Mindray detail part three

[00:00:04] Pressure volume curves is actually a standardized low flow, too, so we are doing a low flow inflation. The settings that you need to confirm are the start pressure. So usually it would be performed somewhere below the current PEEP setting the flow can be changed. The lower the flow, of course, the slower the manoeuvre, but the more accurate and might be. The minimum we can do is 4 litres. And we also have two maximum criteria, which is the maximum pressure and the volume limit to ensure that the patient is not overinflated. Once you do that, you got to start. You see, it's starting with the next breath and now it will inflate the lungs slowly. The idea is also to determine the lower and upper inflection point, of course, by that shape of that line, it's not not appropriate for the ventilatory to detect those points.

[00:01:30] But you can still go into the screen and set up the lower and upper inflection point manually. Right. That would also immediately calculate, if you see here, the compliance. If you go to the history, I've got only one manoeuvre performed, but if there are more, you can change the screen to the previous histories. But OK, and there's also the sustained inflation recruitment manual on.

[00:02:27] All right. So, of course, first there's a warning note because it is the recruitment manoeuvre that might be quite aggressive. So what what we do here is set up the holding pressure and the time pressure in seconds to set it up to a shorter time and just like a lower pressure.

[00:02:57] And once you go to start see now with the next inspiration to inflate the lung to the pressure of 25 cm of water for 15 seconds, and then it'll go back to the previous ventilation.

[00:03:16] You do that without having to do that? Absolutely.

[00:03:21] So what is it is I wouldn't say quite popular, but it is I know it has been described several times in the literature, especially especially by American restaurateur. I've heard that they would use that for they would normally do a PV manoeuvre for sustained inflation and then another manoeuvre, just to see if the compliance of the line has changed.

[00:03:56] All right, then we have the alveolar ventilation calculation, which is only available if you use volumetric capnography and the ventilator, but a half that is not enabled here.

[00:04:11] I'm not going to go into the details of this.

[00:04:21] The Short key set up is what you have already done, you can decide to display directly some short keys on the menu, of the ventilator. The screen can be locked, especially for cleaning, right, once the screen is locked.

[00:04:43] Of course, you cannot change any settings you see here that green warning. So in order to kind of just press again on the button.

[00:04:56] What we have seen just during the spontaneous breathing trial is the apnoea ventilation, so the patient would, of course, be ventilated mandatory if he's in apnoea and spontaneous breathing mode.

[00:05:15] In that case, the ventilator switches automatically into apnoea. If the patient is starting to breathe again, because usually takes only a reminder for him. The ventilator will switch back to inform you that the ventilation is ended. And you can see on the I tap what the reason for the alarm was.

[00:05:59] And the alarms you see the Apnoea time, 15 seconds is the default, but you can change it up to 60 seconds here. If you see on the bottom of the step, I'm going to menu at the last part. But the by if you go back to stand by, you can actually change from invasive to noninvasive.

[00:06:32] So you can actually change from invasive to non-invasive ventilation by going back to the last patient. And then you can go to an N.I.V. And if you see here and I we we have only pressure related modes as it is normal.

[00:06:54] So we have pressure, CPAP pressures support, pressure assist control and PSV S-T, which is CPAP with spontaneous or time cycled pressure support. In

spontaneous breathing, if the patient is breathing rather slow with a low rate, that can be additional pressure support applied to a time setting.

[00:07:25] So I'm going back to invasive in case you have to change the breathing circuit on a patient. What I don't know what the policy is here, 72 hours, 48 hours and three seconds every seven days.

[00:07:41] But the science, we don't know yet. I think we have to.

[00:07:46] It's OK. But especially if you are changing the breathing circuit, you need to test the new breathing circuit so you don't need to go back to the setup test. You just need to do the as you see here, the circuit test, which is significantly shorter and the system test.

[00:08:03] So you would actually remove the old circuit, hook up the new circuit, sorry, and go just a circuit test. Go to continue and you see here the progress and that's it, then you can actually connect to the patient and go back to the actual ventilation.

[00:08:35] Well, that's been seven days. It's the same patient. Yeah.

[00:08:41] You don't need to do the full system check because everything else is OK.

[00:08:45] It's actually between a patient and you should be doing the full system. Yes. Yes. To.

[00:08:55] Are you using high flow nasal canula oxygen therapy? I'm on the ventilator. Yes, I'm one . Currently, we switch between two separate systems and certainly separate circuits with a separate delivery system. OK, later. So one of the real attractions as well was the fact that we can use high flow and ventilation modes with one circuit.

[00:09:21] So it's also from the standby menu, you can go directly into the O2 therapy, which is High flow therapy.

[00:09:29] It started and you see here the flow and just reducing the flow to save oxygen and the oxygen concentration for the Highflow therapy. We, um, we recommend to use only the inspiratory limb, not to expiratory limb, in part because there's no need to pass the gas back to the ventilator.

[00:09:55] So just connect to the inspiratory limb to the inspiratory value, very well connected to the patient with, of course, the humidifier installed in between. And then you can start the oxygen therapy with maximum flow of 60 litres per minute.

[00:10:15] In this moment, no alarms are activated other than Fio2, apnoea is not detected by the ventilator because we can't measure any volumes or anything from the patient to clarify that you recommend we use in terms of the circuit setup.

[00:10:36] It's a single limb circuit.

[00:10:42] This can be done with a Fisher Pykal circuit.

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[00:12:19] I just saw that the arm here goes out very, very long and. Right. It can also be mounted a little bit further to the back. So it just sticks rather close to the whole thing because the humidifier then is quite far away and might be in the way. All right. If you want to exit the high flow therapy, you just go back to the standby mode and then you can switch to either CPAP or invasive ventilation and connect the patient accordingly.

[00:12:53] So that's just that easy.