

Research Communication: Piloting Ultrasound Evaluation of Swallowing (USES) in the Clinical Population with Neurological Diseases

December, 2024



Overview

Thank you for being part of our study!

We carried out a study to see if it is possible to use Ultrasound Evaluation of Swallowing in NHS clinics to assess the swallowing functions in people with neurological diseases. This study took place between May 2023 to March 2024. In this study, we used ultrasound to look at the participants' swallowing on the same day as they had their videofluoroscopy (swallowing X-ray) done.

You can find a summary of the study findings in the boxes to the right. The results were also presented at the European Society of Swallowing Disorders Annual Conference in Toulouse (France) in December 2023 and the British Laryngological Association Conference in London (UK) in October 2024.

We are now planning the next stage of the project, exploring using ultrasound on a larger number of patients.

If you have any questions or feedback, please get in touch with Dr Joan Ma (jma@qmu.ac.uk).

Can we use ultrasound in the clinic?

We collected ultrasound swallowing data from 13 individuals with neurological diseases. This showed that it is possible to apply Ultrasound Evaluation of Swallowing in NHS settings. However, the recording set up could be made simpler.

Videofluoroscopy vs Ultrasound Images

Videofluoroscopy is better at giving an overall picture of swallowing, but an ultrasound of swallowing can give more detailed information on the movement of the hyoid. This might be more useful in some applications, such as monitoring changes in swallowing functions.

Participant Experience

The patient survey showed that the overall ratings of ultrasound and videofluoroscopy were similar. Some individuals found the ultrasound probe under the chin uncomfortable, while some people disliked the taste of barium in videofluoroscopy.