Bradford Teaching Hospitals
NHS Foundation Trust

Learning from the **COVID-19 pandemic**

a Bradford Teaching Hospitals perspective

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Foreword

Since January 2020, Bradford Teaching Hospitals NHS Foundation Trust (BTHFT) has responded to the challenge of providing high quality care throughout the COVID-19 pandemic.

Many things which seemed strange at the start of the pandemic are now accepted as the new normal. Much has changed in the way we care for our patients, the restrictions on access to our premises, the protective equipment we wear and the extraordinary efforts we make to prevent and control infection. However, one thing that has remained constant is our Trust vision to be an outstanding provider of healthcare, research and education, and a great place to work.

It's important for everyone to recognise that we're only one piece in the wider health and care system that serves a diverse community of over half a million people in Bradford District and Craven. During the pandemic, we and our partner organisations have collaborated to support our community and tackle the ever changing demands on our response. We have drawn on each other's strengths and supported each other where needed – an approach that will be just as vital as we Act as One to restore and restart our services.

Sadly the journey has been arduous and like many NHS organisations we have lost people including some of our own colleagues or people close to them. We extend our heartfelt sympathies to families and friends. But there has been remarkable progress, including the rollout of the COVID-19 vaccine, with our Trust taking a leading role in both the national vaccine trials and in organising and administering vaccines for our population. We are implementing our Restore and Restart programme to address the backlog of demand for care, and we aim to get our full range of healthcare services operating at pre-pandemic levels as safely and quickly as possible, although this remains a very difficult challenge.

This report sets out how we responded to the pandemic, the lessons we have learned and acknowledges the part that our colleagues, volunteers, local businesses and the people of Bradford have played in helping us through these unprecedented times. We also highlight how our learning will help us improve services and adapt our future services for the benefit of everyone.

It has been my privilege to lead the Trust through this difficult period, and I am immensely proud of all we have achieved, and all that we continue to do, working with our partners in health and care, to serve the population of Bradford District and Craven.

MEL PICKUP

Chief Executive

Timeline of events

2020

13 January	Internal discussions at BTHFT in progress regarding COVID-19	BTHFT planning underway including reconfiguration of wards and modelling of demand	30 January
30 January	NHS leaders declared coronavirus a serious level 4 incident	Established a COVID-19 Priority Assessment Pod outside AED in line with the national requirement.	7 February
1 March	1st confirmed case of COVID-19 in Bradford	Visiting restrictions to inpatients at BTHFT	17 March

23 March 2020 – national lockdown

24 March	Visiting restrictions applied with exceptions for neonatal and maternity	Relatives line launches and is open 7 days a week	4 April
8 April	All face to face visiting suspended in line with other hospitals	Nightingale Hospital in Harrogate opens	21 April
1 May	Relocation of selected cancer services to Yorkshire Clinic	Peak of first wave – 103 COVID-19 inpatients at BTHFT	5 May
22 May	BTHFT selected as a one of five Patient Recruitment Centres	Easing of national restrictions	23 June
23 July	BTHFT at forefront of national covid vaccine trial	Patients contacted about restart of services at BTHFT	8 August
17 September	Visiting restrictions amended at BTHFT with additional visitors allowed on site in certain services	Novovax vaccine trial launched at BTHFT	6 October
20 October	Updated restrictions to visiting as second wave gains momentum	Non-emergency patients diverted to primary care	22 October
4 November	Suspension of surgery/outpatients to following rise in the number of COVID-19 patients		

5 November 2020 – second national lockdown

2 December	Easing of national restrictions – three tier system introduced	Peak of second wave – 179 COVID-19 inpatients at BTHFT	23 November
		Vaccination programme begins at BTHFT	14 December

2021

6 January 2021 – third national lockdown

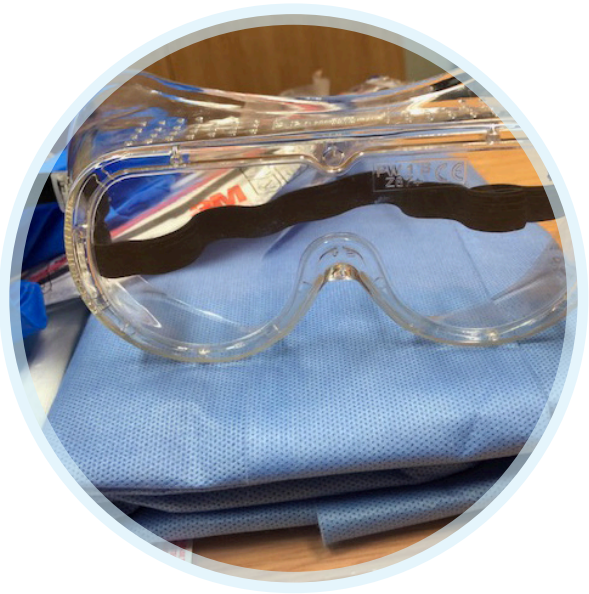
22 February	Plan to exit lockdown shared by PM	Easing of national restrictions	3 March
30 April	33 COVID-19 patients at BTHFT		

1. Overview of achievements

Throughout the pandemic our people have been constantly innovating, adapting and adopting new practices to meet the challenge of COVID-19. Some of our most remarkable initiatives included:

- **Staff redeployment** – a comprehensive programme of redeployment was established during the pandemic, with many colleagues being moved away from their normal roles to help meet demand in other areas of the hospital. Retired staff also offered their services and returned to work. To enable this redeployment, training was rapidly provided. Our Education Department organised training courses to ensure that all who were redeployed were confident in their new roles.
- **Relatives' Line** – during the pandemic we had to almost entirely suspend hospital visiting. We recognised that this would cause a great deal of anxiety for people with loved ones on our wards. To address this, we set up a dedicated telephone information line which relatives could use to obtain updates on the condition of their loved ones. This telephone line also allowed our ward staff - many of them wearing full protective equipment - to care for patients without interruption. Critically, the Relatives Line bridged the gap between families and their loved ones.
- **Increased focus on inclusion and communication** – it became clear during the pandemic that communication with our staff and with the people of Bradford would be vital. It was also clear that we needed to improve the ways in which we did this. Communications and engagement with our staff, patients and the public was therefore expanded and the approach we took to sharing information became more varied. We launched our largest array of communications to date to ensure that we reached communities in multiple languages and dialects such as Urdu, Pahari, Slovak and many more. Much of this communication was presented by our bi-lingual staff to allow us to speak directly to our patients and diverse communities providing them with key messages. The channels used included our own social media channels as well as engagement and participation in community-led groups, especially via WhatsApp; ensuring messages were accessible and heard as widely as possible.

- **Critical care without walls** – a key component of preparing for COVID-19 was increasing intensive care capacity to meet demand as needed. A subset of this approach involved the implementation of 'critical care without walls'. COVID-19 patients were provided with CPAP (continuous positive airway pressure) machines on respiratory wards. This meant that the condition of many patients did not escalate to the stage where they would need to be treated in a critical care bed. Almost a third of COVID-19 patients at our Trust received CPAP. This freed up capacity and allowed our Intensive Care Unit to focus on those patients that were the most acutely unwell.
- **Expanding the implementation of telemedicine and virtual services** – the pandemic acted as a catalyst for the wider use of technology to support remote consultations and the monitoring of patients at home. This has meant that patients can either leave hospital sooner or be seen in the community and avoid attending hospital at all. The continued development of telemedicine and virtual services will be one of the positive legacies of the pandemic.
- **Enhanced training and education** – we rapidly introduced a programme of training and education to supplement the skills our people needed to enable them to work safely and securely, for example in an intensive care environment.
- **Personal Protective Equipment (PPE) provision** – early on we established a 'PPE hub' which was more than just a storage area for PPE. This enabled the Trust to ensure we had the correct PPE at the correct time in the correct areas. In addition, the hub was staffed by experienced clinicians who could give advice and support on a wide range of issues.



"...it became clear during the pandemic that communication with our staff and with the people of Bradford would be vital."

2. Planning and Preparation

2.1 Bradford in context

Bradford’s population, and particularly the communities in close proximity to our hospitals, are incredibly diverse, with more than 100 languages spoken across the district.

Social deprivation, lifestyle and a large population at both ends of the age spectrum also combine to give Bradford a set of circumstances that create health inequalities. In Bradford these inequalities often result in the earlier development of multiple chronic morbidities – ultimately increased morbidity and decreased life (and healthy life) expectancy are the consequence. These factors combined in Bradford during the pandemic and meant that COVID-19 had a larger impact on the community than in other cities of a similar size. Also high density housing and multi-generation occupancy facilitated the spread of COVID-19.

We had to be particularly mindful of this when planning, preparing and delivering our pandemic response.

2.2 Our site and visitors

Whilst the first lockdown in England commenced on 23 March 2020, our planning for the pandemic began much earlier, in January. Our senior clinicians and our operational teams monitored the worsening situations in other countries as the pandemic took hold, and were able to model anticipated demand for our services and develop contingency plans.

As the incidence of COVID-19 began to increase locally and we began to admit patients we undertook a dynamic review of demand in order to flex ward and department functions to create dedicated COVID-19 areas known as ‘red’ spaces. Our teams across the Trust created multiple red wards within 24 hours of approval and developed a COVID-19 area in our Emergency Department (ED) by assessing, re-working and re-zoning the footprint of the whole department. All of this was created and refined through scenario planning (including simulation training), involving collaborative working between all the relevant clinical teams.

We also took the decision to 'lockdown' our hospital sites to keep patients and staff safe and secure by reducing unnecessary footfall during this period. In practical terms, this meant that staff were still able to use ID swipe-cards to access entrances that are locked down electronically, but the public had a very limited number of entry points, with extra security in place to help manage any issues.

These changes involved extensive involvement and engagement with many of our stakeholders. In particular, changes that would affect the population were communicated with local groups and individuals such as our local MPs, community groups and the voluntary and community sector to ensure key messages were being cascaded within communities. For example, a WhatsApp group of known community ambassadors across the district was developed which was utilised to cascade important messages during this time.

2.3 Postponement of non-urgent surgery and outpatient appointments

As part of our response to the pandemic, we had to pause or postpone a significant number of non-urgent procedures and outpatient appointments. This provided the capacity to allow us to treat and care for the significant numbers of COVID-19 inpatients that were admitted, at a time when we also experienced staffing challenges due to sickness and shielding.

The numbers of COVID-19 inpatients at the Trust in both the first and second wave were significant but the number admitted in the second wave far exceeded those in the first wave as figure 1 shows

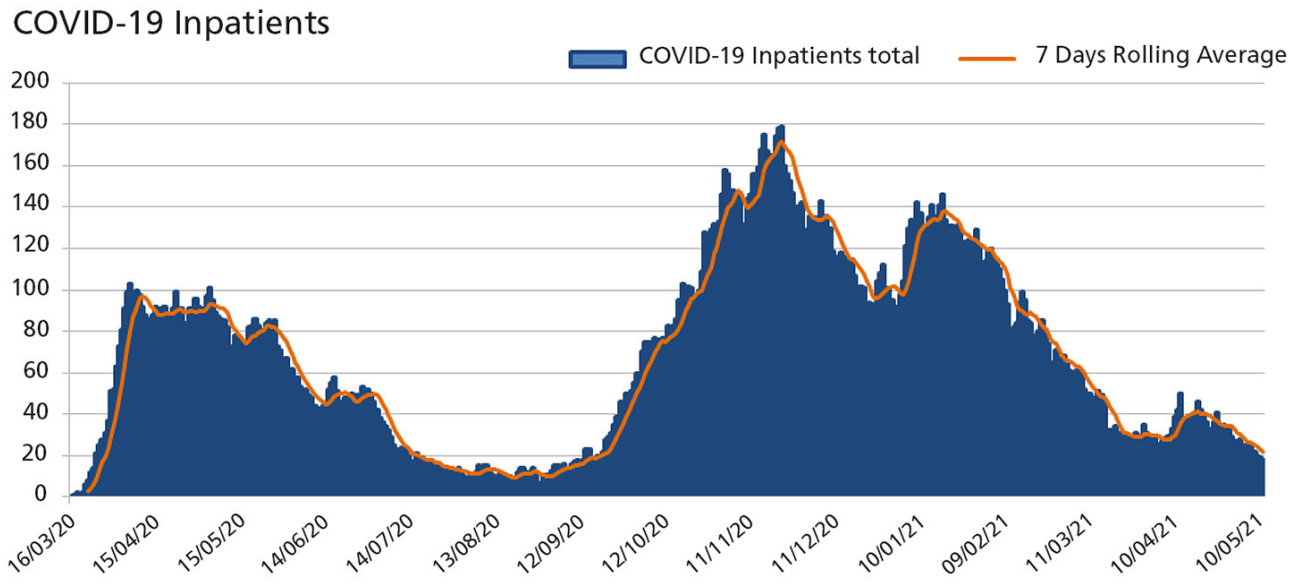


Figure 1 – COVID-19 inpatients at BTHFT

We also saw a reduction in Emergency Department attendances - for example for symptoms of stroke and heart attack – and we responded by issuing communications to reinforce the message that the Trust, along with health and care partners in Bradford, was still open for anyone with urgent health concerns.

We are now planning and putting in place measures to restore and re-start many services and catch up on those procedures and appointments that were postponed.

2.4 The focus on Infection Prevention and Control

The Infection Prevention and Control (IPC) team were pivotal particularly in the early stages of the pandemic in supporting, educating and reassuring staff about the correct and safe use of personal protective equipment (PPE). Many staff were redeployed to many different wards and the IPC team played a role in educating and reassuring these staff that they were performing the correct IPC measures and

were safe. This involved individual staff group, ward and departmental teaching sessions, the development of a PPE educational video, and ward posters with a visual of the recommended PPE required on entry to the ward/department. PPE guardians on the COVID wards were supported by the IPC Team and in the initial stages of the pandemic were distributing PPE supplies until the PPE hub was established.

The team devised tools and posters to disseminate information to patients and staff in visually appealing and clear formatted media. Ideas were proposed and developed with the Medical Illustration Team in very short time scales. Examples of these tools included:

- Donning and Doffing posters
- Ward and department PPE posters
- COVID swabbing technique guide
- COVID cleaning guide
- Staff COVID information poster

The IPC Team carried out extensive outbreak management identifying any new 'pop up' cases in bays with all contacts being tagged with an alert and isolated for 14 days. The thorough management of contacts worked hand in hand with the post infection reviews (PIRs) of all post seven day COVID-19 positive patients. The team completed over 200 PIRs liaising with the ward management staff and risk management team.

The IPC Team were integral to the safe operation of pathways, systems and processes across both clinical and non-clinical areas – this meant supporting all clinical areas to ensure they had safe separate COVID-19/non-COVID-19 pathways. For example, the IPC Team worked closely with the Radiology department including CT and MRI, physically visited and reviewed all outpatients departments, theatres, ICU, Maternity and the Neonatal Unit to ensure safe movement of patients through the departments.

Training and support for PPE including porters, domestic staff and hostesses was provided – this was, and remains, a challenge due to the regular revisions of the national guidance and many professional societies and Royal Colleges produced their own guidance which sometimes conflicted with the national guidance. Collaboration and joint discussion with healthcare professionals across the Trust was a daily occurrence to ensure a consensus of agreement where guidance differed which was supported by the Silver and Gold Clinical Reference Group who provided the multi-professional agreement and collaboration.

The IPC team provided a drop-in fit testing clinic seven days a week in the first lock down which was so successful that they tested over 3000 staff and it supported the development of a fit–testing clinic that is still running as of June 2021. The Trust had a limited supply of respirators and therefore could not give one to each staff member who needed one; plus there was nowhere safe to decontaminate them or store them in wards and departments and a serious concern that staff would put on a contaminated respirator. Therefore we set up a process of decontaminating the respirators in collaboration with the Decontamination Unit and the staff therefore had a clean respirator for every shift. The team purchased and utilised the latest fit testing pressure sensing technology, writing operating procedures to train other staff to be able to fit test. Due to a large number of Muslim staff wearing a hijab the team devised ways of these staff wearing their respiratory protection effectively without compromising their cultural identity and beliefs.

A fluoroscopic peritoneal dialysis catheter insertion service

During the COVID-19 pandemic, a reduction in theatre availability compromised the timely surgical placement of catheters for patients who had chosen peritoneal dialysis (PD) treatment. An innovative ultrasound and fluoroscopy assisted PD catheter insertion technique was introduced in close collaboration with the interventional radiology team. This procedure is performed under local anaesthesia, allowing timely catheter insertion and so ensuring a smooth patient journey towards dialysis commencement.

We also introduced remote monitoring and assessment of peritoneal dialysis patients, allowing proactive team interventions to prevent complications and reduce hospital visits.

What did we learn?

While difficult, our decision to restrict visitors and "lockdown" our hospital sites was essential to help prevent and control the spread of infection. Discussion with community leaders and representatives, including MPs and faith leaders, helped to mitigate some of the concerns, but this was possibly the single most contentious action we had to take during the pandemic. A lot of emphasis was placed on communicating the alternatives to face-to-face visiting and in supporting families to stay in touch through other methods.

The clear and multi-platform communication of this decision and the rationale behind it was essential and engaging stakeholders as early as possible was vital. This level of communication is something we will endeavour to continue and improve in the future.

We will aim to allow increased visiting as the pandemic recedes, adopting a systematic approach to visiting and having a clear and well explained position regarding site access.

Like many other trusts, BTHFT is working on restarting many of the services that were scaled back or cancelled due to COVID-19. For sustainable change, all plans we create need to be based on a system wide response which includes all health and care partners including the independent sector in developing and agreeing new pathways and new ways of working.

"From the outset, the Trust was able to benefit from the skill and experience of its clinical and operational leadership to help deal with a previously unknown and escalating situation."

3. Culture, Leadership and Behaviour

3.1 Decision making

From the outset, the Trust was able to benefit from the skill and experience of its clinical and operational leadership to help deal with a previously unknown and escalating situation. Daily meetings were held, assessments and modelling were carried out and action plans created.

Formal Command and Control structures were implemented involving the activation of strategic, operational and tactical groups focusing on dealing with the pandemic. At the peak of the pandemic meetings were held multiple times a day to highlight and address issues.

The Trust's approach to empowering clinicians led to the creation and successful operation of the Clinical Reference Group (CRG) model. The CRG helped in developing a strong culture of joint professional working ensuring close and frequent communication between clinical and operational teams. It also empowered our senior clinicians to make quick and effective decisions on developing models of care, allowing them to innovate and to be proactive. The CRG has been so effective that we anticipate this approach will continue post-COVID-19 as one of the ways in which the Trust will look to more actively empower clinical leadership in key issues at the Trust.

The Executive Team took the decision to remain on site, highly visible in clinical areas, providing executive leadership seven days per week. This enabled additional support and mechanisms to deliver key messages.

During the pandemic, Trust processes which consisted of various reporting committees and the Board of Directors were suspended. Instead, a Regulation & Assurance Committee comprising all Board members was established to replace the business of all Board Committees. This change was instrumental in relieving some of the administrative burden from the leadership team whilst maintaining robust and transparent governance so that important decisions could be expedited. Meetings were held virtually.

Our clinical leaders were given the freedom to initiate change

Our clinical leaders were inspirational during the pandemic. For example, one clinical director devised a working model where the majority of anaesthetists and theatre staff - who do not normally work in the Intensive Care Unit (ICU) - could be integrated within the ICU team. Individual team members were 'buddied' with other staff who routinely worked in ICU. This included consultants, junior doctors and nursing staff. The team was provided with training on new equipment, and staff felt supported and recognised. This forward thinking model allowed for the expansion of ICU to ensure there was adequate capacity at the Trust for the most seriously unwell patients. It also meant that teams were able to develop new treatment regimens such as "proning" where patients were turned to lie on their front to help them breathe more easily.

A drive through service was created at our St Luke's hospital site to reduce risks for staff and for patients collecting their heart or sleep monitoring devices.

What did we learn?

Leadership and working models can be changed rapidly and become more agile without compromising good governance; the newer streamlined processes provided a more flexible structure in which to operate. This was met with positive feedback from across the Trust and has given us a strong evidence base to explore how our post-COVID-19 governance will work and how we can make sustainable changes to working and governance models.

"As part of the national response, the Government requisitioned all of the usual Personal Protective Equipment (PPE) supply channels at the outset of the pandemic."

4. Procurement

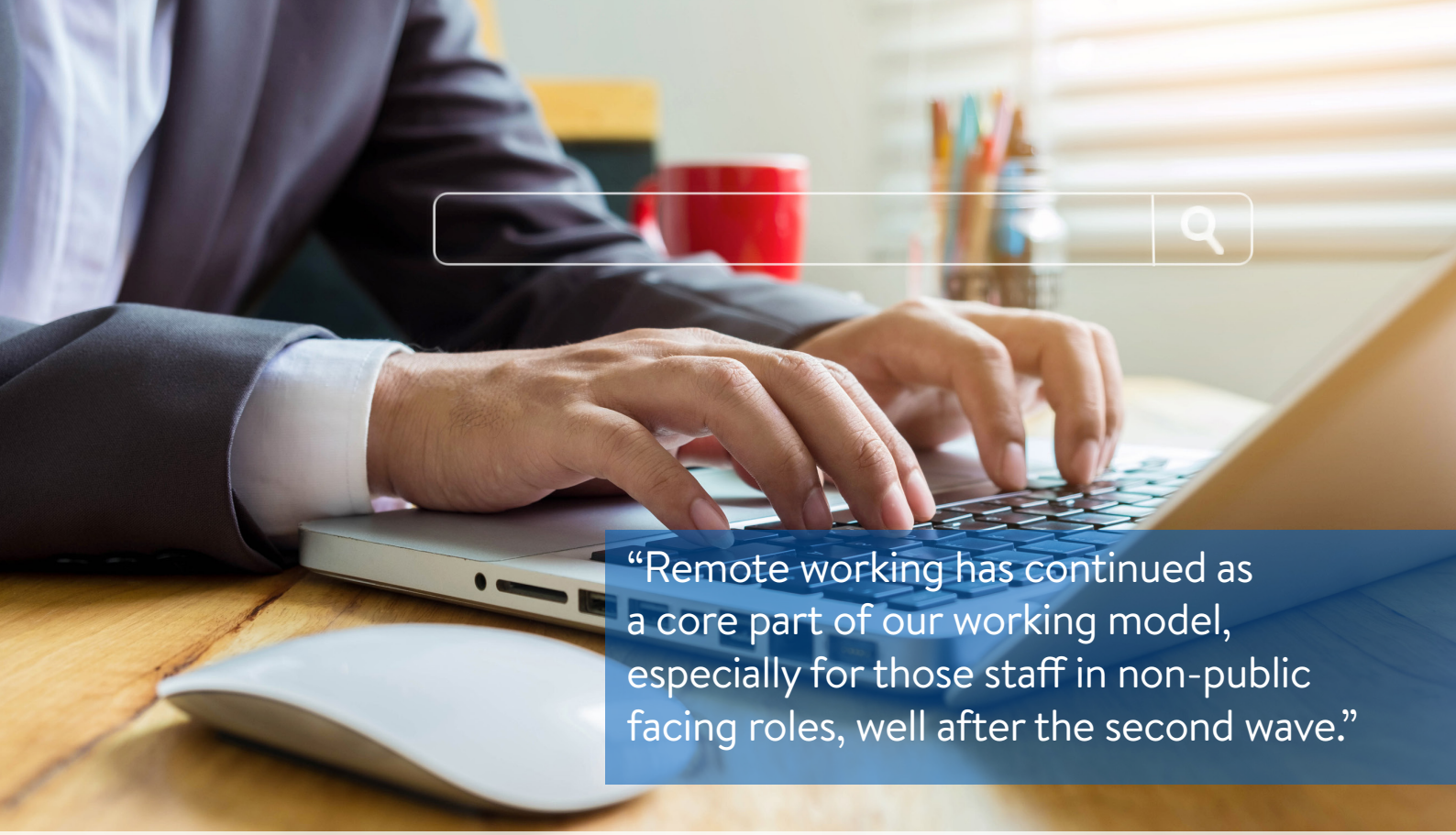
4.1 A national challenge

As part of the national response, the Government requisitioned all of the usual Personal Protective Equipment (PPE) supply channels at the outset of the pandemic. This was to centrally manage the supply and distribution of PPE for the UK health and care system as a whole. Therefore, instead of 'pulling-in' the supplies we required, we received supplies that were 'pushed-out' to us from the centre via a combination of Government departments and bodies.

Given the massive and sudden increase in worldwide demand for PPE, the availability of PPE was subject to significant supply-side constraints, though the situation eased over the course of the year as manufacturing capacity increased to meet the additional demand. Our internal PPE hub ensured the fair distribution of PPE and provided fit-testing of specialist equipment important to keep our staff safe. The hub also offered expert clinical advice on PPE and infection control as well as emotional, health and wellbeing support. This was originally undertaken in the first wave by the Infection Prevention and Control Team and then as preventing nosocomial transmission of COVID-19 required priority, a team of redeployed staff took on the responsibilities and developed a robust fit-testing programme.

What did we learn?

We never ran out of stock. However, in the early part of the pandemic PPE supplies from national contingency stockpiles were not always predictable. In light of the international shortage of PPE and the fact that our normal supply routes were being managed centrally, ensuring that the Trust had an adequate supply of PPE was extremely difficult. As a result, a board was established comprising senior individuals from across the West Yorkshire Health & Care Partnership (WYHCP) to provide a forum for communication, escalation and resolution of common PPE related issues via mutual aid. This is an approach that could be adopted in the future, especially in light of the further ongoing development of the WYHCP as a formal Integrated Care System.



5. Digital Services

5.1 Enabling the workforce

At the beginning of the pandemic the Trust had a system in place to allow staff to work from home when required. However, the capacity of this system was limited with less than a hundred staff able to access the network to do so; given that we have 5,800 staff this was inadequate. National guidance to the general population in the pandemic mandated that people should work from home where possible. This created a significant challenge for the Trust and has led to a significant cultural change especially for the section of our workforce undertaking non-public facing roles.

Our Informatics team undertook a great deal of work to allow for increased home working. Multiple challenges were met including the sourcing of a great number of additional laptops at a time in which the global demand made equipment scarce. Informatics also improved the Trust's network infrastructure to allow for all staff to access the network remotely, removing the capacity problems that had previously existed. As a result, many teams were able to work remotely, often full time but with some staff splitting time at home with time in the office. Remote working was supported further by the publication of our refreshed Home Working Policy. Remote working has continued as a core part of our working model, especially for those staff in non-public facing roles, well after the second wave.

5.2 Connecting patients with loved ones

Whilst we developed the Relatives Line in response to our visiting restrictions we also utilised electronic devices to help families keep in touch with their loved ones. Wherever patients were unable to use smart devices or their families did not have them we supplied tablets for relatives to use in specific dedicated rooms (the A&E Family Room and the Bereavement Meeting Room) in the hospital. Wards could connect to those units from their existing tablets using services such as Skype.

Patients with their own device were encouraged to use standard apps such as WhatsApp and FaceTime to connect with family and friends.

Relatives Line

During the pandemic we had to almost entirely suspend hospital visiting. We recognised that this would cause a great deal of anxiety for people with loved ones on our wards. To combat this, we set up a dedicated telephone information line which relatives could use to obtain updates on the condition of their loved ones.

This telephone line also operated in such a way as to support our ward staff - many of them wearing full protective equipment - to care for patients without interruption. Critically, the Relatives Line bridged the gap between families and their loved ones.

5.3 Video and telephone consultations and virtual services

Prior to the pandemic, the vast majority of outpatient consultations were face to face. There had been limited engagement with clinicians about the potential for remote video consultations and the use of virtual services, and there was reticence in some areas regarding their use.

On 27th March 2020, NHS England/ Improvement issued a specialty guide regarding "Virtual Working and Coronavirus" and suggested that virtual video consultations may be appropriate in certain scenarios. At the Trust, we took the opportunity to work with clinical teams to pilot video appointments and then embed the approach more comprehensively.

In addition to this, the Trust had, for some time, been delivering some services virtually particularly by using technology to monitor patients at home. This often allows patients to either leave hospital sooner or be seen in the community and avoid attending hospital at all. Further use of this technology was also piloted.

The pandemic has changed the way many patients and clinicians view healthcare provision and has spurred the adoption of technology and patients now see many more of the benefits of their healthcare delivered at home.

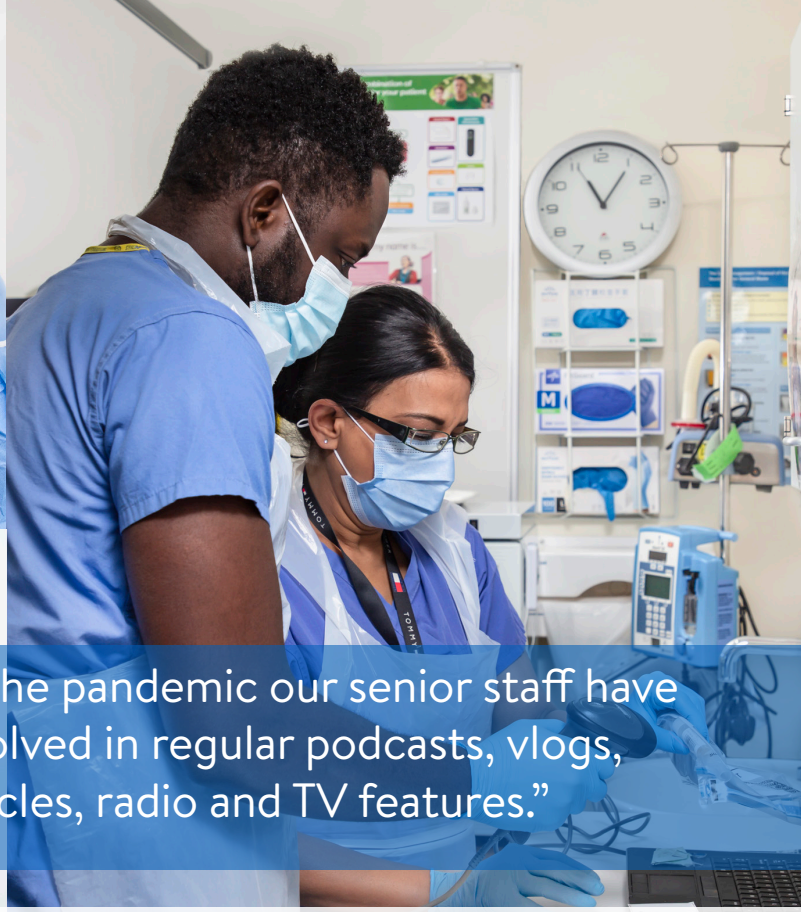
The use of technology to deliver services at home – TytoCare

Shortly before the pandemic, the Trust became the first provider in the UK to partner with TytoCare - an all-in-one device that can be used to provide on-demand, remote medical examinations. TytoCare is used by our paediatric respiratory team to perform clinical grade monitoring and examinations remotely to some of our children and young people with chronic respiratory conditions like primary ciliary dyskinesia and cystic fibrosis. Children and young people with these conditions were particularly vulnerable during the pandemic. Using TytoCare allowed us to care for these patients without them having to leave home to attend hospital.

These pilots of video, telephone and virtual services were successful and were largely popular with patients and clinicians. As a result, the pandemic has acted as a catalyst for the use of technology and the development of telemedicine and virtual services at the Trust.

What did we learn?

Pre-COVID-19, we strove to provide the best services and the best working environment, largely within the physical constraints of our existing buildings. Like many Trusts prior to the pandemic we saw patients and their families in person and it was presumed that many of our non-clinical staff would be office based. However, we now have multiple teams working from home where possible and a number of specialties with a growing element of their services being delivered digitally or virtually. The success of these services has led the Trust to commission a programme of work to oversee and coordinate the development of digital and virtual services on a far wider scale for the benefit of patients. We aim to provide our secondary care services in non-hospital settings wherever this is clinically appropriate. Our shorthand for this work is the "Virtual Royal Infirmary".



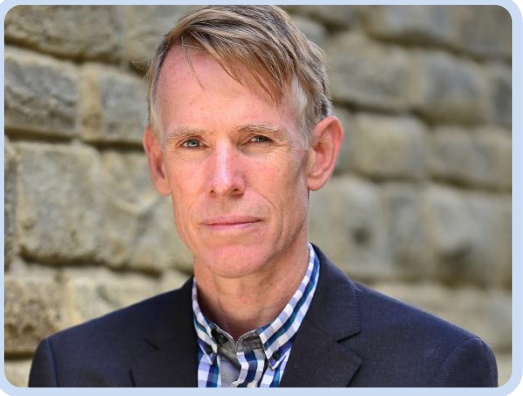
"During the pandemic our senior staff have been involved in regular podcasts, vlogs, news articles, radio and TV features."

6. Communications and Engagement with a focus on Equality, Diversity and Inclusion

6.1 Our reputation

Nationally and regionally

We adapted our local, regional and national communications to meet the demands of the pandemic. An unintended, but direct, impact of this has been an enhanced profile for the Trust and the city of Bradford. During the pandemic our senior staff have been involved in regular podcasts, vlogs, news articles, radio and TV features. For example, The Coronavirus Doctor's Diary published by Professor John Wright began in March 2020, as a BBC Radio 4 documentary series, and as of April 2021 is still publishing regular articles on the BBC website and airing as an occasional programme on Radio 4. The Trust's maternity unit was also utilised for the filming of a BBC Panorama documentary, Lockdown Babies, while Channel 4 News also created a series of reports highlighting the work of our staff during the second wave. In addition, senior clinicians from our Bradford Institute of Health Research made regular appearances on national and local news reports explaining local participation, in conjunction with the University of Bradford, in relation to vaccine research. To target our ethnic minority communities, we also utilised a number of South Asian local radio stations such as Fever FM and Sunrise Radio for key updates and messages.



Professor John Wright

Dr Chris Day and TV presenter Stacey Dooley during filming for Panorama in June 2020

Locally

Locally, however, we know that some people who were unwell refused to attend or be admitted for an unfounded fear of what the Trust would do to them, or fear of catching COVID-19. Worryingly, the numbers of patients who were presenting at the Emergency Department with symptoms of serious illness, such as cardiac arrest and stroke, were below what we would normally expect. Fewer women were seeking help from the Maternity Unit despite worrying symptoms - people were staying away from our hospitals. This was fuelled by rumours in different communities, for example that we were deliberately harming patients, or that coronavirus was a government scheme to lure in people to repatriate them. With a significant ethnically diverse population and a large amount of misinformation that had already spread, this was a particularly challenging time for the Trust's communications team.

As a result, our external communications were often focused on ensuring patients were informed of changes to visiting arrangements, dispelling fake news and reassuring the public that we were still 'open and here to help' along with colleagues in Primary Care.

Our goal was to provide the public and patients with relevant and up to date information through multiple channels and was largely achieved with the help of local partners and community leaders.

In particular, colleagues within the Trust's Chaplaincy Service played a crucial role in engaging with patients and their loved ones. Due to the restrictions on visiting, members of the Chaplaincy Service played a crucial role in supporting patients and their families. They were often there for those patients who were at end of life, supporting FaceTime calls between patients and their families and provided a range of religious, spiritual and pastoral support.

6.2 Our communications strategy

The Trust's communication strategy had two central strands – communication external to the Trust and communication to staff.

Given the issues highlighted above, our external communications became increasingly focused on our local population. Specifically, we had to ensure that our local communities were kept up to date on the changes at our hospitals. We also had to focus on dispelling the myths, conspiracy theories and fake news prevalent locally on social media.

The initiative focused on enhancing our existing communication channels by increasing their appeal, frequency and reach. The Trust aimed particularly focussed on some of the ethnic minority communities in close proximity to our hospital.

Communications with the local population

We used a series of WhatsApp groups set up by the communities themselves. With the support of our own Head of Diversity and Inclusion, our ethnic minority staff, and the help of Bradford Council and other system partners, the Trust was able to distribute its messages to over 30 local groups. This work was supported by a series of information videos distributed via traditional and social media presented by our staff in a variety of languages to help inform local people of developments at the Trust.

One of our vital links to the local community was the Well Bradford programme. Activity with Well Bradford focused on seeking and promoting engagement with our patients, visitors and communities across Bradford.

Internal communications to staff were equally critical as national guidance on subjects such as symptoms, self-isolation and PPE changed frequently, often at short notice. We were concerned for the health and wellbeing of our staff and accelerated the launch of a new intranet site with a dedicated COVID-19 page to act as central information hub for staff, which quickly became the authoritative repository for staff updates, Standard Operating Procedures and advice and guidance on staff welfare including how to access support. In addition to this, the Head of Diversity and Inclusion facilitated a range of question and answer sessions with all staff across the Trust, in particular staff from ethnic minority backgrounds and those with a disability or any other long term health condition. These sessions were well attended and supported by members of the Executive Team who acted as panel experts who listened and provided reassurance and support on the challenges and concerns raised.

We issued daily email bulletins highlighting key local and national changes and any local developments in our wellbeing services. We also hugely increased the use of video in our communications, including the weekly vlog from the Chief Executive and videos in multiple languages developed and delivered by our own bi-lingual staff and published on YouTube and other social media platforms.

What did we learn?

The Trust took a very early decision to be open and transparent with the local community about numbers of COVID-19 patients in the hospital along with those who had been discharged and those who had died. This daily publication of factual numbers went beyond what some other agencies felt was appropriate but undoubtedly helped reduce some of the fear and suspicion. This data also offered reassurance on the quality of care and staff dedication, reporting the high numbers of patients discharged and a daily update on the numbers of deaths.

While we have made substantial progress in being transparent with our local community, the experience of the last year illustrates the ongoing need to be more agile in our engagement and to ensure that we are able to rapidly pick up on and dispel any incorrect information being circulated on social media. One way of doing this will be to ensure that we are quick to identify the key issues concerning our local population and, working closely with local partners in the health and care system, we provide clear, accurate and easily understood information on those issues.

7. Staff Health and Wellbeing

7.1 Expanding the options

The health and wellbeing of our staff is always a high priority at the Trust. This was especially the case during the pandemic.

Multiple avenues to support staff were launched. A digital Wellbeing Hub was set up and made available to staff which provided hints and tips on mental and physical wellbeing and managing fatigue. Occupational Health information was also provided along with links to sites providing benefits to NHS staff. Links and contact details to other sites and organisations that support staff wellbeing were also included on the hub.

Our Clinical Psychology team also provided a confidential support helpline while our Chaplaincy service gave spiritual and emotional support where needed. The Trust launched Wellbeing Wednesdays – a weekly Trust-wide communication focusing on health and wellbeing. We also received generous donations from the local community, local organisations and businesses which helped to support staff.

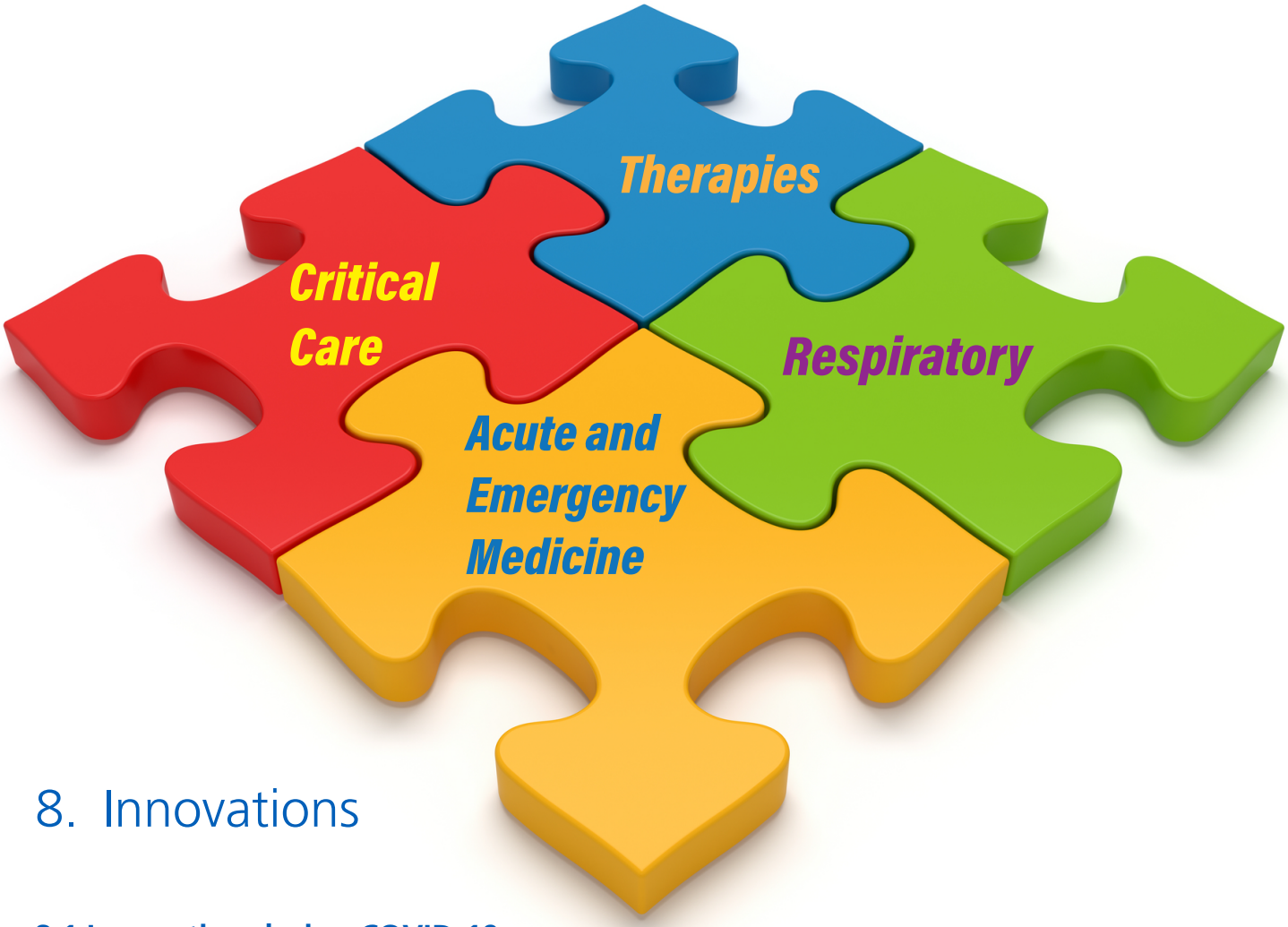
Physical wellbeing was also a focus with staff setting up an exercise group on Strava for staff to join. Free bicycle loans to NHS staff during the COVID-19 outbreak were made available through local organisations and Dolly, our wellbeing dog, was made available for staff to take on walks giving staff a change of scenery, thinking space, and exercise.

Staff welfare – the "wobble room"

Teams across the Trust embraced an idea to set up 'wobble rooms'. In essence, these are private rooms where staff can take a break, have a hot drink, and think about something different. The idea, thought up by one of our consultants, went viral on Twitter and was adopted widely across the NHS.

What did we learn?

The Trust has always valued its staff and placed a significant emphasis on their health and wellbeing. However, during the pandemic we recognised that additional support was required. It is clear that this support will need to continue as our people recover emotionally and physically and as we move forward to restore and restart services. With this in mind the Trust is developing a programme called Thrive aimed specifically at putting in place long term measures to support staff health, wellbeing and professional and personal development.



8. Innovations

8.1 Innovating during COVID-19

Our clinical approach to the management of COVID-19 was developed by a multidisciplinary team comprising critical care, respiratory, acute and emergency medicine and therapies.

Methods of care comprised several elements including awake-proning, escalation planning, and ICU therapies such as Non-Invasive Ventilation on our respiratory wards.

Use of Continuous Positive Airway Pressure (CPAP) machines

One of our core areas of innovation was the use of early CPAP in patients with moderate or severe respiratory failure due to COVID-19. CPAP machines allowed patients to breathe without mechanical intervention. This meant that the condition of many patients did not escalate to the stage where they would need to be put on a ventilator.

Almost a third of COVID-19 patients at our Trust received CPAP. This freed up capacity and allowed Critical Care to focus on those patients that were the most acutely unwell. The service was led by our respiratory physiotherapists and became a beacon of good practice being adopted in hospitals across the country. It is also an innovation that has been shortlisted in the prestigious Health Service Journal Patient Safety Awards 2021 and contributed to the lead consultant being awarded, for his efforts during the pandemic, an MBE.

The innovative drive of our staff also made national news. Our stocks of surgical masks were good at the start of the pandemic, but supplies of more effective PPE masks and eye-protection visors began to run low. A consultant's ingenuity led to him visiting a hardware and building supplies company to buy industrial masks, because the high grade industrial filters were the same as the ones used in medical masks. The Trust was able to order several hundred of these masks and developed a cleaning process in collaboration with the decontamination team that meant we could safely reuse the masks and safeguard against running out of single use FFP3 masks. We also developed a system for cleaning single use visors using steam decontamination.

3D printing was utilised to make adaptors for CPAP machines if these ran short and also adapting snorkelling masks to connect into CPAP machines. Fortunately neither of these needed to be deployed in clinical practice.

This dedication and passion to look for new ways of protecting staff is remarkable but it also typifies the innovative approach adopted at the Trust throughout the pandemic.

It has been exceptionally difficult for both clinical teams and infection prevention and control teams to ensure the tracking of hospital acquired COVID-19 cases, robust surveillance systems and prevention of outbreaks. A solution to the challenge of capturing dynamic data across rapidly changing individual patient pathways and establishing real-time pragmatic surveillance was urgently required and led to the development of a COVID-19 "heat-mapping" surveillance tool.

COVID-19 heat-mapping tool

One of the most notable contributions from our IPC team was their involvement in creating the COVID-19 "heat mapping" surveillance tool.

A small multi-disciplinary task and finish group was formed which included medical, nursing, business informatics, patient safety and health & safety. The aim of this group was to investigate methods for improving the surveillance of COVID-19 cases on a daily basis and to provide alert systems to wards or departments who were reporting increases in confirmed cases and thus highlight potential clusters or outbreaks.

A surveillance tool was developed which allowed the Infection Prevention and Control Team and Clinical Teams to see when and where individual hospital acquired infections and potential clusters were occurring in real time. This allowed swift action to be taken to isolate infections. The tool was so successful that it has been shortlisted for a prestigious Health Service Journal Patient Safety Innovation of the Year award.

The National Institute for Health Research (NIHR) launched five new national patient recruitment centres (NPRCs) in November 2020 to enable more late-phase commercial clinical research to be delivered within the NHS and make it easier for people to take part in research studies. One of these centres is in Bradford and is run by the Trust's Bradford Institute of Health Research. During the pandemic the Bradford centre played a pivotal role in delivering vital COVID-19 vaccine studies, particularly the Novavax Phase 3 COVID-19 vaccine.

A district wide COVID-19 Scientific Advisory Group (C-SAG) was run from our Bradford Institute for Health Research and provided advice on a number of topics to the district. Initially, advice was focused on supporting people (using Born in Bradford data) and later working closely with Public Health colleagues in the Council around reducing inequalities in the vaccine rollout.

What did we learn?

Innovation is embedded within the culture of the Trust and resulted in multiple improvements to the care of our patients. As we return to "normal" it is important that we consider how the governance framework in which the Trust operated during the height of the pandemic, and which was so conducive to innovation, can be sustainably maintained in a post-COVID-19 environment. In other words we will need to explore how we maintain good governance alongside a more agile and responsive approach to patient care in which clinical leadership is empowered and further innovation encouraged. We are currently implementing changes to achieve this as we set about the work to restore and restart services.

"It was clear that the Trust's training programme was effective and allowed redeployed or returning staff to perform their new roles effectively."

9. Education

9.1 Responding rapidly to training needs

COVID-19 resulted in a considerable change to clinical practice in relation to respiratory treatment. It was acknowledged that staff needed the opportunity to practise these changes. For example, simple deteriorating patient scenarios leading to a shockable cardiac arrest were arranged in clinical areas around the hospital for staff to simulate whilst wearing PPE. Following the success of this programme it has been recommended that when a significant change to clinical practice is made this is always reinforced with an in-situ simulation programme.

In addition, a four day programme was designed during the first wave of the pandemic to train staff and give them the opportunity to shadow on the wards. A total of 72 redeployed staff members were trained in this way. Additional training was provided for staff joining the NHS again after retirement.

A significant benefit and strength of this education programme was its rapid deployment. Utilising existing resources and key staff members from across the organisation, the training for the ICU and healthcare assistants was deployed within 48 hours from its approval.

What did we learn?

It was clear that the Trust's training programme was effective and allowed redeployed or returning staff to perform their new roles effectively. Staff trained for the first wave supported the Trust during the second wave in the winter.

We recognise the need to continue to rapidly devise and deliver training programmes to provide flexibility in the allocation and use of staff and we will embed greater use of in situ training.

"During the pandemic, partners across Bradford District and Craven agreed to establish a series of local groups to provide system-wide strategic leadership."

10. Partnership working

10.1 System wide working and support

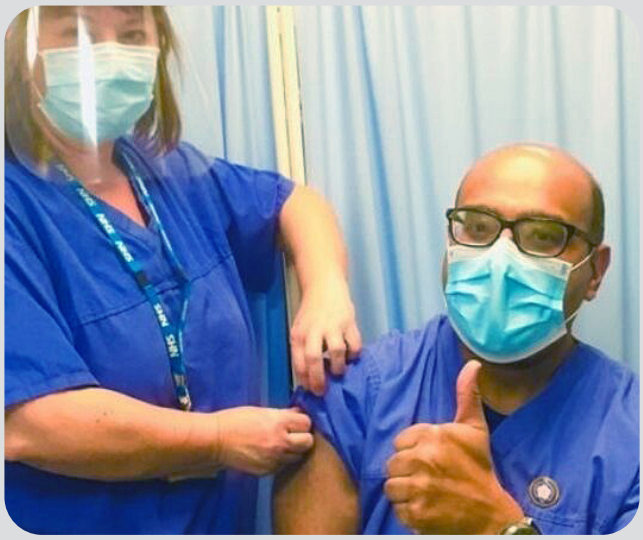
The Trust had already begun to work more closely with partners across Bradford District & Craven prior to the pandemic through the Act as One programme which was established to help achieve integrated working on behalf of all local healthcare partners. During the pandemic, partners across Bradford District and Craven agreed to establish a series of local groups to provide system-wide strategic leadership. This approach was mirrored at a West Yorkshire level with existing collaboration and governance groups adopting a new focus on COVID-19 specific issues such as PPE supply and ICU capacity to ensure a collaborative approach aimed at providing mutual aid where necessary.

ACTasONE

The University of Bradford's Working Academy also provided extensive support in relation to digital communications, building on an existing partnership whereby they had supported the rebuild of the Trust website and intranet. Working Academy support became increasingly vital as our video communications became an even more important channel of communication with the introduction of the Chief Executive's vlog.

Successful Bradford & Craven Vaccination Programme

Using system working across our Bradford District and Craven Place, by 4th June 2021 we had administered over 560,000 vaccinations (split between 1st and 2nd doses). This was achieved by strong collaboration and an enormous effort from colleagues at our vaccination sites, including community, hospital, Primary Care Networks (PCNs) and pharmacy vaccination sites, the CCG, Bradford Metropolitan District Council and other key stakeholders. Key challenges included: vaccine supply, including matching the type of vaccine to those people eligible to receive it, vaccine hesitancy, staffing level issues, and the need for clear and timely communications, with frequently changing national guidance.



A Vaccination Clinical Reference Group, along with supporting groups for Workforce, IM&T, Communications, Finance and Estates enabled a huge amount of work to be completed. Dashboards and heat maps enabled us to identify areas of vaccine hesitancy and we responded early, with a Vaccination Equalities Impact Action Group, and a COVID-19 Support Hub (based at the Council), and other initiatives by the vaccination sites to design targeted interventions, with 'pop up' clinics, 'Q&A' sessions, and vaccination bus visits. We were able to measure the impact, and have achieved an increasing rate of vaccine 'take up' within these specific inclusion groups. For example, we were able administer two doses of a COVID-19 vaccination to our Clinically Extremely Vulnerable (CEV) ICHD patients before the end of February, the first UK dialysis unit to do so according to UK Renal Registry reports. This was facilitated by a strong track record of collaboration between the Renal team and local PCNs, whose staff were allowed to visit our dialysis units in Bradford and Skipton to provide in situ vaccinations, which meant that our patients were able to receive timely injections and did not need to risk further breaks in their shielding to visit community vaccination centres.

What did we learn?

Bradford Teaching Hospitals remains an integral part of our wider Bradford District and Craven health and care system. The pandemic has accelerated partnership working and this is increasingly becoming the norm. Progress has been made by all partners as the Act As One programme has become further embedded and channels for working together have been established - a foundation which we are intent on building upon.

11. Communities

11.1 Visiting

We quickly became aware of the disproportionate impact on our communities when we suspended visiting. This caused additional anxiety for families at what was already a harrowing time. With this in mind we introduced end of life visiting to critical care areas before the national directive.

The visits were facilitated by clinicians including psychology staff and offered support, counselling and appropriate PPE checks. This enabled families to say goodbye to their loved one in a supportive and calm environment.

11.2 Supporting diversity

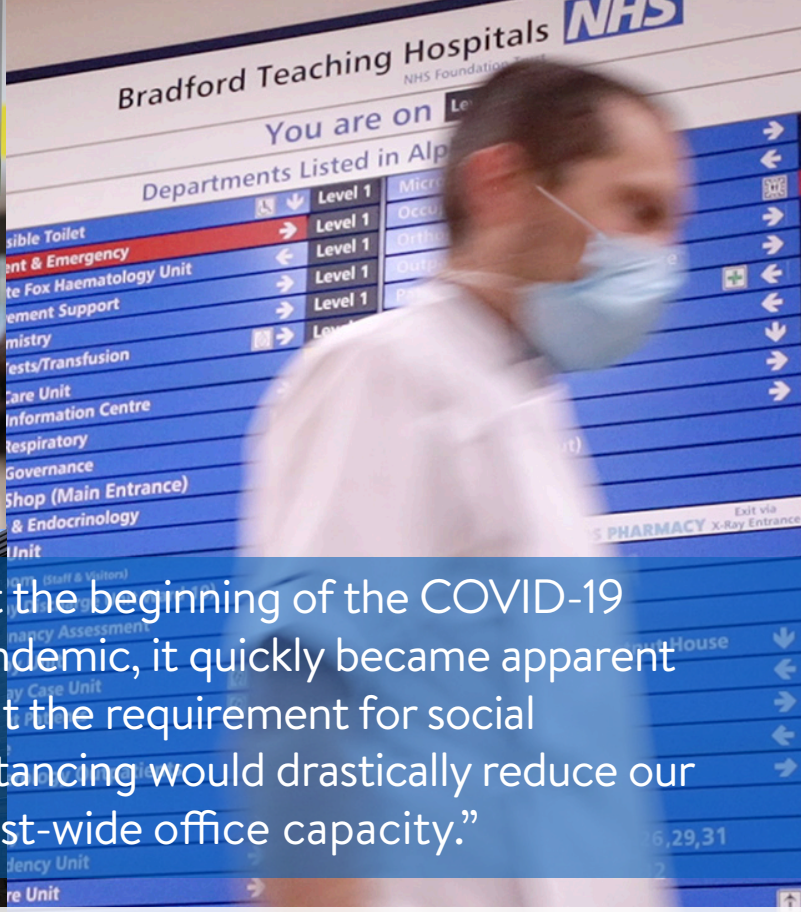
It was clear during the pandemic that our local ethnic minority population and local population were being adversely affected by COVID-19 in a disproportionate way.

As a result not only did we need to model our demand and capacity predictions differently but we also realised that we needed to communicate clearly with staff and with our population regarding the extra risk they faced and the precautions they must take.

Additional risk assessments were put in place for ethnic minority staff with increased focus on engagement via the Trust's Ethnic Minority Staff Network. We also used our contacts with community groups to provide the local population with additional information.

What did we learn?

We now have an increased focus on patient and public involvement whereby workstreams linked to community engagement from around the Trust are more coordinated to deliver a cohesive approach to community focused communications.



"At the beginning of the COVID-19 pandemic, it quickly became apparent that the requirement for social distancing would drastically reduce our Trust-wide office capacity."

12. Capital, Estates and Facilities

12.1 Safe working

During the pandemic we had to ensure that both our clinical and non-clinical staff were working safely and that we were all following national guidelines on social distancing. Clinical best practice as overseen by the Clinical Reference Groups went a long way to ensuring that clinical staff were protected as far as possible.

However for non-clinical staff, a Safe Working Group (SWG) was set up to ensure safe working in non-clinical areas in line with the government safe working guidance issued in May 2020 (https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19). As the work of the SWG progressed, joint working with clinical areas and operational management became more common.

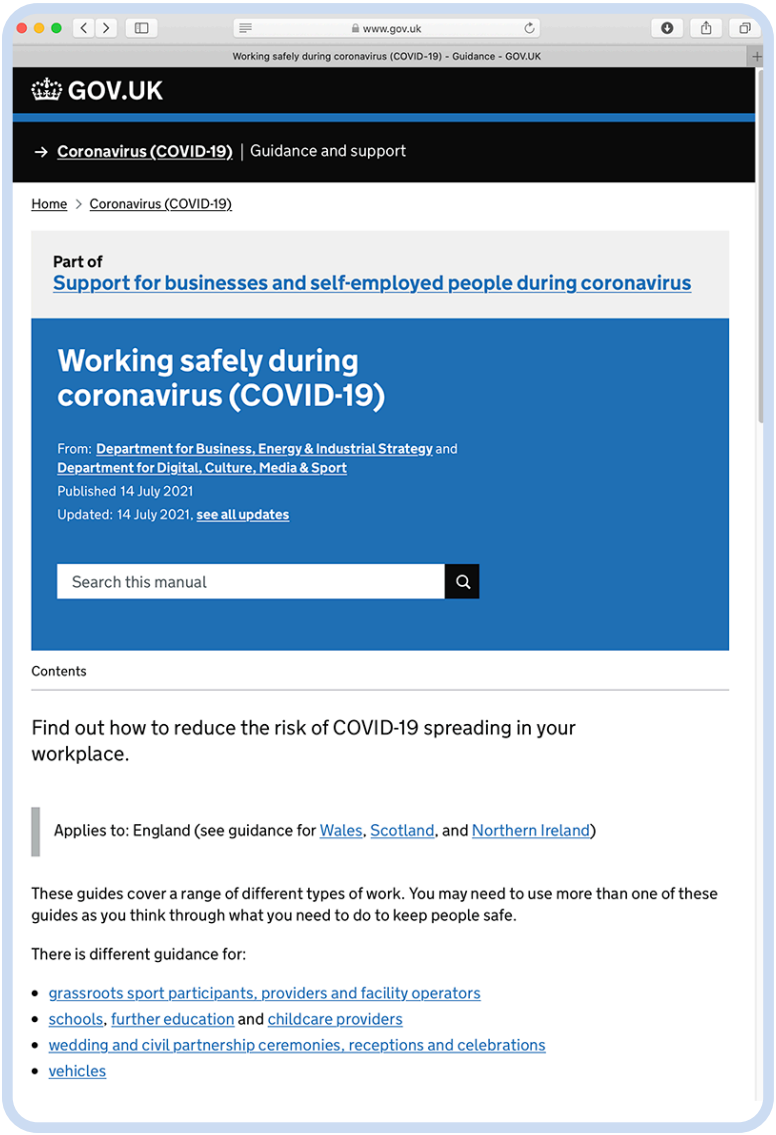
Self-assessments specifically for clinical and non-clinical areas were developed with input from specialist staff and were issued to the relevant Clinical Business Unit General Managers and delegated Corporate Leads with a comprehensive guidance pack in June 2020. Completed assessments were received at a central point, collated and quality checked. Where areas were self-assessed as COVID-19 secure, a safe working certificate was issued. A programme of spot checks was then used to verify the rigour with which self-assessments had been undertaken.

At the beginning of the COVID-19 pandemic, it quickly became apparent that the requirement for social distancing would drastically reduce our Trust-wide office capacity. This was confirmed by a high level review undertaken in March 2020 which suggested that COVID-19 could reduce our capacity by as much as half.

The immediate impact of this reduction in capacity was mitigated by many members of staff either working from home or undertaking alternative, non-office-based, roles across the Trust. An example of this was seen in the administrative offices at Daisy Bank where a significant number of staff in corporate functions worked remotely, either attending the Trust on a rota basis or in some cases fully working remotely. In the first wave this allowed a significant number of Dietetics staff to be relocated out of accommodation in clinical areas into the space vacated by Finance team members.

This is an arrangement that is still in place over 12 months later and has recently been extended to allow staff in unfit accommodation to be relocated. Alternative ways of working have been developed and implemented. Further work is underway to develop these methods of remote working and hot desking and to explore adopting them on a more permanent basis.

In terms of our Estate, a site reconfiguration and modelling group was established to identify any necessary immediate and medium term alterations in Estate arrangements to meet the changing demand posed by COVID-19. Instances of reconfiguration include the development of an isolation suite in our Accident and Emergency department and the creation of "super-green" capacity for elective patients within the existing Estate.



12.2 Oxygen considerations

In pre-COVID-19 times the use of oxygen was widespread across the Trust but demand was previously nowhere near the level required as the pandemic unfolded. Our piped oxygen infrastructure whilst designed to deliver oxygen across the Trust was sized to allow the pressure to be maintained during typical use pre-COVID. Once demand increased, it became apparent that the diameter of the oxygen pipework would not allow the increased oxygen flowrates to be met without falls in pressure that would risk the failure of oxygen therapy equipment. This situation was common across the country.

A main limiting factor was the maximum flowrates from the oxygen vacuum insulated evaporator (VIE) stores on site. Estates worked with NHS England and Improvement to increase our capacity by installing an additional VIE on the Bradford Royal Infirmary site. This allowed the site to be supplied from two areas and this reduced the demand from a single point.

Our Estates team also developed an oxygen calculation tool which allowed clinical staff to quickly determine demand on their local system. It allowed them to calculate the current flow based on the number of patients on different medical devices. This gave the Trust oversight on areas approaching their limits and allowed the site team to take action to reduce demand before low pressure alarms sounded.

Additionally, our award winning Command Centre had oversight of capacity and demand of oxygen use across the site. This information was used to ensure that all patients were managed in the appropriate setting and when deciding to open additional ward capacity or alter the function of a ward.

The use of CPAP machines, as referenced earlier in this document, also reduced the demand for piped oxygen.

12.3 Working with partners to increase operational capacity

Selected cancer services at BTHFT were temporarily relocated to our local independent sector provider, Ramsay Yorkshire Clinic, to protect high-risk patients during the COVID-19 crisis and continue delivery of timely diagnosis and intervention. Chemotherapy delivery and the Phlebotomy service (blood) for Haematology and Oncology patients, as well as Haemophilia services also relocated to the clinic. Haematology and Medical Oncology cancer services from Ward 16 at Bradford Royal Infirmary operated as normal from the Yorkshire Clinic site along with the transfer of all Breast Surgery and elements of Head and Neck Surgery, Gynaecology, Urology and Plastic surgery. In addition, the transfer of endoscopy to the Eccleshill Treatment Centre and the Yorkshire Clinic provided BTFHT with the internal capacity to focus on Cancer diagnosis.

In addition to cancer care a collaborative relationship with Airedale NHS Foundation Trust, independent sector partners and the local Clinical Care Group (CCG) has allowed access to additional capacity for clinical priority cases throughout the pandemic and now as we recover the same relationship will help us to deliver care for patients that have been waiting the longest for surgery.

Installation of additional haemodialysis facilities in BTHFT

During the first surge of the Covid-19 pandemic, in collaboration with Estates, IPC and ICU colleagues, our Renal team secured the early introduction of essential new water installations, separator tanks and reverse osmosis units in key BRI locations. These were vital in ensuring the availability of life-saving in situ haemodialysis treatment for Covid positive patients in Bradford throughout the pandemic, not least on ICU because of a short supply across the UK of consumables for other more traditional forms of dialysis treatment. It also meant that these consumables could be directed through a national mutual aid programme to other centres with more limited access to haemodialysis facilities. The effectiveness of our approach at BTHFT has been acknowledged by NHS England and NHS Improvement.

What did we learn?

The complexity and age of our estate provided many challenges in ensuring the safety of patients and staff. Ultimately, many tasks were carried out in parallel - office swaps, enabling remote working, restricting access and providing services off site. However, whilst some changes will be permanent (e.g. increased remote working, new facilities for Haematology and Oncology) others will be temporary and we will need to reconsider our Estate needs as a Trust and as a Bradford District and Craven Place.

Consequently the Trust is currently working with partners across Bradford to develop an Estates strategy for the District and for the Trust. A key element will be to make a case for a new acute teaching hospital for Bradford.

"As we move beyond what we believe to be the peak of the pandemic, we look forward to using the lessons we've learned to secure better services for our population."

13 In Summary

Handling each new challenge during the pandemic from the planning stages to our current position was only achievable through the collective efforts of our people, communities and partners. Our people were instrumental in delivering many new and innovative ways of dealing with COVID-19 and their endeavours are still benefitting patients locally, regionally and nationally. The community, including local businesses, made it possible for us to have effective conversations on how best to approach the diverse, multicultural and multi-faith population – an approach which we will continue to implement and improve upon. The mutual respect between the Trust and its partners was evident and the need to focus on improving the lives of the Bradford and Craven population, and reducing inequalities, was further highlighted, with each system partner playing a key role in the prevention and treatment of, and vaccination against, COVID-19.

The lessons learned cannot be overstated. There are many aspects to improve including our engagement with communities, optimising the use of our estate, collaborating with our partners, exploiting the learning from research and, overall, ensuring that we are closely aligned with the needs of our population.

As we move beyond what we believe to be the peak of the pandemic, we look forward to using the lessons we've learned to secure better services for our population. Our intention, as an NHS organisation, has always been to deliver the principles of the NHS Constitution. We hope the content of this document does some justice to the collective efforts undertaken since January 2020 and, as per the Constitution, we hope that our determination is clear - to put the patient at the heart of everything, as we've done throughout the COVID-19 pandemic.


RISK


NHS
Bradford Teaching Hospitals
NHS Foundation Trust
DOLLY
--
Trust Well-being Dog


BTHFT
NHS
IN RECOGNITION OF YOUR HARDWORK
2020


Thank You
You are Amazing


Thank You NHS
THANK YOU


NHS
Bradford Teaching Hospitals
NHS Foundation Trust
Tracy Lamb


NHS
Bradford Teaching Hospitals
NHS Foundation Trust
A TOKEN OF APPRECIATION FOR YOUR HARD WORK DURING 2020