

Managing COVID-19 – hospital logistics/operations

- This webinar will start at 8.30pm IST / 4pm UK.
- You can watch the recording on the [AHSN Network](#) and SAHF YouTube channels afterwards.
- Please use the chat to submit your questions.

Panellists



- **Jonathan Brotherton** – Chief Operating Officer – University Hospital Birmingham



- **Professor Paul Cockwell**, Consultant Physician and Senior Responsible Consultant, University Hospital Birmingham



- **Dr Randeep Guleria**, Director, All India Institute Of Medical Sciences, New Delhi.



- **Professor Shailesh V. Shrikhande**, Deputy Director, Tata Memorial Centre, Mumbai



- **Professor Kiran Patel**, Chief Medical Officer, Deputy CEO & Consultant Cardiologist, University Hospitals Coventry and Warwickshire, Chair of Trustees (SAHF)



- **Dr Caroline O'Keeffe**, GP and Clinical Director CGH Partnership PCN, Clinical Lead for Urgent and Emergency Care – North Hants CCG



- **Professor Wasim Hanif**, Professor of Diabetes & Endocrinology, Consultant Physician, & Head of Service and SAHF Trustee



SOUTH ASIAN HEALTH FOUNDATION



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The **AHSN** Network



Centre for BME Health
reducing health inequalities



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Welcome

The webinar is about to begin.

Prof Wasim Hanif

Professor Diabetes & Endocrinology

Consultant Physician University Hospital Birmingham, UK

Board of Trustee Diabetes UK, Board of Trustee SAHF

Overview of webinar

- Triaging COVID-19 and setting up hubs
- Organising inpatient facilities, referrals
- Rational utilisation of resources (human, medication, etc)
- Running COVID and non-COVID facilities in parallel and efficiently
- Question and answer session

Dr Randeep Guleria

Director, All India Institute Of Medical Sciences, New Delhi

Running Covid and non-Covid facilities in parallel and efficiently

Professor Shailesh V. Shrikhande

Deputy Director, Tata Memorial Hospital
Chief, GI and HPB Surgery Professor & Head, Division of
Cancer Surgery, Tata Memorial Centre, Mumbai, India

Outcomes of Elective Major Cancer Surgery During COVID 19 at Tata Memorial Centre

Implications for Cancer Care Policy

Shailesh V. Shrikhande, MS, MD, FRCS,✉ Prathmesh S. Pai, MS, DNB,* Manish S. Bhandare, MS, MCh,*
Ganesh Bakshi, MS, MCh,* Devendra A. Chaukar, MS,* Pankaj Chaturvedi, MS,* Mahesh Goel, MS,*
Ashish Gulia, MS, MCh,* Sajid S. Qureshi, MS,* Amita Maheshwari, MD,* Aliasgar Moiyadi, MS, MCh,*
Sudhir Nair, MS, MCh,* Nita S. Nair, MS, MCh,* George Karimundackal, MS, MCh,*
Avanish P. Saklani, MS, FRCS,* Vinay K. Shankhadhar, MS, MCh,* Vani Parmar, MS,*
Jigeeshu V. Divatia, MD,† Pramesh CS, MS, FRCS,* Ajay Puri, MS,* and Rajendra A. Badwe, MS*,
on behalf of all collaborators from Department of Surgical Oncology*

Ann Surg June 2020

Summary

Background

Overburdened systems and concerns of adverse outcomes have resulted in deferred cancer surgeries with devastating consequences. In this COVID pandemic, the decision to continue elective cancer surgeries, and their subsequent outcomes, are sparsely reported from hotspots.

Methods

Prospective data was analyzed from March 23rd to April 30th, 2020.

Findings

- 494 elective surgeries were performed (377 untested and 117 tested for Covid 19 prior to surgery). Median age was 48 years with 13% (n=64) above the age of 60 years. 68% patients were ASA (American Society of Anaesthesiology) grade I. As per surgical complexity grading, 71 (14.4%) cases were lower grade (I-III) and 423 (85.6%) were higher grade complex surgeries (IV – VI).
- Clavien - Dindo \geq grade III complications were 5.6% (n=28) and there were no post-operative deaths. Patients >60 years documented 9.3% major complications compared to 5.2% in <60 years ($p = 0.169$). The median hospital stay was 1 – 9 days across specialties.
- Postoperatively, 26 patients were tested for COVID 19 and 6 tested positive. They all had higher grade surgeries but none required escalated or intensive care treatment related to COVID infection.

Shrikhande SV et al. Ann Surg June 2020



Cancer management at Tata Memorial

At Tata Memorial Centre (India’s largest cancer center), despite having to scale back operations by about one third we made the decision to continue providing cancer care using a proactive and multipronged approach.

We have already learned a great deal from this pandemic. Being forced to quickly respond led to a radical overhauling of entrenched hospital systems and processes, which ultimately made our operations more efficient.

The decisions we had to make regarding triaging of patients for cancer treatment will undoubtedly be helpful when we establish a robust health technology assessment program, an essential tool in a country where public health care expenditures are low.

Countries that have not had high rates of death from Covid-19 could consider similar approaches that involve balancing pandemic control with providing continued cancer care.

Pramesh CS, Badwe RA. NEJM 2020 382:e61

Table 1. Summary of Covid-19 Measures Taken at Tata Memorial Centre.

Administration

- Creation of a core Covid-19 action group
- Daily debriefings and formulation of action plans

Cancer care

- Avoidance of complex surgeries likely to require multiple blood transfusions and prolonged intensive care unit stays
- Use of hypofractionated regimens whenever possible (e.g., for breast, prostate, and lung cancers); provision of palliative radiotherapy in a single fraction or weekly regimens
- Reduced use of myelosuppressive systemic therapy; conversion to oral agents when feasible; deferral when magnitude of benefit is marginal

Patient-directed

- Establishment of “screening camps” outside the hospital to reduce patient visits
- Stringent restriction of relatives and friends in outpatient clinics and inpatient wards
- Use of teleconsults as a substitute for routine follow-up visits

Hospital preparedness

- Establishment of standard operating procedures for cases of suspected or confirmed Covid-19 infection; use of simulation drills
- Establishment of a fever clinic and creation of isolation wards

Employee-directed

- Provision of paid leave for high-risk staff members (elderly people, people with multiple comorbidities or who are taking immunosuppressive agents, and pregnant people)
- Rotation of staff to ensure a fallback option in case of mass quarantine
- Provision of hospital buses to transport staff unable to reach work because of the transportation lockdown

Thank you



Managing COVID-19: logistics and operations, University Hospitals Birmingham

Jonathan Brotherton

Chief Operating Officer,
University Hospital
Birmingham

Professor Paul Cockwell

Consultant Nephrologist,
University Hospital
Birmingham

Measure

- COVID-19 numbers: population, hospital admission and inpatient, ITU use, mortality
- Non-COVID emergency numbers: admission, bed need, LOS
- Emergency department capacity and flow
- Bed numbers and configuration (Hot and Cold)
- Staff numbers, configuration, **ITU redesignation**
- **ITU capacity**
- Local, regional, national

Maximise Capacity

- Senior review and early decision making
- Accurate early discharge
- Configure a 24/7 hospital
- Radical rota changes
- Enable and support agile leadership
- **Focus on ITU requirements**

Optimise Flow

- **Rapid testing**
- Configure the physical footprint (ITU, HOT care, COLD care, ED)
- Process mapping
- Surge planning
- **System working** (e.g. ambulance diverts, inter-hospital transfers)

Staffing

- **Communicate - virtual and written briefings**
- Clear leadership and line management structure
- **Keep staff safe: PPE, equity of workload (v difficult)**
- **Well being:** e.g. psychological support, buddy systems
- **Redesignate staff to areas of need:** ITU, acute pathways
- On the job training; training packages

System Configuration

- **Vaccination:** hubs, prioritisation, staff hesitancy
- Cross hospital and system working: ambulance diverts, inter-hospital transfers
- Integrated care system response
- **Regional emergency operational delivery networks**
- Ventilator, RRT, consumable procurement
- NICE COVID-19 guidelines
- Emergency Field Hospitals (Nightingale)

Elective Care

- Hot and Cold hospitals and units
- Prioritisation (national guidance)
- Capacity mapping
- Expanding cold level 2 (HDU)
- Ensuring cancer care

UHB clinical medical staff allocation: COVID-19 wave three

Intensive care

All clinical staff not working in other areas

Acute care

Staffing models agreed for each acute care area (ED/AMU/acute specialty care)

SRC defined

Inpatient care

Minimum safe daytime staffing

1 consultant/2 junior doctors/ward

Delivered at QEHB as four days on/Four days off 12.5 hour shifts

Site specific variation but consistent intensity and time commitments across sites

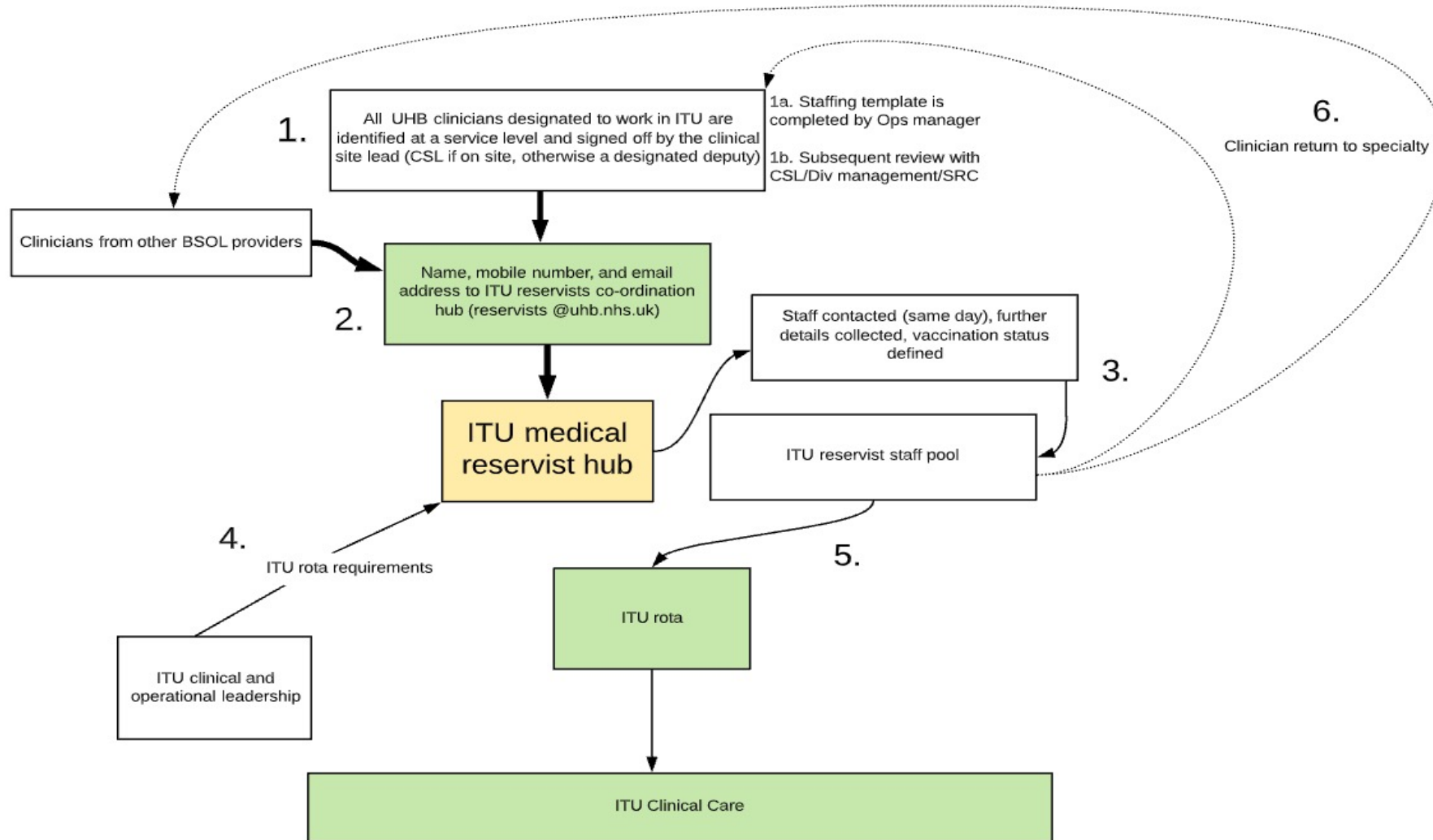
Some specialty specific adjustment

Specialty time-critical

Minimum safe staffing
Speciality designated, Division/SRC agreed

Time-critical = patient at risk of serious harm within 2 weeks without specialty care

Process map – redesignation of clinical staff into ITU



COVID Oximetry @home (CO@h) – North Hampshire

Dr Caroline O’Keeffe

North Hampshire Clinical Commissioning Group Clinical Lead
for Urgent and Emergency Care

SAHF INFOGRAPHIC: **COVID REMOTE MONITORING AND MANAGEMENT AT HOME**

UK-INDIA COVID-19 RESPONSE

WHAT ARE THE KEY POINTS?

- CLINICIANS NEED TO BE WARY OF ASYMPTOMATIC/SILENT HYPOXIA, WHICH IS A POOR PROGNOSTIC MARKER.
- ROUGHLY 4 OUT OF 5 PATIENTS WILL HAVE MILD DISEASE, AND ASYMPTOMATIC/MILDLY SYMPTOMATIC ADMISSIONS SHOULD BE AVOIDED.
- WHEN MANAGING PATIENTS REMOTELY, REMEMBER TO ENCOURAGE HYDRATION.

SYMPTOMS LOOK OUT FOR:

- SIGNIFICANT SHORTNESS OF BREATH
- SATURATIONS CONSISTENTLY UNDER 92%
- CHEST PAIN
- SEVERE MYALGIA

HOW CAN THIS WORK ON THE GROUND?

A ROBUST REMOTE MONITORING SYSTEM, USING A COMBINATION OF REGULAR PATIENT OXIMETRY LOGS AND CLOSE TELEPHONE FOLLOW UP, HAS BEEN SHOWN TO:

- IDENTIFY SICK PATIENTS EARLY
- KEEP ASYMPTOMATIC PATIENTS HOME
- PROMOTE EARLY DISCHARGE, FREEING UP HOSPITAL BEDS.

PATIENTS ON OXYGEN CAN GO HOME, BUT HAVE TO BE CAREFULLY SELECTED AND REGULARLY FOLLOWED UP FOR SATURATIONS AND RED FLAGS.


PATIENTS WILL NEED TO BE GIVEN APPROPRIATE ADVICE ABOUT THEIR FUTURE HEALTH, INCLUDING:

- WHEN TO SEEK HOSPITAL ADMISSION
- WHEN THEY WILL HAVE FOLLOW UP

OTHER CONSIDERATIONS

- PATIENT TRUST AND BELIEF IN THEIR REMOTE MONITORING SYSTEM IS KEY TO SUCCESS
- ASYMPTOMATIC/MILDLY SYMPTOMATIC PATIENTS DO NOT NEED AGGRESSIVE IMAGING/MANAGEMENT
- WIDESPREAD MISINFORMATION CAN WORSEN PATIENT AND CLINICIAN ANXIETY

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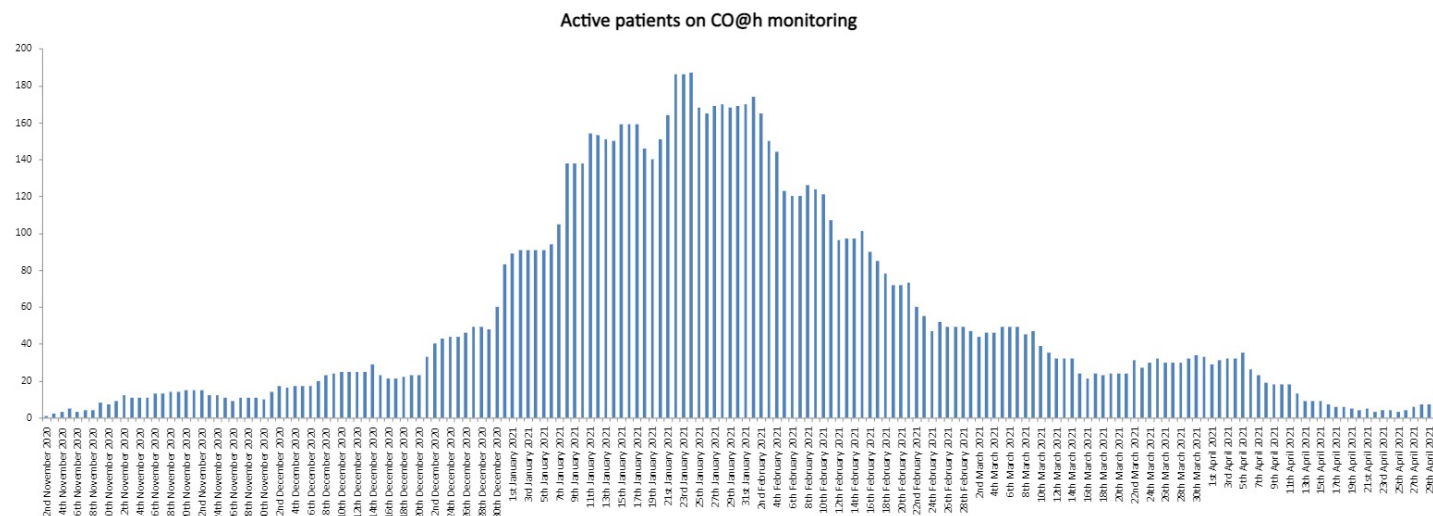
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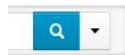
SOUTH ASIAN HEALTH FOUNDATION

- 6 PCNs / 230,000 patients
- Co-located
 - Winter Assessment Centre – Hot Hub
 - Rapid POC testing – early identification
 - Opened 2.11.2020
- Single integrated platform 24/7
- Staffing
 - Lead ANPs – job share
 - Care Coordinators
- Pulse Oximeter pack
 - Instructions
 - Link to YouTube video
 - Paper diary – TDS readings
 - Return envelope
- Referral Pathway
 - Email
 - Phone Line in hours / 111 OOH
- IT Solution
 - Entered into ward on EMIS or by phone/email
 - AccuRx – COVID Monitoring Florey
 - Automated texts daily for 14d asking about symptoms and observations
 - Single CO@h spreadsheet – shared on Teams
 - InHealthcare
 - 12th January 2021 (10w)
- Monitoring
 - CO@h Lead ANP oversees
 - Checks data, identifies deterioration and acts
 - Digital exclusion – paper diary and phone

COVID in North Hampshire – current situation

- Started 2nd November 2020
- Operating 28 weeks
- Total seen at Winter Assessment Hub – 4620
 - RED admissions to hospital - 243
 - AMBER assessments in hospital - 110
 - GREEN – managed at home - 4270
- COVID Oximetry at Home
 - Onboarded – 841
 - Active – 8
 - Discharged – 833
 - Early detection silent hypoxia
 - 116 admissions
 - 2 deaths – 1.7%





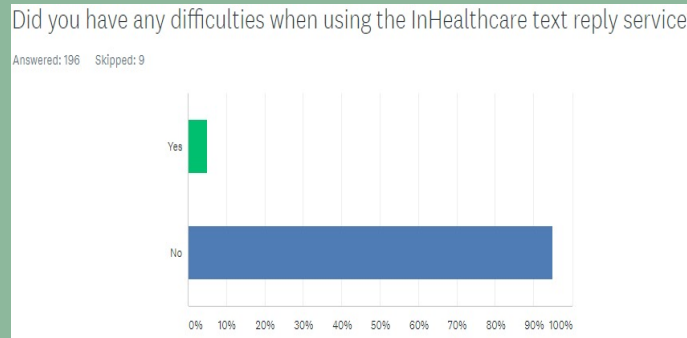
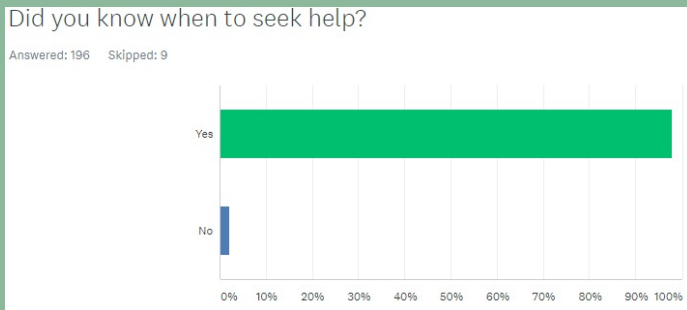
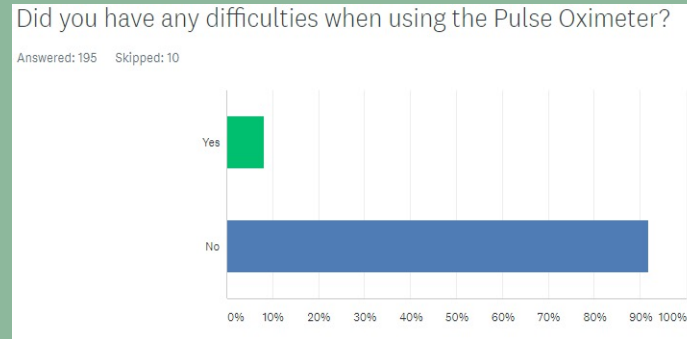
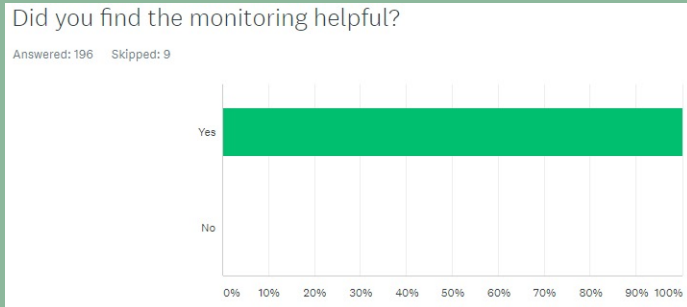
Hampshire and Isle of Wight

Submitted by	Breathless	Heart rate	SpO2	Body temp	General feeling	
Patient	Not	88	99	36.4	Better	View patient
Clinician	Not	66	96		Better	View patient
Patient	Not	66	96		Better	View patient
Patient	Not	75	97		Better	View patient
Patient	Same, can speak	97	94		Same	View patient
Clinician	Same, can speak	78	93		Better	View patient
Patient	Not	57	98		Same	View patient
Clinician			96			View patient
Patient	More, can speak	88	91	36.3	Same	View patient
Patient	Not	87	95	36.4	Better	View patient
Patient	Not	69	98		Better	View patient
Patient	Not	93	98	37.6	Same	View patient
Clinician	Same, can speak		94			View patient
Clinician			96			View patient
Patient	Same, can speak	86	96		Better	View patient
Patient	Not	90	98		Better	View patient
Clinician	Same, cannot speak	72	93		Same	View patient
Patient	Not	83	96	37.4	Same	View patient

Lessons learned and next steps

- InHealthcare Platform
- Care Home Outbreaks
 - ReSPECT forms for all Care Homes
- Cohort becoming younger – impact of vaccine
 - Discharges – first 100 – 18% >80
 - Discharges – last 100 – 4% >80
- MDT – PCN/OneTeam
 - Strengthen links with practices
 - Palliative Care/H@H input
- Increased capacity
 - Care Coordinators / Health and Wellbeing coaches
 - Social Prescribers
- Active Case Finding
 - Review to identify all positives, safety net low risk
 - Refer high risk positive cases to CO@h
- Secondary Care Virtual Wards
 - SDEC/Telemedicine - Communication and clear responsibilities

Patient feedback – 205 respondents



daily seem reassuring know also home useful S contact think service
 support one Nothing found worrying knowing someone wonderful
 text questions great feedback Thank much worked well
 time times day gave Covid think someone good needed
 monitoring improved help reading Thank make
 service excellent know really helpful go felt made feel
 day answered reassuring though Excellent service able
 t results call keep worse asking grateful say keeping eye lot
 good service Maybe feeling Fantastic care service really

COVID-19: Strategic and operational reflection from UHCW

Prof Kiran Patel

Chief Medical Officer, Deputy CEO & Consultant Cardiologist, University Hospitals Coventry and Warwickshire, Chair of Trustees (SAHF)

COVID-19 governance



Clear strategy and leadership

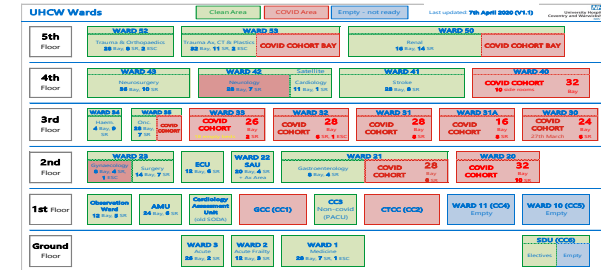
- COVID, non-COVID and post-COVID care
 - Open for business – communicate to staff and public
 - Standardisation and learning : QI
- Maintain emergency services & surge plans
 - Clear and direct access pathways e.g. PPCI, stroke, O&G, SAU
 - Oxygen draw dashboard
- Support others under pressure
 - Mutual aid
- Infection prevention and control
 - Segregation, siderooms and testing
- Workforce support and management
 - Deployment and redeployment
 - Innovation – Med students, RnD, Teaching

COVID-19 - remote consultations

Dashboard showing various metrics and navigation options for remote consultations. Includes sections for 'Setup', 'Access', 'Get started', 'History', and 'Performance'.

COVID-19 - QUICK GLANCE GUIDE
For treatment of adult non-TU patients at LHMU

Flowchart detailing clinical pathways and decision points for COVID-19 treatment. Includes sections for 'Isolation', 'Investigation', 'Management', and 'Discharge'.



COVID-19 Critical Care Model - Plan A

Stage	Ward	Bed Availability	Non-COVID Occupancy	COVID Occupancy
Stage 1	WARD 1	10	0	0
	WARD 2	10	0	0
	WARD 3	10	0	0
	WARD 4	10	0	0
	WARD 5	10	0	0
Stage 2	WARD 6	10	0	0
	WARD 7	10	0	0
	WARD 8	10	0	0
	WARD 9	10	0	0
	WARD 10	10	0	0
Stage 3	WARD 11	10	0	0
	WARD 12	10	0	0
	WARD 13	10	0	0
	WARD 14	10	0	0
	WARD 15	10	0	0
Stage 4	WARD 16	10	0	0
	WARD 17	10	0	0
	WARD 18	10	0	0
	WARD 19	10	0	0
	WARD 20	10	0	0
Stage 5	WARD 21	10	0	0
	WARD 22	10	0	0
	WARD 23	10	0	0
	WARD 24	10	0	0
	WARD 25	10	0	0