

Blood Gas Reporting FAQ

Q. Where is the O2Sat on the blood gas reports?

A.

- O2 Sat, when measured by co-oximetry, is now reported as Oxyhemoglobin (O2Hb). It is found with the Co-oximetry results.
- If the O2 Sat is estimated, such as with the iSTAT point of care device, it is reported as O2Sat,est. The result field for this is under Blood Gas Analytes.

Q. When is it measured?

A.

- Blood gases performed in the main lab and CVOR include co-oximetry and report measured O2Hb.
- Blood gases performed point of care, do not include co-oximetry. The O2 Sat is estimated from the pH, pO2 and the oxygen dissociation curve.
- Occasionally, interfering substances prevent measurements by co-oximetry and then O2Sat,est is reported instead of O2Hb.

Q. Why the change?

A. It may be important to the clinician to know that the result is not measured, but estimated. In many clinical cases the O2 Sat, est and O2Hb match. However, the estimated result does not account for carbon monoxide (COHb), Methemoglobin, reduced hemoglobin or abnormal hemoglobins. The equation used in the estimation can be invalidated by abnormal intracellular erythrocyte DPG concentration caused by multiple blood transfusions and other biochemical factors.