



Supplementary Fig. 8. PEEP titration analysis of another patient in EIT monitor. The white and orange lines in the lower part of the image denote the compliance loss at low and high PEEP levels respectively. The values on the lines denote the percentage compliance loss. Timepoints A to J denote each step in the PEEP titration with A at PEEP of 20 cm H₂O and J at 2 cm H₂O. The lines meet at point D, with D at 14 cm H₂O. Hence PEEP value of 14 cm H₂O is taken as the EIT derived PEEP for this patient. PEEP: positive end expiratory pressure, EIT: electrical impedance tomography, C loss HP: compliance loss towards higher PEEP levels, C loss LP: compliance loss towards lower PEEP levels.

The actual compliance is NOT calculated by the EIT monitor. The C loss provided by the monitor is an arbitrary percentage value. During the PEEP trial analysis, the monitor displays two lines in the graph – C loss HP and C loss LP - compliance loss towards higher PEEP levels, and compliance loss towards lower PEEP levels respectively.

Orange coloured C loss HP line – The compliance (lung distension) at the LOWEST PEEP is taken as 100% This is considered as the baseline. Any loss of lung expansion at HIGHER PEEP due to already overdistranded alveoli is recorded as percentage loss from the baseline compliance at each PEEP value and plotted as orange line.

White coloured C loss LP line – The compliance (lung distension) at the HIGHEST PEEP is taken as 100% This is considered as the baseline. Any loss of lung expansion at LOWER PEEP due to collapsed alveoli is recorded as percentage loss from the baseline compliance at each PEEP value and plotted as white line.