Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

STANDARD OPERATING PROCEDURE	**Step Up Procedure for CRT Patients to Virtual Ward**
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VERSION NUMBER	**1.0**
APPROVING COMMITTEE	**DPARG** (Divisional Policy Approval and Ratification Group)
DATE THIS VERSION APPROVED	**July 2023**
RATIFYING COMMITTEE	**PARG** (Policy Approval and Ratification Group)
DATE THIS VERSION RATIFIED	**August 2023**
AUTHOR(S) (JOB TITLE)	**Clinical Quality Lead (Admission Avoidance & Virtual Care)**
DIVISION/DIRECTORATE	**Community**
ASSOCIATED TO WHICH POLICY?	**N/A**
CONSULTED WITH	**Acute and Community Clinical Leads for Virtual ward, CRT GPs and ACPs, Community Matrons, Community Respiratory Team, Community Cardiac Team, Virtual ward team lead**

DATES PREVIOUS VERSION(S) RATIFIED	
DATE OF NEXT REVIEW	**August 2026**
MANAGER RESPONSIBLE FOR REVIEW (Job Title)	**Clinical Quality Lead (Admission Avoidance & Virtual Care)**

The WWL Way

AT ALL TIMES, STAFF MUST TREAT EVERY INDIVIDUAL WITH RESPECT AND UPHOLD THEIR RIGHT TO PRIVACY AND DIGNITY

VERSION CONTROL

Version	Date	Amendment

1 INTRODUCTION

1.1 The purpose of this Standard Operating Procedure (SOP) is to outline the steps for General Practitioner's (GP's), Advanced Clinical Practitioner's (ACP's), Cardiac Nurses, Chronic Obstructive Pulmonary Disease (COPD) Nurses and Matrons based within Community to be able to Step up patients who are deemed suitable for Virtual Ward (VW) monitoring.

1.2 Virtual ward monitoring can be considered as an alternative to hospital admission for suitable patient with an Acute Respiratory infection or Exacerbation, Acute Frailty, or Heart Failure.

1.3 Patients may be suitable for Step Up to the Virtual Ward if they require on-going treatment that would not normally be delivered in a primary care setting and/or need close monitoring to detect early deterioration and intervention.

1.4 Patients need to be agreeable to consider care outside of a hospital environment and be willing to actively monitor their own condition, provide answers to questions about their symptoms, provide their observations daily, and agree to a daily video call with a member of the Virtual Ward Team.

1.5 Referrals will be considered on a case-by-case basis and be triaged by the coordinator.
Prior to referral into the Virtual Ward all patients must have been assessed face to face by a competent clinician. Where the coordinator identifies low concern clinical assessment will take place within 6 hours or the next morning if appropriate and the patient will be onboarded. Where the coordinator identifies medium concern clinical assessment will take place within 4 hours virtually or face to face. Where the coordinator identifies high clinical concern the patient should be referred to the hospital on a 2 hour response (if they are later suitable for the virtual ward they can be stepped down from the hospital onto this).

1.6 For all Virtual Ward Step Up enquiries including advice about whether a patient is suitable for Virtual Ward the GP, ACP, Community Matron, Cardiac or Respiratory Nurse should **call 01942 773340 between 8am – 8pm daily.**

1.7 Calls will be answered by the Virtual Ward Administrator or Coordinator who will take basic details. If answered by the administrator and the coordinator is available, they will warm transfer the call immediately. If they are not available, they will ensure the coordinator calls back as soon as possible. The Coordinator has 2 options:

- accept on the patient onto the Virtual Ward, or
- advise the referring clinician the patient is not appropriate for the virtual ward, explaining the reason why, and ask them to manage the patient through their normal pathways.

1.8 The coordinator will take key information from the referring clinician over the telephone. The coordinator will ensure that the patient is onboarded on to the Virtual Ward and will provide information about next steps i.e., a home visit and the

delivery of the Current Health remote monitoring equipment. The patient will need to provide verbal consent at the time of referral and the coordinator will document this.

1.9 Virtual Ward benefits patients and clinicians through:

- Remote delivery of monitoring, avoiding hospital attendance and transmission of infections.
- Reduced potential for nosocomial transmission, hospital acquired infections, delirium, deconditioning, and pressure sores.
- Supporting rapid deployment during surges in community infection rates maintaining inpatient capacity.
- Supporting early mobilisation.
- Reducing requirement for hospital stays through Admission Avoidance.
- Reducing 30-day readmissions.
- Improved patient experience.

2 SCOPE

2.1 This SOP applies to GP's and ACP's working within the Community React Team, Community COPD and Cardiac Nurses, and Community Matrons. Referrals can be taken onto the Virtual Ward from any of these clinicians.

2.2 This SOP applies to the following category of patients: Respiratory, Acute Frailty,
Heart Failure. This may be expanded as new pathways for Virtual Care develop.

3 INCLUSION CRITERIA

3.1 Inclusion criteria (General)

Patient Selection and Onboarding will need to ensure the referring clinician:

- Selects patients who wish to remain at home.
- Enroll only patients who have a degree of social support.
- Ensures patients have technological fluency.
- Ensure patients understand the importance and benefits of vital sign monitoring and treatment adherence.

3.2 Respiratory

- Confirmed diagnosis of COPD (GOLD stages (I- IV).
- Treatment initiated in the case of exacerbation.
- Improving NEWS2/ Down trending CRP.
- Provision of 02/repeat CBG after 24 hrs if required.
- Covid +ve +/- pre-existing respiratory/comorbidities/ conditions.
- Flu +/- +/- pre- existing respiratory/comorbidities/conditions.

3.3 Acute Frailty

Has diagnosis of one or more Frailty Syndrome(s):

- Falls/Fragility Fractures
- Cognitive Impairment
- Immobility
- Continence
- Polypharmacy
- Age 65 or over

Able to ambulate, or complete activities of daily living appropriate to their social care setting.

3.4 Chronic Heart Failure

- Volume overload in the setting of acute decompensated heart failure.
- Pre-existing congestive heart failure with reduced or preserved ejection fraction (AHA Stage C or D NYHA).
- Treatment initiated with diuresis.

4 EXCLUSION CRITERIA

4.1 Exclusion criteria (General)

- Acute delirium deemed unsafe for community management.
- Uncontrolled pain.
- Heavy tattooing to upper arms.
- Bilateral axillary lymph node dissection.
- Persistent atrial fibrillation (relative contraindication).
- No access to home or mobile telephone.
- At risk of domestic violence.
- Homeless or inadequate housing facility.
- Patients under the age of 16 years.

4.2 Respiratory

- Acute type 2 Respiratory failure.
- Clinical features of sepsis.
- New Atrial Fibrillation (AF).
- Two or more Organ Dysfunction.
- Acute Multi-organ failure.

- **Bronchiectasis**
- New changes on CXR with features of sepsis.

- **Pneumonia/Pneumonitis**

- Ongoing clinical symptoms.
- Acute multi-organ failure involvement.
- Clinical features of sepsis.

4.3 Acute Frailty

- Falls/Fragility Fractures
- Cognitive Impairment
- Immobility
- Continence
- Polypharmacy
- Age 65 or over

4.4 Chronic Heart Failure

- New onset HF or post myocardial infarction.
- Acute hypotension or hypoxia.
- IV vasodilator or Inotropic requirement.
- Indication for device therapy, mechanical circulatory support or cardiac transplantation.
- Inadequate vascular access (if home infusion of IV diuretics).
- Uncontrolled AF or other arrythmia.
- Patient would benefit from inpatient stay to establish goal-directed medical therapy for heart failure.
- Other indication for inpatient management.
- Severe renal impairment (eGFR<30) (relative contraindication).

5 PROCEDURE

5.1 Patient Selection and Onboarding:

- Select patients who wish to remain at home.
- Patients who have a degree of social support.
- Technological fluency sufficient to be trained to use connecting health kit.
- Onboarding should be face to face or remotely by Virtual Ward coordinator.
- The importance and benefits of vital sign monitoring and treatment adherence must be clearly explained to the patient.
- Contact should be made by the ACP or equivalent with Virtual Ward Band 7 on 01942 773340 to discuss suitability and availability on VW capacity.
- Patients details and onboarding completed by coordinator, onboarding to be completed at this time. (In the case of GP, Virtual Ward Band 7 will onboard patient and Band 3 runner will visit patient at home to put on Current Health kit).
- ACP/Nurse will put patient on kit while within their home.
- Patient to be discharged from system one and CRT care after full notes have been written. Ongoing care while on VW will be under care of Consultant.
- Use new drop down code Referred to VW.
- Care to be taken over by VW.

- ACP/Nurse to document any relevant notes onto HIS Patients notes.

6 ESCALATION

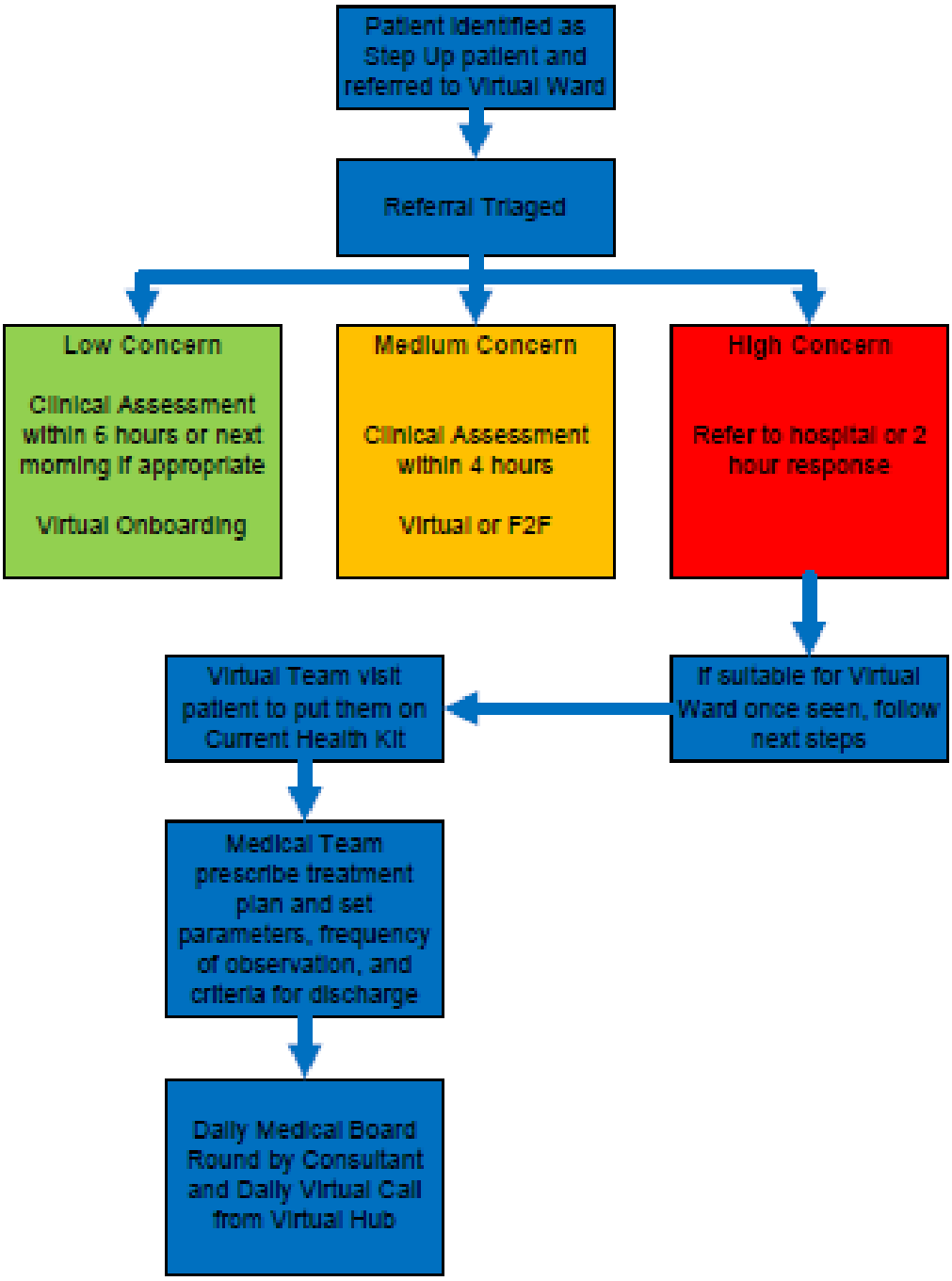
6.1 Criteria for Escalation includes:

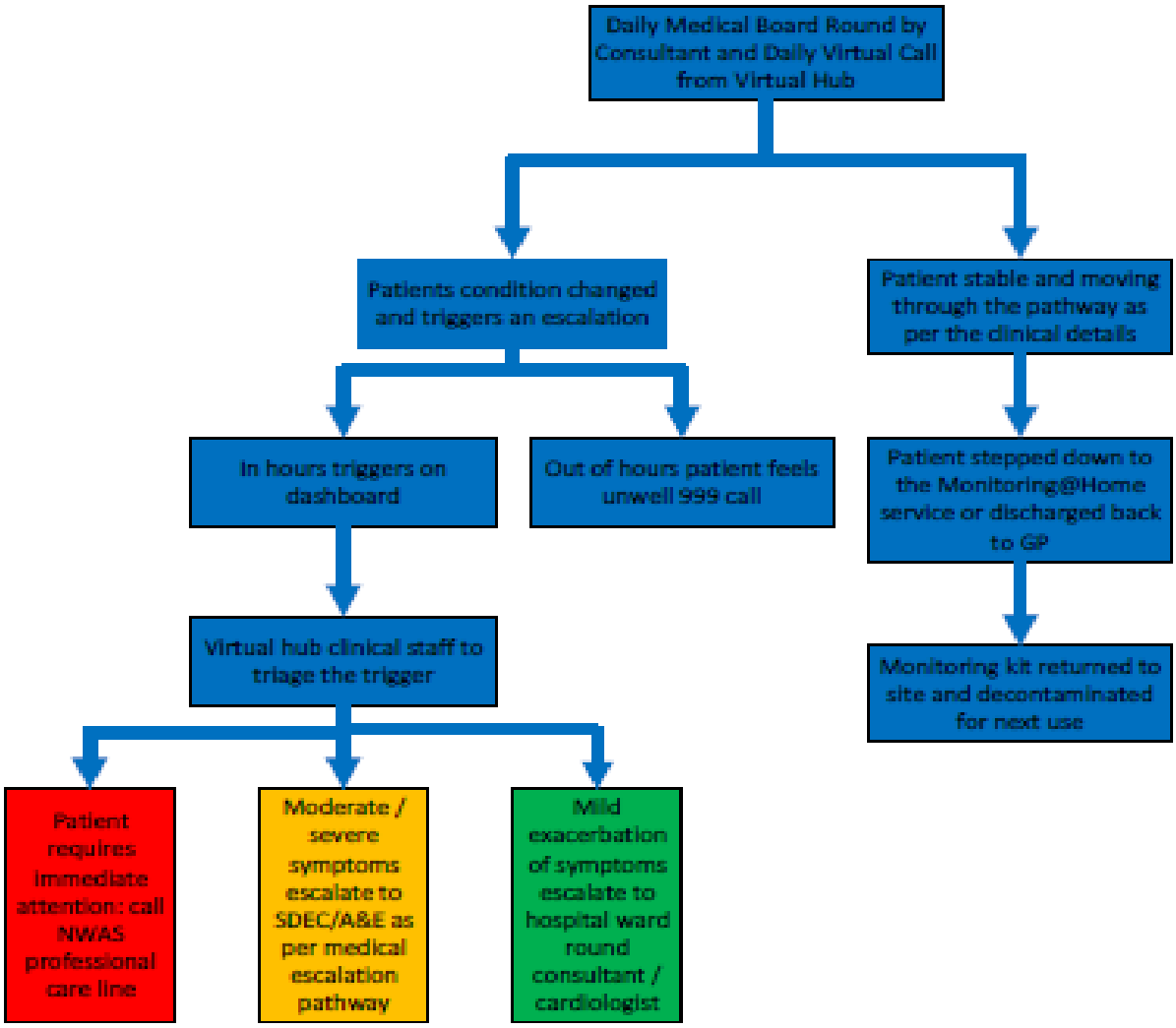
- Hypoxia with Sp02 <=94% (or consistent 2% less than baseline) despite
- maximum supplemental if receiving 02 therapy OR escalating 02 requirement.
- (Increase in >2L in less than 24 hours).
- Worsening dehydration, systemic sepsis or septic shock.
- Persistent elevation of respiratory rate, heart rate or skin temperature.
- Hypotension.
- Dehydration or reduced urine output (via survey).
- Development of symptoms or signs of sepsis.
- Non-adherence to treatment.
- Worsening of comorbid disease.

6.2 First step following identification of an issue should be assessment of the patient, triage, and then escalation via Band6/7 to Consultant assigned to Virtual ward that day/Cardiologist (in event of it being cardiac patient).

6.3 Assessment should be by review of triage/call documentation, virtual visit/ telephone call or Face to Face via SDEC/A&E.

6.4 Consultant should clearly document treatment plan, and Virtual Ward team will then arrange appropriate treatment and monitoring, liaising with Hospital@Home or other departments to deliver treatments as requested and required.


Patient identified as Step Up patient and referred to Virtual Ward
Referral Triaged
Low Concern
Clinical Assessment within 6 hours or next morning if appropriate
Virtual Onboarding
Medium Concern
Clinical Assessment within 4 hours
Virtual or F2F
High Concern
Refer to hospital or 2 hour response
If suitable for Virtual Ward once seen, follow next steps
Virtual Team visit patient to put them on Current Health Kit
Medical Team prescribe treatment plan and set parameters, frequency of observation, and criteria for discharge
Daily Medical Board Round by Consultant and Daily Virtual Call from Virtual Hub



7.0 KIT AND SURVEY SELECTION

Core kit:
G2 wearable (SP02, pulse rate, resp rate, skin temp, motion)
Home Hub
Tablet

Peripherals:
Blood pressure (optional)
Pulsoximeter

Surveys:
Tablet Survey
Symptom survey

8 ALARM SETTINGS

8.1 Standard Alarm Settings:

Alarm Name	Settings	Window
Hypertension	SBP>/=180 AND DBP >/=110	1 reading
Hypotension	SBP</=90 AND DBP</=60	1 reading
Hypoxia	Median SpO2 </=94	60 min
Tachycardia	Median Pulse >/= 120	60 min
Bradycardia	Median Pulse </=50	60 min
Tachypnea	Median Resp Rate >/=30 AND SpO2 =/<94	60 min
Bradypnea	Median Resp Rate </=8 AND SpO2 =/<94	60 min
Tachypnea_Tachycardia	Median Resp Rate >/=30 AND Median Pulse >/=100	60 min
Skin Temp	Median Temp >/=38 C	60 mi

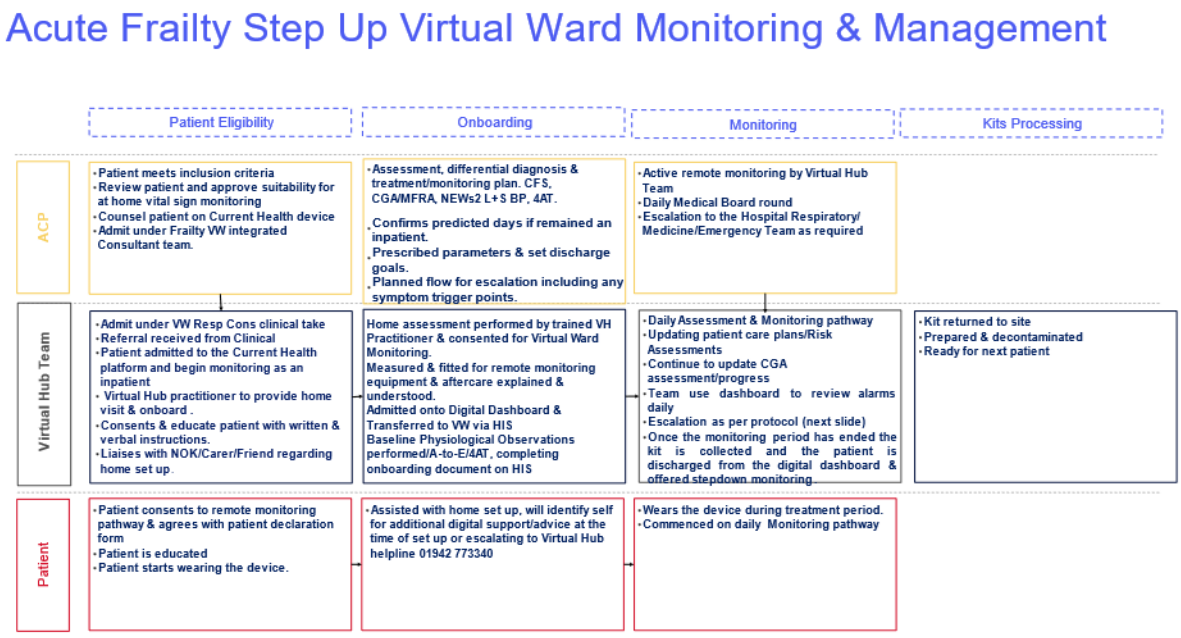
8.2 Heart Failure Alarm Settings

Alarm Settings

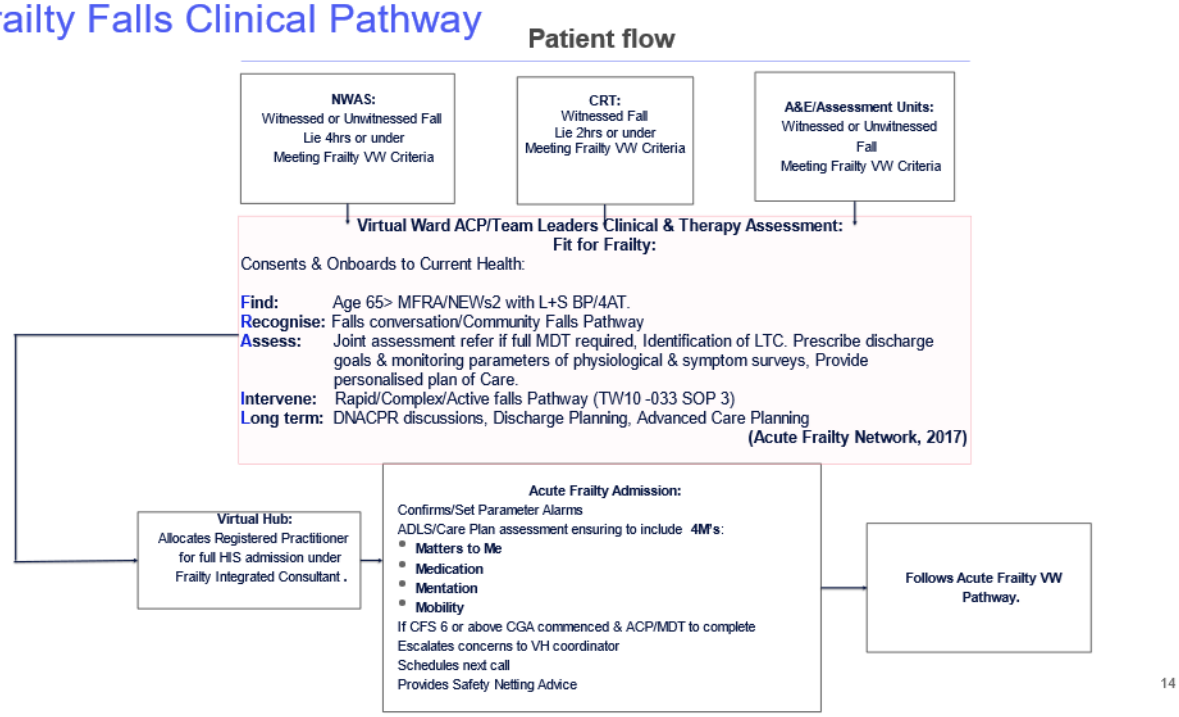
Alarm Name	Settings	Window
Hypertension	SBP>/=180 AND DBP >/=110	1 reading
Hypotension	SBP</=90 AND DBP</=60	1 reading
Hypoxia	Median SpO2 </=90	60 min
Tachycardia	Median Pulse >/= 120	60 min
Bradycardia	Median Pulse </=50	60 min
Tachypnoea	Median Resp Rate >/=30 AND SpO2 = /<92	60 min
Bradypnea	Median Resp Rate </=8 AND SpO2 = /<92	60 min
Tachypnea_Tachycardia	Median Resp Rate >/=30 AND Median Pulse >/=100	60 min
Weight Gain	2% increase	24 hours

8

9.0 VIRTUAL WARD PATIENT MANAGEMENT FLOW

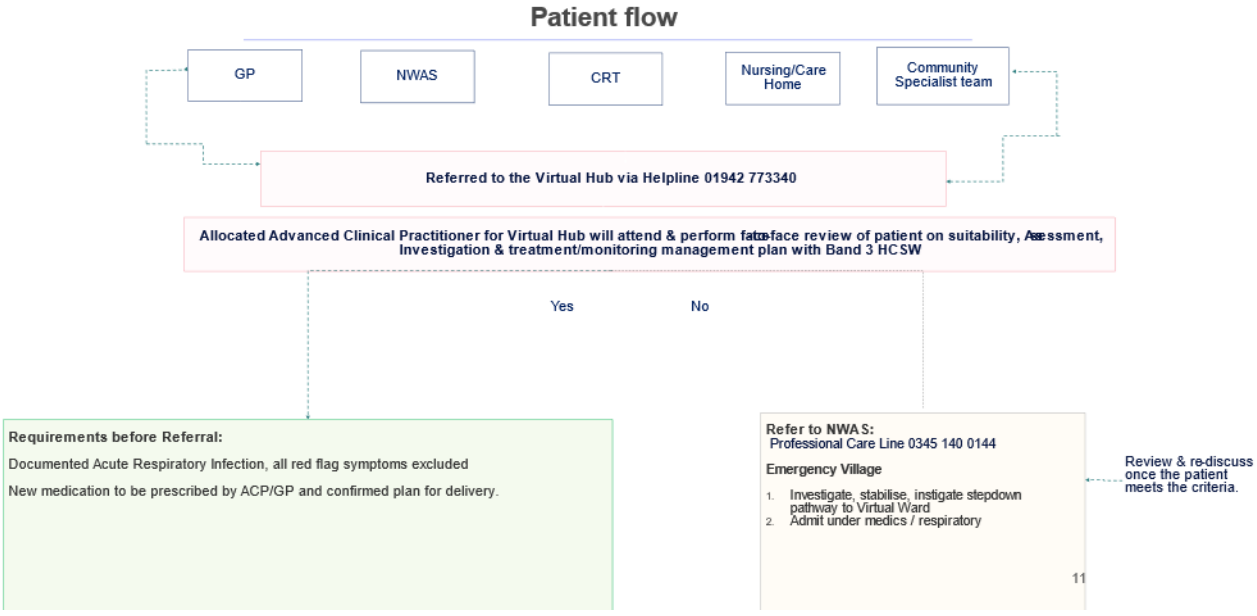


Frailty Falls Clinical Pathway

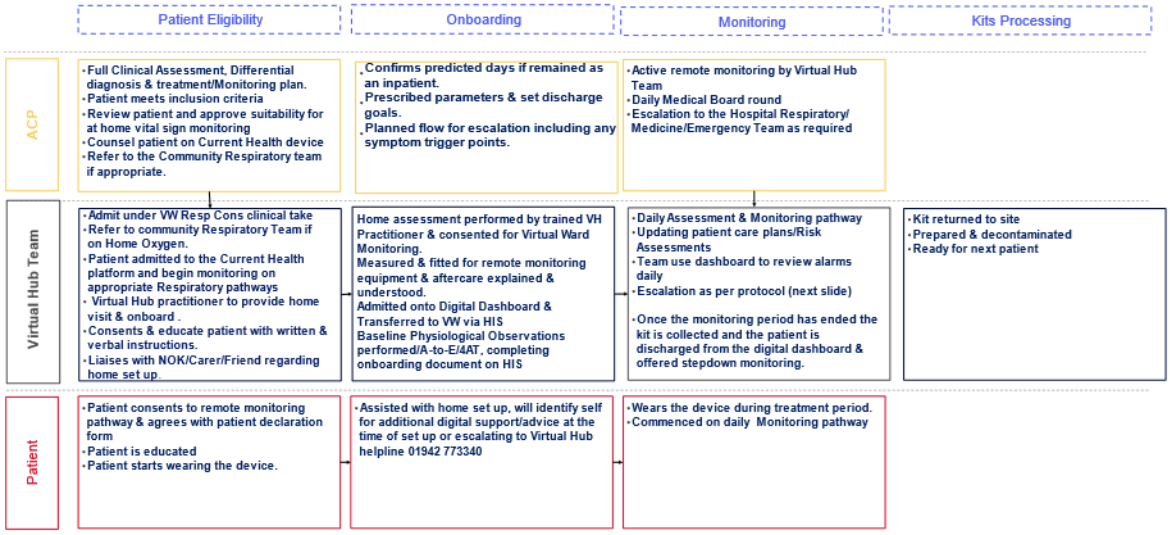


Acute Respiratory Infection Step Up Pathway Flow

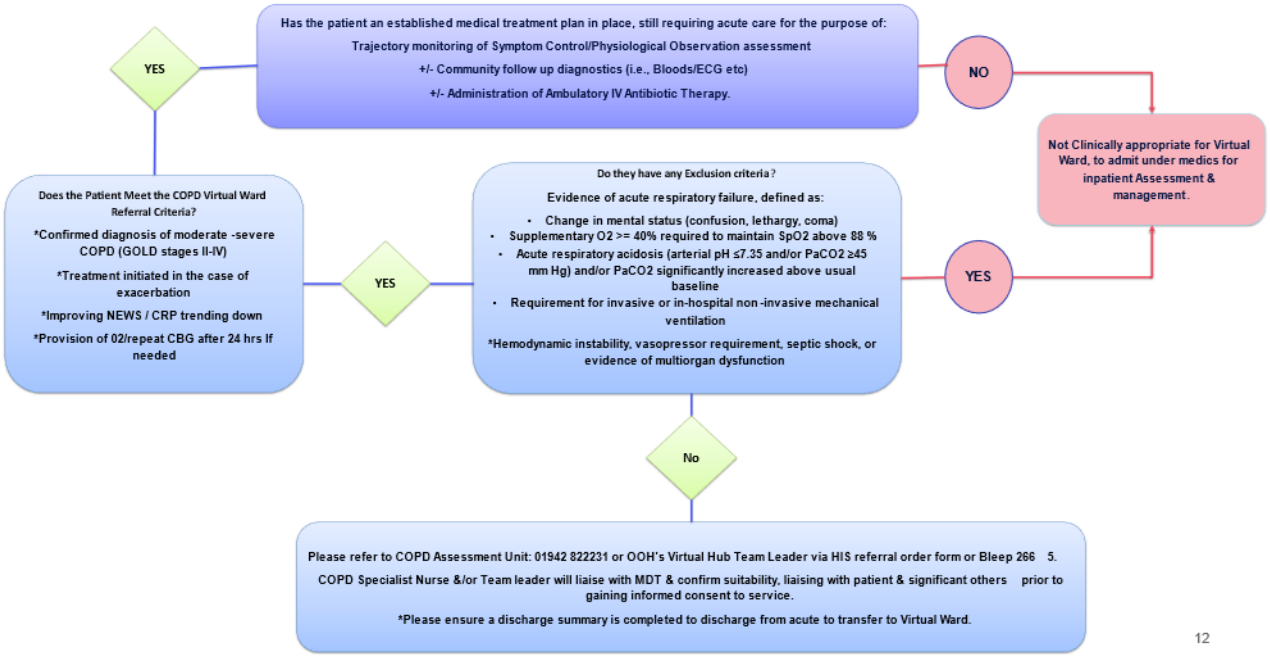
To be utilised only in Virtual Hub Service Hours referring for Admission Avoidance with Continuous Remote Monitoring



ARI Step Up Virtual Ward Monitoring & Management



COPD Virtual Ward Decision Flowsheet



10 HUMAN RIGHTS ACT

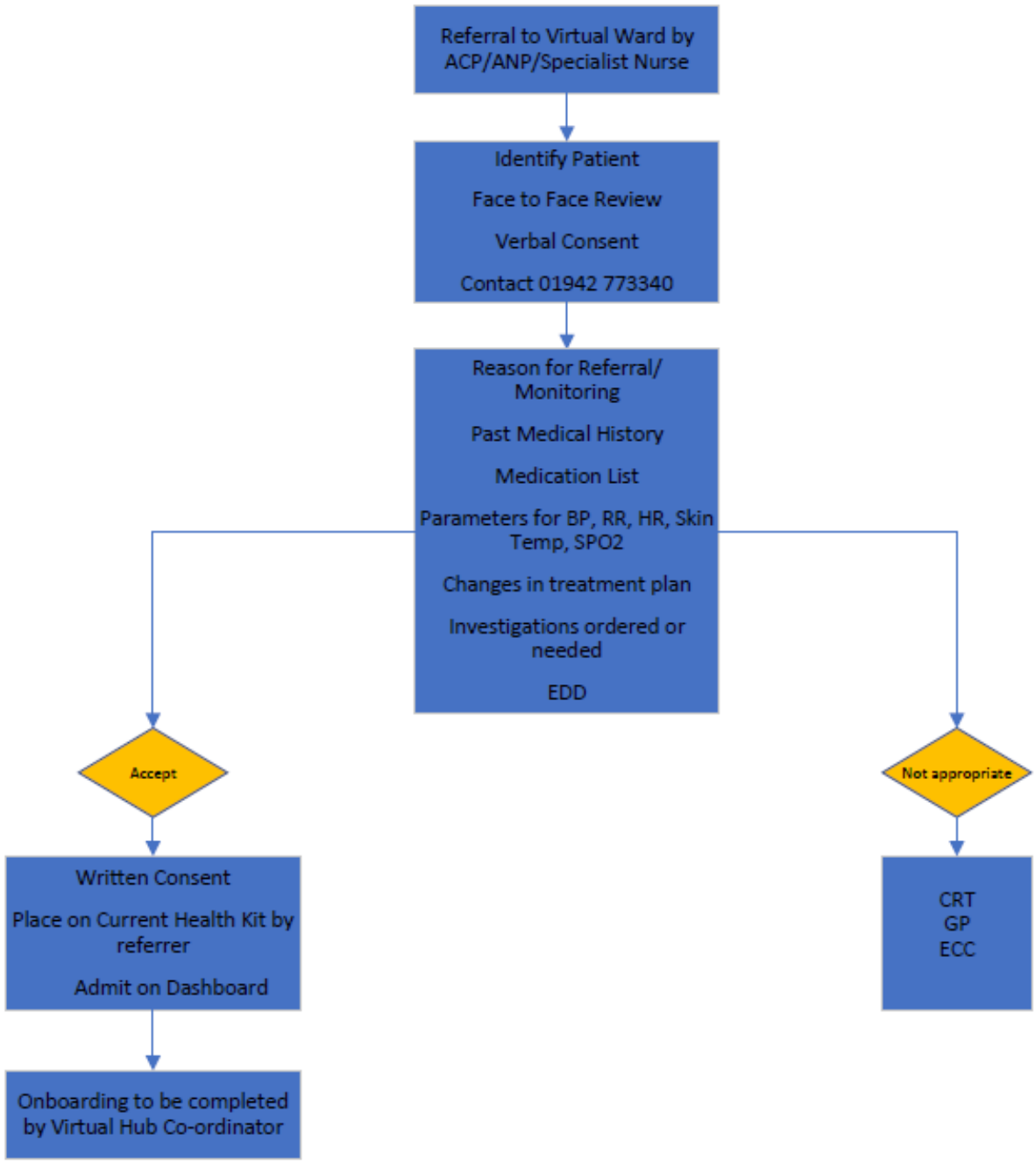
Implications of the Human Rights Act have been taken into account in the formulation of this document and they have, where appropriate, been fully reflected in its wording.

11 ACCESSIBILITY STATEMENT

This document can be made available in a range of alternative formats e.g. large print, Braille and audio cd.
For more details, please contact the HR Department on 01942 77 3766 or email equalityanddiversity@wwl.nhs.uk

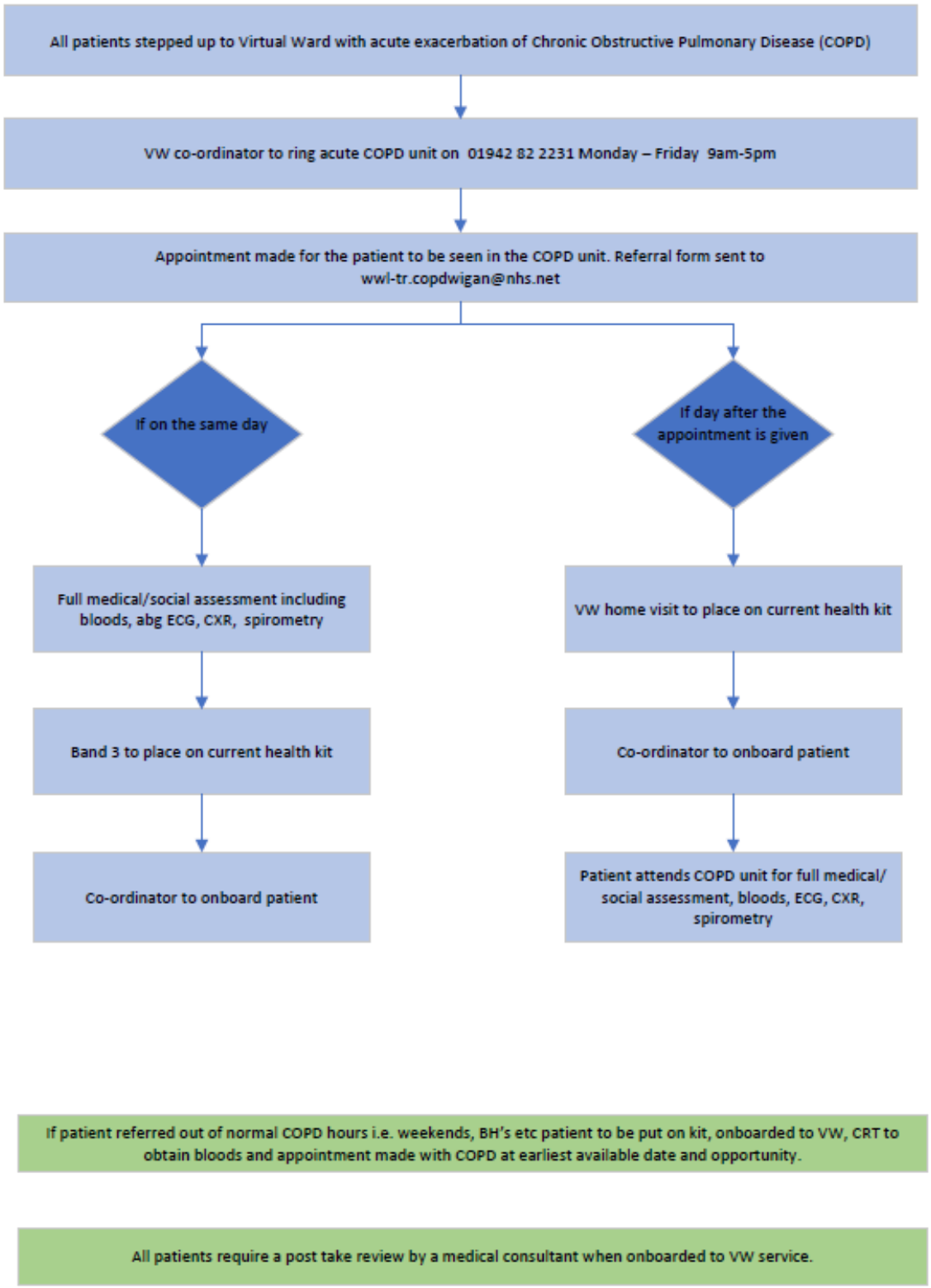
Appendix 1

GP Step-up Pathway



Appendix 2

COPD Step-up Patients

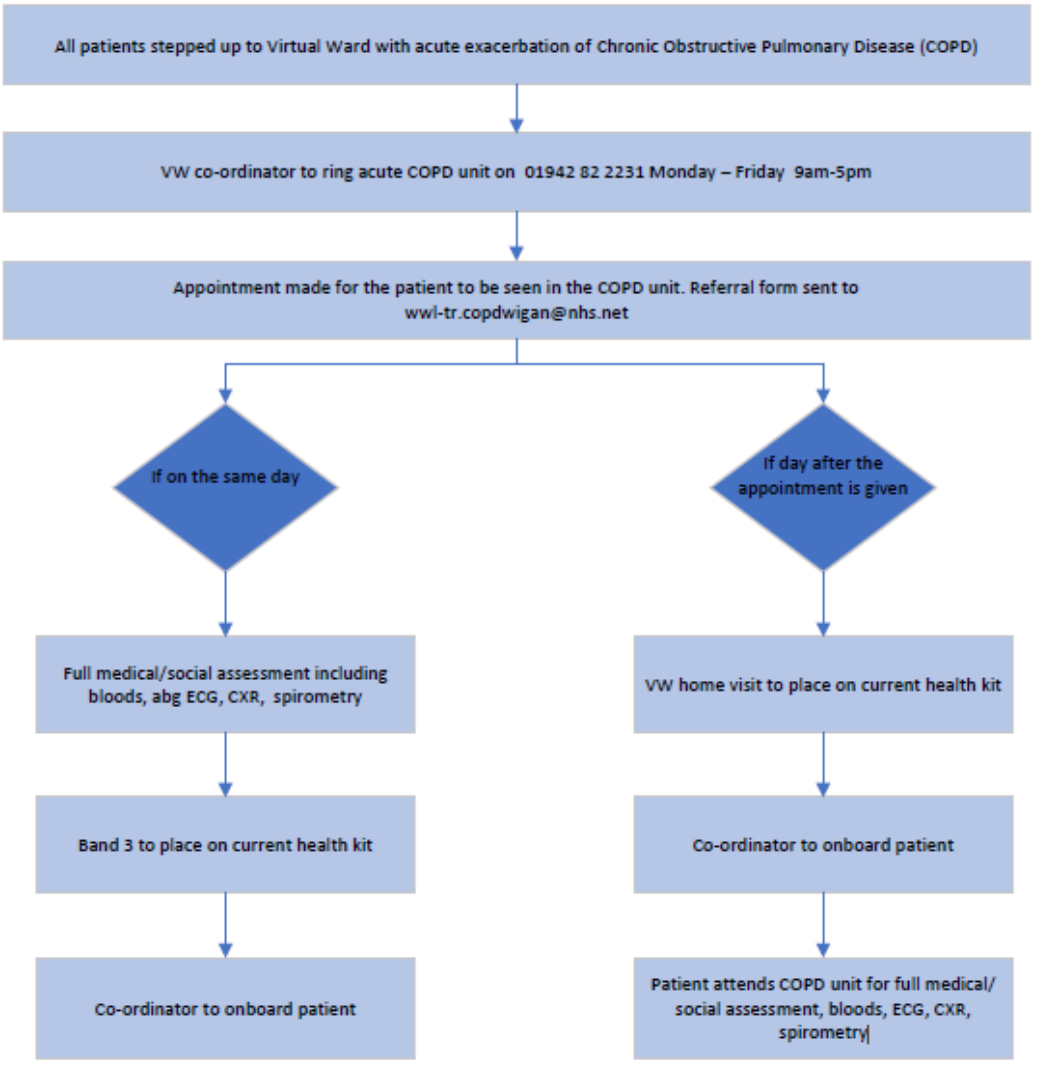


If patient referred out of normal COPD hours i.e. weekends, BH's etc patient to be put on kit, onboarded to VW, CRT to obtain bloods and appointment made with COPD at earliest available date and opportunity.

All patients require a post take review by a medical consultant when onboarded to VW service.

Appendix 2

COPD Step-up Patients



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