Meeting
Adults and Health Overview and Scrutiny Sub-Committee
Date and time
Wednesday 6th March, 2024 **At 7.00 pm**
Venue
Hendon Town Hall, The Burroughs, London NW4 4BQ

Dear Councillors,

Please find enclosed additional papers relating to the following items for the above mentioned meeting which were not available at the time of collation of the agenda.

Item No	Title of Report	Pages
12	Long Covid update To follow	3 - 34

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CLCH Long COVID Project

Dr Kola Akinlabi, MSc, PhD
Respiratory Clinical Specialist –Physiotherapist lead
Clinical Lead Pulmonary Rehabilitation
Clinical Lead - Long COVID
Barnet CLCH

AGENDA ITEM 12

Post COVID Syndrome(Long-COVID-19)
CLCH project

Introduction

Central London Community Healthcare NHS Trust

NHS England and NHS Improvement

October 2020 five point agenda

1. New guidance commissioned from NICE on the clinical case definition of Long COVID.
2. The second phase of the Your COVID Recovery platform – an online, tailored rehabilitation programme that enables patients to be monitored by their local rehabilitation teams to ensure that they are on track with their care.
   The Your COVID Recovery public facing information website launched in July 2020.
3. Funding of £10 million is to be invested this year to set up specialist post-COVID assessment services across England, to complement existing primary, community and rehabilitation care.
4. NIHR funded research on Long COVID .
5. An NHS Long COVID taskforce which includes patients with Long COVID, medical specialists and researchers.

National Guidance for post-COVID syndrome assessment clinics

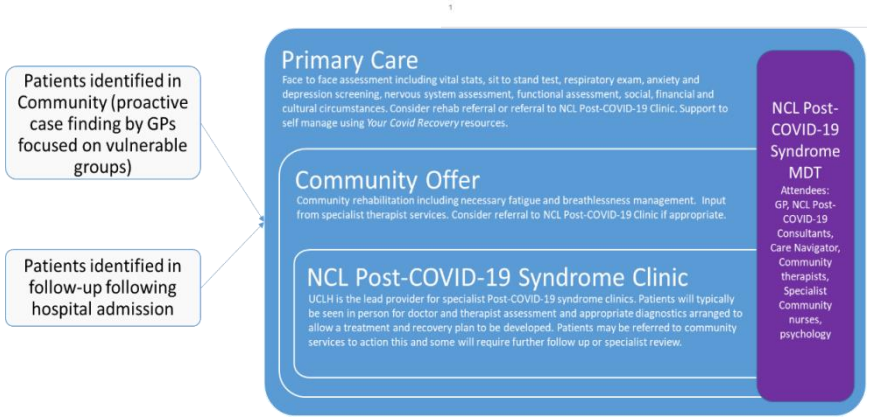
This document will be revised further to the release of NICE/SIGN/RCGP guidance for post-COVID syndrome (also known as 'Long COVID') in December 2020. Local clinics, referral pathways and protocols will need to be reviewed and potentially updated to reflect the guidance published.

NCL Long COVID agenda

a) UCLH Specialist Long Covid MDT clinic
b) GP Long COVID case findings
c) Post-COVID-19 Syndrome: NCL PCS Community Rehabilitation
d) Attends NCL Long COVID operational MDT

Community ask by NCL

1. Borough level integrated MDT
2. Set up a Long COVID SPA for referrals and triage
3. Coding and diagnosis
4. EPR, Activity recording and data collection
5. Develop a Community SOP in line with NCL SOP
6. Therapy led Long COVID clinic
7. Process mapping of Long COVID service



NCL integrated pathway

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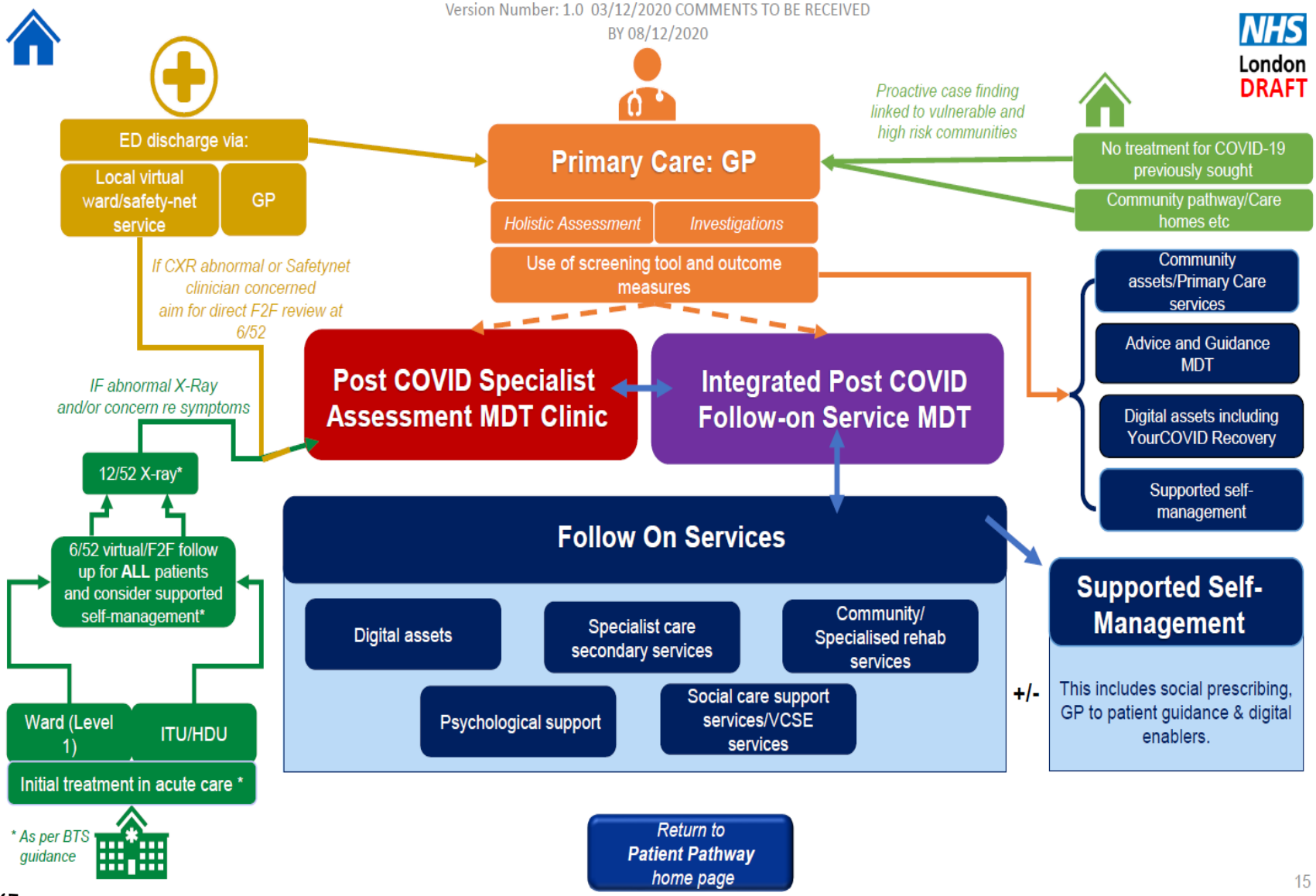
NHS London DRAFT

Version Number: 1.0 03/12/2020 COMMENTS TO BE RECEIVED BY 08/12/2020



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Long COVID prevalence across NCL

Category of need	Barnet (pop 396k)	Camden (pop 262k)	Enfield (pop 338k)	Haringey (pop 271k)	Islington (pop 240k)	Proposed NCL model
Diagnosed cases	6,558 (Nov) 24,771 (Jan)	3,362 (Nov) 11,734 (Jan)	5,768 (Nov) 25,509 (Jan)	4,033 (Nov) 17,433 (Jan)	3,370 (Nov) 12,619 (Jan)	
People who were unable to work for up to 3 weeks because of Covid	3,960	2,620	3,680	2,710	2,400	Primary Care
People with chronic Covid, who haven't recovered within 12 weeks	1,980	1,310	1,690	1,355	1,200	Primary Care Community Team Acute Clinic
People with serious debilitating Covid, not able to take part in normal family life	396 (Nov)	262 (Nov)	338 (Nov)	271 (Nov)	240 (Nov)	Specialist Clinic Community Team

Source: NCL Public Health Teams (based on COVID-19 wave one prevalence. Wave two updated figures to follow).

Long Covid – Community Integrated Offer

High Level Requirements for Community Teams

1. Form a single point of access, working to a consistent NCL referral form, to triage referrals from primary care and following discharge from hospital. This triage will result in a community offer or escalation as required.

2. Deliver an MDT for triage and management of complex cases; linking with primary care, mental health and acute colleagues, including UCLH specialist clinic. This will draw on the NCL wide approach to MDT working.

3. Deliver appropriate interventions from a community health perspective, co-ordinating across organisations

4. Escalate to specialist centre for NCL (UCLH) and local respiratory clinicians (multiple acute sites)

We will set out the following to support ways of working across NCL

- Single NCL referral form
- SOP for the MDT and triage
- Increased consistency on community interventions, including specialities required, digital support for patients
- Consistent support and pathways to UCLH specialist clinic and local respiratory consultants

NCL ask – Barnet CLCH, and partners

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Community ask by NCL

1. **Borough level integrated MDT**
2. **Set up a Long COVID SPA for referrals and triage**
3. **Coding and diagnosis**
4. **EPR S1, Activity recording and data collection, IT integration for Asx proforma and questionnaire – Emma Cassidy**
5. **Develop a Community SOP in line with NCL SOP**
6. **Long COVID referral form**
7. **Process mapping of Long COVID service**

CLCH Long COVID project - Dr Matthew Hodson being the SRO

Aim is to address the points above and appoint a **clinical lead, Dr Kola Akinlabi** and project management team

Doc. 1a Project Charter: CLCH Integrated Post-Covid Syndrome MDT (Barnet Integrated Care Partnership)

Objectives	Scope	Out of Scope
1. To create an access point for Barnet residents suffering with Post Covid Syndrome (Long covid) for assessment and management in collaboration with NCL partners including NCL CCG, RFL, UCLH, primary care and voluntary sectors), Single Point of Referral 2. To establish the responsibility of the Long-COVID clinical lead for Barnet within CLCH, for day to day management of the new service and project deliverables in order develop the service. 3. To set up a team and service provision for Long Covid Syndrome (stand alone service) 4. To establish the clinical pathway/ along with the data metrics including activity and demographics and diagnosis coding. 5. To establish sustainable funding for Post Covid Syndrome within Barnet. 6. To audit clinical outcomes.	1. Only Post COVID-19 Syndrome: people with signs and symptoms that develop during or after an infection consistent with COVID-19, continue for more than 12 weeks and are not explained by an alternative diagnosis. 2. Only Barnet residents; therapy model in line with NCL SOP (NHSE commissioning guidance). 3. Gap analysis re funding gap. 4. Demand & capacity modelling 5. Continuous risk assessment of access and care delivery	Out of area patients (GP); Covid patients 4-12wks; Full financial modelling

Deliverables	Benefits and Measurement	Critical Success Factors
1. Process map of Barnet vs London pathway 2. Post Covid Syndrome pathway -agreed (signed off by medical director and DDO 3. Approved SOP (inc. Triage process) 4. Set up working integrated MDT (CLCH; GP; RFL; UCLH; BEH) 5. Set referral criteria and referral form 6. Modelled projected demand and capacity 7. Establish service line in S1 for Long Covid (to record activity and diagnosis) including integrated IT for reporting 8. Set up clinics in S1 9. Monitoring, evaluation and reporting 10. Audit of clinical outcomes & quality	1. Improved access, care and clinical management of people with Post Covid Syndrome. 2. One of the safety net for people suffering with Long COVID 3. Single point of referrals for Post COVID Syndrome 4. Supporting people with Long COVID with self management 5. Education and training hub for COVID-19 6. Service in place (staffed). 7. Measurement of access time to triage and first seen (inc. virtual) (waiting time); clinical outcomes (clinical outcome scoring by service). 8. Measure activity against projected population with Long Covid in Barnet.	1. Established project group within necessary team 2. Access to people with Long COVID i.e. Referrals in – primary care and acute and support (NCL group). 3. Establish sustainable funding for Long COVID

Agile Sprint or PDSA Cycle for this period	Key Stakeholders & RACI	Resources
1 month PDSA cycle - Plan – set up project team and roles, set out tasks, establish regular MDT meetings Do – Pathway, SOP and process map of Barnet v London pathway and MDT development Study – review map, SOP Act – set out approve pathway with stakeholders	QI consulted? Request support for process map & PDSA. Who is the accountable lead? MH (will handover wo MM or JMcC Who is the responsible lead? Kola Akinlabi Who needs to be consulted? SMT; Jo Medhurst MD; Who needs to be informed? NCL Long Covid Group; NC team leads	*Project support – Rafia Hussain* *Request QI support* *Clinical and responsible lead Kola Akinlabi* *MDT clinical time* *Project group time* *Data team support* *NICE Long COVID guidelines*

Barnet Integrated Post Covid MDT Pathway

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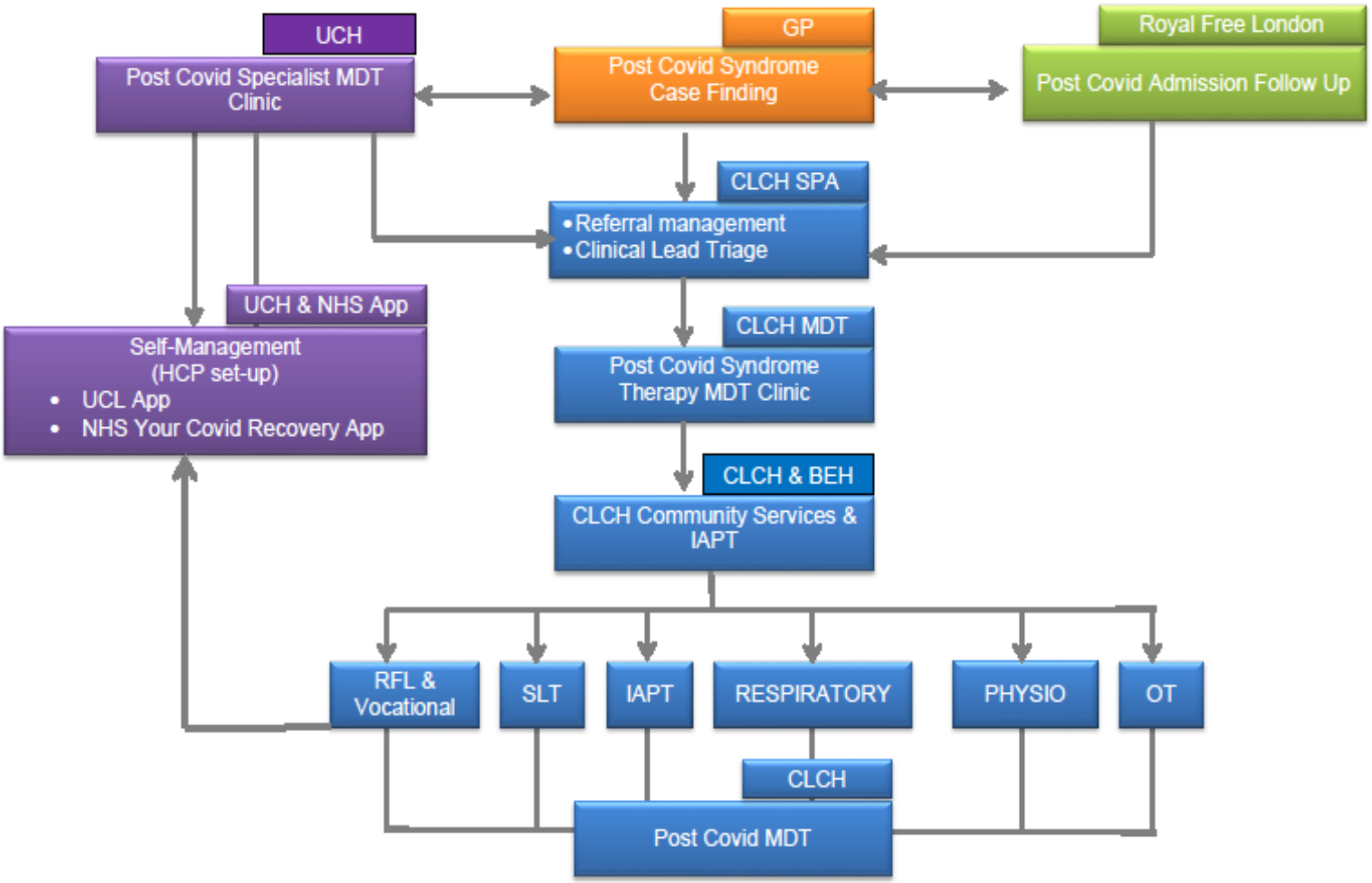
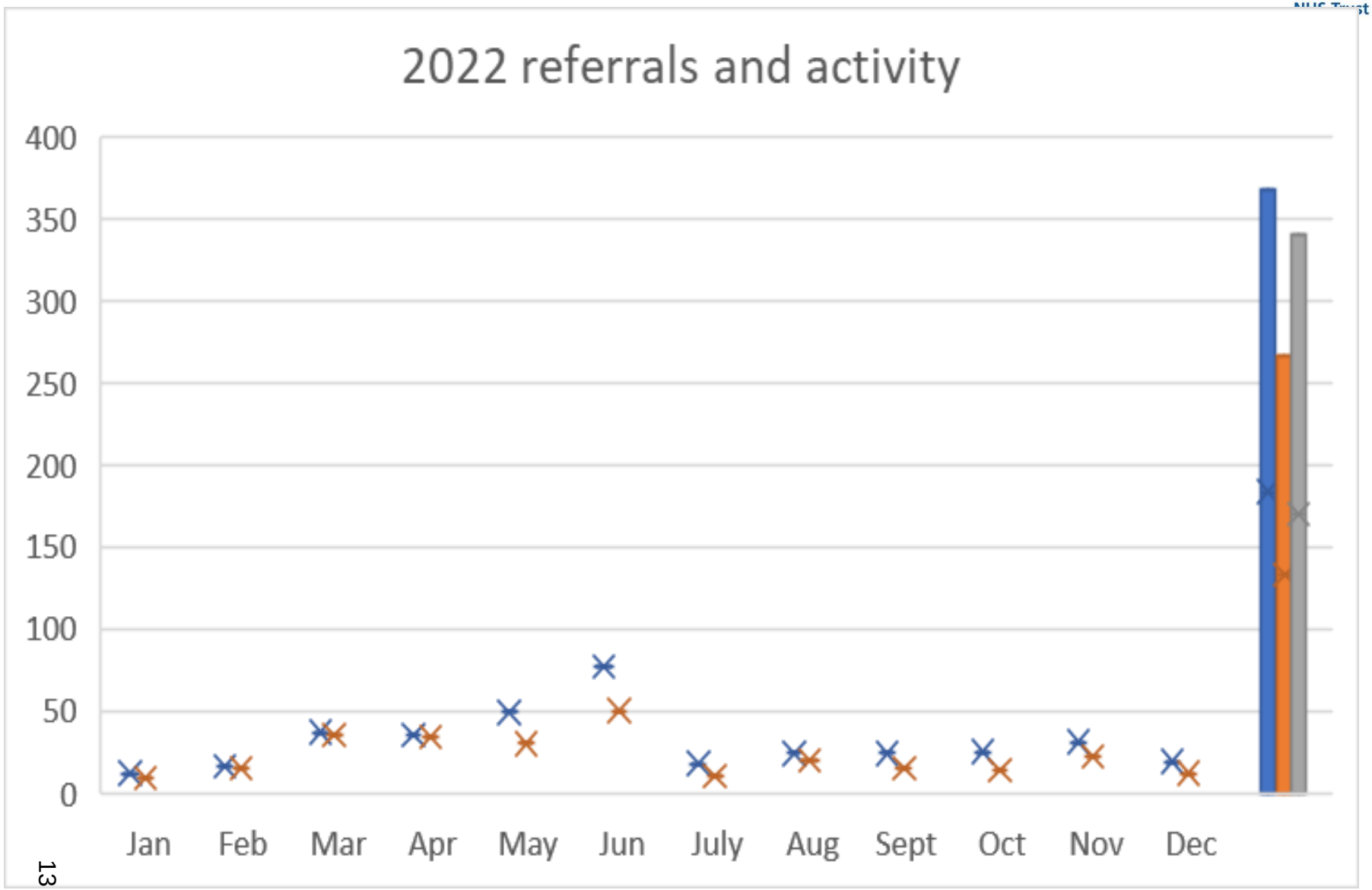


Barnet_Integrated Post_Covid_MDT_Pathway/Flow/V1.2/04032021/KA/RH/NCD

Where are we?

- MDT – Meets fortnightly, include UCH consultants, OT from Royal Free, CLCH long COVID team (Consultant Respiratory Physician, Respiratory Clinical Specialist Lead Physio, Team OT, Physios, SLT) and IAPT. Being the only well staff service in NCL and provides support and development for other borough
- Referrals processed through CLCH SPA, also receive referral from UCH SPA
- Weekly Long COVID clinic
- Group Long COVID consultation to improve access – developed through a Qi project
- Patient Peer support group – one of the 1st in the country
- Integrated Electronic Patient record with clinical outcomes
- Coding and diagnosis
- Consultant and clinical lead triage daily

Patient seen so far and clinical outcomes


2022 referrals and activity
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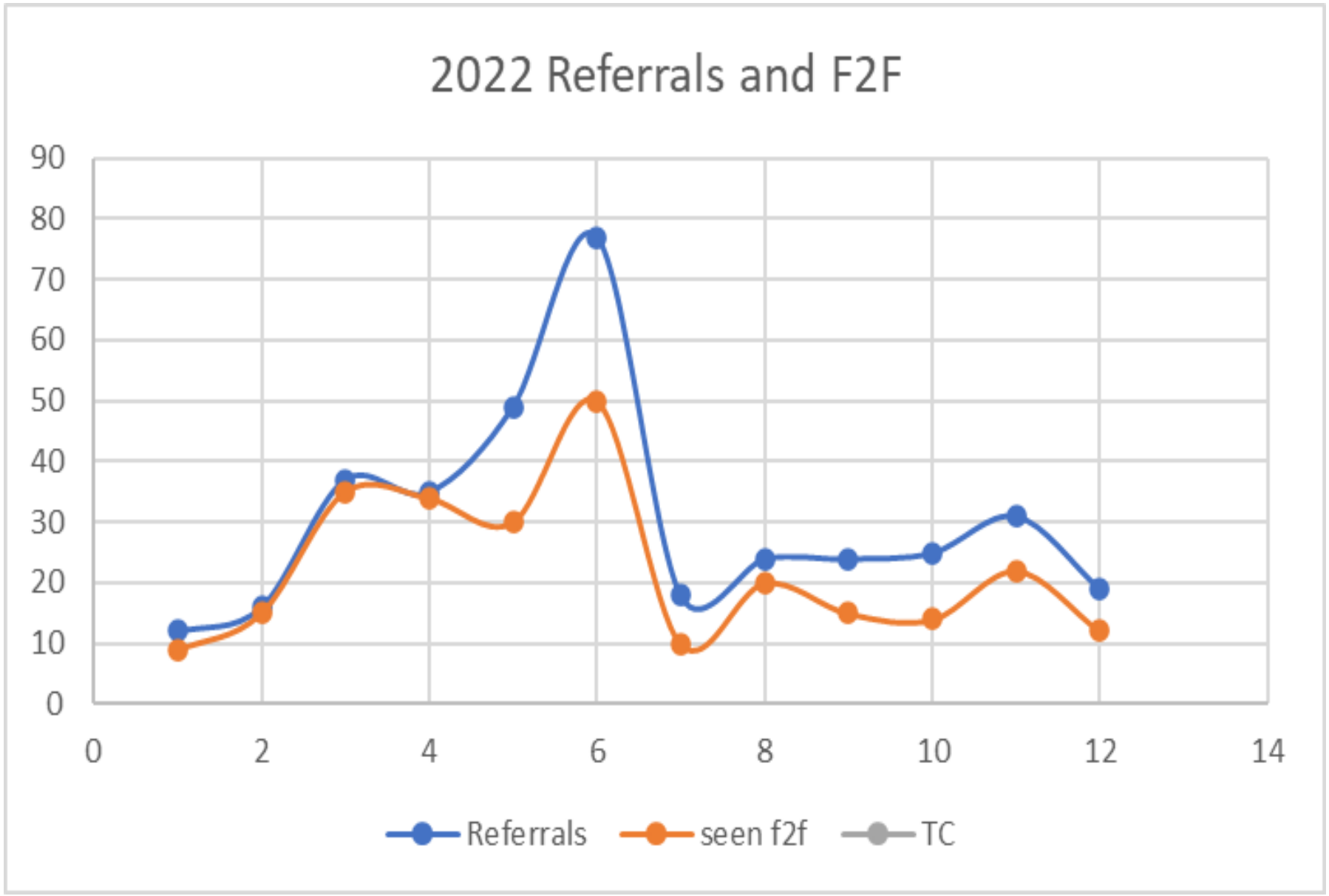
2022 Referrals and F2F
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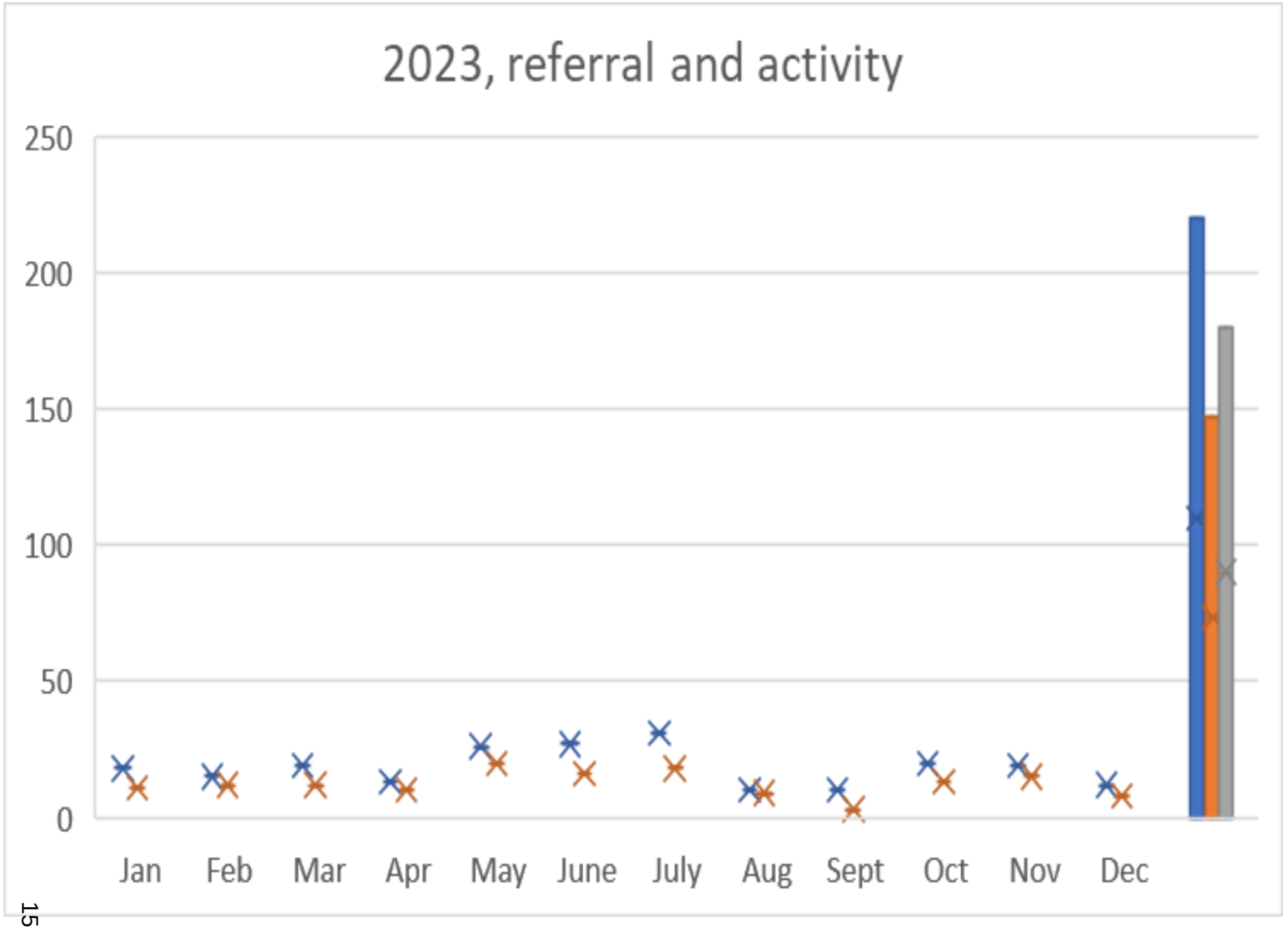
2023, referral and activity
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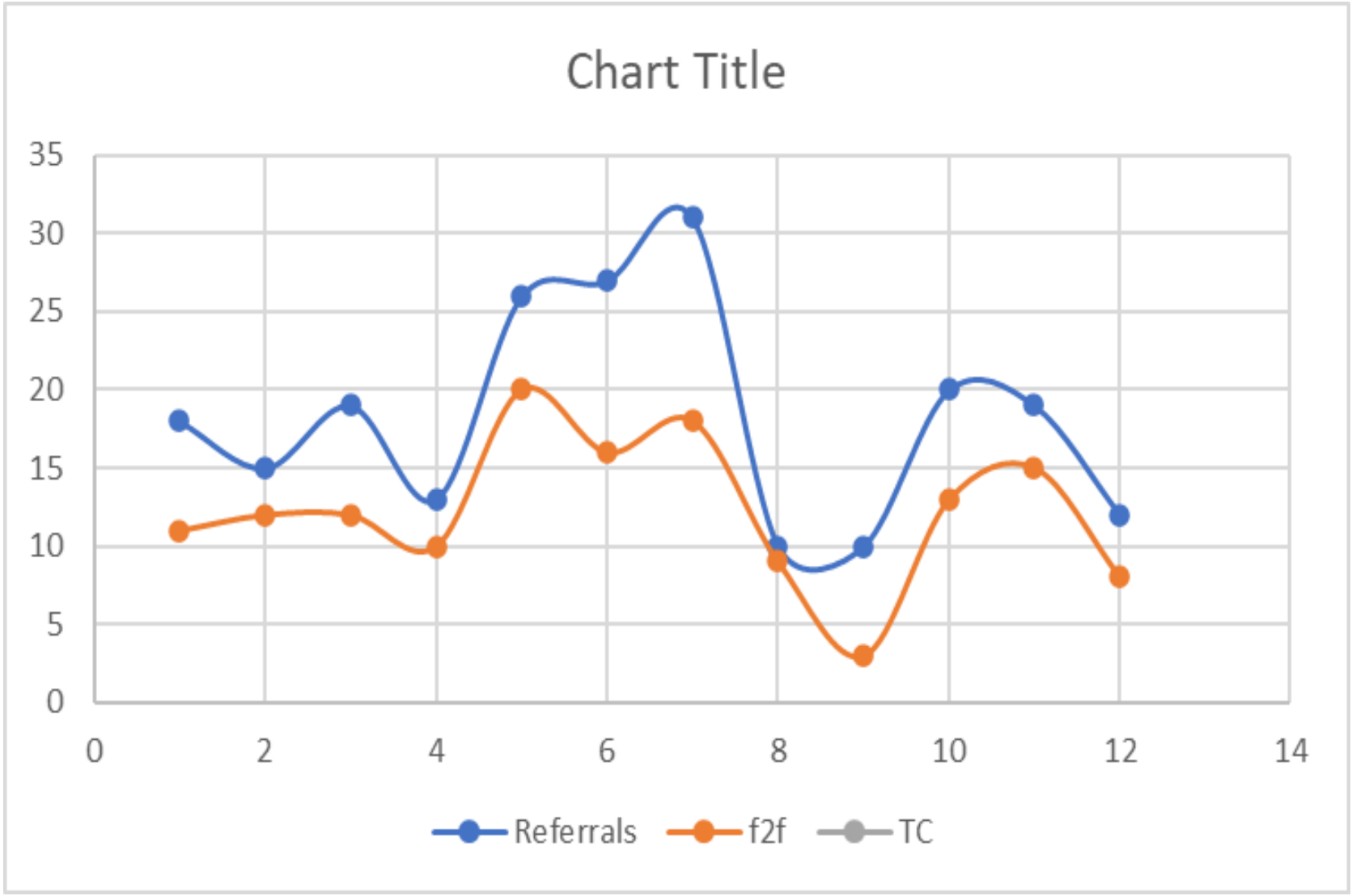
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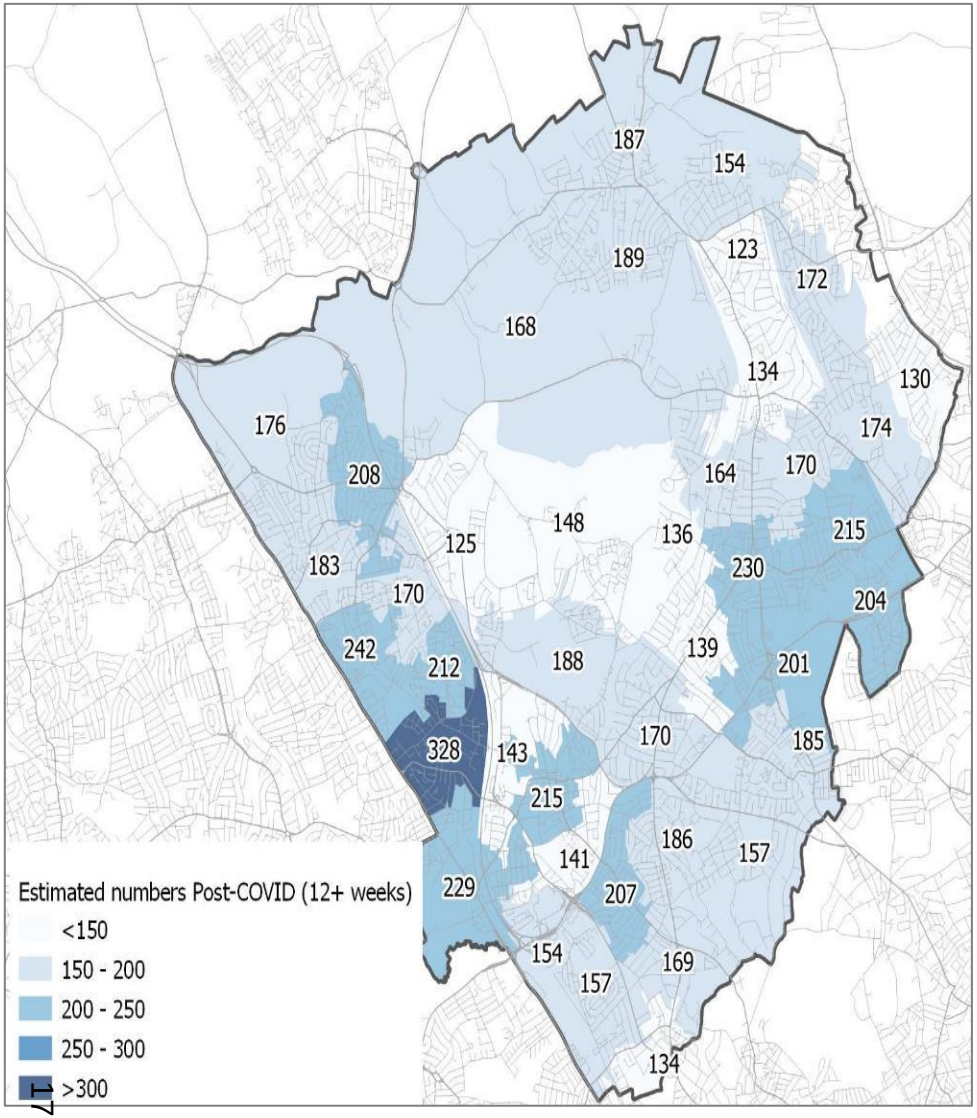
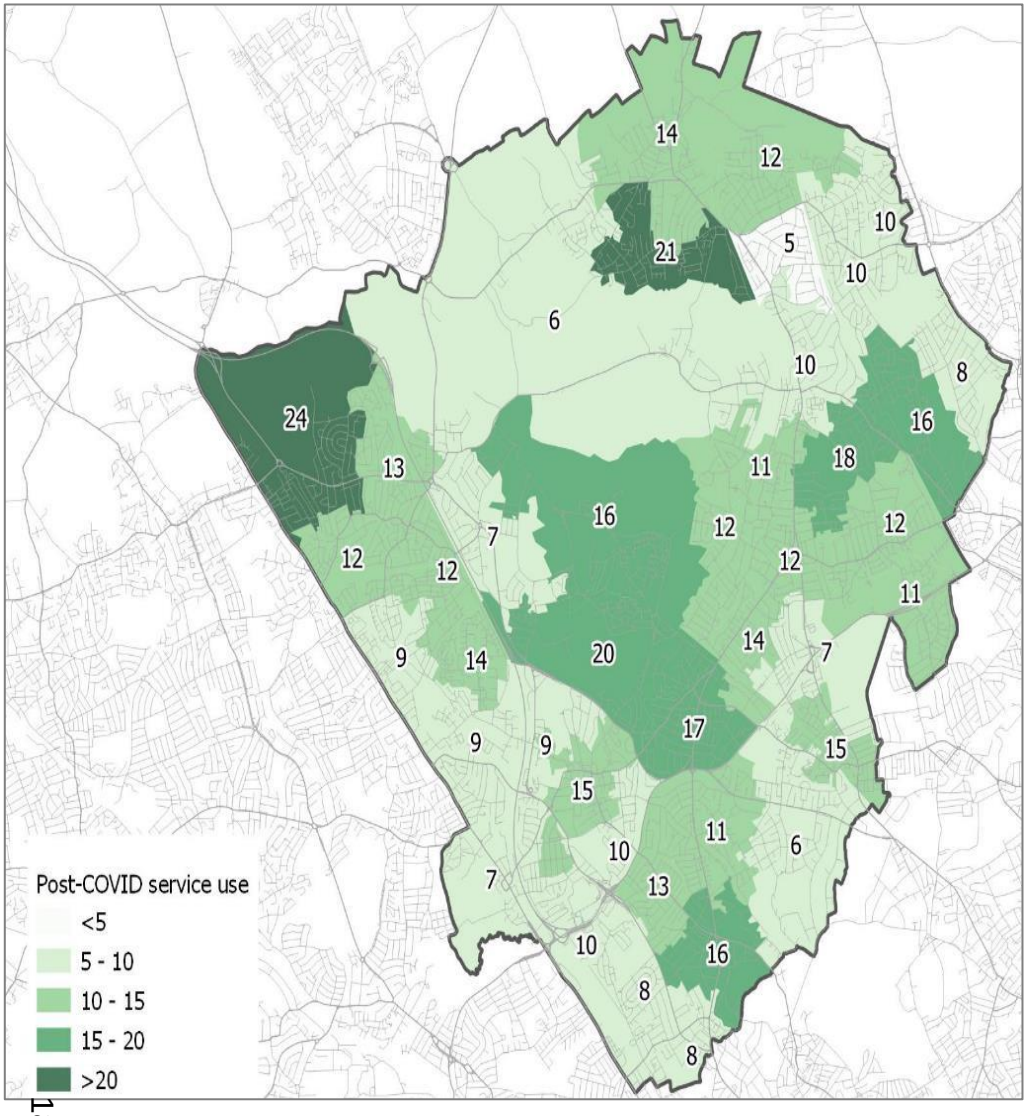
Expected numbers with Long COVID in population (MSOAs). National estimates



- The national survey of Long COVID provides prevalence of long COVID (12+ weeks) by age and also by deprivation quintile.
- This has been applied to local (LSOA) population data by age (and then adjusted for deprivation) to estimate local numbers at an MSOA level.
- Areas with high/low numbers may be due to high prevalence or they may be because certain MSOAs have a high/low number of residents.
- This data has been mapped against service data in the following slide, to produce a ‘gaps’ analysis in the slide after.
- The area around **Colindale and Burnt Oak** has the highest expected numbers with Long COVID, based on age, sex and deprivation profiles.

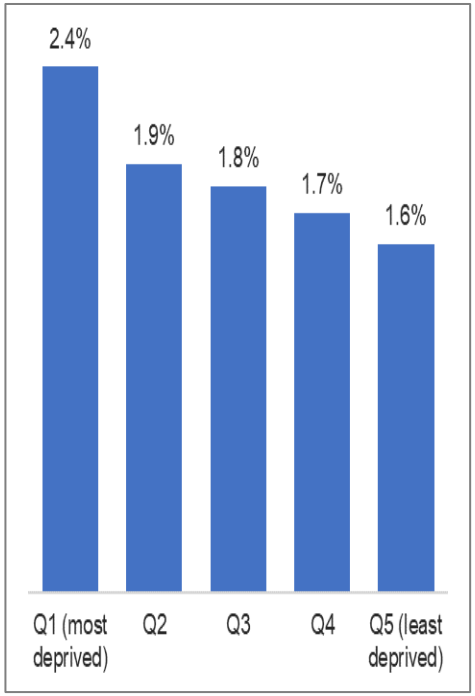
Post COVID service uptake (MSOAs). Service referrals (Apr 21-Jul 22)



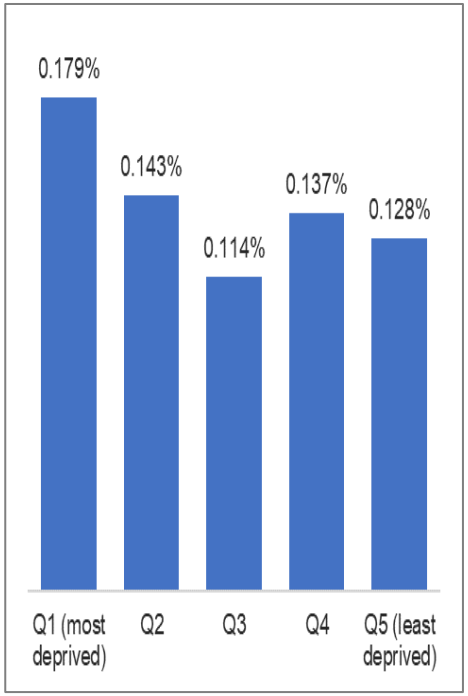
- The level of activity for the Post COVID service is relatively low when mapped out at MSOA level.
- Variations may be due to PCN referral variation due to differences in awareness among GPs.
- The following slide shows areas of under-representation.

Uptake of Barnet Post-COVID service by deprivation

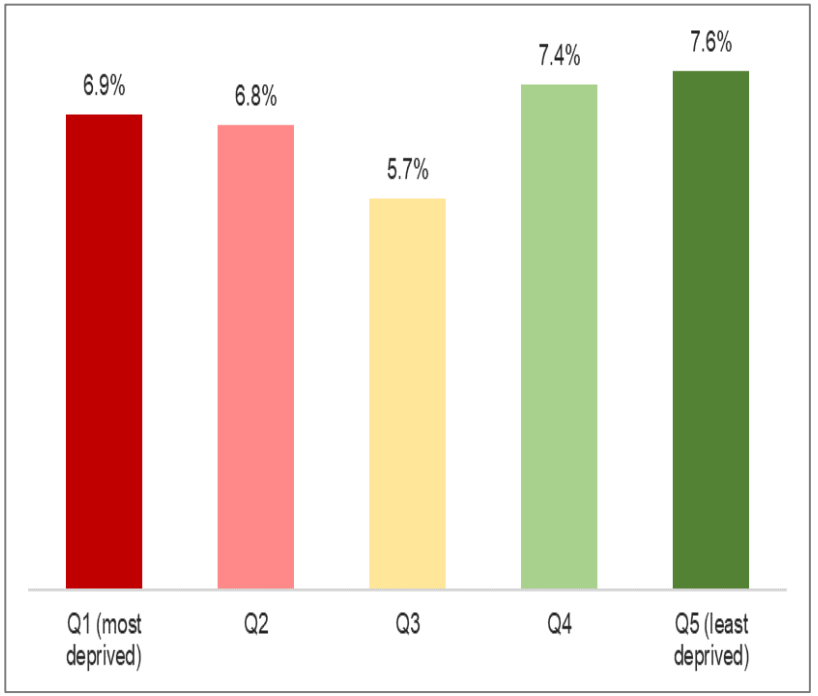
National prevalence of long COVID (12+ weeks) by deprivation group



Post-COVID service referrals by total resident population



Post-COVID service uptake (Apr 21-Jul 22) by deprivation – as % of estimated snapshot residents with long COVID (12+ weeks)



- National prevalence rates of long COVID by deprivation quintile show a strong gradient, with higher prevalence in more deprived areas.
- Post COVID service activity per total population also shows higher uptake in most deprived areas, but not quite such a clear slope across all quintiles, with Q3 the lowest and the most affluent slightly higher than expected.

- Local estimates built from national data take into account age and deprivation. The chart above combines data from the charts on the left. Equity means similar bar lengths.
- The rate of service use per estimated cases shows relatively even attendance across the deprivation gradient.
- There is slightly better attendance for the most affluent (compared to expected need) and the lowest uptake is in Quintile 3 – neither deprived nor affluent.

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Rehabilitation clinical outcomes and frailty in Post COVID syndrome: Comparative study hospital vs non-hospitalised

Introduction

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In July 2022 – NHS published

A national Commissioning guidance of Post COVID services

- Part of its recommendations were:

1. A dedicated MDT rehabilitation services including VOC Rehab be available as part of local services
2. Promoting equality and addressing health inequality to meet demand of patients needs regardless of their locations, age, sex, physical and psychological conditions
3. Provide a coordinated whole pathway of assessment, treatment and multifaceted rehabilitation and psychological support with direct access to required diagnostics

A lot of therapy/Rehabilitation services are now set up and functional across the UK

But….

The question is what is the evidence that the rehabilitation services we provide are working for patients or effective, are they making any positive impact to patients? Also are post COVID patients the same i.e. hospitalised vs non-hospitalised?

Purpose of the study (what we want to do)

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To find out:

1. …if **the demographic and clinical characteristics of hospitalised and non-hospitalised patients are the same?**

2. **If Post Covid patients are frail**

3. …the **effectiveness of Rehab/therapy intervention** in post COVID Syndrome

- for those previously admitted (Hospital pathway)
- and those not previously admitted (Home pathway)

Study Methods (how we did it)

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This is a clinical audit and a retrospective comparative data analysis and population stratified cohort study of 200 patients divided into 2 groups

1. Hospitalised patient:

Defined as: Patients with signs and symptoms of post-COVID-19 syndrome, 12 weeks after hospital discharge for acute COVID-19 infection

And

2. Non hospitalised patients

Defined as: those who have continued to suffer symptoms of COVID-19, 12 weeks after initial diagnosis and care in their own homes

Baseline physical characteristics and clinical outcomes (what we measured)

- Age
- Sex
- BMI

Primary outcomes:

- PCFS, EQ5DL, FAS, WSAS, 6WD

Secondary outcomes

Fried Frialty criteria

- MRC- medical research council breathlessness scale
- Borg –breathless score
- PCFS – Post COVID functional status
- EQ5DL – Euro QoL 5 Dimension
- FAS – Fatigue assessment score
- WSAS - Work and Social adjustment Scale
- 6MWD – Six Minute Walk distance

Secondary outcomes

(other things we measured)

- Fried frailty status

1. Frail 2. Pre-frail 3. Not frail

Measured from 5 domains:

1. **Unintentional weight loss:** Unintentional weight loss (shrinking) was defined as (a reduction in body weight of ≥4.5 kg in the past 12 months

2. Exhaustion: . Exhaustion was self-reported using two validated questions from the Centre for Epidemiological Studies Depression score (CES-D)

3. Physical activity: using modified Minnesota Leisure–Time Physical Activity Questionnaire in the last week. Low physical activity is classified if energy expenditure is <383 kcal per week for men and in < 270

kcal per week for females. (Martinez, 2020).

4**. Muscle strength** were performed using handgrip dynamometry

5. **Slowness** using four-meter gait speed (4MGS): Males ≤173 cm in height: ≤0.76 m/s^2.Males >173 cm in height: ≤0.653 m/s^2. Females ≤159 cm in height: ≤0.762 m/s^2. Females >159 cm in height: ≤0.653m

Characteristics of patients - hospital vs non-hospitalised groups

Characteristics	Hospitalized (Hospital group)	Non-Hospitalised (Home group)	p-value
Participants (n)	60	119	
Age, years (median, IQR)	57	48	< *0.001
Sex, n (%)	Male 26 (43%), Female 34 (57%)	Male 29 (24%), Female 90 (76%)	< *0.001
BMI, (kg/m2)	32.2 (7.3)	28.9 (7.24)	*0.003
MRC dyspnoea score	3.0 (0.9)	2.6 (0.9)	*0.001
Borg breathlessness score	2.6 (1.7)	2.4 (1.9)	0.347
PCFS	2.9 (0.6)	2.1 (0.8)	0.096
EQ5DL	14.5 (7.8)	11.30 (3.1)	< *0.001
BPAT	4.2 (2.2)	3.8 (2.3)	0.1884
FAS	31 (8.3)	33 (8.6)	*0.04
Dyspnoea 12	11 (8.8)	13 (9.1)	0.08
WSAS	21.2 (11.2)	20.8 (9.8)	0.411
6MWT	237 (110)	354 (121)	<*0.001

Compared to those on the Home pathway, those on the **Hospital pathway** were:

- Older
- more likely to be male (43% vs 24%)
- Higher BMI
- Higher MRC breathlessness
- Worse EQ5DL quality of life
- Lower FAS fatigue
- Much lower 6MWT aerobic capacity

Based on sig diff <0.05

Notes: Values are presented as mean ± SD or number (%), median, inter quartile range (IQR), *p < 0.05*p < 0.05; *p<0.001; *p<0.0001

Abbreviations: BMI, body mass index; MRC, Medical research council dyspnoea score; EQ5DL, Euro Quality of Life 5-dimension level; BPAT; Breathing Pattern Assessment Test; WSAS, Work and Social adjustment Score; 6MWT, Six-Minute walk test; FAS, Fatigue assessment test, Post COVID Functional Status (PCFS) *Significant differences between hospitalised and home group at baseline

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Table 2 Change in clinical outcomes for all patients with the intention to treat analysis (ITT) of baseline available and missing data, n=179

Variables	Mean diff (SD)	95% CI	p value
MRC	1.108 (0.94)	0.02 to 1.96	0.008*
Borg	0.25 (1.42)	-0.24 to 0.533	0.036*
GAD	0.2 (1.19)	0.017 to 0.380	0.016*
BPAT	1.63 (2.63)	0.802 to 2.465	0.0001*
Nijmegen	1.03 (0.45)	0.127 to 1.950	0.012*
PCFS	-0.015 (1.04)	-0.272 to 0.241	0.546
WSAS	1.413 (8.43)	-0.804 to 3.632	0.103
EQ5DL	0.353 (2.149)	0.006 to 0.700	0.022*
FAS	1.25 (5.02)	0.270 to 2.234	0.006*
6MWD	25 (80.43)	-44.7 to -6.68	0.99

Key findings

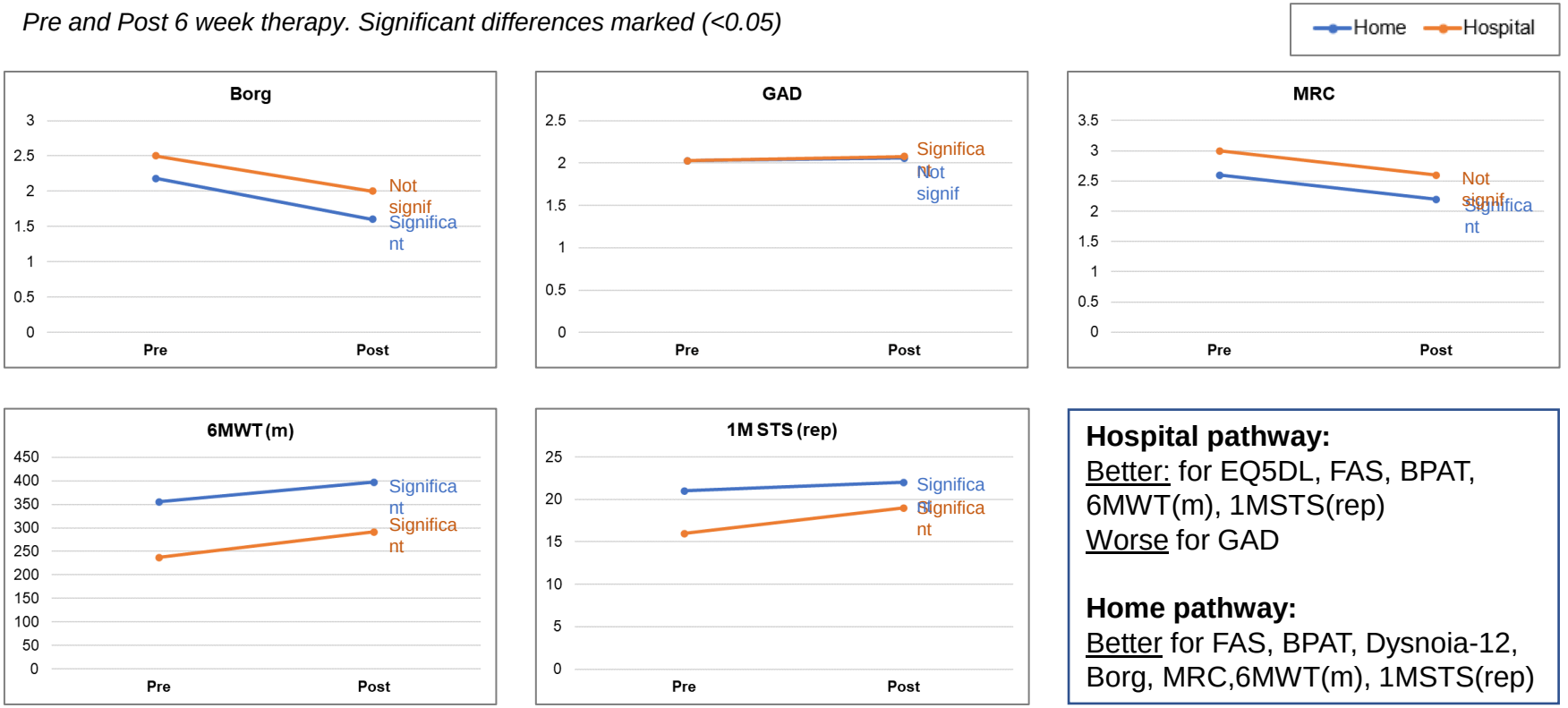
All were significant after rehab

Except;
1. PCFS
2. WSAS
3. 6MWD

Based on sig diff <0.05

Pre and Post scores for outcome measures - by pathway (2)

Pre and Post 6 week therapy. Significant differences marked (<0.05)



Hospital pathway:
Better: for EQ5DL, FAS, BPAT, 6MWT(m), 1MSTS(rep)
Worse for GAD

Home pathway:
Better for FAS, BPAT, Dysnoia-12, Borg, MRC,6MWT(m), 1MSTS(rep)

Pre and Post scores for outcome measures - by pathway (2)

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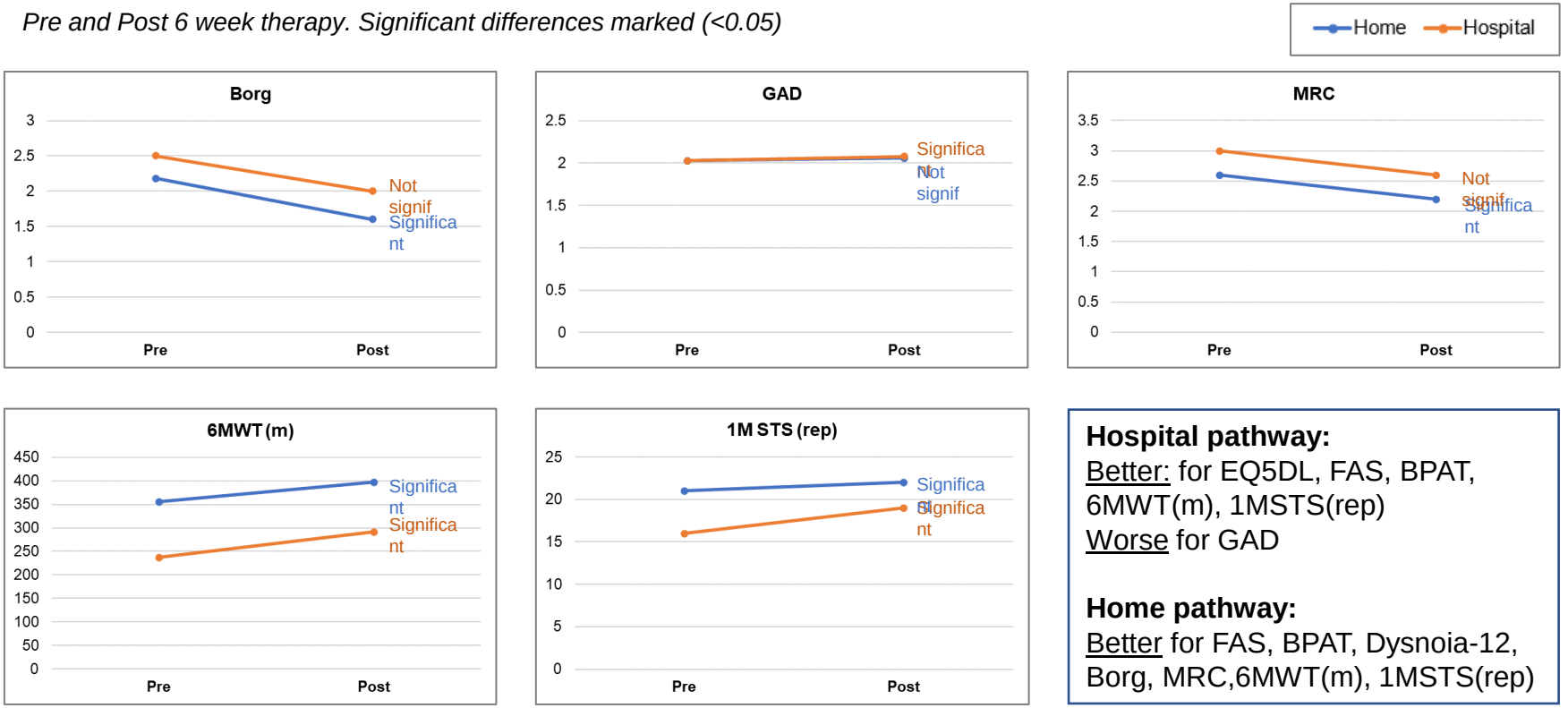
Pre and Post 6 week therapy. Significant differences marked (<0.05)

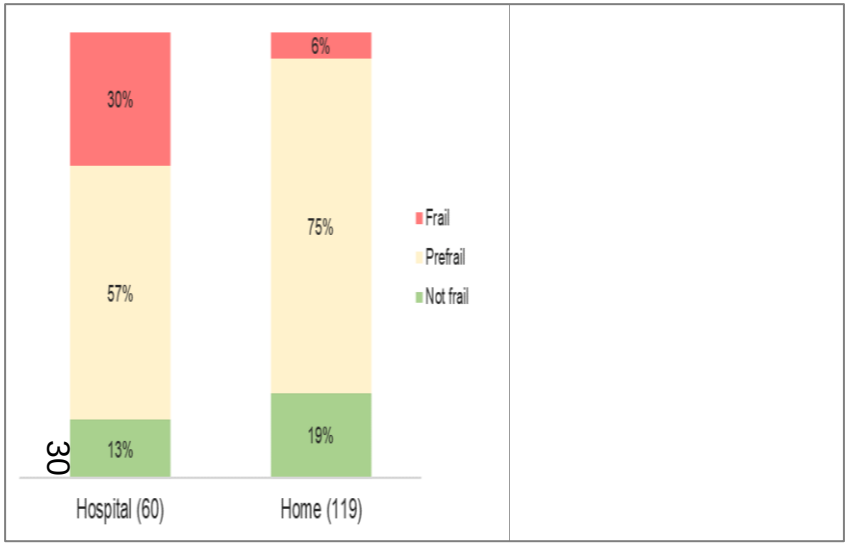


Hospital pathway:
Better: for EQ5DL, FAS, BPAT, 6MWT(m), 1MSTS(rep)
Worse for GAD

Home pathway:
Better for FAS, BPAT, Dysnoia-12, Borg, MRC,6MWT(m), 1MSTS(rep)

Table 3 Proportion of frailty in post COVID syndrome
n= 179

Frailty classification	Hospitalized (Hospital group) % (95% CI)	None hospitalized (Home group) % (95% CI)	p- value
Frail	30 (13.52 to 45.83)	6 (1.57 to 24.19)	0.004
prefrail	57 (38.10 to 73.53)	75 (68.42 to 95.12)	
Not frail	13 (6.84 to 35.26)	19 (1.57 to 24.19)	



Fried Frailty criteria
Five domains:

1. Exhaustion
2. 4 metre gait speed
3. Physical activity after 12wks of acute COVID-19 infection
4. Unintentional weight loss
5. Handgrip muscle strength

A score of 0 shows not frail, 1-2 denotes pre-frail and 3-5 is frailty

Conclusion

- Therapy interventions are effective and provide positive response to people with Post COVID syndrome in nearly all outcomes including quality of life for both home and hospital pathways
- Home patients are likely to have more post COVID symptoms than hospitalised patients who are more likely to be deconditioned due to being older, LOS or ITU stay and obesity.
- Hospitalised patients are more likely to show frailty than Home patients
- The data is now used around London NHS Trust and

EUROPEAN RESPIRATORY journal
FLAGSHIP SCIENTIFIC JOURNAL OF ERS

Effectiveness of Post-COVID rehabilitation and impact of frailty in Post-COVID Syndrome

Kola Akinlabi, Binny Patel, Ana-Maria Barfa, Patrick Mallia, Radoslav Trojak, Amalachukwu Ukaere, Gavin Sandercock

European Respiratory Journal 2023 62: PA4522; **DOI:** 10.1183/13993003.congress-2023.PA4522

Abstract

Background: Post COVID syndrome could become a chronic health issue if the needs of COVID-19 survivors are not prioritised. Post COVID rehabilitation is now used to manage various symptoms such as breathlessness, fatigue, brain fog and reduced exercise tolerance. However, the

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Questions