



A global discovery forum

Bringing together the world's leading clinicians and researchers to unlock big breakthroughs in mental health treatment and elderly care.

Powered by **oxevision**

Our priorities



Helping doctors and nurses to study how Oxevision can support them to improve care outcomes.



Enabling researchers to develop novel biomarkers and care insights that transform patient care.



Bringing together pioneers of mental health and elderly care to accelerate treatment breakthroughs.

About

oxehealth

Oxehealth is a pioneer in non-intrusive patient monitoring.

The company was born out of the Oxford University Institute of Biomedical Engineering and is dedicated to helping clinicians to deliver safer, higher quality and more efficient care.

In 2016, in partnership with the NHS, Oxehealth won the Health Service Journal (HSJ) award for the Best Healthtech Solution for Patient Safety. Since then Oxehealth has also won three HSJ Partnership awards.

About

oxevision

Oxehealth's Oxevision is a contact-free patient monitoring and management system that uses an optical sensor (an infrared sensitive camera) to provide clinical teams with actionable data.

Oxevision incorporates Vital Signs — a medical device cleared for use in the UK, Europe and the USA — which enables clinicians to measure pulse and breathing rate without any device being attached to the patient. The system also uses movement detection software to notify staff of activity that may indicate a patient needs help; for example, if they have been in the bathroom for a long time or if someone who is at risk of falling is getting out of bed.

Oxevision works continuously and relays information to staff through a computer in the nursing station and through dedicated tablets for use when staff are moving around the ward. The information provided by the system helps clinicians to plan the best care and to intervene proactively to help their patients.

Less restrictive seclusion practices

Background

Patients being cared for in mental health services' seclusion require regular physical health assessments to identify, prevent and manage clinical deterioration. Sometimes it may be unsafe or counter-therapeutic for clinical staff to enter the seclusion room, when that may involve a confrontation and possible restraint due to the patient's agitated state.

This makes it challenging to meet local seclusion standards for physical assessments. Alternatives to standard clinical assessment models are required in such circumstances to assure high quality and safe care.

The project

This project, led by Professor Sethi, aimed to improve the quality of physical health monitoring in seclusion by making accurate vital sign measurements more frequently available — without the use of restrictive practices.

Oxevision was installed in a mental health seclusion room and was used in addition to existing clinical care. Oxevision is a non-contact patient monitoring system that enables staff to measure pulse and breathing rate without entering the room and without any device being attached to the patient.

Over six months, adherence to local clinical guidelines whilst using Oxevision was compared against a time period prior to installation. Feedback was also sought from staff and patients through questionnaires and focus groups to explore the clinical experience of integrating a technological innovation within routine clinical care. A quality improvement framework was used to continually improve the process using plan, do, study, act (PDSA) cycles.

Results

Oxevision enabled staff to obtain a 12.3-fold increase overall in the monitoring of physical health observations when compared to a real-world baseline rate of checks. Since the device is contact-free, staff could obtain vital sign measurements without entering the room and risking a confrontation and possible restraint.

The technology thus supported staff in improving the quality and safety of care by increasing availability of physical health monitoring, without the use of restrictive practices. Enhancement to standard clinical care varied according to patient movement levels. Patients, carers and staff expressed positive views towards the technology.



To access the published paper, search using the reference below or scan the QR code.
Clark, H., et al. (2021). Non-contact physical health monitoring in mental health seclusion. *Journal of Psychiatric Intensive Care*. Advance online publication.