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**Sent:** 2/16/2021 7:51:14 PM  
**To:** [I/S] (NHS ENGLAND & NHS IMPROVEMENT - T1520) [I/S]  
**Subject:** Item 5 - Oxehealth/Oxevision for inpatient suicide prevention

**From:** HEALEY, Frances (NHS ENGLAND & NHS IMPROVEMENT - T1520) <[I/S]>  
**Sent:** 12 February 2021 13:11  
**To:** WOOD, Frances (NHS ENGLAND & NHS IMPROVEMENT - T1520) [I/S]  
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**Subject:** for VRM? Oxehealth/Oxevision for inpatient suicide prevention

Hi Fran

Do you think this would be appropriate for VRM?

[Oxevision - Oxehealth](#) is an innovation that provides remote monitoring of pulse/breathing and video, marketed mainly for MH units under banners like "Introducing artificial intelligence in acute psychiatric inpatient care". Three strands have coalesced to make me think it could be a new and emerging risk

1. We'd looked at it in terms of whether it was a promising innovation in 2019 and in 2020 when eminent parties contacted Aidan. Two linked parts to the system:

- Video focused on movement linked to computer algorithm which I believe is not a registered medical device "*Our activity detection, fall risk, activity tracker and sleep products are activity trackers and do not have a medical purpose or functionality*" was what was on the website in 2020 - albeit currently sections of the website ('benefits') suggest it can alert staff if a patient is spending too much time in an area of the room where self-harm is likely to occur, and can be used to prevent falls, aggression etc. Video shows on office monitor and on iPads staff carry with them when doing observation rounds
- Remote optical monitoring of breathing/pulse rates – has been registered as a medical device. The monitoring appears connected to a computer algorithm that alerts staff if the breathing/pulse trends '*might indicate a need for special observation*'. I'm unsure if it is only the remote sensor or also the algorithm that is a registered medical device.

Their website links to one [acceptability study](#) (6 bedrooms, 4 months, male MH unit) focused on sleep quality that doesn't seem registered as a research trial and the other source for 'clinical trials' is on trust notepaper and describe its use as a movement alarm to prevent falls in a dementia unit. So at that point our assessment was it had potential but needed some real research done before any wide adoption.

2. In my links with the MH&LD Nurse Directors' forum on ligature policy updating in recent weeks I have the impression there is quite extensive introduction/piloting of the system and belief that it is proven to prevent self-harm and suicide in inpatient settings as the patient's heart rate would accelerate when considering self-harm and/or provide opportunities to rescue before patients were asphyxiated, as the system would alert staff as soon as a patient ceased to move or if respiration rates dropped.

3. After needing to look at a recent StEIS incident 2021/1743 to support [I/S] who is supporting the regional lead in relation to a trust of concern I noted a patient who appeared to have active Oxehealth/Oxevision but still came very close to death (in ITU with potential brain damage at point of reporting) "*.....the patient was seen to be absent from the communal area on the ward. Staff member 1 used the oxehealth software to check if the patient was in their bedroom. The patient was observed to be sitting behind the bedroom door, possibly in an attempted ligature. Staff member 1 immediately responded to the bedroom, noticing that there was a towel hanging over the door, with the door closed and locked. Staff member 1 pulled the pert response alarm and used the key to unlock the door. Staff member 1*

was unable to open the door due to the towel being jammed, unable to pull or push the door to gain entry, as the patient was directly behind the door and their weight prevented 1 person access. Staff member 1 shouted for help, with staff member 2 and staff member 3 attending the scene. The present staff members were able to open the door and support the patient to the floor. The patient had tied a ligature around their neck, presenting as facially blue in colour, appeared to be unconscious, not breathing and unresponsive to stimuli. It appeared that the ligature [method of suicide] [method of suicide] e closed door as an anchor point.”

I can see potential both for the device perhaps not having the abilities staff believe it does and/or (just as we have seen for similar technology in acute hospitals) staff behaviour changes in ways that might not have been anticipated. The incident above suggests they might have gone to the staff office to view the screen rather than straight to the patient's bedroom, whilst some of the website materials note the device means there is 'no need to enter the patient's room'. It might also be helpful at VRM to consider whether the website materials are aligned to their medical device authorisation.

[I/S] will have views on its use in falls, but that's more the normal problem of a possibly ineffective intervention than the potentially new and unrecognised risks related to inpatient suicide/serious self-harm prevention.

All best

*Frances*

**Dr Frances Healey, PhD, RN, RN-MH (NMC 80D1205E)**

Deputy Director of Patient Safety (Insight)

***Supporting the NHS response to COVID-19 through leadership of the patient safety teams analysing, reviewing and issuing advice and guidance based on NRLS and Serious Incident reports***

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