COVID Virtual Wards briefing V1.0

7 January 2021

Following on from phase 1 implementation of COVID Oximetry@home, the national NHS@home team are considering phase 2 to include secondary care led virtual wards.

This briefing outlines key information about the COVID Virtual Ward and the anticipated next steps to provide system partners with early sight of the proposals to enable readiness for rapid mobilisation.

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What is the COVID Virtual ward model?

The COVID Virtual Ward model is a secondary care led initiative to support early and safe discharge (step down) for COVID patients. It has already been implemented in some parts of the country where it is having an impact in reducing emergency admission and builds on the COVID Oximetry@home model previously approved by NIRB.

Now implemented by all CCGs, the COVID Oximetry@home is a primary care based pathway for lower acuity patients who are required to 'self-monitor' and escalate if their oxygen saturations fall below 95% and who have generally not been admitted or assessed by secondary care.

The key difference between COVID Oximetry@home and the COVID Virtual Ward is the enhanced remote monitoring on the virtual ward (supervised from secondary care/community providers) with daily calls and hospital treatments for patients, including Dexamethasone, anticoagulation +/- trial drugs and in a small number of cases home oxygen therapy. These patients are at significantly higher risk of deterioration and this enhanced monitoring and treatment gives confidence to discharging clinicians and patients that they will be safely 'cared for' virtually during the 'step down' process. COVID Virtual Wards are not designed to be part of the 'step up' or escalation pathway for COVID Oximetry@home.

Whilst to be confirmed, the on boarding process for both pathways should include provision of a patient held escalation plan that should assist remote assessment by 111/999/CVW team and help reduce inappropriate readmission / re-attendance.

Staffing the virtual ward. Based on existing services, providing a safe and robust COVID virtual ward ideally requires staffing for at least 12 hours a day (8am-8pm) seven days a week with locally arranged provision of out of hours cover.

Patients are given with a hospital number to call for any advice or support required during these hours which is provided by non-registered member of nursing staff (HCA). These staff are clinically supervised by an experienced registered nurse who is also responsible for making the proactive daily calls i.e. virtual ward round.

The COVID Virtual Ward is led by a named consultant or ST3+ doctor with relevant COVID experience (usually an acute or respiratory physician). The workforce requirements are significantly less intensive than the patients remaining in an NHS bed.

It will be for individual ICS/ CCGs to determine if they wish to enhance the model with app based reporting and monitoring with support from NHSX.

Why is this being proposed?

From 31 December 2020 all CCGs have reported to have gone live with COVID Oximetry @home pathways which can help reduce critical bed use through patient self-monitoring. This additional proposal can further relieve pressure on acute hospital beds by facilitating early supported discharge for patients with confirmed or suspected COVID-19.

Based on clinical advice from existing CVW services, this proposal could free up to 1,500 beds across England equating to average of 10 beds per Trust between now and the end of March 2021.

Who are the target patient population?

Early supported discharge should be considered for adults in hospital with confirmed or suspected COVID-19 who have an improving clinical trajectory (symptoms, function, oxygen saturation) and have no fever for 48h consecutively (without medication to reduce fever). Patients who meet these criteria with oxygen saturations of:

- 95% or higher maybe suitable for discharge onto the:
  - COVID Oximetry @home pathway and GP follow up in the event of recovery
  - Or COVID Virtual ward @home care if they are deemed at ongoing high risk of acute deterioration and/or are on ongoing hospital treatments (e.g. dexamethasone, anticoagulation, trial drugs)
- 93% or higher maybe suitable for discharge onto a COVID Virtual Ward @home pathway
- 92% or lower are generally unsuitable for early supported discharge (unless this is their baseline oxygen level in which case they may be considered for the CVW).

EARLY SUPPORTED HOSPITAL DISCHARGE for ADULTS WITH COVID

SEVERE
O_2 92% or lower
*Or if O2 sats >4% less

**Mod/severe Shortness of breath
Severe fatigue/muscle aches
Confusion**

SEVERE - UNSUITABLE FOR COVID VIRTUAL WARD OR OXIMETRY @HOME

MODERATE
O_2 93 - 94%
*Or if O2 sats 3-4% less than usual

Mild Shortness of breath

MILD
O_2 95% or higher
*Or if O2 sats are 1-2% less than usual

must be able to undertake activities of daily living

CONSIDER EARLY SUPPORTED HOSPITAL DISCHARGE

Exertion test (40 step walk or 1 min sit-to-stand tests)
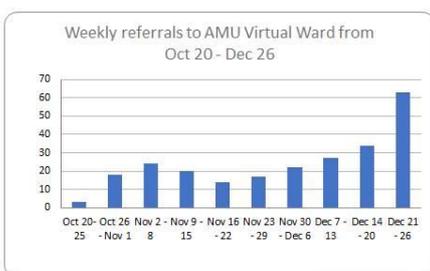AND SENIOR REVIEW if ≥ 3% reduction.

**DEXAMETHASONE, ANTICOAGUATION +/- Oxygen
PULSE OXIMETER & training
SAFETY NETTING
DIARISING AND MONITORING VIA COVID VIRTUAL WARD
(MODERATE) OR COVID OXIMETRY @HOME (MILD)**

v1.3 NHS E / I 01 December 2020

What are the anticipated numbers?

Clinical advice suggests that up to 300 patients (2 per acute trust) could be suitable for early supported discharge each day between now and the end of March 2021 equating to 1,500 beds or 135,000 bed days, assuming an average hospital LOS saved of 5 days per patient.

Each ICS should create COVID Virtual Wards capable of supporting up to 25 patients at any one time. It is recommended that CCGs should ensure that each acute trust should have enough oximeters available for use on COVID virtual wards. To support this we will push out a further 50,000 oximeters to CCGs to ensure there are sufficient oximeter stocks available for all acute NHS trusts.

Weekly referrals to AMU Virtual Ward from Oct 20 - Dec 26

| Oct 20- 25 | Oct 26 - Nov 1 | Nov 2 - 8 | Nov 9 - 15 | Nov 16 - 22 | Nov 23 - 29 | Nov 30 - Dec 6 | Dec 7 - 13 | Dec 14 - 20 | Dec 21 - 26 |

61 patients in the RBH AMU Virtual Ward today. That's 3 wards worth of patients being safely managed with remote monitoring and daily phone reviews but in their own homes. We're busier than during the height of the first peak of the pandemic!

https://twitter.com/ticc_19/status/1345682076863967233?s=20

Manchester
Early impact of hospital led COVID virtual wards

Sites	Wrightington, Wigan & Leigh NHS FT	Tameside & Glossop Integrated Care NHS FT	Wythenshawe Hospital (Manchester University FT)	Manchester Royal Infirmary (Manchester University FT)	North Manchester General Hospital (Manchester University FT)	Stockport NHS FT	Royal Oldham Hospital
Number of patients managed through the secondary care oximetry @ home model who would otherwise have required hospital management	22	531	141	150	65	19	59
Date Service Commenced	16th November 2020	October 2020	22nd November 2020	1st October 2020	1st October 2020	4th November 2020	1st October 2020
2. What is your admission /readmission rate for patients on the virtual ward ?	**4** of the patients have attended A&E-2 admitted 2 were identified by the team to come back 1 covid related, 3 were other conditions. All patients are back home	**0** readmissions	Don't know as yet – numbers not reviewed	**13** patients readmitted / admitted	We have readmitted **7**	**4** readmitted or attended ED	Admission rate to CVW averages 1-2 per day with a capacity of 30 Readmissions back to secondary care- **10** OUT OF 59 = 17%-4 of them were social re-attendances who came back in without discussing with CVW staff

What is the proposed delivery model?

As a provider-led initiative and a safe alternative to hospital based care, the default expectation is the service will be provided by NHS Trusts OR community providers. It will be for ICSs to determine the best local delivery arrangements to implement the CVW model working with their local acute NHS Trusts with flexibility to develop alternative local arrangements should they wish.

What is the financial model?

No additional costs are expected.

The cost of the oximeters required for establishing CVWs has already been met with the purchase of 501,000 additional oximeters and made available to all acute NHS Trusts via their CCG. NHS Trusts are expected to absorb the cost of the staffing for the CVW pathway by redeploying staff already employed by the Trusts and using them to help manage a greater number of patients using the CVW model utilising a lower staff to patient ratio.

Each band 4 can support 25 CVW patients vs. 1 per 4-8 patients in hospital. Likewise each band 7 can support 50 CVW patients vs. 1 per 28 in hospital. Each consultant can support up to 100 CVW patients vs. 1 per 28 in-patients. These CVW roles may also be undertaken by staff that are self-isolating. Overall 50 CVW patients will require 3.5 healthcare professionals compared to a minimum of 10 for admitted patients.

The estimated staffing requirements of a CVW with up to 25 patients from 8am to 8pm 7 days a week is 3 WTE band 4 (HCA) ,1 WTE band 7 nurse (3x0.33 WTE) and 1 consultant session per week.

For further information, contact the West of England AHSN team via
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