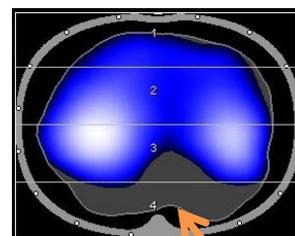


Step 1: Perform a recruitment maneuver (RM)

- 1) Set the Regions of Interest to “layers”
(adjust their height if required: in obese patients, adjust the height of the ROIs, so that ROI 1 properly represents ventral ventilation)
- 2) Check if RM might improve homogeneity of ventilation:
Is dorsal TV in ROI 4 < 5 % ?
- 3) If TV ROI 4 suggests collapse: Perform a recruitment maneuver
(according to hospital standards)



< 5 % ?

As the individual response of each patient might vary a lot, RMs should be assessed in every single patient !



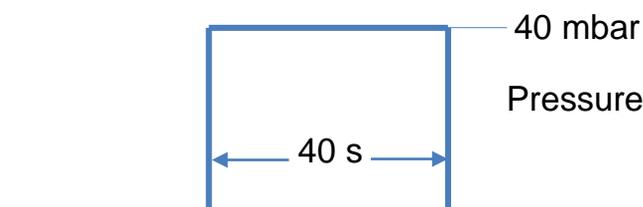
Look out for

- Volemic status of the patient
- Cardiac function
- Saturation
- Other side effects / complications

Example:

40:40 maneuver

- Inspiratory hold
- Pressure of 40 mbar
- For 40s



Recruitment Maneuver:



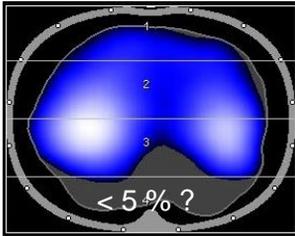
Objective:

- Re-expand collapsed lung tissue
- Maintain sufficient PEEP to prevent de-recruitment after RM

How-to:

- Increase end-inspiratory pressure (P_{insp}) for a short time
- Impose sufficient pressure to exceed the critical opening pressure of the affected lung region and to recruit non ventilated or poorly ventilated lung tissue

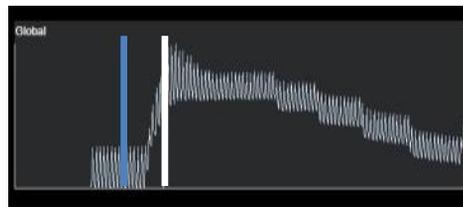
Step 2: Assess with PulmoVista 500 if maneuver could open the lung



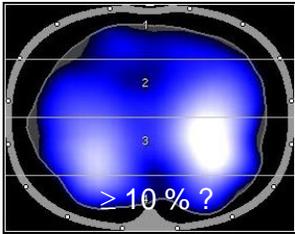
Cursor Ref – before RM

1) Open the End-inspiratory Trend View:

Compare the status before (*Cursor Ref*) and during the RM (*Cursor C*)



Ref C



Cursor C – during RM

2) Identify responder or non-responder:

Responder: TV ROI 4 is during the RM significantly higher than before (e.g. TV ROI 4 $\geq 10\%$) and the diff. image shows turquoise color in ROI 4

Non-Responder: low or no change in ROI 4 ($\pm 0-2\%$)

Contour of ventilated area identifies lung areas that can be ventilated. Grey areas represent areas that are not ventilated at the current cursor position but were ventilated at other points of time during the displayed period.



What to look for in the End-inspiratory Trend View

Examples	Ref: Tidal Image before RM	C: Tidal Image during RM	Differential Image	Trend table															
Responder to higher pressures				<table border="1"> <thead> <tr> <th></th> <th>Ref</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>TV ROI 4 [%]</td> <td>1</td> <td>13</td> </tr> <tr> <td>PEEP [mbar]</td> <td>5</td> <td>15</td> </tr> <tr> <td>EIP [mbar]</td> <td>20</td> <td>34</td> </tr> <tr> <td>VT [mL]</td> <td>660</td> <td>790</td> </tr> </tbody> </table>		Ref	C	TV ROI 4 [%]	1	13	PEEP [mbar]	5	15	EIP [mbar]	20	34	VT [mL]	660	790
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