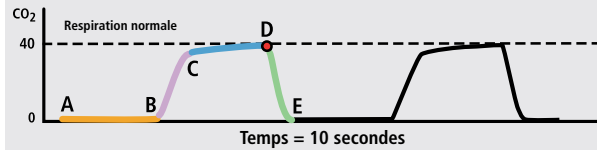


Oscillogramme normal⁹

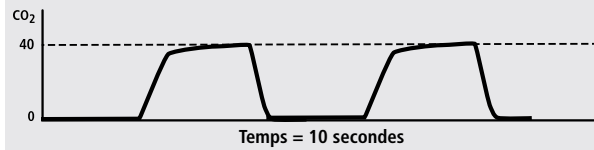
Phases de ventilation



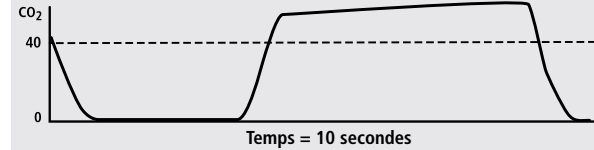
- A-B : Espace mort, début de l'expiration
- B-C : Hausse rapide de CO₂, début de l'expiration
- D : Plateau alvéolaire, fin de l'expiration, CO₂ de fin d'expiration (etCO₂)
- D-E : Inspiration

Modèles de ventilation

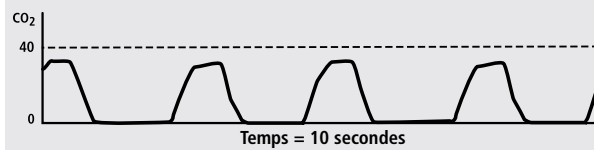
Normal



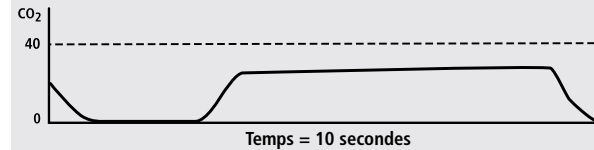
Hypoventilation / Ventilation efficace



Trachypnée / Hypocapnie

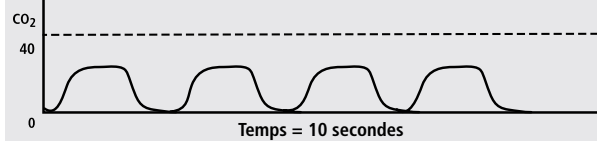


Bradypnée / Hypercapnie

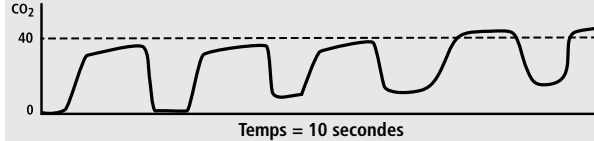


Oscillogrammes en présence de maladie aiguë

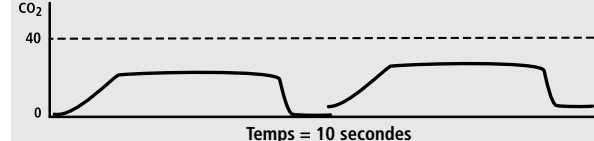
Arrêt cardiaque et RCP manuelle



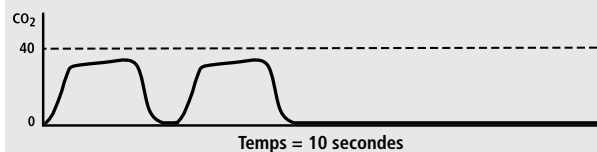
Réinspiration



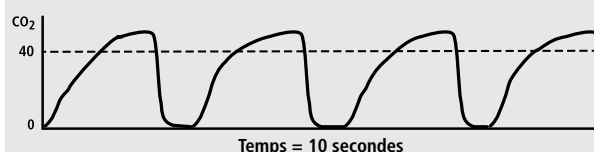
Ventilation légère / Volume courant faible



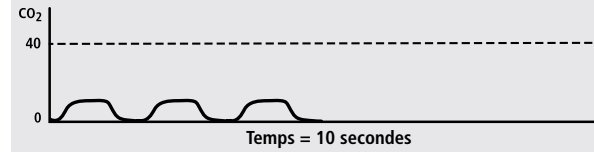
Obstruction complète des voies respiratoires ou laryngospasme complet



Asthme et emphysème



État de faible perfusion, étanchéité inadéquate au ballonnet du tube endotrachéal



Applications en intubation et positionnement respiratoire avancé¹⁻³

Vérifier le positionnement du TET et assurer sa position constante pendant le transport
Assurer un positionnement constant du TET pendant le transport

Efficacité de la réanimation cardiaque

- Indicateur de pression intracrânienne lors d'une blessure isolée à la tête
- Un des premiers signes de rétablissement de circulation spontanée⁴⁻⁶

Applications sans intubation⁷⁻¹⁰

Monitoring du bilan de ventilation :

- Maladie pulmonaire obstructive (asthme/MPOC)
- Œdème pulmonaire/insuffisance cardiaque
- Surdose
- Crise d'épilepsie et phase post-ictale
- Insuffisance respiratoire
- Sédation/analgésie

Monitoring de perfusion : Outil d'analyse des tendances en état d'hypoperfusion

- Scepticémie
- Hypovolémie
- Tachycardie stable ou instable (tendances)
- Rythme : saisie mécanique ou électrique

Outil d'évaluation rapide et de triage¹¹

- Patients dans un état critique
- Terrorisme chimique

1. American Heart Association (AHA) 2010 Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECC) October 18, 2010.
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3. Krauss, B., Silvestri, S. et al. The Effectiveness of Out-of-Hospital Use of Continuous End-Tidal Carbon Dioxide Monitoring on the Rate of Unrecognized Misplaced Intubation Within a Regional Emergency Medical Services System, Annals of Emergency Medicine, Volume 45, Number 5, May 2005.

4. Wayne, M.A., Levine, R.L, Miller, C.C. Use of end-tidal Carbon Dioxide to Predict Outcome in Prehospital Cardiac Arrest, Annals of Emergency Medicine, 1995; 25(6):762-767.
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6. Garnett, A.R. et al. End-tidal carbon dioxide monitoring during cardiopulmonary resuscitation, Journal of American Medicine Association, 1987, 257(4), 512-515.
7. Nagler, J., Krauss, B., Capnographic Monitoring in Respiratory Emergencies, Clinical Pediatric Emergency Medicine, 2009; 10:82-89.

8. Blonshine, S., New Applications of Capnography, AARC Times, February 1999, 51-53.
9. Krauss, Capnography: An Emerging Standard of Care in EMS, Today's Emergency, Volume 12, No. 2, Summer 2006, 38-42.
10. Essential Monitoring Strategies to Detect Clinically Significant Drug- Induced Respiratory Depression in the Postoperative Period. Prepared by Stoelting R and Overdyk F. <http://www.apsf.org/announcements.php?id=7>.
11. Krauss, B., Capnography as a Rapid Assessment and Triage Tool for Chemical Terrorism, Pediatric Emergency Care, Volume 21, Number 8, August 2005.