography sampling

With an endoscope in-situ

Sampling devices to monitor $PETCO_2$

Here, $PETCO_2$ is being sampled with a nasal sampling cannula (arrow), oxygen is being administered via an oxygen mask. An endoscope is inserted via a flap cut in the mask. This ensures adequate oxygenation and sampling of CO_2

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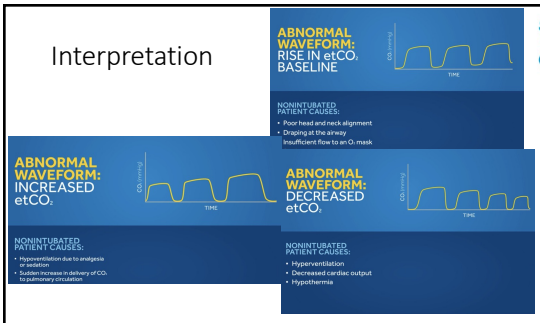
Interpretation



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Backup preparedness: you are it!

- "Hope (work hard) for the best and prepare for the worse"
- Less manpower in an office setting means you are doing more: from placing the monitors, starting the IV, helping the turn overs, etc
- Monitor backup due to monitor failure or power loss: check rechargeable battery back up in each monitor (battery indicator). If non-functional, old or not charged, it will only run on AC power
- Troubleshooting: damage or malfunction- better to have a second monitor (usually the one in the recovery room or preop). If the numbers are not making sense and all fails: be calm and remember the basics

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Backup

- Stethoscope, use an earpiece and examine the patient's pulse and color
- AAA battery-operated portable pulse oximeter clip and BP monitor from Amazon. It should be part of everyone's apparatus!
- Just be prepared and bring your own stuff. Know how to use and learn your equipment, use regular Biomed maintenance and calibration

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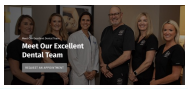
Conclusion

- 1- VIGILANCE is still of primary importance; always be familiar with your equipment and optimize available resources in your practice
- 2- Considerations: compare make and model similarities and differences before you buy; ask questions, may consult with a local Biomed technician (portability, battery life, configurations, water trap, replacement parts, etc.)
- 3- ASA Values: Patient Safety, Physician-led Care and Scientific Discovery ("46% of office claims (vs. 13% for ASCs) were deemed preventable by better monitoring—e.g., by pulse oximetry in the postoperative setting")



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