APRV Algorithm

APRV Initial Settings
P-High 30 (or equivalent PIP-10 on HFPV)
P-Low 0
T-High 5 seconds
T-Low 0.6 seconds
FIO2 100%

Adjusting for Hypercapnia
[goal PaCO2 < 60  pH >7.2]
1. Decrease sedation to allow spontaneous breathing
2. Increase P-High by 2
3. Increase T-Low by 0.05 seconds
4. Repeat 2 and 3 until P-High 40 T-Low 0.9 seconds
5. Decrease T-High to 4
6. CALL PHYSICIAN if still NOT at goal.

Titrate FiO2 by 10-20% every 30 mins.
Goal FiO2 is 21%.
CHECK ABG 30-60 mins after each change

Adjusting for Hypoxemia
[goal PaO2 >70  SpO2 > 92%]
1. Increase P-High by 2
2. If PCO2 < 50, then decrease T-Low by 0.05
3. Repeat 1 and 2 until P-High 40, T-Low 0.4
4. Increase P-High by 2 (Until P-High 50)
5. CALL PHYSICIAN if still NOT at goal.

Titrate FiO2 by 10-20% every 30 mins.
Goal FiO2 is 21%.
CHECK ABG 30-60 mins after each change

Adjusting for Hypocapnea
[goal PaCO2 >30  pH <7.5]
1. If PaO2 > 100, decrease P-High by 2
2.Decrease T-Low by 0.05
3. Repeat 1 and 2 until P-High 40, and T-Low 4 seconds
4. CALL PHYSICIAN if still NOT at goal

Titrate FiO2 by 10-20% every 30 mins.
Goal FiO2 is 21%
CHECK ABG 30-60 mins after each change

Patients Who Fail to Meet Oxygenation/Ventilation Goals On APRV Obtain MD Order for Ventilator Mode of Preference
WEANING APRV

When ventilation/oxygenation goals are met
RT will 'Drop and Stretch'

Hemodynamically Stable?
(off pressors)

GCS > 8

At Goal P-High 16?
At Goal T-High > 10 seconds?
And is Patient???

Yes to all Questions
Attempt Spontaneous Breathing Trial

P-High <= 16
FIO2 < 30%

Patient Not Weaning Successfully
Notify MD To Place Back On Ventilator

CPAP of 5-10cmH2O
For 30 minutes
Collect weaning parameters

Patient Stable Weaning Successfully
Notify MD For Orders to Extubate

Vapotherm
20 LPM, FIO2 50%
Titrate as indicated

No Upper Airway Obstruction

Patient Stable

Figure 7.