

The AARC (American Association of Respiratory Care) recently released the “AARC Guidelines for Acquisition of Ventilators to Meet Demands for Pandemic Flu and Mass Casualty Incidents” (go to [www.aarc.org](http://www.aarc.org) for complete document). The Newport HT50 Ventilator meets or exceeds these guidelines. Following is a brief synopsis of some of the AARC recommendations for qualities of ideal ventilators for these cases:

1. **“Ventilators must be easy to use.”**
  - a. The HT50 controls are straightforward and easy to understand with no hidden menus to remember. The front panel is simply laid out with logical placement of key functions such as parameter setting, alarm setting, modes, function keys, message window and alerts. It is very intuitive and can be operated without extensive training.
2. **“Ventilators must have adequate alarms to include loss of power (gas and/or electricity), low pressure, high pressure and disconnect.”**
  - a. The HT50 incorporates these alarms and clearly identifies the alarms for ease of responding to the situation. While an alarm is active, in addition to the audible alarm and the flashing LED for that particular alarm, a text message alerts the caregiver to the problem. After the alarm condition is corrected, the specific LED stays on in a steady state and the text message remains until cleared by the user.
3. **“Oxygen consumption of the ventilator must be limited.”**
  - a. The HT50 does not waste any oxygen in powering the ventilator or venting any oxygen off before it reaches the patient as is the case with gas driven ventilators or turbine driven ventilators.
4. **“Adequate supplies of ventilator circuits . . . must be readily available”**
  - a. The HT50 can use standard disposable circuits available from hospital suppliers. While Newport keeps a large inventory on hand, circuits that work with the HT50 can be obtained from other sources.
5. **“Ventilators capable of operating from compressed gas and a variety of electrical sources are preferred.”**
  - a. The HT50 incorporates an internal compressor and has no need for external gas sources.
  - b. The HT50 has a universal automatic switching power supply that operates from any external power source - from 12 VDC through 30 VDC and from 90 VAC through 260 VAC with 50 Hz, 60 Hz or 400 HZ.
  - c. The HT50 has an internal battery that will operate the unit up to 10 hours under nominal settings when fully charged.
6. **“Infants and children will also be victims, so ventilators should be capable of ventilating pediatric patients.”**
  - a. The HT50 has a long history of successfully ventilating patients under 5 kgs through adult in hospital, transport and homecare settings.
7. **“Minimal maintenance.”**
  - a. The HT50 requires only that the unit be charged up every 3 months to preserve the internal battery.
8. **“Operate 4-6 hours when electric and gas supplies are unavailable.”**
  - a. The HT50 can operate up to 10 hours from the internal battery. It uses minimal current to operate and so can run for extended times with an external battery. For example, with a 30 amp/hour battery the HT50 can run about 30 hours while most ventilators would only run 5 or 6 hours on the same battery.
9. **“Ventilation of acute respiratory failure will require, at a minimum, the ability to control tidal volume, respiratory rate, inspired oxygen concentration, and positive end-expiratory pressure (PEEP).”**
  - a. The HT50 includes all of these with straightforward, easy to understand controls.