

January 2019

## Update Newsletter – Number Two

### **Measuring the effects of eye alignment surgery - a feasibility study**

*I am sending you this update newsletter because you have previously told me you would like to receive further information about the progress of my research.*

*Principal Investigator: Gemma Arblaster*

#### **Overview of the research:**

This research study aims to find out whether it is feasible to measure changes in vision and task performance in patients who have had eye alignment surgery for psychosocial reasons.

The NHS currently funds eye alignment surgery for strabismus because of the known visual and/or psychosocial benefits to patients. However, more evidence is needed about the outcomes of eye alignment surgery in adults. Some areas in England have withdrawn funding for eye alignment surgery for psychosocial reasons over concern not enough patient benefit is proven. However, evidence suggests that there are aspects of patients' lives and their vision that can improve following eye alignment surgery for a planned psychosocial benefit.

This research study aims to find out more information and improve our understanding of the potential outcomes from eye alignment surgery. It aims to answer the questions that have not been addressed by smaller studies.

#### **Key milestones in the research project:**

##### Phase 1.

Phase one of the study has been completed. Patients who have previously had eye alignment surgery for psychosocial reasons at Sheffield Teaching Hospitals NHS Foundation Trust were interviewed to find out what they report had changed for them following surgery. The results have been analysed and used to plan phase two of the research.

##### Lab Visits

Visits to different universities took place during 2018.

At the Body Eye and Movement (BEAM) lab, University of Manchester, I was able to see how they use different eye movement recording and task performance techniques to measure both what the eyes and the hands are doing when someone performs a task.

They currently use these different measurement techniques in clinical populations, including autism and Parkinson's disease.

At the Psychology Department, University of Leeds I was able to learn more about their different measurements of reaching and grasping objects, using lab based equipment (optotrack) and portable equipment (BIGKAT). I was also able to learn about their portable tablet based measurements of eye hand coordination (CKAT).

At Goldsmiths University, London, I was able to attend an eye movement recording course held in conjunction with SR research to learn more about the techniques using the eye tracker (Eyelink 1000+) and analysing the results in patients with strabismus.

These lab visits have all helped me to plan the different measurements and the design of phase 2 of the study. The University of Leeds have also kindly loaned me a CKAT and a BIGKAT to use within the study.

#### Approval to begin phase 2.

Phase two of the study has been granted ethical approval (REC and HRA). Patients who are planning to have eye alignment surgery for psychosocial reasons are now being invited to participate in phase 2 of the study in the 'patient group'. These patients will have a range of measures of their vision and task performance measured before and after surgery. Currently recruitment is planned from Sheffield Teaching Hospitals NHS Foundation Trust only.

Volunteers with strabismus, who aren't having surgery, are also being invited to take part in the study as part of a 'control group'. These volunteers will have the same range of measurements as the patient group, with the same gap between their two measurements.

#### Funding:

The research is currently being funded by the NIHR. Gemma Arblaster has been awarded a Clinical Doctoral Research Fellowship to undertake this research at the Academic Unit of Ophthalmology and Orthoptics, University of Sheffield. The research began in June 2017.

ICA-CDRF-2016-02-063      STH19274 & STH20677

#### Data Protection

Since the study began, new regulations have come into effect – the new EU General Data Protection Regulation (or GDPR). You have previously chosen to receive study update newsletters, which have been offered to everyone involved in the study as a participant, advisor or supervisor. To be able to receive these update newsletters I have recorded your preferred contact details (email or postal address) on a document, which is kept securely

on a password protected University of Sheffield computer system. This information will be destroyed 5 years after the study has been completed (study end - May 2020).

The University of Sheffield will act as the 'Data Controller' for this study. This means that the University is responsible for looking after your information and using it properly. The legal basis for me keeping your contact details is 'performance of a task carried out in the public interest'. If at any time if you no longer wish to receive these study update newsletters, please contact me and I will delete your contact details from my records.

The 'sponsor' of the research is Sheffield Teaching Hospitals NHS Foundation Trust.

If you have further questions about the study or your information, you can contact me directly.

If you would like to contact the sponsor directly you can contact:

Dr Dipak Patel, Clinical Research Office, Sheffield Teaching Hospitals NHS Foundation Trust. [dipak.patel@sth.nhs.uk](mailto:dipak.patel@sth.nhs.uk)

Further information, including details about how and why the University processes your personal information, how we keep your information secure, and your legal rights (including how to complain if you feel that your personal information has not been handled correctly), can be found in the University's Privacy Notice

<https://www.sheffield.ac.uk/govern/data-protection/privacy/general>

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Vision Research in Sheffield (VRIS)

The NHS logo, consisting of the letters 'NHS' in white on a blue rectangular background.

**National Institute for  
Health Research**

Further information about the labs visited

University of Manchester BEAM lab: Dr Emma Gowen

<http://beamlab.lab.manchester.ac.uk/>

University of Leeds Psychology Department: Professor Marc Mon-Williams

<https://medicinehealth.leeds.ac.uk/psychology/staff/2598/professor-mark-mon-williams>

Dr Rachel Coates

<https://medicinehealth.leeds.ac.uk/psychology/staff/231/dr-rachel-coats>

SR research & Goldsmiths University eye movement recording courses

<https://www.sr-research.com/goldsmiths-eyelink-training/>