Have I fixed the cause of respiratory failure?
(e.g. successful diuresis of a pt with heart failure, effects of overdose wore off, ARDS improving, etc)

Daily “Wean screen”
Pt should have airway reflexes (cough, gag), require FiO2 ≤ 0.5 on PEEP ≤ 8, breath spontaneously, w/ stable hemodynamics (OK if on stable dose of vasopressors)

Do a spontaneous breathing trial (SBT)
Settings: PS 5 bpm, PEEP 5 cmH2O for 30 min. Perform once daily. For patients with severe HF consider zero PEEP

How does the patient look?
Failure if: patient looks extremely distressed (anxiety, agitation) or using accessory muscles

What does the monitor show?
Failure if: Arrhythmias including tachycardia or bradycardia, Hypo/Hypertension, or Desaturation

What does the ventilator show?
Failure if consistently low TV (<300) MV too high (>10 lpm) or MV too low (<2 lpm)

What does the ABG show? (optional)
Failure if new hypercarbia or respiratory alkalosis

Check for cuff leak
Passing if >110 ml or <25% of TV lost or if audible leak is heard

Extubate
Typical reintubation rate is ~10% (if you are not reintubating you are not extubating enough!)

Setting up for extubation success
- Decrease demand – correct metabolic acidosis, decrease CO2 production (fever, overfeeding, etc), reduce dead space.
- Optimize mechanics - sit patient up, avoid gastric distension, consider draining pleural effusions
- Improve strength – physical therapy, wean or avoid steroids & NMB
- Respiratory drive – stop or reduce long lasting pain meds, combine with sedation vacation
- Optimize Nutrition – feeding w/o overfeeding, correct electrolyte derangements (including Mg and PO4)
- Diuresis – Dry lungs are happy lungs

Other pro-tips
- Rapid shallow breathing index (RSBI) = freq / TV (L); RSBI >105 is a specific but insensitive predictor of extubation failure
- Drop in ScvO2 by >4.5% is a highly specific and fairly sensitive predictor of extubation failure

Combined with a Sedation Vacation (stop sedating medications prior to SBT)