

SRAVI helps Nathan Armstrong to 'speak' to his medical team

Nathan Armstrong, aged 33 from Oswaldtwistle, has experienced paralysis of his vocal cords since he was an infant. His condition also caused severe asthma. To assist with normal breathing, Nathan was fitted with a tracheostomy in October 2019 at the Royal Preston Hospital, under the critical care team led by Consultant Dr Shondipon Laha.

Nathan's father, Stephen Armstrong said, "Nathan was having too many episodes of ILOs – or Involuntary larynx obstruction – a medical emergency when the ability to breathe is threatened due to blockage of the airway. So it was a lifesaving and life-changing procedure for him."

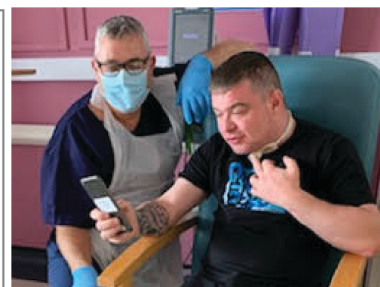


Over the year before his tracheostomy, Nathan spent 289 days in hospital. Since then, he's only spent two weeks in hospital. Whilst the tracheostomy gave Nathan a much-improved quality of life, it also has caused considerable communication challenges, common with this procedure. The tracheostomy tube sits below the vocal cords, so without manually covering the breathing hole, it is not possible to make sounds as normal by using the voice. This is where the SRAVI app assisted Nathan in his treatment.

"I am very satisfied with how accurately SRAVI returned the phrases I was communicating while I was in ICU. If you have been on a ventilator, you will have been asleep for a week or maybe longer – the last thing you want to do is pick up a pen to try to communicate."

"I think SRAVI will be a good way for people like me to communicate."

-Nathan Armstrong



Nathan started using SRAVI in hospital for about three months, to communicate with doctors and nurses. "He quite liked it and found it very useful. He's used it a fair bit and he would certainly recommend it," said Stephen.

SRAVI works by reading Nathan's lip movements, as he mouths phrases into the screen of a phone. The app analyses his lips and speaks the correct phrase. At present, SRAVI understands 20 common phrases that are most likely to be used by patients in critical care units in hospital.

The wonderful news is that Nathan's prognosis is looking very good. His tracheostomy will most likely be removed in Spring 2021. His father Stephen concluded, "His vocal cords look as back to normal as possible – things are looking good for the future."



"We believe SRAVI is fundamental to the recovery and wellbeing of critically ill patients. Nathan is one example of someone who had improved health outcomes, communicating with the aid of SRAVI."

-Dr. Shondipon Laha