Royal Papworth Hospital
NHS Foundation Trust

Clinical Decision Cell:
longer term strategy

7 September 2020

Context, aims and constraints

Introduction

The CDC's ambition is for Royal Papworth teams to optimally use all available resources to achieve sustained and sustainable delivery of clinical activity for the benefit of our patients, engaging with and recognising the priorities set by local, regional and national partners. This strategy specifically focuses on the deliverables up to the end of March 2021 however the CDC goal is an overall increase in activity beyond what has been achieved previously and therefore this strategy also sets a direction of travel for beyond March 2021. This roadmap to full occupancy of RPH is aligned to the principles of the Trust's Strategy 2020-2025.

The progress metrics demonstrate excellent achievement against the objectives of the medium term strategy. It is anticipated that these will largely be met and any exceptions are included in the longer term strategy to ensure continuity of focus. The successful delivery of the longer term strategy requires an alignment of executive, corporate, divisional and Trust wide focus to deliver. The CDC expects agile addressing of any operational interdependencies and enablers that are rate limiting steps to maximum service productivity.

The key constraints that need to be resolved or mitigated at a corporate level are:

- Staffing resource – at headline volumes and in specific specialty areas (e.g., ICU nurses, radiographers, physiologists etc.)
- Responsive and flexible admin and booking capacity to ensure activity throughput at the levels desired;
- Infection Control requirements that are impacting on productivity and useable capacity across the Trust including increased turnaround times in cath labs, theatres, diagnostics and radiology

As the longer term strategy will run through Autumn and Winter 2020-2021 it has become increasingly apparent that a second, perhaps more localised Covid-19 wave must be prepared for alongside the aim to restore service provision. Guidance and advice for this has been taken from the report published on 14 July *Preparing for a Challenging winter 2020-2021* by the Academy of Medical Sciences.

Lessons from the Covid-19 surge in early 2020 continue to be learnt at RPH and on a regional and national level. The useful and positive impact of the multidisciplinary clinical leadership approach of the CDC to managing the pandemic through the Trust command and control structure must be retained. This clinically centered approach ensures responsive and flexible decisions that will ensure the Trust continue to meet all its aims in the longer term. The critical importance of staff well being over the longer term must remain central to any service considerations. The impact of the first Covid-19 peak will continue to ripple throughout the workforce for the forseeable future for many.

The pandemic has shone a light on the health inequalities within our region and the CDC supports that future service planning gives this greater consideration. Working differently with our partners and closely with all its communities required. These contextual shifts give us an opportunity to view our clinical future with a renewed perspective.

The Trust Clinical Ethics Committee established during the pandemic must continue and develop to extend beyond the immediate process of restoring services. It will serve as a guide and guardian on how the Trust can align decisions across the organisation with the limitation to the resources that are available.

The uncertain and changing financial landscape will influence the Trust ability to deliver the entirety of this strategy.

The CDC advocates that priorities should be defined by clinical need and demand, and include the continued delivery of our educational and research ambitions.

Phase 3 letter

On 31 July Simon Stevens and Amanda Pritchard wrote to all NHS organisations setting out the next – third – phase of the NHS response from 1 August 2020.

The letter set out the NHS priorities from August and a shared focus on:

a) Accelerating the return to near-normal levels of non-Covid-19 services, making full use of the capacity available in the 'window of opportunity' between now and winter

b) Preparation for winter demand pressures, alongside continuing vigilance in the light of further probable Covid-19 waves locally and possibly nationally

c) Ensuring the NHS learns lessons from the first Covid-19 peak; locking in beneficial changes; and explicitly tackling fundamental challenges including: support for our staff, and action on inequalities and prevention

The letter required systems to return a draft summary plan by 1 September to cover the key actions set out in the letter, with final plans due by 21 September.

The financial landscape suggests funding to RPH will be in line with activity levels delivered last year. Moreover over performing systems will be remunerated above target activity levels however underperforming systems will have funds removed. This new approach carries significant risk for the organisation, making it clear that progress must be made in the context of delivering a regional system contribution wherever possible.

Forward Look

It is in the context of both recovery and preparation for a second Covid-19 wave that this longer term strategy has been prepared. All possible opportunities to deliver the business as usual activity and go beyond pre Covid-19 activity levels where practicably possible will be pursued. In addition it is recognised that in the event of a second Covid-19 wave the approach to delivering BAU need to maximise continuity alongside the Covid-19 service lines. Scenarios as to what this may entail are set out later in this document.

Technical Specifications used in the model for Phase 3 Planning

October 2020 onwards

NHSI/E percentage of pre-COVID-19 ("business as usual")

Service	NEL	EL	DC
Cardiac Rhythm Management	100%	90%	90%
Cardiac Surgery	100%	90%	90%
Cardiology other	100%	90%	90%
Coronary Intervention	100%	90%	90%
Cystic Fibrosis	100%	90%	90%
ECMO	100%		
ILD	100%	90%	90%
Lung Defence	100%	90%	90%
Non Coronary Intervention	100%	90%	90%
Oncology		90%	90%
PTE		90%	90%
PV Diseases	100%	90%	90%
RSSC	100%	90%	90%
Thoracic Medicine other	100%	90%	90%
Thoracic surgery (exc PTE)	100%	90%	90%
Transplant	100%	90%	90%
VAD	100%	90%	

Number of COVID beds

Covid-19 beds on CCU	5
Covid-19 beds on Wards	0

Key assumptions for resource constraints

Time taken compared to previous BAU	
Emergency Theatres	113%
Elective Theatres	109%
Emergency Cath labs	106%
Elective Cath labs	111%
MRI	110%
CT	110%
Bronchoscopy	111%

Staffing Assumptions

% of staff shielding	0%
Change in headroom	5%

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Current position

The table below sets out the current bed usage across the hospital compared to the 2 month vision set out by CDC at the end of June. This shows the midday count and the midnight count to ensure the most accurate representation of bed usage.

Whilst a useful indicator a ready reckoner for what we have been able to achieve, this will not represent the full picture of % of business as usual services that the Trust has returned to.

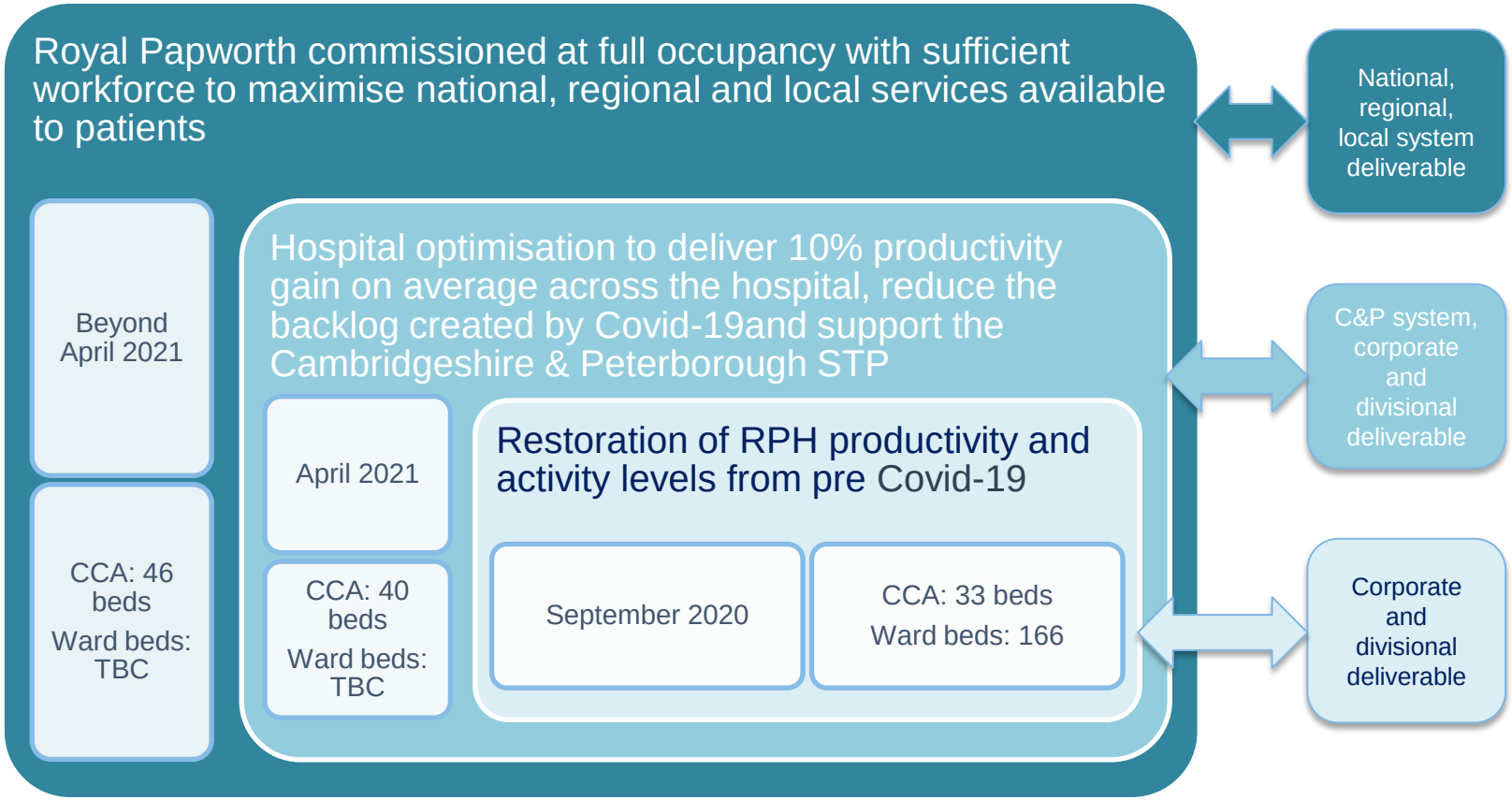
The information is taken directly from Lorenzo and therefore is dependent on accurate bed move information being recorded in each area. Teams are asked to ensure that this data is being captured accurately on Lorenzo to make this snapshot as accurate as possible.

Beds occupied by Covid-19 patients are repurposed to BAU activities as demand decreases and this trajectory will support the restoration of services.

						Bedstate on;								
Specialty	Assumed occupancy target	Pre-COVID avg bed occupancy (before occupancy adj)	Pre-COVID avg bed occupancy (after occupancy adj)	Bed requirement (adjusted for assumed occupancy target factor)	Snapshot time	29-Jun	06-Jul	13-Jul	20-Jul	27-Jul	03-Aug	10-Aug	17-Aug	24-Aug
Cardiology	85%	47	55	49	Avg	46	46	60	61	61	47	43	44	53
					Min	30	34	48	47	49	39	30	31	38
					Max	57	54	65	71	71	55	55	50	61
RSSC	85%	14	16	16	Avg	10	10	12	14	15	11	15	13	11
					Min	8	6	9	10	12	9	11	11	9
					Max	14	14	17	18	20	13	20	17	13
Surgery (excl Transplant)	85%	71	83	67	Avg	58	63	63	62	70	71	85	77	72
					Min	53	57	57	58	67	66	72	72	67
					Max	60	64	65	66	72	75	89	84	75
Thoracic Medicine	85%	30	36	22	Avg	18	25	25	23	22	23	24	28	24
					Min	10	18	18	19	17	17	17	17	17
					Max	21	27	29	26	24	26	28	32	27
Transplant	85%	13	15	11	Avg	11	15	11	10	10	11	12	8	9
					Min	10	14	9	8	8	9	10	6	7
					Max	12	15	11	10	10	11	12	8	9
Covid-19	85%	0	0	11	Avg	9	7	5	5	5	5	3	3	2
					Min	8	6	5	5	5	5	3	3	2
					Max	9	7	5	5	5	6	3	4	2
Grand Total	85%	175	205	177	Avg	152	166	176	175	182	168	182	172	171
					Min	119	135	146	147	158	145	143	140	140
					Max	173	181	192	196	202	186	207	195	187
Total (excl. Covid)	85%	175	205	166	Avg	144	159	171	170	177	163	179	168	169
					Min	111	129	141	142	153	140	140	137	138
					Max	164	174	187	191	197	180	204	191	185

Shading key:
Orange = below scenario
Green = at or above scenario

Roadmap to Full Occupancy



The core purpose for RPH is to deliver care to the maximum number of patients within the physical infrastructure. This will be supported by incremental change to existing services as well as the development of new ones to ensure we remain at the forefront of our specialty services.

Longer Term CDC Strategy – Key Recommendations (1 of 2)

Recommendations are set out by the CDC for the Living with COVID Steering Group for the next phase of the Clinical Strategy (14th September to 31st March 2021). These build on those recommendations within the short term strategy (8th June – 28th June 2020) and the medium term strategy (29th June 2020 - 13th September 2020).

Part 1: Aims are considered to be within the reach of RPH to achieve with a relatively low level of risk and dependency on external factors. Therefore operational and workforce action plans to be put in place to deliver the following:

- Embed the partnerships between booking and clinical services and booking to deliver a responsive and flexible service to maintain a positive trajectory of booked activity
- Decrease staff headroom to at least 26% with targeted work to support those areas more adversely impacted
- Continue to review and improve productivity and infection control assumptions to optimise use of key limited resources of theatres, cath labs, ward beds, diagnostics, bronchoscopy and outpatients and improve beyond overall BAU performance by 10% across the Trust
- Institute Heart MDT and adjust delivery to reflect any impact
- Open 4NE to support thoracic short stay patients (14 beds within budget)
- Open 36 beds in intensive care by October and aim to have 40 beds opened by April 2021 to provide access to regional resource and readiness for future Covid-19 waves.
- Access for any patient must be driven by clinical prioritisation including clinical research and private patients.
- Research and education activities paused during the Covid-19 pandemic must be reinstituted and resilience for future Covid-19 waves planned for.
- Cross specialty review of junior medical workforce to ensure fit for purpose, aligned to training and development strategy in place
- Adapt existing training programmes to meet the needs of all staff utilising new opportunities and managing new constraints
- Develop digital strategies to support remote patient management eg attend anywhere, remote desktop
- Weekly performance monitoring of all CDC Clinical Strategy Metrics

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Longer Term CDC Strategy – Key Recommendations (2 of 2)

Part 2: The following are service development opportunities requiring associated stakeholder support, business case development and commissioning. These aims carry a higher level of risk to delivery due to the increased level of interdependencies. Each of them represents the clinical priorities of the Trust over the next 7 months:

- Transfer cardiothoracic imaging from other Trusts within the STP by utilising capacity created by productivity gains and dependent associated transfer of resources from other organisations
- Expedite the transfer of bronchoscopy activity from CUH to utilise available capacity and explore further clinical pathway changes with CUH to maximise use of our estate and support the C&P system
- Develop cardiology and respiratory mobile diagnostic services to meet campus and potentially STP demand.
- Open 40 beds in intensive care by April 2021 and expand to 46 beds beyond April 2021.
- Develop the case to open additional beds for prehab and enablement on 4NE.
- Expand the Cardiology bed base further to meet demand, including additional activity from E&NH by opening a further 9 beds on 4NW.
- Increase bed base (up to 8) for an expanded regional weaning service in RSSC
- Reinstate RPH private income to activity levels achieved in 2019 with an ambition to grow further once pre Covid-19 BAU specialty activity levels are achieved
- Establish a temporary clinical trial facility to accommodate commercial opportunities
- Support the STP and region to implement the recommendations of the national GIRFT reports
- Service development of Regional Adult Critical Care Transfer Service through the governance of the Critical Care Strategic Programme Board

CDC Scenarios for Long Term Plan (1A)

The following slides contain a number of modelled scenarios using the Trust's dynamic modelling tool. The first set of scenarios set out the quantifiable elements of the CDC long term strategy from two perspectives:

Scenario 1a: Covid-19 response at 5 CCA beds, CCA capped at 36 beds, productivity in theatres/cath labs/radiology to be better than pre-covid levels and slight headroom reduction

The following productivity and staffing assumptions were used for this scenario;

Time taken compared to previous BAU	
Emergency Theatres	90%
Elective Theatres	90%
Emergency Cath labs	90%
Elective Cath labs	90%
MRI	90%
CT	90%
Bronchoscopy	90%

% of staff shielding	0%
Change in headroom	4%

Resource Constraints

- Limiting factor to be physical space BUT no more than an extra 50wte qualified nurses above the July 2020 level.
- We have, at July 2020, already got an extra 56wte nurses (either substantive or bank/agency) on top of the BAU period so the nursing shortfall in the table at the bottom of the page can be up to 106wte and still fulfil the criteria.

Percentage of BAU activity deliverable

Service	NEL	EL	DC
Cardiac Rhythm Management	100%	110%	110%
Cardiac Surgery	100%	110%	110%
Cardiology other	100%	110%	110%
Coronary Intervention	100%	110%	110%
Cystic Fibrosis	100%	110%	110%
ECMO	100%		
ILD	100%	110%	110%
Lung Defence	100%	110%	110%
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RSSC	100%	110%	110%
Thoracic Medicine other	100%	110%	110%
Thoracic surgery (exc PTE)	100%	110%	110%
Transplant	100%	110%	110%
VAD	100%	110%	

Staffing shortfall between BAU period (Aug19-Nov19) and scenario

Qualified Nursing	Support to nursing staff	Career staff grades	Trainee grade trust grade	Cons	Other clinical support	Qualified allied health professionals	Support to allied health professionals	Qualified health care scientists	Qualified other STT staff	Support to health care scientists and	Qualified pharmacists	
-105	-25	-6	-6	-12	-2	-11	-3	-7	-2	-3	0	-182

If nursing recruitment continues on the existing trajectory and c. 50 more nurses are added to the workforce alongside the productivity improvements set out in the CDC strategy then activity levels can exceed BAU and waiting lists will be reduced.
The limiting factor for this scenario was the staffing cap. There still remains space on CCA and all other wards.
This scenario is dependent on successful expansion of the workforce. Should the net increase be 0 in nursing then elective and daycase delivery will be reduced to c.94% of BAU

Academy of Medical Sciences
Preparing for a Challenging Winter 2020-2021

In a report published on 14 July *Preparing for a Challenging winter 2020-2021* the Academy of Medical Sciences identified the following challenges likely to face the health and care system this winter:

— A large resurgence of Covid-19 nationally, with local or regional epidemics.
— Disruption of the health and social care systems
— A backlog of non-Covid-19 care
— A possible influenza epidemic that will be additive to the challenges above.

The position may be complicated by lower public adherence to local or national lockdown requirements. Any capacity demands that arise from an autumn/winter Covid-19 surge cannot rely on the same redeployment of space and workforce as was done earlier this year because a greater number of services will need to continue in order to avoid excess deaths in non Covid-19 related illness. Staff wellbeing and resilience will also be a factor in availability and willingness to redeploy in a further Covid-19 wave.

The document also sets out the Academy view of actions that are required locally, regionally and nationally in the following key areas to ensure that the service is prepared for further Covid-19 surges and winter:-

- System capacity
- Workforce requirement
- Infection control and PPE
- Testing
- Social Care
- Communications

The Trust must approach the Winter with this likely context in mind and ensure that it is well positioned to meet the ongoing needs of the local, regional and national populations. To a certain extent the behaviour of the public will also shape our response to the pandemic.

Significant efforts are being undertaken to ensure that wherever possible the backlog created by the first Covid-19 surge is reduced ahead of winter pressures. The Trusts' modelling tool has been used to assess what levels of activity were undertaken across all specialties during the first wave of Covid to act as a baseline for provision in the event of a second wave. These include:

- Thoracic cancer surgery
- Emergency and urgent cardiac surgery
- National organs retrieval service and transplantation
- Emergency and urgent inpatient Cardiology procedures
- Inpatient diagnostics and urgent OP diagnostics
- Virtual follow up OP consultations (all specialties)

In the event of a second wave or unusually high winter pressures our core requirements would also extend to include the following patient cohorts;

1. Clinically critical P* category for elective cardiology patients
2. Deliver urgent non elective respiratory pathways including maximise CPAP and NIV
3. Clinically critical elective P* cardiac and PTE patients

Within our Covid-19 response we are proud of the excellent reported outcomes achieved. In order to build on our strengths we would look to:

1. Prioritise the delivery of national and regional emergency or urgent services
2. Deliver national ECMO requirements including advice on Severe Respiratory Failure
3. Offer regional access to an 8 bedded weaning unit
4. Work with STP partners to offer mutual aid

In supersurge only:

1. Maximise O+ and V patients as part of load levelling across the region