Supplemental Information

SUPPLEMENTAL TABLE 1 All Plan-Do-Study-Act (PDSA) Tests Completed

Standardizing Clinic Workflow			
	Test	Result	Action
PDSA			
PDSA 1–2	Compared NM3 and downloaded ventilator data in 1 d and then 1 wk.	Downloads had reliable Vte values to dictate alarm use	Adapted use of ventilator downloads for alarm decisions.
PDSA 3–4	Attempted to collect downloads early in visit in 1 d and then 1 wk.	Better data but less efficient and some patients did not have home vent	Adopted obtaining downloads at start of visit. Adapted to attempt downloads through DME.
PDSA 5–6	Attempted obtaining downloads 1 wk in advance through DME with revised contact strategies.	Difficulties obtaining timely, readable downloads in advance.	Abandoned downloads through DME.
Use of alarm algorithm			
PDSA 1–2	Used algorithm for 1 patient, then 1 d, then 2 wk.	Well received by clinic RTs with multiple additional alarms set.	Adopted use of algorithm.
PDSA 3	Called patients after clinic to assess alarm changes.	2 alarms reverted back. Calls became very lengthy with topics unrelated to alarms.	Acceptable algorithm performance. Abandoned regular calls to assess alarms due to increased workload.
Revised algorithm			
PDSA 1	Apnea alarm simulations.	Effective for low tidal volume patients in simulation.	Adapted trial to inpatients.
PDSA 2	Turned on apnea alarm in 15 patients on the inpatient unit.	9 alarms were turned off by bedside RTs, documentation on rationale was incomplete.	Adapted with education of inpatient RTs and improved documentation.
PDSA 3	Turned on apnea alarm in 15 patients on the inpatient unit.	5 alarms were turned off. Success with patients who had low mandatory breath rate.	Adapted algorithm to set apnea alarm for patients with low mandatory breath rates.
PDSA 4	Trialed revised algorithm in clinic for 1 wk.	Able to set apnea alarm in a small number of patients.	Adopted revised algorithm.
Staff engagement and sustainability			
PDSA 1	Add alarm settings to ventilator registry for weekly review.	Alarms were added.	Adopted.
PDSA 2	Reviewed alarms at weekly ventilator meeting.	Attendees were aware of changes, but this information was not disseminated to all physicians and staff.	Adapted and sent alarm info in planning meeting update emails.
PDSA 3	Sent emails after meeting to all LTMV providers.	Improved knowledge of potential changes and improvement in our measure.	Abandoned after several months once practice was sustained.

DME, durable medical equipment; LTMV, long-term medical ventilator.