

West Suffolk NHS Foundation Trust Clinical Photography app: Ophthalmology.

MX

MX is a scalable and easy-to-use toolkit that puts you in control of your mobile app design, deployment and management. The toolkit allows you to create bespoke, cross-platform apps that can be used online or offline to improve your service delivery, security and integration.

Improved accuracy and security

Improved patient care

Improved CQC rating

Process time reduced from 3 hours to 3 minutes

West Suffolk **NHS**
NHS Foundation Trust

What opportunity did West Suffolk NHS Foundation Trust identify?

Following the successful implementation of the new Clinical Photography app in several areas across West Suffolk Hospital, the Trust began work on redeploying the app to meet the needs of the Ophthalmology department.

The Clinical Photography app, which has replaced a fragmented and time-consuming process, assists clinicians at the Trust in providing care with the aid of photography. The app has improved patient experience, quality of care and data security within the Trust by simplifying the process and submitting data directly to the EPR. Read the full clinical photography case study on our website.

Dr Chrishan Gunasekera, Chief Resident at WSFT, recently carried out research into the lack of Ophthalmology training provided in medical schools, which influenced the level of Direct Ophthalmoscopy taking place within the hospital setting. As a means of combatting this, Dr Chrishan discovered that it was possible to take high-resolution photographs of the back of the eye using an unmodified iPhone X, equipped with a telephoto lens.

How did the two solutions meet?

Dr Chrishan realised that the technology to put his research into practice already existed within the Trust in the form of the Clinical Photography app. To ensure the process was achieving the best results, the Trust invested in the iPhone X – a more powerful device with a higher specification than those already in use. The introduction of the larger, high spec device, meant that the Clinician Photography app needed to be tweaked for screen compatibility – a task that was undertaken by the IT team at WSFT using MX.

In addition to the app compatibility adjustments that were made, the team also developed new functionality to work with the high spec camera on the iPhone X. These features included the ability to adjust autofocus, shutter speed and ISO as well as having the option to adjust the brightness of the flash – all features that improved the quality of examinations.

Finally, the use of high-resolution video was introduced, as conditions attributed to the optic nerve such as spontaneous venous pulsation, peripapillary haemorrhages and optic atrophy are best observed using video or in real time.

Once the assessment has taken place, the images are automatically transferred to the patients record, just as they would with the standard Clinical Photography app.

What benefits has it seen?

In performing these multi-image sessions, WSFT has realised it is benefitting from the following:

- Improved patient data security and accuracy
- Faster and improved patient care from richer clinical data due to more clinicians using photography during assessments
- Improved CQC rating

What's next?

WSFT are planning to further develop the Clinical Photography app to allow it to be used outside of the hospital network but still automatically feed data back into the hospital's system alongside the referral. Once this development is complete, the Trust will roll the app out to Community Nursing services, GPs and opticians in the area.

"The positive feedback we have received from clinical teams within the Trust has been overwhelming. Clinicians feel the new system has enriched their roles by providing clearer support, ultimately leading to the best outcome for the patients – putting them first."

Liam McLaughlin
Senior Interoperability and Development Manager/Deputy CIO



For more information, visit www.ndl.co.uk or email info@ndl.co.uk