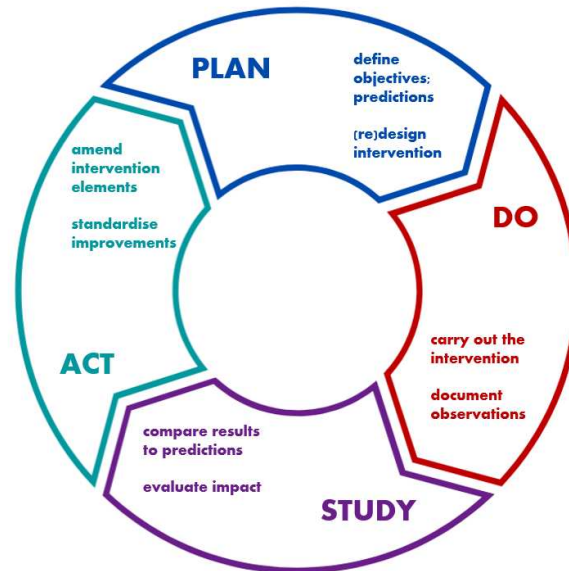


Supplementary Figure 1: Plan-Do-Study-Act (PDSA) cycle.

Supplementary Table 1: Stakeholder organisations recruited for representation in de multidisciplinary expert panel.

Name	Original Dutch name	Description
General Practitioners Utrecht City	Huisartsen Utrecht Stad [SterkZ.org]	Regional primary care group
UNICUM General Practitioner Care	UNICUM huisartsenzorg	General practitioners' cooperation
Regional Care Utrecht North-West	RegiozorgNU	Regional primary care group
General Practitioners Eemland	Huisartsen Eemland	General practitioners' cooperation
University Medical Center Utrecht	UMC Utrecht	Hospital
Diakonessenhuis	Diakonessenhuis	Hospital
St. Antonius Hospital	St. Antonius Ziekenhuis	Hospital
Meander Medical Centre	Meander Medisch Centrum	Hospital
AxionContinu	AxionContinu	Home care nursing organisation
ExpertCare	ExpertCare	Home care nursing organisation
Medical Control Center	Medisch Regiecentrum	Remote monitoring centre affiliated with University Medical Center Utrecht
Office for Care Mediation	Bureau Zorgbemiddeling UMC Utrecht (BZU)	Office for nursing and transfer care mediation
Care Coordination Centre	Zorg Coördinatie Centrum (ZCC) Midden-Nederland	Organisation coordinating care between partners in the acute care pathway
Regional Elderly Care Network	Netwerk Utrecht Zorg Ouderen (NUZO)	Patient representation

Supplementary Table 2: Acute home care nurse clinical assessment checklists.

Daily clinical assessment	
1.	Observe appearance (e.g., skin colour, perspiration)
2.	Observe behaviour: mental status, orientation, unrest, anxiety
3.	Evaluate measurements: breathing and heart rate, temperature, oxygen saturation (SpO ₂)
4.	Discuss: fluid and food intake, urine production, stool
5.	Check in with the informal care giver (evaluate acceptability of workload, answer questions)
6.	Confirm that remote monitoring requirements are met and understood by patient and/or caregiver
7.	Conform medication adherence (using a pharmacy checklist if applicable)
8.	Evaluate whether any home adjustments are necessary (adjustable bed, sanitary adjustments, etc)
9.	Any concerns or aberrations should be communicated to the supervising physician via the monitoring centre
Additional tasks on day 0	
1.	Evaluate whether the patient understands how to use the oxygen concentrator (after instruction by supplier)
2.	Evaluate whether the patient understands how to use the monitoring app or paper diary
3.	Evaluate whether patient requires additional home care nursing (e.g., for personal care)
4.	If applicable, support the informal care giver on how to use personal protective equipment (PPE)
Additional tasks on day 2	
1.	In case of diabetes and corticosteroid use; check capillary glucose levels (non-fasting, before evening meal)
2.	Evaluate whether home care nursing should be extended beyond day 0,1 and 2

Supplementary Table 3: Vital signs and measurements included in remote monitoring.

Measured three times daily	
Oxygen saturation	SpO2 % (after 5 minutes of rest)
Oxygen use	L/min
Heart rate	Beats per min
Temperature	°C (ear temperature)
Shortness of breath symptoms	Has shortness of breath increased since the last measurement? Yes/No
Shortness of breath score in rest	Scale from 0 (none) to 10 (extremely severe)
Measured once daily	
Coughing symptoms	Is there an increase in coughing symptoms since the last measurement? Yes/no
Coughing score	Scale from 0 (none) to 10 (extremely severe)
Physical condition	Are you feeling worse than yesterday? Yes/No

Supplementary Table 4: in- and exclusion criteria for type 1 and type 2 patients.

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> ▶ Symptoms are severe: <ul style="list-style-type: none"> - Hypoxaemia (SpO₂ <94%), and/or - Respiratory distress (respiratory rate >24/min) ▶ ≥18 years of age ▶ Hemodynamically stable ▶ Support at home: <ul style="list-style-type: none"> - Capable family member, or - Informal caregiver at home ▶ Able to operate a pulse-oximeter ▶ Proficient in Dutch (translator is allowed) 	<ul style="list-style-type: none"> ▶ Dementia or severe psychiatric illness which renders the patient unable to follow study instructions ▶ Known illness that prevents reliable pulse oximetry, e.g.: <ul style="list-style-type: none"> - Severe anemia - Raynaud's disease ▶ Clinical condition requires more elaborate care than can be organized at home^a ▶ Severe comorbidities or risk factors^a: <ul style="list-style-type: none"> - COPD GOLD class III or IV - Chronic lung condition managed by a pulmonologist - Insulin-dependent/poorly controlled diabetes - Immunocompromised condition - History of deep vein thrombosis or pulmonary embolism <ul style="list-style-type: none"> - Severe heart failure (NYHA III/IV) - Renal insufficiency (eGFR <30ml/min/1.73 m²) - Liver failure (Child-Pugh B or C) - Severe obesity (BMI>35 kg/m²) ▶ Patient and physician decide -based on shared decision- to withhold specific treatment altogether when considered being in end-stage^b

^a Exclusion criteria only applicable for type 1 patients

^b Exclusion criteria only applicable for type 2 patients

COPD = Chronic Obstructive Pulmonary Disease; NYHA = New York Heart Association; eGFR = Estimated glomerular filtration rate; BMI = Body Mass Index