DID YOU KNOW?

THE C20/C INDEX

What is it?
The C20/C index is a calculation of the compliance of the last 20% of a breath in relation to the compliance of the entire breath.

How is it measured?
During a breath, the ventilator determines continuously the pressure applied and the resulting tidal volume. The compliance of the last 20% of a breath determined in this manner is set in proportion to the total compliance.

Why is it relevant?
C20 is the compliance that results when only the upper 20% of the applied pressure range is taken into account. C20/Cstat under 0.8 may indicate overinflation of the lungs.

Different C20/C ratios*

- \( C20/C > 1 \): An increase of compliance at the end of the breath was detected. Tidal recruitment may be occurring.
- \( C20/C = 1 \): No change in compliance at the end of a breath could be detected. The lungs may not be overinflated, or tidal recruitment may not be occurring.
- \( C20/C < 1 \): A decrease of compliance at the end of the breath was detected. The lungs may be overinflated.

Why is it helpful in improving the outcome?
C20/C is a tool that allows to perform protective ventilation reducing the risk of VALI (Ventilator Associated Lung Injury) and ARDS (Acute Respiratory Distress Syndrome), which may increase the mortality rate.