Transforming Outcomes and Health Economics through Imaging (TOHETI) is a three year Guy’s and St Thomas’ Charity funded programme, working with NHS partners across Lambeth and Southwark to develop a vision for the future of imaging, with patient experience and outcomes at its core. So far in 2016, we have seen the launch of new information for patients on uterine fibroids through a new leaflet and video, with 10,000 copies of the leaflet printed to distribute to our local community. The TOHETI research pathways continue to progress, with the recent recruitment of our first patient for the headache study, and recruitment anticipated to start May for the colon and scaphoid studies. Over two weeks in March and April, service improvements suggested by Clinical Imaging and Medical Physics (CLIMP) Directorate staff were also trialled within the CT and MRI services at St Thomas’ Hospital. In April, members of the TOHETI team presented at the International Forum on Safety and Quality in Healthcare, Gothenburg, bringing back learning and ideas to share across our work.

Contact toheti@kcl.ac.uk to be added to our mailing list. You can also find out more about TOHETI at www.toheti.org @TOHETI_Imaging

New PET-MRI overlay for head and neck cancer patients

In collaboration with King’s College London & Guy’s and St Thomas’ PET Centre, Medibord® has developed a PET-MRI overlay, especially designed for a head and neck cancer research project within the PET Centre.

TOHETI funding enabled the new £3.3 million PET-MR scanner to be installed at Guy’s and St Thomas’, with several research studies already underway around new clinical applications for PET-MR.

This new product incorporates a newly developed coil holder and fixation mask. This allows the body coils to envelop the patient’s head and neck, leaving space for a fixation mask and head rest.

The purpose of the research project is to establish a good quality PET-MR protocol for patients with head and neck cancer to be scanned in the radiotherapy treatment position, with the immobilization devices in situ.

Work has already been done on phantoms and healthy volunteers and a pilot study has just opened recruiting patients with head and neck cancer having radiotherapy to that area with curative intent. Ultimately, the aim is to develop an adaptive radiotherapy dose escalation trial with PET-MR image guidance.

Breast Cancer one-stop clinic: Patient Focus Group

For the majority of patients attending a one-stop breast clinic at Guy’s Hospital, patients receive their results on the day of the clinic. However for some patients with suspicious lesions, a biopsy is performed which the clinic cannot currently support to be analysed on the same day. These patients are either booked for a follow-up appointment, or receive their results through the post within the following week.

The Breast Team is working to pilot a new way of running their one-stop clinics, to enable results of all tests to be processed in parallel to the clinic. Supporting this work, a patient focus group was held on Wednesday 6th April, led by Mandy Shewbridge, Consultant Nurse, Breast Cancer and Julie Scudder, Advanced Practitioner in Breast Imaging.

We worked with patients to understand their experiences of the breast clinic, and their thoughts on how we should inform patients of biopsy results on the day under the new clinic: the practicalities, how to manage expectations and support needed.

Patients told us that knowing they could get biopsy results on the same day if a biopsy was needed would be very reassuring, and take a lot of the stress away. They also told us that if they were told that their images looked suspicious, their priority would be to know as much as possible as early as possible, and they would want the option to come back to clinic.

Patients did not feel that having extra information about biopsies ahead of the clinic would cause them to feel more nervous. They told us the way the information was given would be more important. We will continue to work together to develop any content for patients as we progress this work.
**Development of new patient materials around Uterine Fibroids**

Uterine fibroids are benign tumours of smooth muscle cells and fibrous tissue that develop in the uterus wall, and form one of the most common gynaecological problems in the UK.

The TOHETI programme has been working with Women’s Health and Interventional Radiology to look at how we can better join up services to treat uterine fibroids, to offer the best care for our patients.

Following a series of focus groups in June 2015, attended by 27 women, we have worked with patients to identify opportunities to improve information, and as part of this, developed a new patient information leaflet and video.

These can be downloaded at [www.toheti.org/uterine-fibroids](http://www.toheti.org/uterine-fibroids)

As well as being available through GP surgeries and pharmacies, and online through the Guy’s and St Thomas’ NHS Foundation Trust website, we also plan to share materials more widely through community centres, churches, and online through The Royal College of Nursing and patient support groups such as FEmISA, the British Fibroids Trust and Endometriosis UK.

We look forward to seeing their impact in the community – if you would like to get hold of copies of the leaflet, please contact Rose: rose.wu@toheti.org

**Our patients’ experience of being involved in the project:**

“To me the leaflet reads very well, highlighted in all the right places. Better still at a glance, my age group is included so it’s something I would definitely pick up.

Also, the layout and text is easy on the eye and no big words. Overall it’s almost chatty but in a nice educative way with all the science bits still left in!

The video. What an eye opener. I now feel I can make an educated decision on which treatment to get whereas before it felt I was on a wing and a prayer.”

_Irene, a patient featured in our video_

“Taking part in the focus group was an eye-opener. It showed me that I hadn’t been alone in finding it difficult to get hold of reliable information about fibroids, and in struggling to discuss my options with my doctors. Sadly, I wasn’t alone in having had a poor experience with a doctor who didn’t have up to date information about fibroids. Sharing my story was cathartic, and I learned a huge amount during the focus group.

I jumped at the chance to help TOHETI develop new materials for women with Fibroids - it’s a privilege to contribute to something that will help women make what are often really difficult choices. It’s been great to work alongside GPs, consultants, nurses, and of course other patients, to create something that should make a real difference.”

_Sarah, a patient featured in our video_

**New Patient Support Groups**

In response to feedback from the focus groups, we have also set up a new support group for women with fibroids, which will be held bi-monthly in the McNair Centre, Guy’s Hospital. Our first session was held on Wednesday 16 March, and included presentations from the patient support group FEmISA and one of our consultant gynaecologists, Yacoub Khalaf.
The Perfect Week in CT & MRI: 7th – 11th March 2016

Over two weeks in March and April, service improvements suggested by staff were trialled within the CT and MRI services at St Thomas’ Hospital.

A survey of radiographers in Dec 2015 asked how the environment within the CT and MRI areas could be improved. The telephone in the control room was flagged as being a major distraction to working safely and effectively, and radiographers often found it difficult to carry out vetting duties, simultaneous to their control room duties.

To address this, over the first ‘Perfect Week’ in March, telephones in the control rooms at St Thomas’ Hospital were diverted to another office. Two vetting radiographers; one for CT and one for MRI, logged and answered calls received and vetted patient referrals.

In addition, an acute reporting hub was set up, consisting of a rota of radiologists to assist with the reporting of scans. Feedback from the week was extremely positive, and included comments such as:

“Everyone seems to have engaged with this new idea. Being in the office is ideal as it enables focus and concentration on the task in hand”

“All Positive!! It was good being able to concentrate on vetting requests without interruptions. The telephone calls were manageable”

“Managed to vet backlog of outpatient requests from end of week quickly (90 mins)”

Over a second week in April, CLIMP staff applied lean principles to their way of working, to improve their work spaces and to create better working environments. Further work is planned to embed these improvements, and build on the momentum and successes of the two weeks.

For more information please contact Paulomi Vyas, Service Improvement Manager for CLIMP: Paulomi.Vyas@gstt.nhs.uk

The Scaphoid Pilot Study – lessons learnt and next steps

A short 2-month pilot was completed in January 2016 to test-run the scaphoid study in a busy Emergency Care setting.

This pilot tested the feasibility of the proposed study to explore whether using MRI as the primary diagnostic tool (replacing conventional X-ray) could improve care and management of scaphoid injuries. 11 patients were recruited.

The study provided an opportunity for staff to test and feedback on processes, and to identify potential barriers to recruitment.

Following the pilot, modifications have been made to the study design and recruiting hours, with study hours extended to help meet recruitment targets.

In the modified study design, TOHETI will assess the use of MRI as an additional imaging technique to X-ray scans, where no definitive diagnosis is obtained from an initial X-ray alone.

Recruitment of patients to the main study is anticipated to start in late April/early May. Ahead of that, training in conducting research and obtaining informed consent is taking place for Emergency Nurse Practitioners and Radiographers involved in the study.
### Siemens Healthcare UK Leadership Conference

TOHETI Associate Director, Bernadette Cronin, was invited to speak at the Siemens Healthcare UK Leadership Conference on 11th February, which brought together senior leaders from Siemens Healthcare UK and Europe.

The invitation was prompted by Siemens’ interest in the TOHETI philosophy and the development of a symbiotic relationship that will help deliver TOHETI’s objectives and inform Siemens’ interactions with Healthcare providers. We look forward to continuing this relationship over the course of the TOHETI programme.

### GP Headache Education event

On Monday 4th April, over 70 GPs attended an education event around the management of patients with persistent headache, and the different routes in secondary care: referral to neurology and direct access to MRI.

Tying directly into TOHETI’s study comparing the two different care routes, the evening was led by Dr Shazia Afridi, Consultant Neurologist and Chief Investigator for the study, Asif Mazumder, Consultant Neuroradiologist and Primary Investigator for the study, Giorgio Lambru, Consultant Neuroradiologist, and qualitative study leads Drs Leone Ridsdale and Rachael Kilner. The Headache study recruited its first patient mid-April, and we hope this event was useful for GPs in finding out more about TOHETI’s work and aims.

### International Forum on Quality and Safety in Healthcare 2016, Gothenburg

Now in its 21st year, the International Forum on Quality and Safety in Healthcare is one of the world’s largest gatherings of healthcare professionals committed to improving patient care and their safety.

Members of the TOHETI team presented a poster on the programme’s work under the Improvement works in progress section. In the poster sessions, we were given one and a half hour slots, and worked our way around different posters in groups. This was an interesting and interactive way to hear about other people’s work attending the conference, and to explain our work to a diverse range of people and organisations.

As part of the conference, we were also privileged to attend keynote speeches from leaders in quality and improvement, including Donald Berwick, President Emeritus of the Institute for Healthcare Improvement and former Administrator of the Centers for Medicare and Medicaid Services. In this thought-provoking session, Dr Berwick used the well-known Red Bead Game to enable discussions around variation and standardisation, workforce and leadership.

It was also great to see colleagues from Virginia Mason with whom we have built up close working relationships, and to hear from their Chairman and CEO, Gary Kaplan about Virginia Mason’s journey to being world-recognised in quality improvement and safety in healthcare.

The conference was a good opportunity for the team to take stock of what is happening elsewhere and to evaluate our progress as a team. We are looking forward to the Conference returning to London in April 2017!