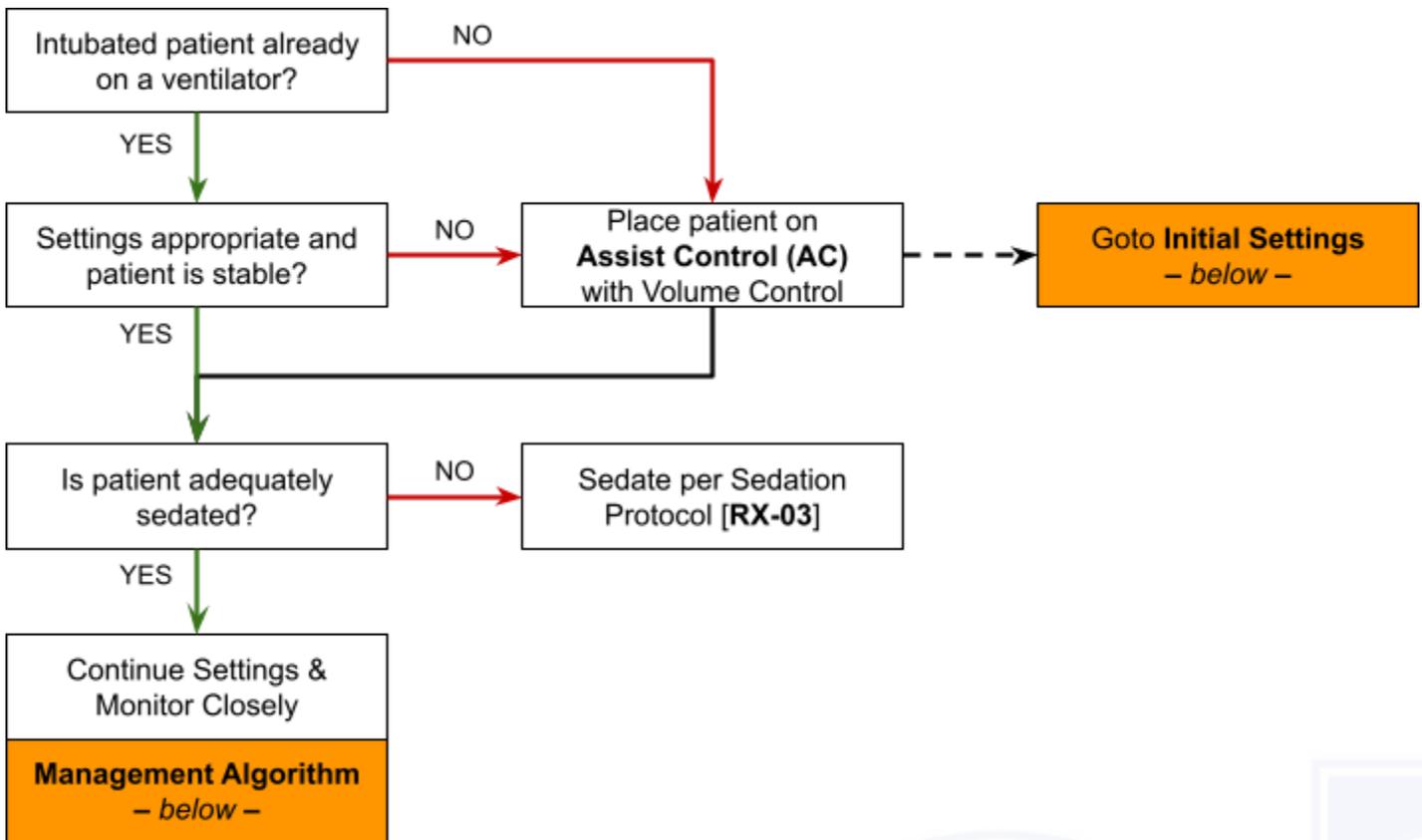


Indications

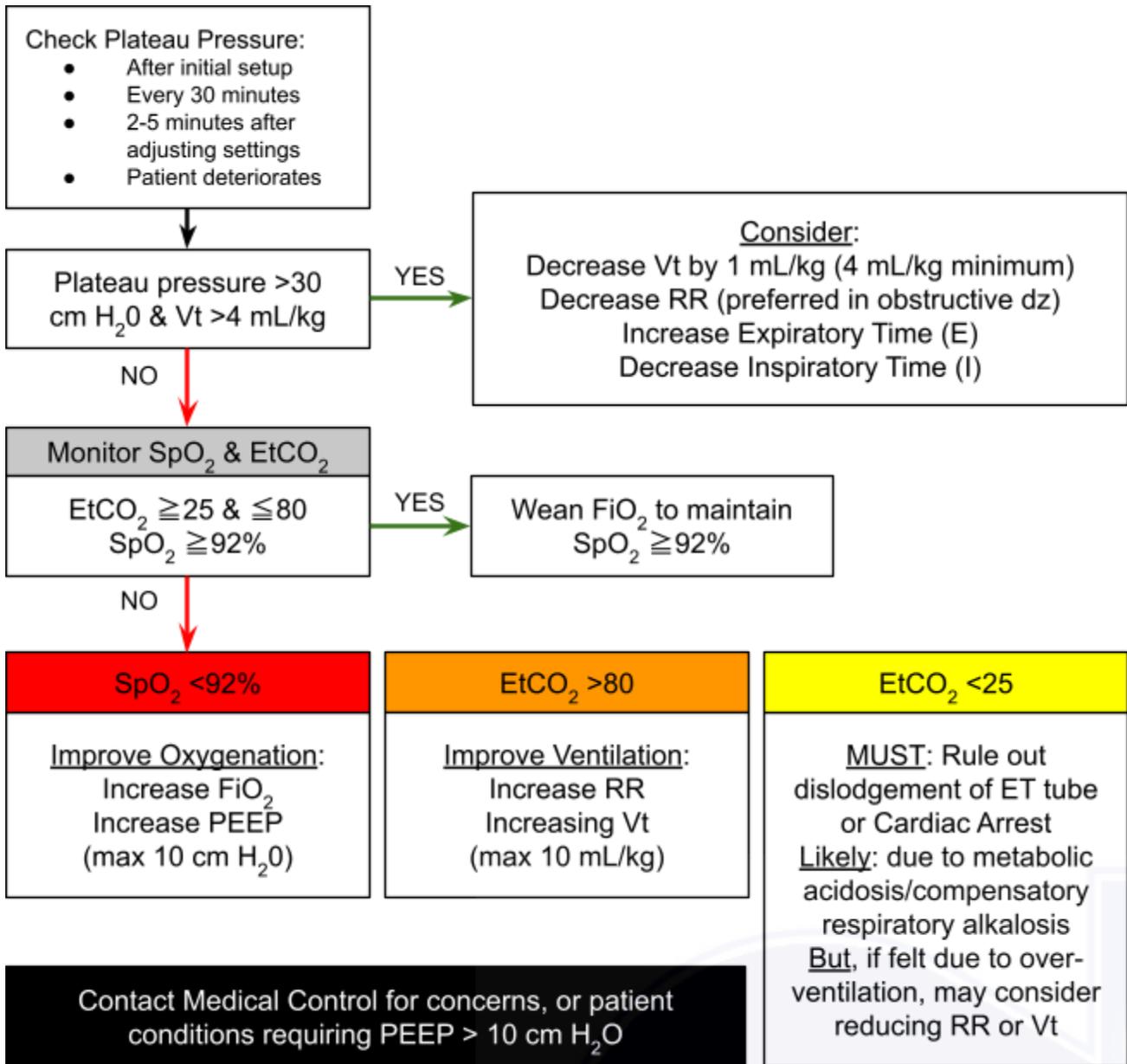
- Transport of an intubated or trach patient.

Contraindications

- Insufficient training



Continued Ventilator Management



### KEY POINTS:

- Normal EtCO<sub>2</sub> 35-45
- Desired SpO<sub>2</sub> >92-94%
- Metabolic Acidosis (i.e. sepsis, DKA, etc.) → try and match patients initial respiratory rate to maintain respiratory alkalosis, and allow permissive HYPOcapnia
- COPD → allow a permissive HYPERcapnia
- Ensure adequate pain management and sedation.
  - Paralytics should only be used as a last resort after DAI.
- Always favor/ensure oxygenation first, then focus on ventilation (EtCO<sub>2</sub>).
- High PEEP can cause a drop in cardiac output evidenced by sudden drops in BP.
- Causes of increased plateau pressures:
  - Increased V<sub>t</sub>
  - Pulmonary edema
  - Pleural effusion
  - Tension pneumothorax
  - Increased intraabdominal pressure (ascites, abd packing/air insufflation, trendelenburg, etc.).
- If air trapping is suspected, consider shortening inspiration (I) time to achieve a I:E ratio of 1:4 or higher.
  - In patients with obstructive lung disease who decline suddenly, a good first step is to disconnect the ETT from the vent for 20-30 seconds to allow a “full” exhalation.
- If there is any doubt in the cause of a patients decompensation while on a vent, or if the patient is not responding to vent changes, ALWAYS CONSIDER disconnecting the vent and using standard BVM VENTILATION.

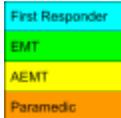
**Initial Ventilator Settings**

	No Lung Pathology	Obstructive Disease (Asthma or COPD as the primary/acute problem)
Tidal Volume (Vt, see chart below)	4-6 mL/kg IBW	6-8 mL/kg IBW
Rate (f)	Adult: 16 bpm Ped: 20 bpm Infant: 20-30 bpm	Adult: 10 bpm Ped: 15-20 bpm Infant: 20-25 bpm
PEEP	5 cm H <sub>2</sub> O	
FiO <sub>2</sub>	100%	
Inspiratory Time (It)	Adult: 1 sec Pediatric: 0.7 sec Infant: 0.5 sec	
I:E Ratio	1:2	1:3 (or more)
PIP Alarm Limit	High: PIP + 15 cm H <sub>2</sub> O Low: PIP - 15 cm H <sub>2</sub> O Max: 40 cm H <sub>2</sub> O	
Sensitivity (Trigger)	2 Lpm <u>or</u> Pressure Trigger of 3 cm H <sub>2</sub> O	

Formula for IBW (see full chart below)

Pediatric IBW	[Height (cm)] <sup>2</sup> * 1.76/1000	
Female IBW	45.5 kg @ 5' 0"	+2.3 kg per inch over 5 foot
Male IBW	50 kg @ 5' 0"	-2.3 kg per inch under 5 foot

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Tidal Volume (mL) for IBW (*Broselow Colors noted*)

Height	Inches	cm	IBW (kg)	Tidal Volume			
				4 mL/kg	6 mL/kg	8 mL/kg	10 mL/kg
2' 0"	24	61	6.5	26	39	52	65
1"	25	64	7.2	29	43	58	72
2"	26	66	7.7	31	46	61	77
3"	27	69	8.4	34	50	67	84
4"	28	71	8.9	35	53	71	89
5"	29	74	9.6	39	58	77	96
2' 6"	30	76	10.2	41	61	81	102
7"	31	79	11.0	44	66	88	110
8"	32	81	11.5	46	69	92	115
9"	33	84	12.4	50	75	99	124
10"	34	86	13.0	52	78	104	130
11"	35	89	13.9	56	84	112	139
3' 0"	36	91	14.6	58	87	117	146
1"	37	94	15.6	62	93	124	156
2"	38	97	16.6	66	99	132	166
3"	39	99	17.2	69	103	138	172
4"	40	102	18.3	73	110	146	183
5"	41	104	19.0	76	114	152	190
3' 6"	42	107	20.2	81	121	161	202
7"	43	109	20.9	84	125	167	209
8"	44	112	22.1	88	132	177	221
9"	45	114	22.9	91	137	183	229
10"	46	117	24.1	96	145	193	241
11"	47	119	24.9	100	150	199	249
4' 0"	48	122	26.2	105	157	210	262
1"	49	124	27.1	108	162	216	271
2"	50	127	28.4	114	170	227	284
3"	51	130	29.5	118	177	236	295
4"	52	132	32	128	192	256	320
5"	53	135	34	136	204	272	340
4' 6"	54	137	35	140	210	280	350
7"	55	140	38	152	228	304	380
8"	56	142	41	164	246	328	410
9"	57	145	44	176	264	352	440
10"	58	147	45	180	270	360	450
11"	59	150	47	188	282	376	470

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5' 0"	60	152	50	200	300	400	500
1"	61	155	52	208	312	416	520
2"	62	157	55	220	330	440	550
3"	63	160	57	228	342	456	570
4"	64	163	59	236	354	472	590
5"	65	165	62	248	372	496	620
5' 6"	66	168	64	256	384	512	640
7"	67	170	66	264	396	528	660
8"	68	173	68	272	408	544	680
9"	69	175	71	284	426	568	710
10"	70	178	73	292	438	584	730
11"	71	180	75	300	450	600	750
6' 0"	72	183	78	312	468	624	780
1"	73	185	80	320	480	640	800
2"	74	188	82	328	492	656	820
3"	75	191	85	340	510	680	850
4"	76	193	87	348	522	696	870
5"	77	196	89	356	534	712	890
6' 6"	78	198	91	364	546	728	910
7"	79	201	94	376	564	752	940
8"	80	203	96	384	576	768	960
9"	81	206	98	392	588	784	980
10"	82	208	101	404	606	808	1010
11"	83	211	103	412	618	824	1030
7' 0"	84	213	105	420	630	840	1050

## QI Review Parameters:

1.