



PhD student helps to design digital dashboard to help clinicians improve care for patients with COPD

A PhD student at Lancaster University helped to design a digital dashboard which will give clinicians access to data to enable them make decisions which will improve quality of care for patients with Chronic Obstructive Pulmonary Disease (COPD).

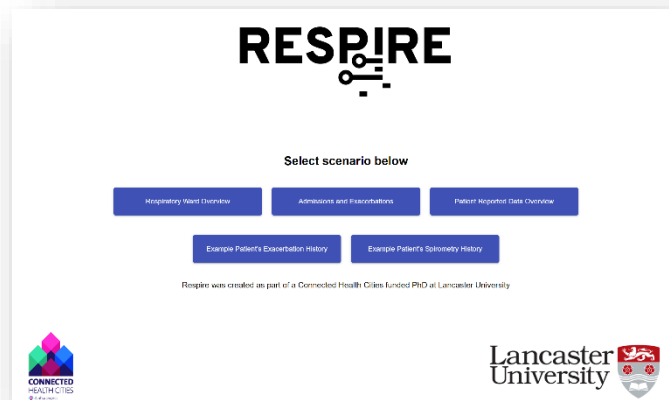
Helena Tendedez is a PhD Computer Science Candidate, at Lancaster University, funded by the North West Coast Connected Health Cities (CHC) programme.

As part of her PhD, Helena looked at ways that clinicians can have access to the data they need at their fingertips in order to improve care pathways for patients.

She worked closely with NHS staff including clinicians, business intelligence and IT leads to co-design a prototype dashboard to help inform decisions around the care of COPD – one of the areas of clinical focus for the NWC CHC.

Entitled 'Respire' the aim of the dashboard was to better connect clinicians with the data they need for decision-making around COPD care to introduce clinical care earlier, before the condition exacerbates.

Helena held workshops with Breathe Easy groups exploring topics such as data sharing, data capture and challenges with self-management to understand how self-monitoring tools could work with patients and how this data might feedback to clinicians through the dashboard.



She explained: “We have spent a lot of time working with clinicians to uncover what their needs are and have worked with them in designing Respire to meet those same needs.

“The dashboard connects clinicians with the relevant information they need in order to identify, treat and discharge COPD patients as effectively as possible, which in turn, will hopefully improve their quality of care whilst also reducing future admissions.

“The data used for the project was a set of realistic dummy data created by the researchers (dummy data simulates real health data without the need to undergo the challenging and lengthy processes in order to obtain it).

“We have been sharing our findings and work with the CCGs who have taken an interest in Respire, and wish to gather broader interest within the Trust to work towards seeing it through as a tool clinicians can use in practice.

“Respire could definitely be used by community COPD specialists as we have worked closely with them as well as hospital clinicians on different views of the dashboard they can use in their decision making.”

Having developed a digital prototype of the dashboard, Helena is now qualitatively testing it with clinicians at Preston Royal by running through scenarios of use and will be writing a paper on the results to be submitted to the The ACM CHI Conference on Human Factors in Computing Systems.

Helena was shortlisted for the NWC Research and Innovation Awards for research student of the year for her efforts.

