UNIVERSITY OF LEEDS

The LeVe CPAP System

The LeVe CPAP system has been developed using principles of frugal innovation to produce a CPAP respiratory support solution for COVID-19 of low complexity and high resource efficiency.

The LeVe CPAP System has been designed specifically to be ultra-efficient in oxygen usage for the provision of CPAP. The system offers pressure within the range of 5 to 12cm H2O and is designed for use within a resource stretched setting. The LeVe CPAP flow generator unit has been designed to offer simplicity of operation and ruggedness in use. This reduces the training burden of introducing such equipment into a healthcare setting and minimises maintenance. The LeVe CPAP system has been designed and assembled by professional engineers at the School of Mechanical Engineering at the University of Leeds, UK in partnership with clinicians from the Leeds Teaching Hospital NHS Trust and Bradford Teaching Hospital NHS Trust. We have collaborated with clinical partners at Mengo Hospital (Kampala, Uganda) to validate the system for safety and are currently undertaking clinical trials at the same centre.

Further information is detailed in:

https://www.frontiersin.org/articles/10.3389/fmedt.2021.715969/full

References

1. Pete Culmer, Nik Kapur, et al , https://www.frontiersin.org/articles/10.3389/fmedt.2021.715969/full

Category

COVID-19 Resources

Non-Software (HEBCI)

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