

Teleconsultations and remote follow-up in clinical practice



Wendy Gin-Sing RN, MSc, MRes

Pulmonary Hypertension Nurse Consultant
Hammersmith Hospital, London

UK Pulmonary Hypertension Service



London

- Royal Free
- Hammersmith
- Royal Brompton
- Great Ormond Street

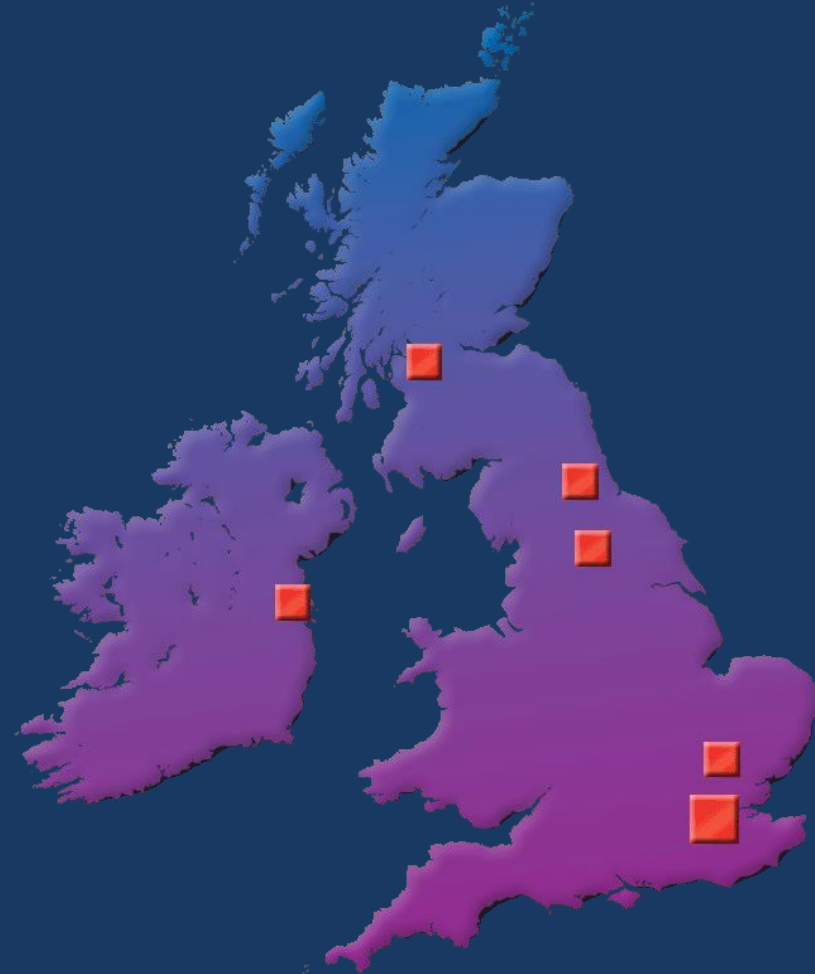
Glasgow

Sheffield

Cambridge

Dublin

Newcastle



Remote Consultations

- Video consultations
 - Using smartphone, tablet or computer
 - Multiple users at same time
 - Patient (and carer), Consultant, Nurse
 - Improves communication, especially when discussing complex or emotional subjects
 - Ideal for troubleshooting problems with nebulisers, IV infusions and pumps
- Telephone consultations
 - Preferred by some patients who have difficulties with managing technology



PHA-UK Information on how to prepare for clinics



pha^{UK} | Influence. Hope. Integrity.

MAKING THE MOST OF remote appointments

Most specialist centres and other medical providers have temporarily moved away from face-to-face appointments due to the ongoing coronavirus pandemic.

You may find conversations with your PH team now happen via the telephone, or online via a video calling platform such as Zoom.

It's important to prepare for these remote consultations in order to get the

most from them, so please take some time to read and work through this form ahead of your appointment.

The EmPHasis-10 questionnaire on the back is best completed as close to your appointment as possible, so that it reflects how you are feeling at that time. Remember, it's your appointment, and we hope you find this preparation form helpful in taking control of it.

MY APPOINTMENT DETAILS

Date: _____ Time: _____ Format: _____

My weight: _____ Any new symptoms: _____

Notes: _____

NEED ANOTHER FORM FOR YOUR NEXT APPOINTMENT?
Call the PHA UK office on 01709 761450 or email office@phauk.org
You can also download and print your own at www.phauk.org

MAKING THE MOST OF remote appointments



GETTING PREPARED

Think ahead

- ✔ If your appointment is on your mobile phone, make sure your battery is charged and that you take the call in an area where you have good signal.
- ✔ If you are using a laptop or tablet, again, make sure it has full charge or that it can be plugged in during your appointment.
- ✔ Check the sound works, and if you're using a camera, check that works too. Perhaps you could do a 'trial run' with a friend or family member in a different household?

Create a quiet space around you

Ideally you should be in a quiet room, free of distractions.

- ✔ If you are expecting a parcel delivery, you might want to attach a note to the front door asking for it to be left in a space place instead of knocking.
- ✔ Consider your appointment time when booking supermarket delivery slots :-)
- ✔ If your appointment is online, pop your mobile phone on silent and unplug the landline. It might be

worth letting friends / family know when your appointment is so they can avoid trying to contact you during this time.

- ✔ If you live in a busy house, especially one with young children or noisy dogs, you may find it easier to sit in your car during your appointment.

Consider comfort

Appointment lengths vary, but if you're sitting somewhere for a long time, it's important to be comfortable.

- ✔ Think about where you sit – do you need a hard service to make notes? Do you need a cushion?
- ✔ If you're using the camera or video function on a laptop, you might want to place it on top of some books so it is the right height for your face to be seen.

- ✔ Have a glass of water or a cup of tea within easy reach.

FLAG UP ANY WORRIES ABOUT YOUR APPOINTMENT AS SOON AS POSSIBLE

If you are concerned about how your virtual appointment will work, please contact your team as soon as you can. They can help you with any worries and ensure your consultation runs as smoothly as possible when the time comes.

Use this page to think about the answers to questions you may get asked during your appointment, and to plan your own questions too.

The medication I take

For my PH _____

Other medication _____

Questions I want to ask:

Questions my family want to ask:

Hospital stays or medical episodes since my last appointment:

Date _____ Date _____ Date _____

What happened: _____ What happened: _____ What happened: _____

Pre-Clinic Information



6 MINUTE
WALK TEST



REMOTE
BLOOD TESTS



WEIGHT, BLOOD
PRESSURE,
HEART RATE,
OXYGEN
SATURATIONS



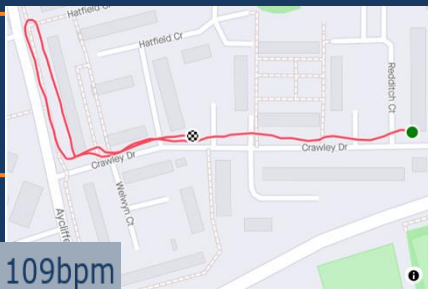
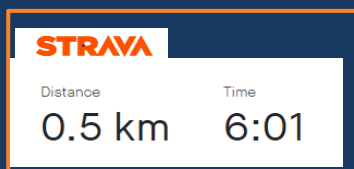
HEART
RHYTHM



AVERAGE
DAILY STEP
COUNT



EMPHASIS-10
QUALITY OF LIFE
QUESTIONNAIRE



Heart rate rose from 67 to 109bpm
Sats pre 98%, post 96%



Results used to calculate risk-assessment tool at follow up

Determinants of prognosis	Low risk	Intermediate–low risk	Intermediate–high risk	High risk
Points assigned	1	2	3	4
WHO-FC	I or II ^a	-	III	IV
6MWD, m	>440	320–440	165–319	<165
BNP or NT-proBNP, ^a ng/L	<50 <300	50–199 300–649	200–800 650–1100	>800 >1100

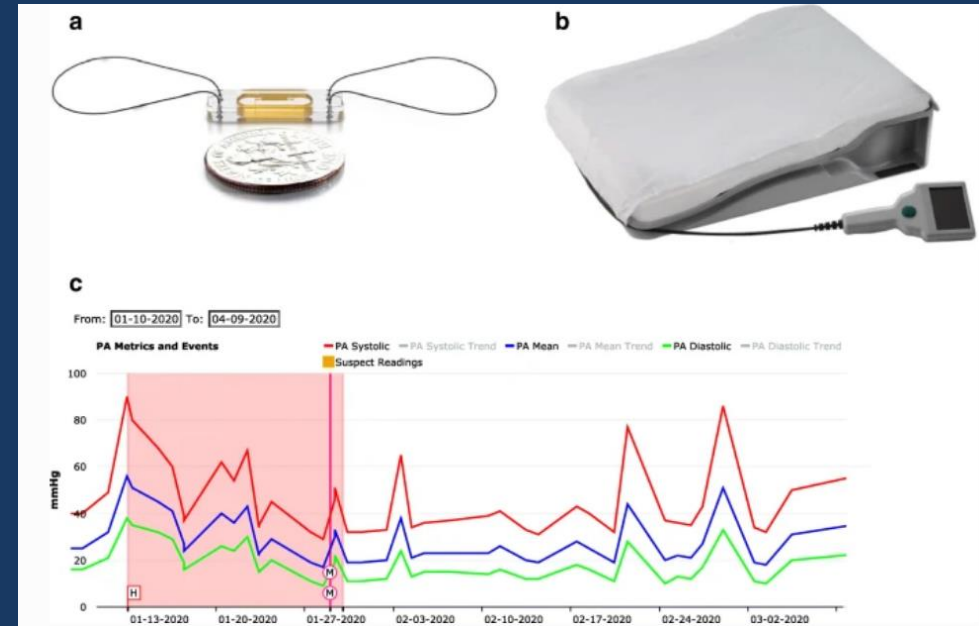
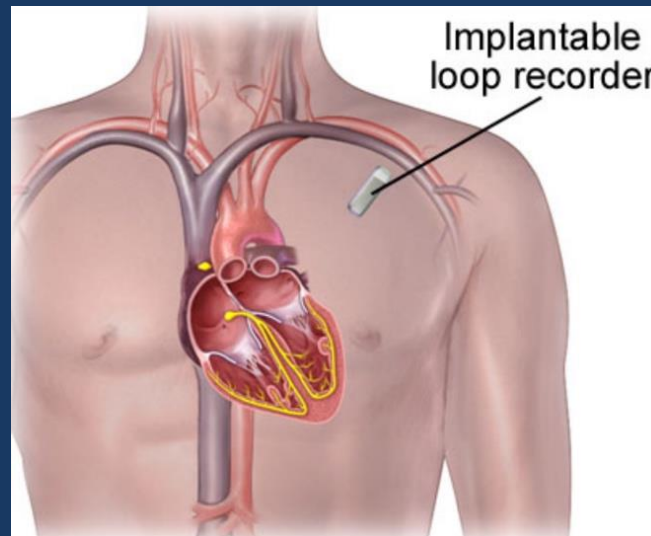
6MWD, 6-minute walking distance; BNP, brain natriuretic peptide; NT-proBNP, N-terminal pro-brain natriuretic peptide; WHO-FC, World Health Organization functional class.

Risk is calculated by dividing the sum of all grades by the number of variables and rounding to the next integer.

^aWHO-FC I and II are assigned 1 point as both are associated with good long-term survival.

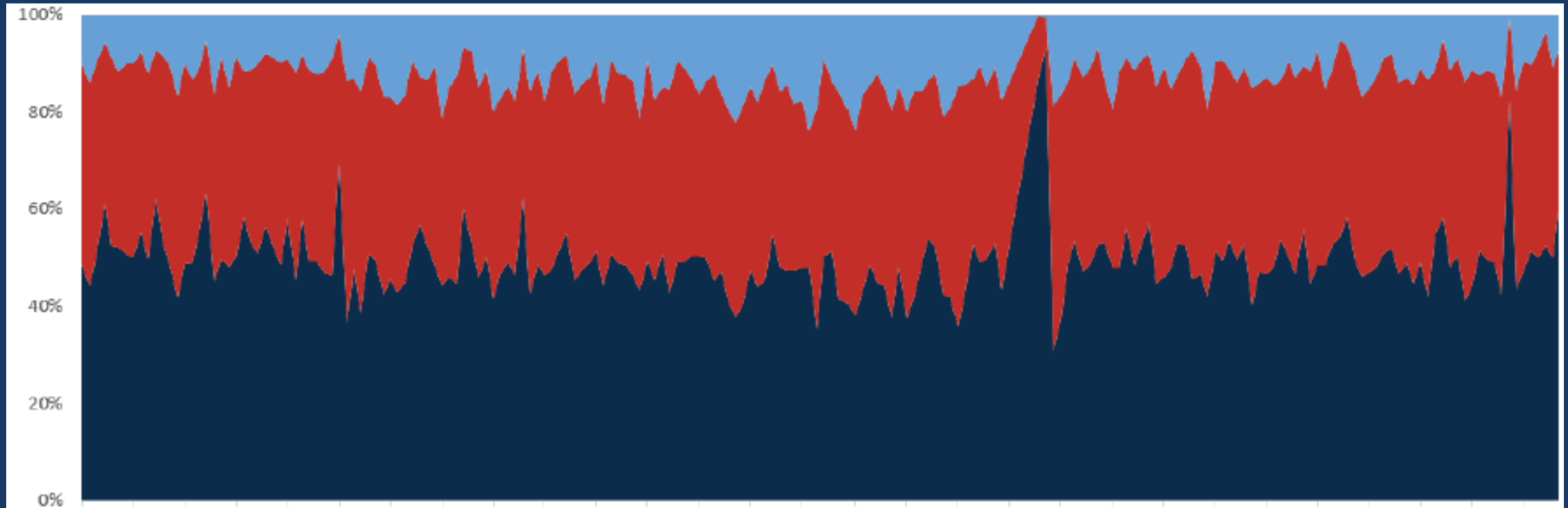
Implantables and wearables for remote monitoring

- Implantable pulmonary artery monitor – Cardiomeems
- Continuous ECG monitoring via loop recorder
- Actigraphy monitors
- Step counters



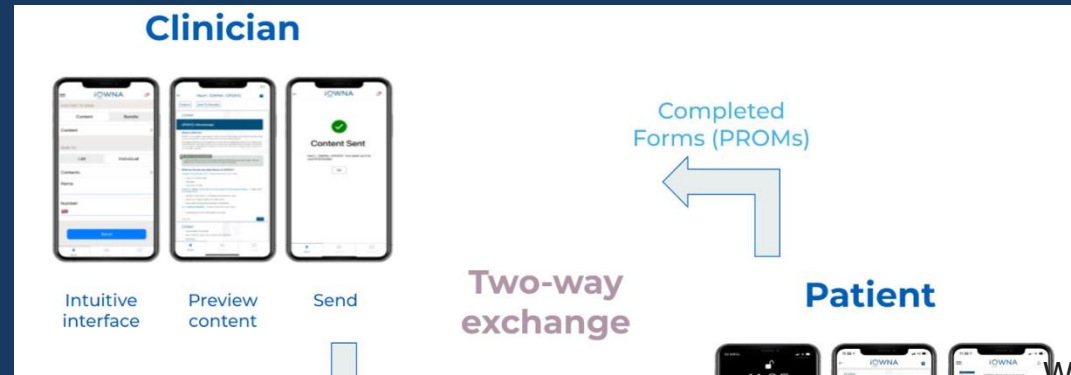
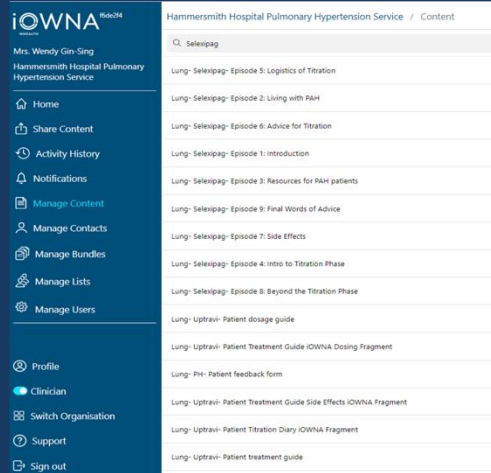
Actigraphy monitoring

Color Code	Explanation	Average minutes per day	Average percentage per day
Dark Blue	Time Spent in Sedentary	659	49%
Red	Time Spent in Light Intensity	523	39%
Light Blue	Time Spent in Moderate Intensity	171	13%
Grey	Time Spent in Vigorous Intensity	0	0%
Total		1353 Minutes	100%



Selexipag Support Programme¹ using iOWNA

iOWNA is a secure cloud-based platform that enables two-way trusted information exchange between clinicians and patients to improve patient experience and outcomes.



Weekly patient questionnaires

Question	Answer
Date	29/12/2021
1. Summary treatment score:	1
2. Side effects experienced this week?	Yes
3. Side effects experienced:	Diarrhoea
7. Severity of diarrhoea:	1
7a. No. of days experiencing diarrhoea:	2
7b. Meds taken for diarrhoea:	None
10. Side effects prevented normal daily activities?	Not at all
11. Total morning dose:	800mcg
12. Total evening dose:	800mcg
13. Feels able to increase dose?	No
14. No. of missed doses:	No
15. Enough meds for next 2 weeks?	Yes
16. Tell us more:	Nothing major to report, apart from the odd stool sample in the morning being a bit loose and runny the rest of the time I have been fairly regular.

Quality of Life Assessments

emPHasis10 NHS/Hospital number:

Name: Date of birth:

This questionnaire is designed to determine how pulmonary hypertension (PH) affects your life. Please answer every question by placing a tick over the ONE NUMBER that best describes your recent experience of living with PH.

For each item below, place a tick (✓) in the box that best describes your experience.

I am not frustrated by my breathlessness	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I am very frustrated by my breathlessness
Being breathless never interrupts my conversations	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	Being breathless always interrupts my conversations
I do not need to rest during the day	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I always need to rest during the day
I do not feel exhausted	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I always feel exhausted
I have lots of energy	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I have no energy at all
When I walk up one flight of stairs I am not breathless	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	When I walk up one flight of stairs I am very breathless
I am confident out in public places/crowds despite my PH	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I am not confident at all in public places/crowds because of my PH
PH does not control my life	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	PH completely controls my life
I am independent	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I am completely dependent
I never feel like a burden	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	I always feel like a burden

Total: Date:

phaUK Pulmonary Hypertension Association

MANCHESTER 1824
The University of Manchester



Specialist support from someone who understands



Conclusions

- Remote follow up to decrease the frequency of face-to-face visits is feasible
- Advances in technology have improved remote consultations and can monitor patients at home

...but there is still a need for visits to the PH Centre