

Transcutaneous carbon dioxide monitoring

David Drysdale

Dorset County Hospital Foundation Trust, UK

Dental anxiety is very common, affecting 22% of the population. One way to increase access to dental care is by the use of BDZs in conscious sedation. These drugs are known to be safe when titrated. BDZs work by stimulating GABAA receptors within inhibitory pathways of the CNS. A consequence of this, is a reduction in respiratory drive. Thus assessing saturation of peripheral oxygen (SpO₂) is mandatory. A pulse oximeter is normally used to do this. However a pulse oximeter, cannot detect changes in CO₂ which could result from a reduction in ventilatory drive. Many practitioners prescribe supplemental oxygen to compensate for hypoventilation, which can inhibit the ability of pulse oximetry to detect hypoventilation. Transcutaneous CO₂ monitoring is currently used in ICUs and neonatal units. It may, however, have a place in conscious sedation dentistry. It can be used to detect changes in CO₂, and is not affected by supplemental oxygen. Modern monitors are small and easy to use, but the cost of the monitors may be prohibitive in allowing them to become a mainstay in conscious sedation dentistry.

Biography

David Drysdale, BDS (Kings College London), MSc (Imperial College London), PGdip (Kings College London) MFDS RCS (Edinburgh) is a Locum Senior Dental Officer at Dorset County Hospital NHS Foundation Trust in the South West of England. He also works as a Sedationist in several private practices in London and the South Coast of England. Dr Drysdale works mainly with paediatric patients, adults with learning difficulties and patients who suffer extreme dental phobia. He is a member of SAAD and DTSG and is on the mentors list for both organizations.

day_drysdale@hotmail.com