CO-oximeter

A CO-oximeter is a device for detecting hypoxia, a medical condition relating to oxygen deficiency at tissue level. The device measures absorption at several wavelengths to distinguish oxyhemoglobin from carboxyhemoglobin and determine the oxyhemoglobin saturation: the percentage of oxygenated Hb compared to the total amount of hemoglobin (Hb), including carboxy-Hb, met-Hb, oxy-Hb, and reduced Hb. When a patient presents with carbon monoxide poisoning (CO), the CO-oximeter will detect this Hb and will report the oxyhemoglobin saturation as markedly reduced.

Measurement

Traditionally, this measurement is made from arterial blood processed in a blood gas analyzer with a CO-oximeter.[1] [2] More recently, pulse CO-oximeters have made it possible to estimate carboxyhemoglobin with non-invasive technology similar to a Pulse oximeter.[3] The use of a pulse oximeter is not effective in the diagnosis of CO poisoning as patients suffering from carbon monoxide poisoning may have a normal oxygen saturation reading on a pulse oximeter.[4]

References

Article Sources and Contributors


Image Sources, Licenses and Contributors


License

Creative Commons Attribution-Share Alike 3.0 Unported
http://creativecommons.org/licenses/by-sa/3.0/