

"BLUE" Non-Invasive Positive Pressure Ventilation in the ED

Stony Brook Division of Emergency Critical Care

- 1) Put a page out to the Respiratory Therapist
- 2) Use the correct mask

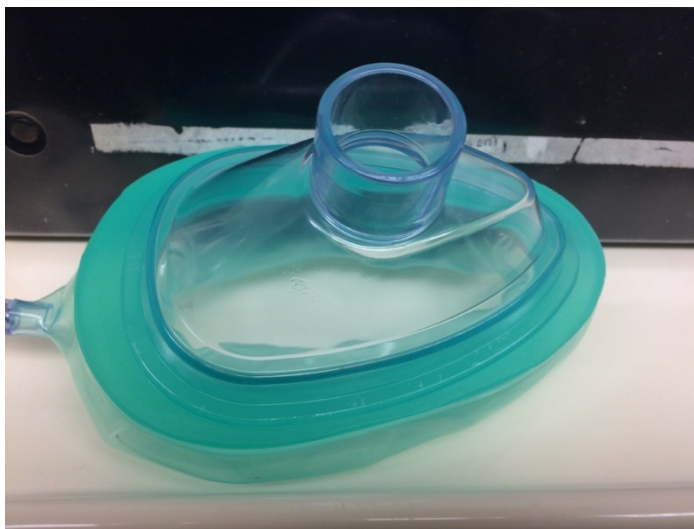
Go to the back supply room
and look in the "Blue" Bins:



In there you will find NIPPV masks with
"Blue" adapters:



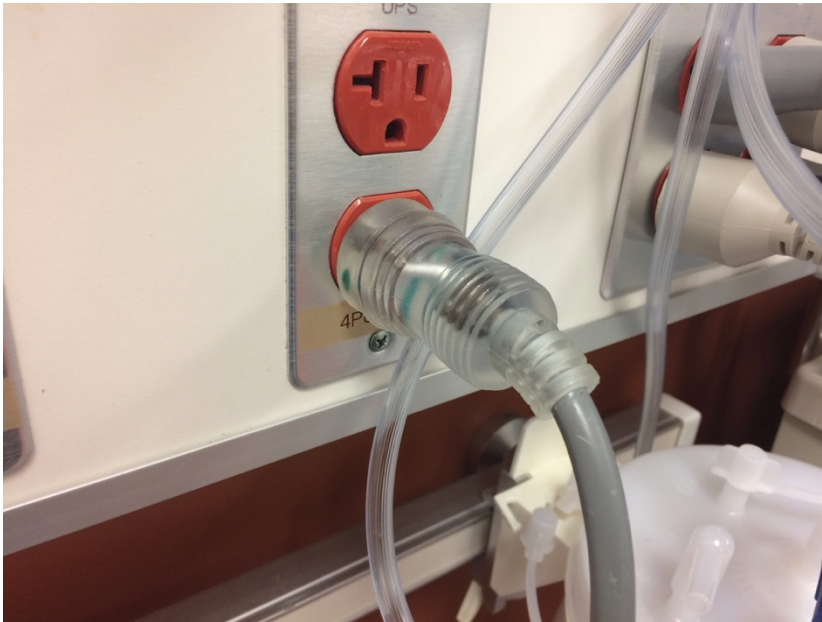
This is important as these are sealed (as opposed to the clear ones) so the patient will get the appropriate pressure. The clear adapter ones will leak and the patient won't get the volume. In a pinch, if these aren't available, use the mask that comes with the BVM and hold it on the patient gently.



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3) Next, go to the "Blue" Avela Ventilator (or bring it to the patient's room). Make sure it is appropriately screwed in/ connected to oxygen (green hose) and electrical power (gray cord). The oxygen connection is screwed in the back, not through the flow infuser (otherwise it can be turned off).



- 4) Next connect mask. There should be a plastic bag that comes off and you will put it back on to ensure that this is a fresh and sterile ventilator
- 5) Turn the Ventilator on, the power button is in the back on the top left behind a piece of plastic:



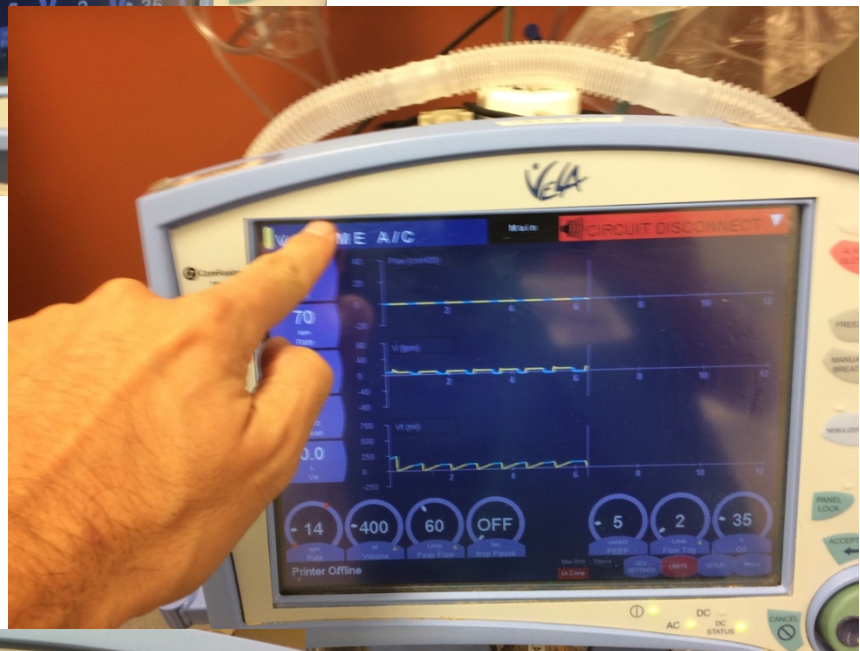
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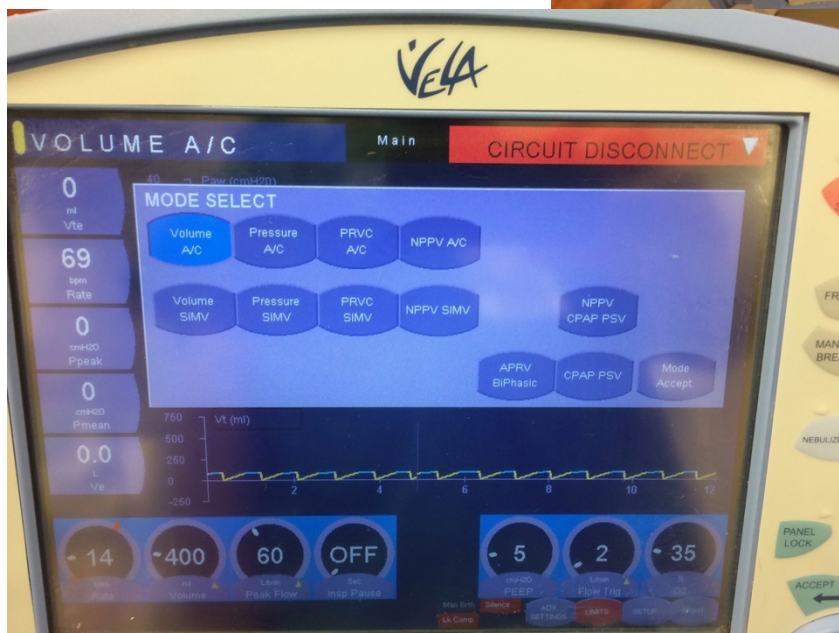


6) Once the ventilator warms up, accept the patient to come you'll come to the main ventilator screen

7) Hit the top left of the screen where the mode is to change to a NIPPV compatible mode



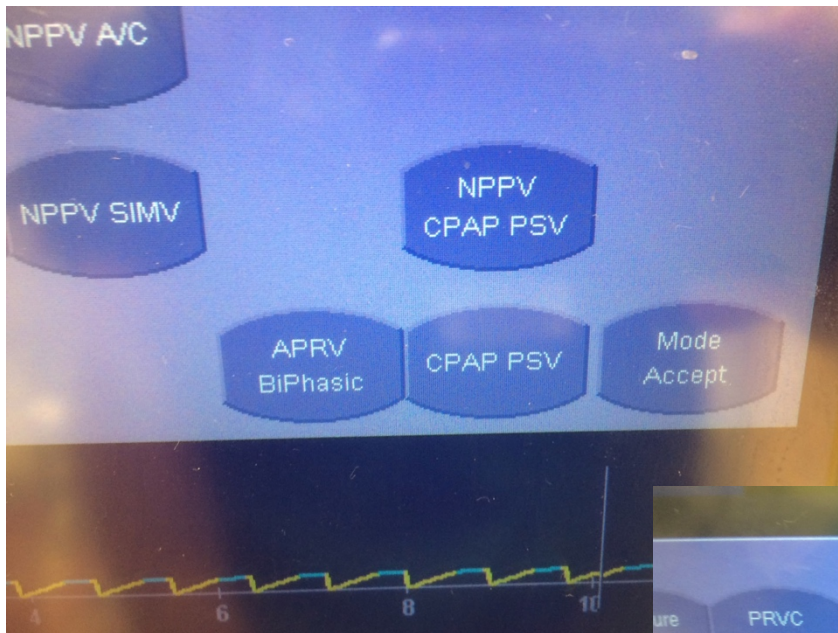
You'll come to this screen with the modes:



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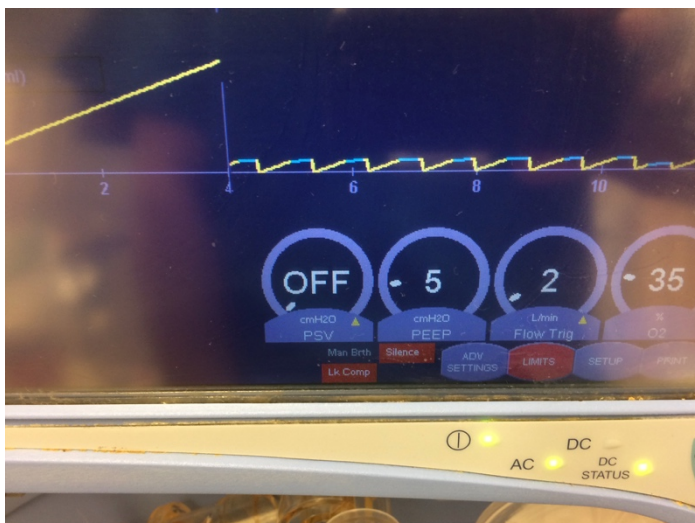
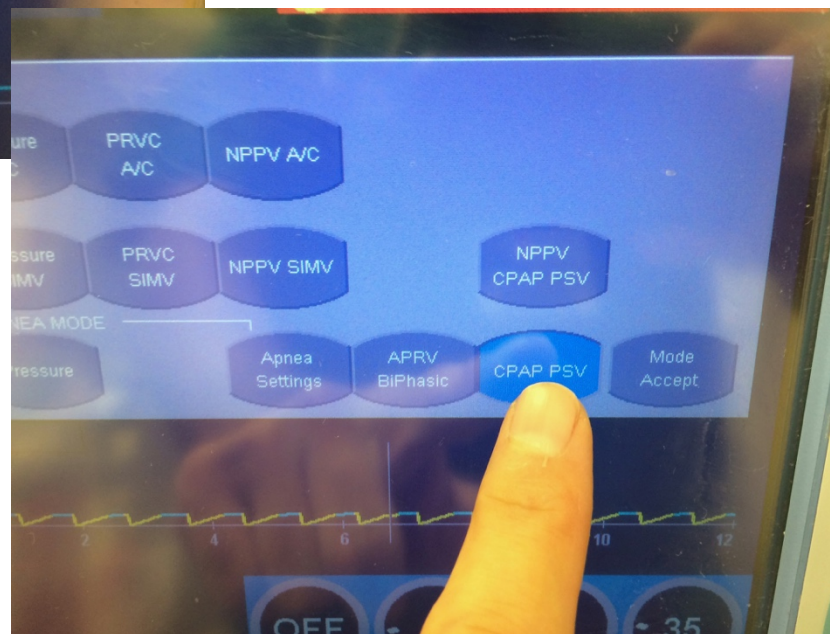
8) Pick the "NPPV CPAP PSV" or "CPAP PSV" mode:



And be sure to hit mode accept.

Always make sure that when you make a change the ventilator changes and doesn't default back.

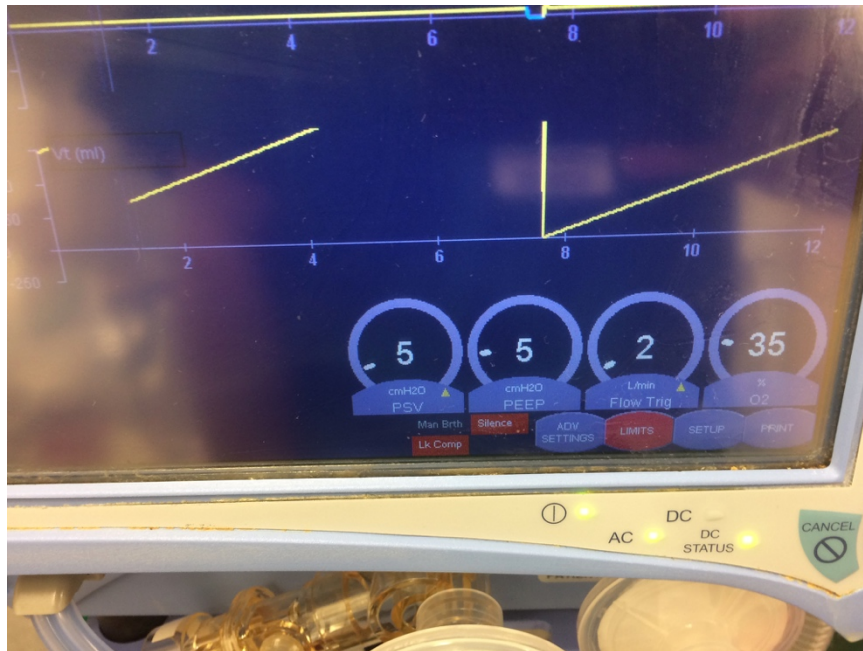
9) Now you're on PSV and CPAP. The nomenclature for the vent and the "BiPAP" are a little different. On BiPAP, the pressure support is the difference between the EPAP and the IPAP. On the "Blue" Vent, the pressure support is added to the PEEP.



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Example: A common initial BiPAP setting is 10/5. The pressure support (difference between IPAP and EPAP) is 5. On the "Blue" vela this would be 5/5 (PSV of 5 and PEEP of 5).

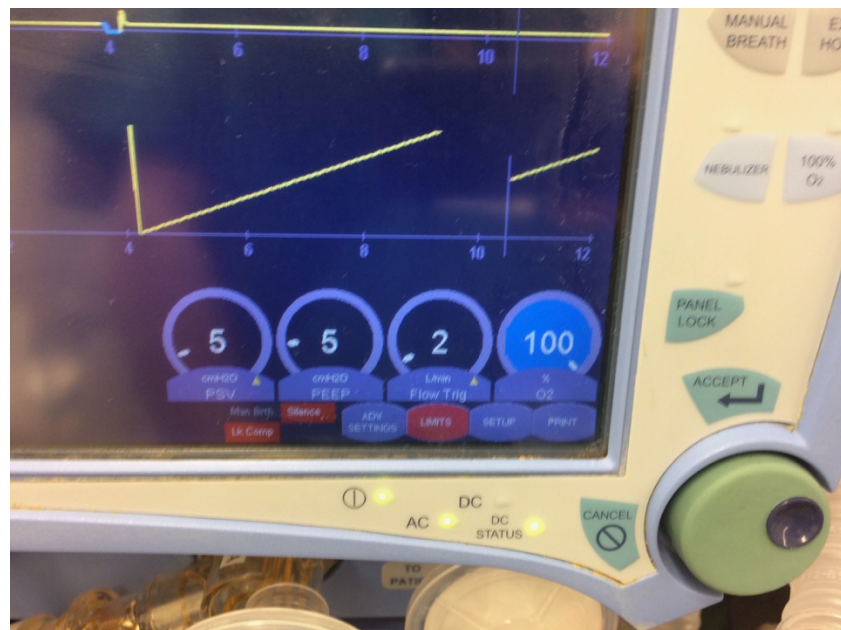


If you happened to put 10 over 5 on the "Blue" Vent, that would be equivalent to 15 over 5 on the BiPAP. Some patients may need that, but in my opinion that is a very aggressive NIPPV setting, and signifies a pretty sick patient (especially if you're getting crap tidal volumes) and you don't have a lot of room.

If you just wanted to use CPAP, keep PSV at zero and titrate up PEEP.

10) You can adjust the FiO2 as you see fit.

11) Put the patient on the mask. I recommend empathetically coaching patient, warning them that it will feel funny at first, starting with lower pressures, and holding mask with patient. Only when they get in sync do I strap it on.



12) Put an additional page out to the RT or just confirm that they are aware so they can transition to the BiPAP or help if you need to intubate patient.