

Traditional and high-tech solutions needed in ventilator shortage



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One thing is certain from the ongoing Covid-19 pandemic: hospitals and healthcare systems need more respirators. While some governments have called on non-medtech manufacturers to turn their production lines to build ventilators this underestimates the complexity, as shown by data from *EvaluateMedTech* on the number of approvals of new ventilators by leading manufacturers in the past five years. While Resmed might lead the pack in terms of approvals, in the current climate it is manufacturing capacity that matters, an area where groups like Medtronic and GE Healthcare dominate. But ventilator manufacturers are claiming that increases in production could take three or four months, so solutions will not come soon. Some are hoping for results from open-source collaborations to use 3D printing to create ventilators, and this approach has already resulted in the OSV group reportedly being ready to test its ventilator in Ireland as early as next week. However, rather than the complex machines such as Medtronic's Puritan Bennett 980 ventilator, OSV aims to automate the use of bag valve masks (Ambu-bags), a much simpler technology. While there is no disputing that this will be critical if estimated ICU numbers are correct, traditional ventilator manufacturers still need to step up.

Number of FDA ventilator approvals, 2014-2020	
Resmed	7
Hamilton Medical	5
Hill-Rom	5
Philips	4
Medtronic	3
Thornhill Medical	3
Vyaire Medical	3
Getinge	3
General Electric	2
Flight Medical	2

*Note: includes only continuous ventilators, which are likely to be used to treat Covid-19 patients.
Source: EvaluateMedTech.*