



Standard Operating Procedure for the use of Oxevision (non-contact technology) Acute Wards – Ashby Pilot



This SOP sets out the functionality and use of the Oxevision system across acute inpatient wards.

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1.0 Introduction

Oxehealth is the manufacturer of Oxevision, a Vision Based Patient Monitoring System (VBPMS) that supports staff to improve safety and to provide individualised, person-centred care to patients in inpatient mental health services.

It is a fixed-installation device for use within single occupancy rooms within hospitals, general care, domestic and secured environments where a framework exists which mandates periodic checks by a trained professional to ensure patient safety. Oxevision is a contact-free vision-based patient monitoring and management platform.

Oxevision uses an infrared camera and illuminators which are linked to an interface at the nurse station in the form of a dedicated Oxevision fixed monitor and on portable tablets.

Oxevision has been introduced at Leicestershire Partnership Trust across selected inpatient wards (Ashby ward) to enhance and improve patient experience at night by reducing the disturbance caused by intermittent observations.

There are additional anticipated benefits which include:

- Reduce self-harm, including ligatures.
- Reduce Assaults - Reduce incidences and early warning signs.
- Reduce restrictive interventions.
- Improve physical health monitoring – early detection of deterioration.
- Improve staff experience.

It also offers the following location-based alerts and warnings for patient bedrooms:

- **In Bathroom** - A warning state (amber room tile) is triggered to indicate the patient has left the bedroom and entered the bathroom / ensuite area, this escalates to an alert (red room tile with audible and visual alert) after 3 minutes.
- **At Door** - A warning (amber room tile) is triggered after 30 seconds if a patient is loitering in the main doorway area, this escalates to an alert (red room tile with audible and visual alert) after 3 minutes.
- **Room Entry** - A warning (amber room tile) is triggered if the system detects a second person entering the room when it is already occupied by a person.



1.1 Purpose and Scope

The purpose of this document is to describe the Standard operating Procedures for the use and functionality of the Oxevision system across acute inpatient wards.

The SOP applies to all staff on a ward where the system is operating.

1.2 Version control and summary of changes

Version number	Date	Comments (description change and amendments)
1	12/07/2024	Development of SOP

For Further Information Contact: Jon Paul-Vivers – Deputy Head of Nursing

1.3 Key individuals involved in developing and consulting on the document

- Andres Patino – Deputy Director, Mental Health Services
- Saskya Falope – Head of Nursing DMH
- Jon Paul- Vivers – Deputy Head of Nursing
- Louise Short – Service Manager
- [I/S] – Matron Inpatient Female pathway
- [I/S] – Deputy Ward Sister
- [I/S] – Assistant Business Manager

1.4 Governance

This SOP to be reviewed and signed off at the following forums:

- Directorate of Mental Health SOP review Group
- Directorate of Mental Health, Directorate Management Team Quality and Safety Meeting
- Trust Clinical Reference Group



2.0 Equality Statement

Leicestershire Partnership NHS Trust (LPT) aims to design and implement documents that meet the diverse needs of our service, population and workforce, ensuring that none are placed at a disadvantage over others. It takes into account the provisions of the Equality Act 2010 and promotes equal opportunities for all. This document has been assessed to ensure that no one receives less favourable treatment on the protected characteristics of their age, disability, sex (gender), gender reassignment, sexual orientation, marriage and civil partnership, race, religion or belief, pregnancy and maternity.

3.0 Abbreviations and definitions that apply to this SOP.

Abbreviation	Definition
Clinical Duty Manager (CDM)	The individual responsible for the overall day-to-day responsibility of the clinical management of the Inpatient wards.
Leicestershire Partnership NHS Trust (LPT)	This is our Trust which oversees mental health services (inpatient and community alike) of residents of Leicester, Leicestershire and the Rutland and ensures appropriate access to the most suitable service is met at the point of access.
Mental Health Act 1983 (amended 2007)	This is the legislation governing all aspects of compulsory admission to hospital, treatment, welfare and post-care of detained persons. It provides for persons with mental disorder that needs to be detained in hospital in the interests of their health, their own safety or the safety of other persons. Compulsory admission to hospital is often referred to as "Sectioning". The Act sets out when and how a person can be sectioned and ensures that rights of those detained are duly protected.
Multi-Disciplinary Teams (MDT)	This refers to a team of professionals responsible for planning and assessing patient care. The team can include but is not limited to Doctors, Registered Mental Health Nurses, Occupational Therapists, and Psychologists.
OxeAcademy	Online training and guidance for the Oxevision system.
SOP	Standard Operating Procedure

4.0 Duties and responsibilities

All Staff must be trained and deemed competent on the Oxevision system before they are able to use it. All direct care staff (permanent, temporary, agency and bank staff) will be given training in how to use the system by utilising OxeAcademy and will be included in the local induction to clinical areas using the system.

OxeAcademy can be easily accessed via www.oxehealth.academy and logins made by selecting Leicestershire Partnership NHS Trust as the organisation.

It is the responsibility of the staff member to create a login on OxeAcademy and complete the relevant training.

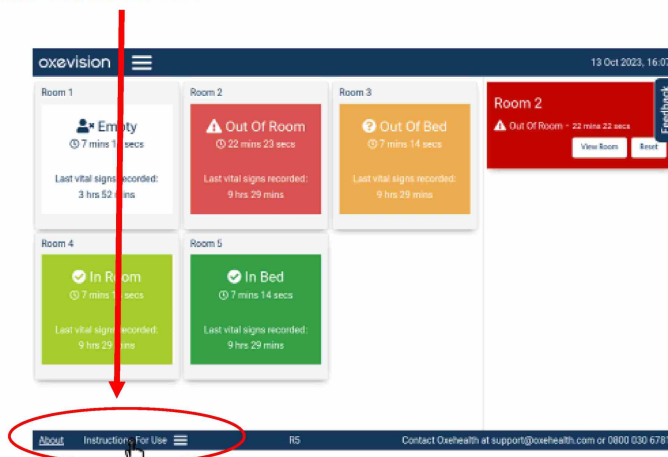
It is the responsibility of the nurse in charge of each shift to ensure that only the staff that are trained in the use of the equipment are allocated to patient observations that require its use.



There will be a register within the nurse base of all staff who have completed their training and the charge nurse will review staffing regularly to ensure there is always staff on duty who are trained. Only those trained will be allocated Oxveision whilst on shift.

Following completion of training, additional guidance for staff on how to use Oxveision can be found on the Oxveision devices by selecting 'Instructions for use':

Step 1: Click on "Instructions for Use"



Step 2: Staff will then be prompted to select which "Instruction for Use" they would like to view from the drop-down menu. These may vary depending on what functionalities are enabled on the ward.

5.0 Process

5.1. Admission process/ Consent (Explicit consent)

It is important that patients are aware of the device and its role and purpose in maintaining high standards of quality and safety when providing care for our patients.

On admission, all patients must be informed of the Oxveision system and shown how it works by the staff number welcoming them onto the ward. The staff member will show the patient the devices and provide the patient with a leaflet along with their welcome pack.

Once the patient has been shown the Oxveision system, the status of consent should be asked and the Oxveision consent form completed, see **appendix 1**.

All patients must have the consent form completed clearly outlining the consent status prior to the system being switched on.

Once a patient has opted in/ given consent to use Oxveision, the MDT are required to approve this at the daily review meeting. Oxveision is not to be used without the consent of the patient or the agreement of the MDT. The MDT decision must be clearly documented in the patients care plan. The Oxveision system cannot be used until the patient has been discussed in MDT/ daily review meeting.

The consent form must be added to SystmOne as part of the scanning process and clearly documented in the patients care plan.

The nurse in charge should be informed of the patients consent status and the nurse in charge should ensure that the status of the patient's consent is taken to the next MDT/ daily review



meeting for discussion and detailed what the consent status is and the agreed use of the system within the:

- Patients care plan
- The wards at a glance board
- Daily handover document

Consent can be withdrawn at any time by the patient, if the patient's consent is withdrawn then this should be escalated to the nurse in charge to be switched off.

Only the nurse in charge, ward sister, deputies or CDM can turn the system off and this should be communicated to the patient.

Following withdrawal of consent, a consent form must be completed with the updated consent status and scanned onto SystemOne. The nurse in charge must then ensure this is clearly documented in the patients care plan, updated on the wards "at a glance" board and added to the next daily handover document.

The consent status of all patients should be reviewed weekly as part of the patients care plan in 1:1's and the outcome clearly documented in the patient care plan.

A consent form must be completed if the status of consent changes.

5.2 Mental Capacity to Consent

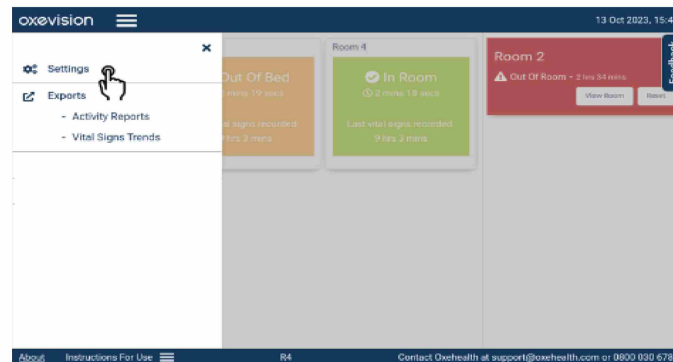
In circumstances where Oxevision and how it works is explained to a patient, and it is established by staff that they do not have capacity to make a decision to consent to the use of Oxevision the following action will be taken:

- When a patient advises that they do not consent, then this will be treated as the patient opting out and therefore Oxevision will not be used and will remain off in the patient's bedroom.
- When a patient provides consent and opts into using Oxevision, the MDT will consider all of the relevant factors and will make a decision based on what the team feel is in the best interests of the patient.

The consent form must be completed to reflect whichever outcome applies.

Only the charge nurse/ ward sister, deputies and CDM's can turn the Oxevision system on and off and can be done by doing the following steps on the Oxevision tablet:

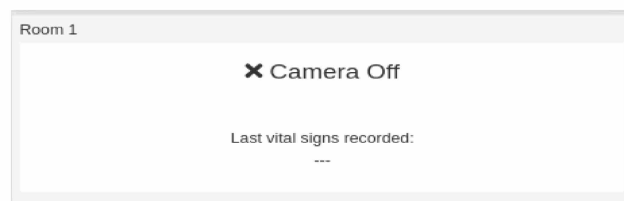
Step 1: Click on "Settings" on the drop down menu



Step 2: Click on the toggle next to the room you wish to switch "On" or "Off". Green indicates the system is "On". Grey indicates the system is "Off". Click "Home" when finished



Step 3: When the infrared sensitive camera is switched "Off" for a specific room, the room tile displays "Camera Off".



Once a patient has opted into using Oxevision the system will be switched on, it will remain on until either consent is withdrawn, the patient moves to a different bedroom, or the patient is discharged.



5.3. Using Oxevision to complete level 1 and level 2 observations whilst patients are in bed at night

The primary purpose of using Oxevision is to reduce the level of disturbance currently reported by patients at night.

Sleep and daily routine are two of the most important factors in maintaining mental health. Poor and/or disturbed sleep is often the first symptom of a patient's mental health deteriorating and the same applies in a patient's recovery in that once sleep is restored and a daily routine established (via a range of means) it usually coincides with a patient recovery.

Traditional nighttime observations that are completed by entering a patient's bedroom with a torch to check breathing are known to disturb patients and there have been occasions where a decision in ward round has been made by the responsible clinician, following a risk assessment, to suspend nighttime observations for a patient because nighttime sleep disturbance was prolonging recovery due to how observations were completed. Feedback from across the DMH wards shows that patients regularly complain in community meetings that nighttime observations cause disturbed sleep.

The Oxehealth technology allows for the patient's vital signs (pulse rate and breathing rate) to be taken without having to physically enter their room to undertake the observation. This provides the opportunity for mental health observations to be completed using Oxevision.

5.4. Completing the observations

As per the Trust's Supportive Observation and Engagement Policy, at the beginning of a shift the nurse in charge will allocate a staff member to complete the task of undertaking the level 1 and level 2 observations for each hour during the shift. This will be clearly documented on the wards shift planner.

The staff member assigned to completing the level 1 and level 2 observation will also be assigned the Oxevision tablet. They are responsible for checking the wards "at a glance" board to identify what each patients consent status is and ensuring this is reflected on the tablet.

If the staff member identifies any bedrooms that do not match the status of consent, then the patients care plan should be checked and escalated to the nurse in charge to switch on/ off any bedrooms where the consent differs.

The staff member allocated the tablet will be responsible for the management and take vital sign readings and respond to alerts as per the below:

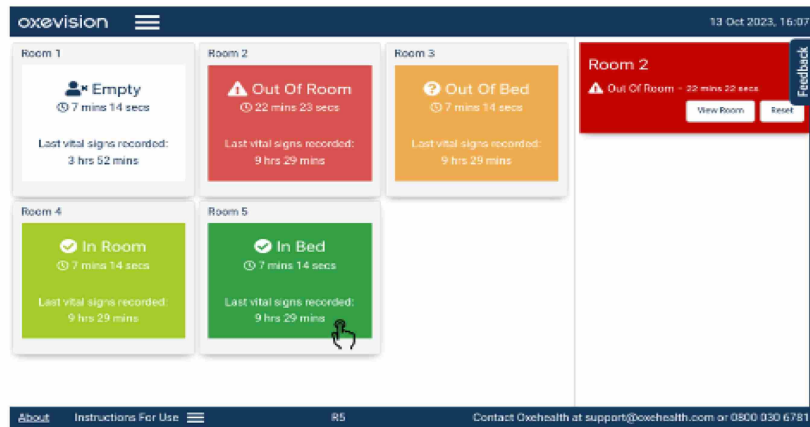
After 2300 hrs, once a patient who has opted into using Oxevision, goes to their bedroom, level 1 and level 2 observations will be completed using Oxevision until 0730 the next morning. If at any point patients leave their bedroom between the hours of 23:00 and 07:30 then the normal observation process will apply for those patients and so staff should remain vigilant around the patient's location.

The trusts supportive observation and engagement policy currently states in section 4.2 - Observation of patients who are in bed or sleeping, states "Observation must include going into a patient's bedroom to check for regular breathing patterns, observing at least the rise and fall of the chest 4 times.



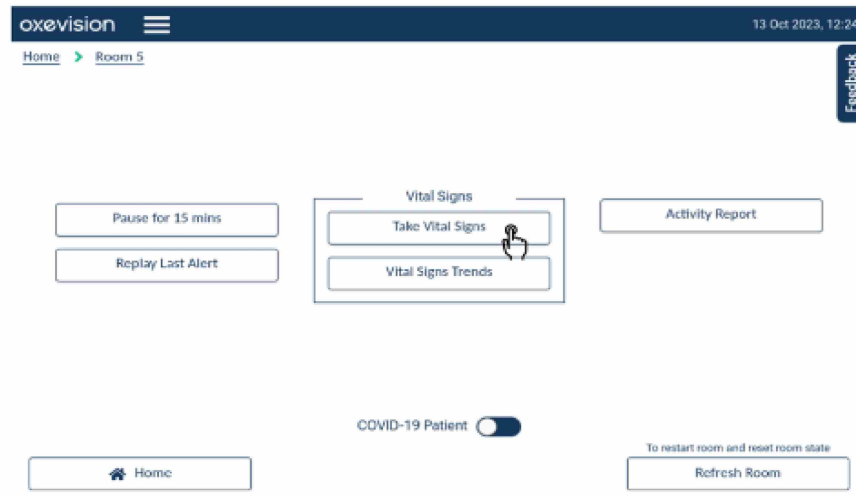
Oxevision provides the opportunity to take the patients vital signs (pulse rate and breathing rate) using the tablet and without the need to enter the room by completing the following steps:

Step 1: Select a room tile.



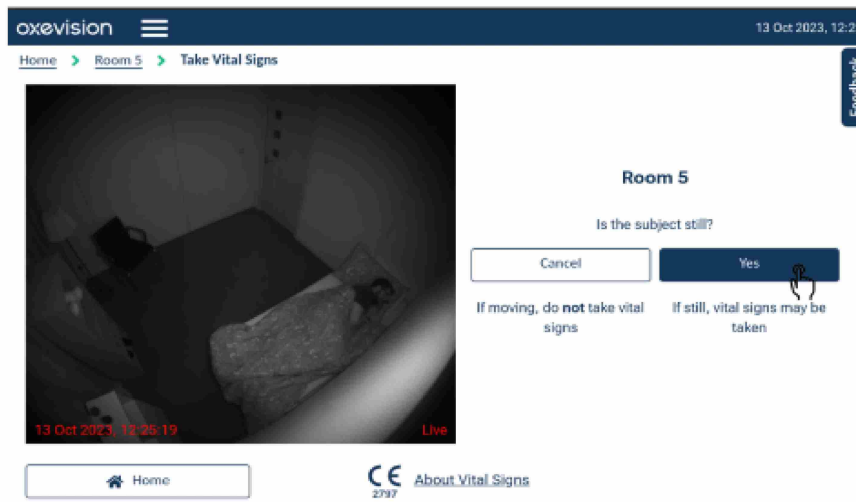


Step 2: Select "Take Vital Signs" on the Room Actions screen



By selecting "Take Vital Signs", you are entering the Vital Signs software medical device.¹

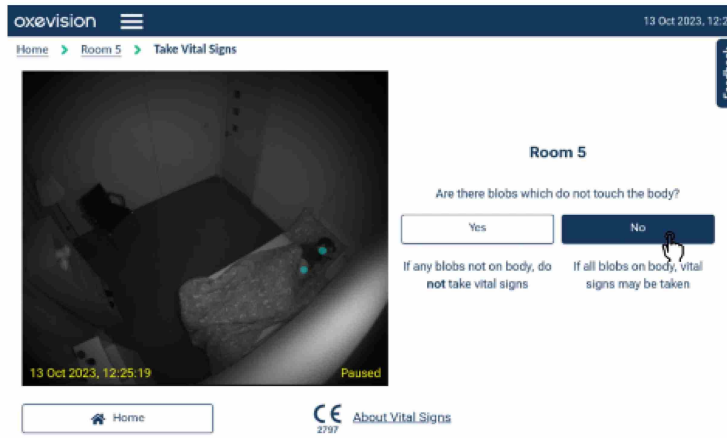
Step 3: Check if the patient is still and click "Yes". If not, select "Cancel"



The patient must be still to get a reliable reading. If unsure, do not proceed.



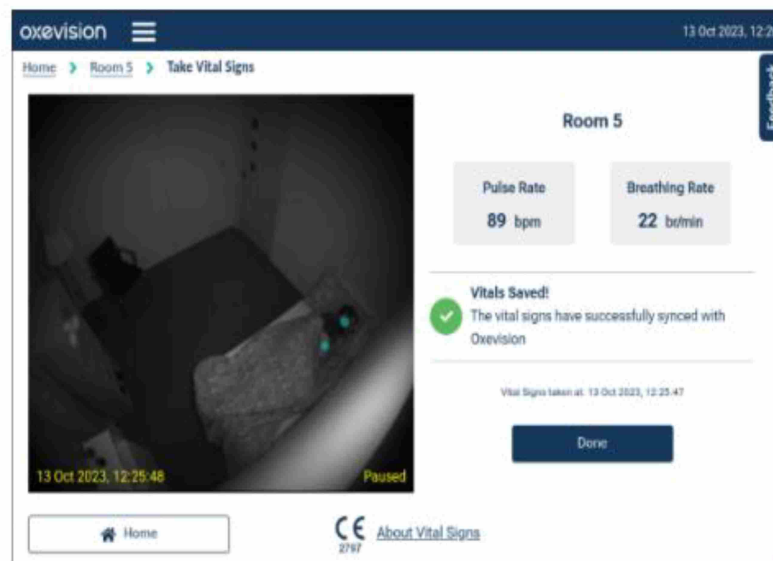
Step 4: Check if there are blobs that are not touching the body. If all blobs appear on the body, select the blue "No" button. If any of the blobs are not touching the body, select the grey "Yes" button which will return you to the Room Actions screen



The blobs must be on the body to get a reliable reading.

IMPORTANT: There can be one or two blobs on the screen, either is normal. As long as all blobs are touching the body you can proceed with the workflow.

Step 5: Record the Vital Signs measurements





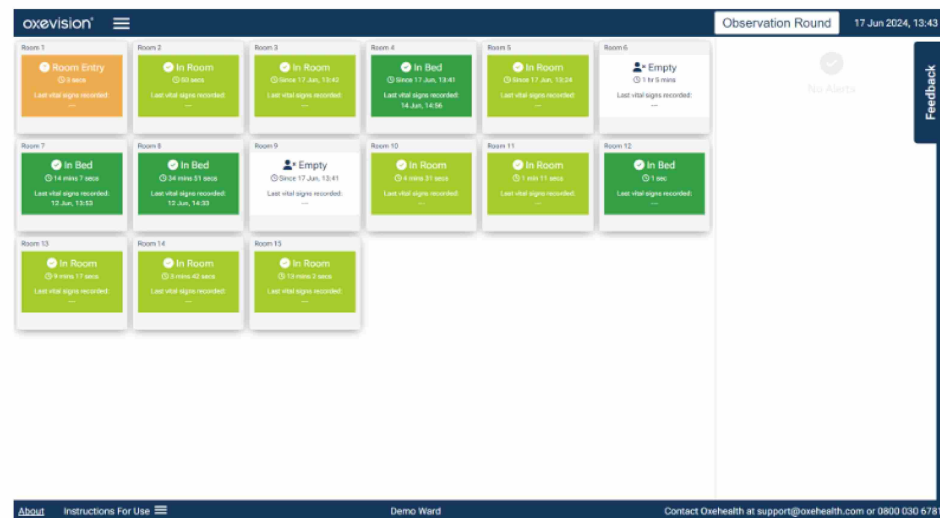
5.4. The recording of level 1 and level 2 observations

Whilst the Oxevision technology records the breathing rate and pulse rate, it provides an opportunity to view the patient in the bedroom via the Oxevision tablet to enable observing staff to record an observation as to what the patient is doing at that particular point in time. Therefore, what is observed via the Oxevision tablet will then be recorded onto the respective observation form.

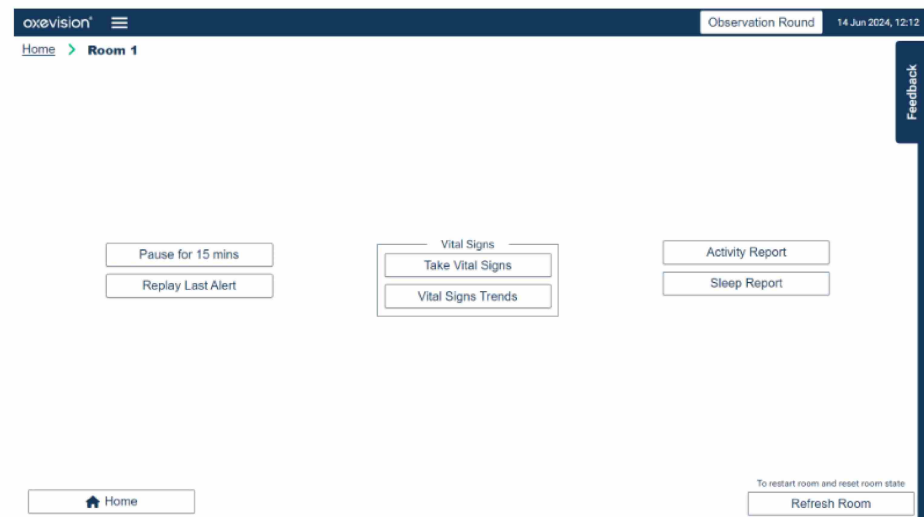
5.5. Recording of vital sign measurements

At the end of shift a trends report should be taken for each patient who had vital signs recorded and exported to be uploaded to SystmOne.

Step 1: Click on a room



Step 2: Click on "Vital Signs Trends"





Step 3: Hover over individual readings (coloured dots) for more detailed information on the successful spot check observations you have taken. Once finished, click "Home" to return to the main room overview screen or "Room Actions" to return to the room action menu.



Once the trends are on screen, select export and send to an appropriate email to be uploaded onto SystmOne.



5.6. What to do if vital signs measurements cannot be taken

When using Oxevision, the staff completing the observation must assure themselves from the information provided that the patient is safe.

If staff are unable to get both the pulse and breathing rates on the first attempt, then a further attempt should be made.

If after 2 attempts the pulse and breathing rates cannot be taken using the Oxevision tablet, then the staff member completing the observation must physically enter the room.

It is extremely important that information received regarding vital signs is acted upon and that if breathing rates (12-20 per minute) or pulse (60-90bpm) are outside of the patient's baseline values then staff must enter the room to physically check. These baseline values should form part of the care plan so that the staff members carrying out the observations are aware of when a reading falls outside of this baseline. Results outside of the normal values may indicate that a patient is physically deteriorating or has engaged in an act of self-harm. Any such concern should be escalated to the nurse in charge immediately and action taken.

5.7. Notifications for multiple attempts to take vital signs

If multiple attempts are taken to review a patient bedroom a vital sign attempt notification will generate an alert. This will happen if the Oxevision system is accessed 3 times or more within a 5-minute period.

A notification will appear on every device and will need to be dismissed on all active devices (usually the tablet in use and the nurse base screen), if this scenario happens the staff member who triggers the alert must explain the incident to the nurse in charge and the nurse in charge should record as an incident on Ulysses.

Repeat Vital Sign Notification

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If configured, this feature is designed to notify users of when multiple attempts have been made to access the Vital Signs workflow within a defined period of time.

If multiple vital signs attempts have been made on a single room, from a single device, within the configured time period, a notification will be displayed on all Oxevision devices. The notification will indicate the room and the time of the attempt that triggered the notification.

To dismiss the notification, users must select the cross icon on the top right of the notification on each Oxevision device. If the notification is not dismissed and multiple vital signs attempts are made on a different room this will be indicated by a red icon on the left side of the notification. Once selected the notification for that room will be displayed.



Please Note: The number of attempts in a given time period is configurable per ward and a notification will also be sent via email to a specific trust recipient (configurable) informing them that multiple vital signs attempts have been made.



A report will be sent by Oxevision to the ward sister, deputies and Matron on a weekly basis. Any incidences where an incident hasn't been raised should be investigated and an IRF completed.

5.8. Responding to Alerts

This standard operating procedure has outlined that the primary purpose of using Oxevision is to reduce the disturbance caused by entering a patient's bedrooms to complete supportive observations at night.

The system also provides additional benefits through the use of alerts to the tablet being held by the nurse completing level 1 and level 2 observations.

Alerts will sound on the tablet when the following instances occur:

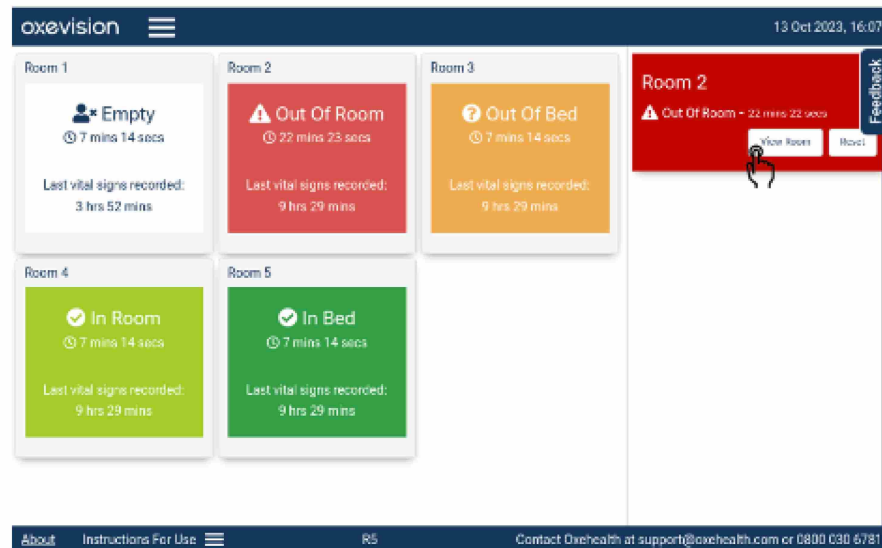
Alert	Alert Function	Action Required
In Bathroom	A warning state (amber room tile) is triggered to indicate the patient has entered the ensuite. This escalates to an alert (red room tile with audible and visual alert) after 3 minutes	If a red alert is triggered the patient must be physically checked. Only then can the alert be switched off on the tablet.
At Door	A warning (amber room tile) is triggered after 30 seconds if a patient is loitering in the main doorway area. This escalates to an alert (red room tile with audible and visual alert) after 3 minutes	If a red alert is triggered the patient must be physically checked. Only then can the alert be switched off on the tablet.
Room Entry	A warning (amber room tile) is triggered if the system detects a second person entering the room when it is already occupied by a person.	If an amber alert is triggered for room entry then the staff member should attend the patient's bedroom to ensure the patient is safe. Only then can the alert be switched off on the tablet.

Oxevision is not to be used for any other purposes, for example if a nurse call bell is used inappropriately the Oxevision system is not to be used for a monitor check when managing complex patient presentations.



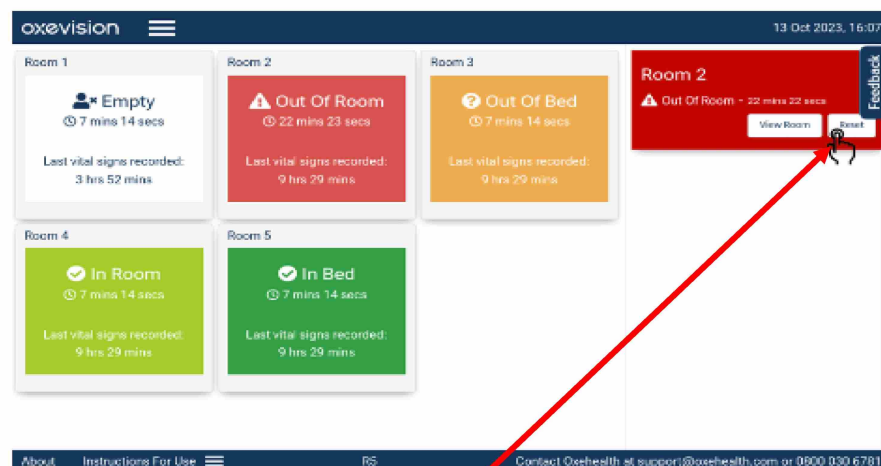
Staff remain responsible for the patient and clinical judgement must be used at all times. **If at any point there are any concerns about the use of the system or concerns about the safety of the patient then Oxveision should be suspended and the normal observation process will apply.**

Step 1: To view an alert click on "View"



The view of the tablet will be as below:

Step 3: If you wish to reset an alert. Click on "Reset"



Once the patient has been checked physically and confirmed as ok, then the alert can be reset by selecting the patient's bedroom and selecting 'Reset':



5.9. Use of Oxevision in Seclusion Rooms

Patients on the Ashby Ward including those in seclusion will be asked for their consent to be included in the pilot. There is a privacy notice available to all patients on the LPT website and the intention is for this to be updated to provide details of the technology. Patient materials will be updated to support patient users to understand the benefits of the technology and to support them to make an informed decision on their consent to this as part of their treatment pathway.

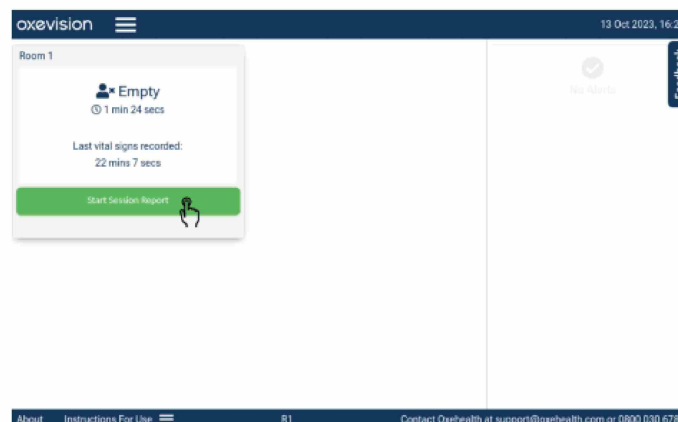
Consent will be reviewed daily and those patients wishing to withdraw their consent will have their rights respected unless they are in seclusion without capacity, and it is in their or others vital interests to undertake videoed observations.

If a patient is placed in seclusion, then the charge nurse and staff member in charge of the seclusion observations will be responsible for turning on the seclusion room on the seclusion tablet which solely monitors the seclusion room.

If a patient is placed in seclusion, then the charge nurse and staff member in charge of the seclusion observations will be responsible for turning on the seclusion room on the seclusion tablet which solely monitors the seclusion room.

To do this a session report should be started:

Step 1: To start a Seclusion Session Report select “Start Session Report” on the Seclusion Overview Screen when a new patient enters the room or you wish to start a new session



Once the tablet is on it will provide alerts and the ability to take a patient's vital signs (breathing and pulse rate).

Location based alerts and warnings for Seclusion rooms:

- **In Bathroom** - A warning state (amber room tile) is triggered to indicate the patient has left the bedroom and entered the bathroom / ensuite area. **This does not escalate to an alert.**
- **No Activity Detection** - An alert is triggered (red room tile with audible and visual alert) if no activity (fine or gross movement) is detected for up to 50 seconds in an occupied room.



Where clinically appropriate a full set of vital signs should be carried out as normal practice physically. If the patient refuses physical observations, then the staff member should complete a non-touch observation and Oxevision used to take the patients breathing and pulse rate in addition.

Vital signs should also be taken on Oxevision **once every hour** to check the patients breathing rate and pulse and documented in the written observations on the seclusion paperwork.

The staff member who takes these observations is responsible for informing the charge nurse of results and ensuring these are recorded on Brigid in line with the normal process for recording physical observations.

6.0 Support

6.1 Technical Support

The Vital Signs module of Oxevision is a registered medical device and will be logged by LPT on the medical devices register.

All Maintenance and servicing will be provided by Oxehealth.

If there are any problems that require support the following reporting methods can be used,

- **Email:** support@oxehealth.com
- **Customer service phone line for urgent technical issues: 0800 030 6781**
- **Feedback form: can be sent via the monitor or tablet device.**

(This information is always displayed on the Oxehealth monitor)

Most technical issues where possible will be resolved remotely. Where onsite support is required from Oxehealth, attendance will be within 24-72 hours provided immediate access is suitable.

When the Oxevision system is unavailable, clinical staff are to ensure that the Business Continuity Plan is adhered to.

6.2 Changes to Room Configuration

The position of the Oxevision housing unit has been placed to consider optimal coverage of the patient's bed area.

Oxehealth must be notified should the room configuration be altered including repositioning of the bed space. Failure to notify Oxehealth will have an adverse impact on performance and accuracy of the system. Movement of furniture as small as 50cm can impact the systems accurate evaluation of a room configuration.

If there is a clinical reason for moving the bed to another location within the bedroom (e.g. against wall to manage falls risk) there should be a clear risk assessment and rationale for doing so, with the understanding that it will have an adverse impact on performance and accuracy of the system.



6.3 IPC and Cleaning of Devices

All cleaning instructions are detailed within the Oxevision Instructions for Use (IFU), electronic copies can be accessed on all Oxehealth devices. These instructions must be adhered to, failure to do so could have an impact on system performance.

7.0 Incidents

7.1 Patient Safety Incident reporting

All incidents should still be reported as per policy on Ulysee's and the correct category selected i.e. self-harm. Oxevision can be selected as an additional category if used as part of the incident by selecting medical devices.

7.2 Clear Video Data (CVD) use for incidents

If there is an incident that resulted in moderate/ high harm where a patient has consented for Oxevision to be used, clear video can be requested.

The Oxevision system retains Clear Video Data (CVD) and in exceptional circumstances the clear video data can be requested for review to support investigations and learning, valid reasons for this will include:

- Patient Safety Incidents which result in moderate/ high harm
- Safeguarding incidents or allegations

The CVD is encrypted and stored securely on servers on site at LPT. CVD is automatically deleted on a 24-hour rolling buffer.

Any staff member can request for the CVD to be saved by contacting Oxehealth on our customer support line for urgent requests **0800 030 6781**. Alternatively, you can also email or send a feedback form:

- **Customer service email: support@oxehealth.com**
- **Feedback form: can be sent via the fixed monitor or mobile tablet device**

The requestor must provide their name, ward name, date and time of the CVD required, room number, and a reason for the CVD request. **The requester must NOT include any patient identifiable information such as name, DOB etc.**

Clear video data requests must be received within 24 hours of the incident.

Upon receipt of a request, Oxehealth will remotely clip and save CVD to a network attached storage (NAS) drive on site. Oxehealth will then request approval from one of the Trust's named approver (s) via a DocuSign form sent by email.

This form will also include confirming the intended receiver of the file. Once approval has been received, the data is uploaded to Egress and an email is sent to the receiver who can then securely login and retrieve the data.

The whole process is completed within 72 hours (if request is raised Mon-Thurs) or 96 hours (if request is raised Fri-Sun), excluding the time taken to approve the request. The data must be retrieved and downloaded within 30 days, otherwise it will be automatically deleted from Egress.

Please see clear video data flowchart (**appendix 2**) for the full process.



Trust named CVD approvers:

- **Team Manager** – Jayne Hill
- **Deputy Head of Nursing** – Jon-Paul Vivers
- **Service Manager** – Louise Short
- **Head of nursing** – Saskya Falope
- **Head of Service** – Samantha Wood

Clear video data is automatically deleted from the local Oxevision server (on LPT sites) every 24 hours. Oxehealth staff do not view clear video data at any point during this process.

All patients should be informed that CVD will be used as part of the incident.

8.0 Training Requirements

Staff using Oxevision (non-contact technology) must be trained before use.

All direct care staff will be given training in how to use the system by ward staff who have training and experience in using the technology.

Additional technical issues will be provided by Oxehealth via:

- Email: support@oxehealth.com
- Customer service phone line for urgent technical issues: 0800 030 6781
- Feedback form: can be sent via the monitor.
(This information is always displayed on the Oxehealth monitor)

OxeAcademy should be used as part of staff local inductions. Staff will be asked to create a log in and allocated time to complete their training (approx. 60 minutes). The ward sister and charge nurse will be provided with regular reports on who has completed the training.

[Welcome to OxeAcademy | OxeAcademy \(oxehealth.academy\)](https://www.oxehealth.academy)

Course 1 – What is Oxevision and how to use it

Course 3 – Talking to patients' workshop

All staff must complete training annually, a report will be shared by OxeHealth with all staff who have received their training.

9.0 References and Associated Documents

It should be noted that this Standard Operating Procedure (SOP) compliments LPT Trusts Policies and should be used in conjunction with existing policies.

The following LPT Policies should be considered and followed when implementing this SOP:

- Supportive and Engaging Observations
- Handover Policy
- Recognition and Management of the Deteriorating Patient Policy
- Prevention and Management of Slips, Trips & Falls Policy
- Privacy and Dignity Policy



- Electronic Health Records Policy (including Record Keeping and Management)
- Data Protection and Information Sharing Policy:
- Medical Devices Policy

The technology has been installed to act as a “safety net” between prescribed observations and checks, and alert staff to intervene if no or unexpected human activity is detected in an occupied room.

10.0 Risk Assessment

Risk	Mitigation
The Oxevision Clinical Safety Case Report states: The clinical hazards identified and the associated risks are almost entirely mitigated by the intended scope of use, inherent safety features within the software and adherence with the Instructions for use. The Oxehealth Oxevision software is not intended for use in acute clinical settings, or for monitoring vital signs. Use of the Oxehealth Oxevision software is not intended to replace physical in-person checks by healthcare staff, it is intended to provide supplementary information in order to ensure the wellbeing of the patient	In developing this SOP further clarity has been sought from Oxehealth regarding this statement. What is meant by this is that Oxevision is not designed or intended to replace the established practice in inpatient mental health wards settings of completing a full set of physical observations (Blood pressure, Pulse, Temperature, Respirations) each day and recording these using the National Early Warning Signs documentation or via Brigid. In some cases, where patients refuse to have their physical observations taken, Oxevision may provide supplementary information in the absence of NEWS. The daily completion and assessment of patient's physical health observations must be completed using the ward DINAMAP and recorded via Brigid. As stated within the SOP, Oxevision is being used for the purposes of supportive mental health observations while they are in bed at night to limit disturbance and not for the purposes of carrying out physical observations.



The vital signs information provided is not accurate

The Vital Signs module of Oxevision, Oxehealth is an ISO 13485 certified medical device manufacturer, with a quality system and products that meet this accreditation and meet the requirements of the Medical Device Regulations (2017/745). In addition the Vital signs device is a registered class IIa medical device in the UK, EU and a Class II product in the USA. The Vital signs product has been assessed and proven to provide clinically acceptable accuracy results for pulse rate measurements of 50-130 bpm $\pm$ 3 bpm and 8-39 breaths per minute $\pm$ 2 breaths per minute. **It is as accurate in recording breathing rate and pulse rate as any other equipment used for this purpose.** The claims and accuracy of the medical device have been assessed and agreed with their notified body on a number of occasions. **On the basis that this SOP is stating that the checking of vital signs at night using Oxevision, when a patient is in bed, instead of by staff entering the patient's bedroom, it could be argued that using Oxevision is more accurate in these circumstances, than visibly watching a chest rise and fall by torch light**

This SOP clearly states on page 15 that in those circumstances where Oxevision is used to measure vital signs as part of undertaking mental health supportive observations, where a reading cannot be taken after two attempts (each attempt takes 15 seconds) or where there is a concern about the information provided then staff will enter the room to complete a physical check.



Appendix 1 Evidence of Training

I confirm that I have read and consider myself to be sufficiently trained in the above Standard Operating Procedure with regards to my individual roles and responsibilities.

Signature of Trainee Date

I confirm training in the above SOP was delivered as recorded above and that the trainee may be considered sufficiently trained in their roles and responsibilities.

Signature of Trainer Date

Additional Notes & Signatures

Signature of Trainer (where appropriate)

I confirm training in the above SOP was delivered as recorded above and that the trainee may be considered sufficiently trained in their roles and responsibilities.

Signature of Trainer Date



Appendix 2 – Consent Form

10/06/2024

OxeVision Patient Consent Form

OxeVision is a Vision Based Patient Monitoring System (VBPMS) that supports staff to improve safety and to provide individualised, person-centred care to patients in inpatient mental health services.

OxeVision uses an infrared camera and illuminators which are linked to an interface at the nurse station in the form of a dedicated OxeVision fixed monitor and on portable tablets.

OxeVision will support your care by enabling staff to:

- Have location and activity-based alerts and warnings
- Ability to take cardio-respiratory vital signs (Pulse and breathing rate)

Patient Name:

Patient DoB:

For patients to complete (for use in bedrooms only, OxeVision is always switched on in seclusion):

Have you been informed of the OxeVision system and how it works:

Yes ☐

No ☐

Do you consent for the OxeVision system to be switched on in your bedroom:

Yes ☐

No ☐

Signature:

Date:

Consent to use the system can be changed at any time, if you wish to change the status of your consent, then please let a staff member know.

For Staff to complete:

Does the patient have capacity to consent:

Yes ☐ No ☐

Consent Status

MDT approval to utilise OxeVision at night:

Yes ☐ No ☐

For Staff to complete:

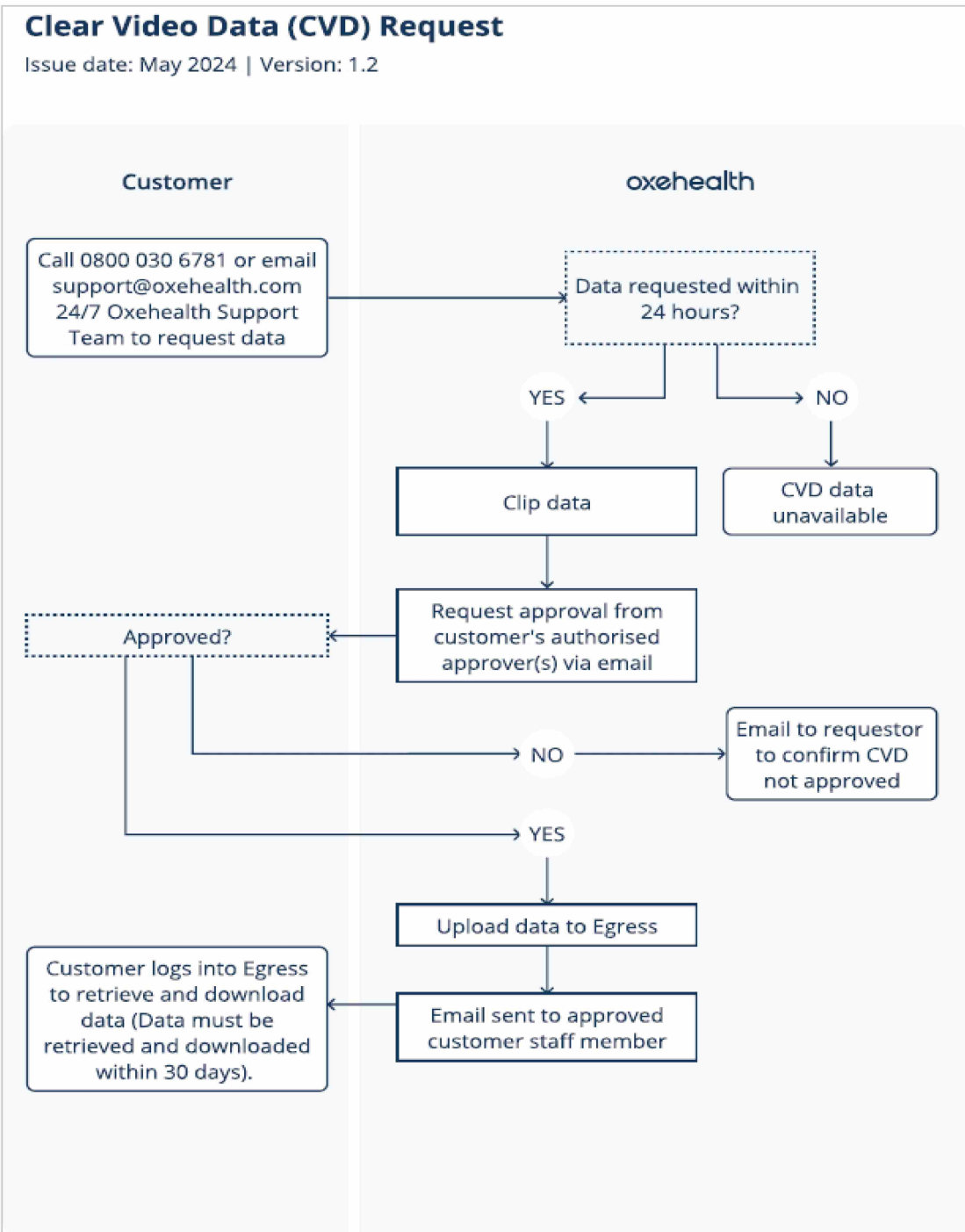
Staff member name:

Care Plan and risk assessment updated:

Yes ☐



Appendix 3 – Clear Video Data Request





Appendix 4 – Quick Reference Guides

Appendix 4.1 – How to turn on Oxevision in opt in bedrooms at 11pm

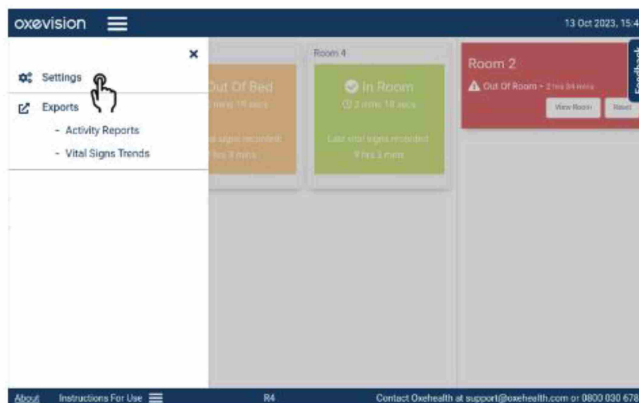
At a 11pm all patients who have opted in to Oxevision should have their bedrooms turned on to ensure nighttime observations can be completed on the Oxevision tablet.

For level 1 and 2 patients' observations who have opted in observations will be completed on the Oxevision device until 7:30am.

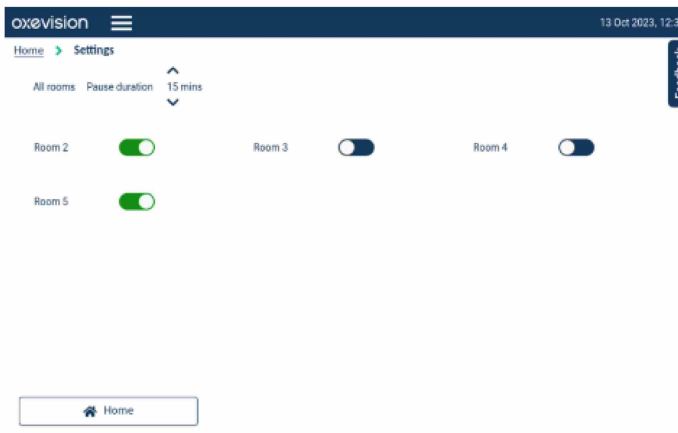
The staff member completing the observations should ensure that all patients who have consented to opt into Oxevision are switched on by checking the ward at a glance board and turning on the relevant bedrooms on the device.

Ward staff have the ability to switch the infrared sensitive camera in each patient bedroom by completing the following steps:

Step 1: Click on "Settings" on the drop down menu.



Step 2: Click on the toggle next to the room you wish to switch "On" or "Off". Green indicates the system is "On". Navy indicates the system is "Off". Click "Home" when finished.



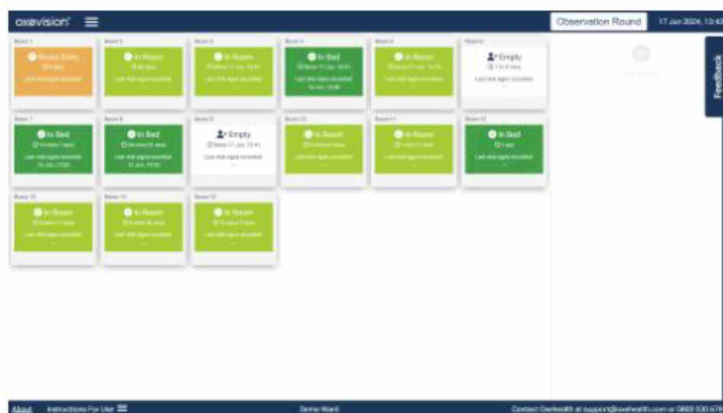


Appendix 4.2 – How to do observations at night with Oxevision

After 2300 hrs, once a patient who has opted into using Oxevision, goes to their bedroom, level 1 and level 2 observations will be completed using Oxevision until 0730 the next morning. If at any point patients leave their bedroom between the hours of 23:00 and 07:30 then the normal observation process will apply for those patients and so staff should remain vigilant around the patient's location.

Below is a step-by-step guide on how to take a Vital signs observation using Oxevision:

Step 1: Select a room tile.



If there is more than one occupant in a person's room, you should proceed with other means to establish patient safety and to take vital signs observations.

Step 2: Select "Take Vital Signs" on the Room Actions screen



By selecting "Take Vital Signs", you are entering the Vital Signs software medical device.¹

oxevision

Home

Rooms 5

Take Vital Signs

13 Oct 2023, 12:25

Feedback

13 Oct 2023, 12:35:19

Live

Room 5

Is the subject still?

Cancel

Yes

If moving, do **not** take vital signs

If still, vital signs may be taken

Home

CE

2797

About Vital Signs

IMPORTANT – If the OxeHealth Vital sign software is not able to make any vital signs estimations at the current time of the patient is not still, the ‘yes’ button will indicate ‘Acquiring Vitals’.

If vital signs cannot be acquired by the system within 15 seconds, then you must select 'Home' to return to the room overview screen or 'Done' to return to the Room Actions menu.

LPT022562 0029



Step 4: Check if there are blobs that are not touching the body. If all blobs appear on the body, select the blue "No" button. If any of the blobs are not touching the body, select the grey "Yes" button which will return you to the Room Actions screen



The blobs must be on the body to get a reliable reading.

IMPORTANT: There can be one or two blobs on the screen, either is normal. As long as all blobs are touching the body you can proceed with the workflow.



Can staff still take vital signs observation when the patient is covered up, e.g. with a blanket?

Yes, provided the patient is suitably still, then staff may proceed with caution if they consider all of the visible blobs to be on the body of the subject. Just be confident that only the patient is under the sheet and no other living things or moving objects.



If the device continues to have insufficient wifi connectivity, the system will try to resave for 10 seconds. Following this 10-second period, if the vital signs observation has failed to save again, the "Vital Signs Failed to Submit" message will be shown and a "Retry" button will appear:





Step 5: Record the Vital Signs measurements



IMPORTANT: If your device continues to have good wifi connectivity after taking a patient's vital signs, you will see a "Vitals Saved!" message on the screen (as shown above). This means that the pulse and breathing rate have been saved automatically and will be visible on the relevant Vital Signs Trends chart within the system. If this appears, simply select "Done".

However, if your wifi connectivity drops, Oxevision will try and resave the pulse and breathing rate, and display a "Please wait..." message:

It is recommended for you to move into an area with good wifi connectivity before selecting "Retry". You can choose to exit the "Take Vital Signs" screen by selecting "Home" or "Done" but **please note that the vital signs you have just taken will not be recorded in the relevant Vital Signs Trends chart**. If you are about to exit before vital signs have been saved you will see the following warning message:

Are you sure you want to exit?

Please make sure you have submitted any outstanding vital signs

I'll stay

Exit

All successfully saved vital signs observations will be available to view on the Oxevision Vital Signs Trends

At 7:30am observations will revert to the normal observation process and Oxevision will not be used during the day to take observations.



Appendix 4.3 – What are the alerts and what to do if an alert goes off.

This standard operating procedure has outlined that the primary purpose of using Oxevision is to reduce the disturbance caused by entering a patient's bedrooms to complete supportive observations at night.

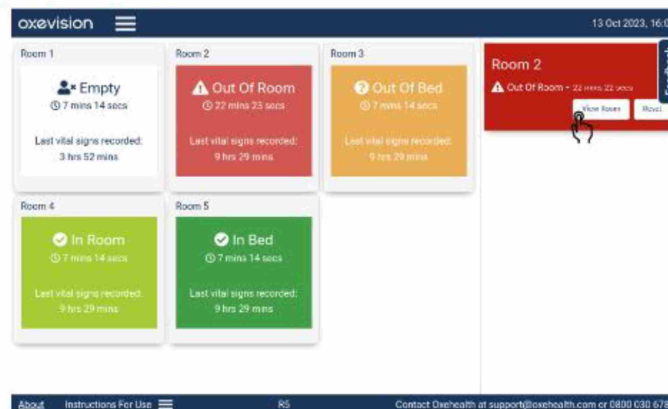
The system also provides additional benefits through the use of alerts to the tablet being held by the nurse completing level 1 and level 2 observations.

Alerts will sound on the tablet when the following instances occur:

Alert	Alert Function	Action Required
In Bathroom	A warning state (amber room tile) is triggered to indicate the patient has entered the ensuite. This escalates to an alert (red room tile with audible and visual alert) after 3 minutes.	If a red alert is triggered the patient must be physically checked. Only then can the alert be switched off on the tablet.
At Door	A warning (amber room tile) is triggered after 30 seconds if a patient is loitering in the main doorway area. This escalates to an alert (red room tile with audible and visual alert) after 3 minutes.	If a red alert is triggered the patient must be physically checked. Only then can the alert be switched off on the tablet.
Room Entry	A warning (amber room tile) is triggered if the system detects a second person entering the room when it is already occupied by a person.	If an amber alert is triggered for room entry, then the staff member should attend the patient's bedroom to ensure the patient is safe. Only then can the alert be switched off on the tablet.

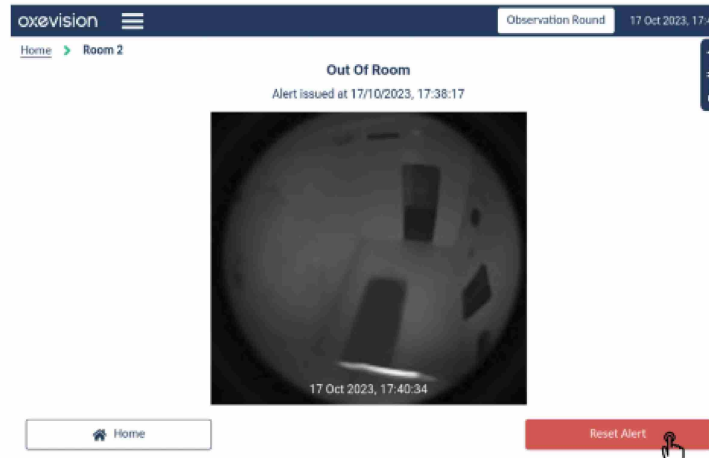
If you wish to see an anonymised (blurred) live feed of a room during an alert, follow steps 1 and 2. If you wish to "reset" an alert go directly to step 3.

Step 1: To view an alert click on "View"





Step 2: Once you have finished reviewing the anonymised (blurred) live feed, click "Reset Alert"



IMPORTANT - All **Red** Alerts but be responded to by checking the patient physically before it can be reset on the device.

Step 3: If you wish to reset an alert. Click on "Reset"

