Journal of Surgery
2022; 10(1): 27-33
http://www.sciencepublishinggroup.com/j/js
doi: 10.11648/j.js.20221001.16
ISSN: 2330-0914 (Print); ISSN: 2330-0930 (Online)

Delivering Urgent Elective Surgery at a COVID Clean Facility During Phase 1 of the UK Lockdown and Developing a Contingency Plan for Potential Future Waves

Shafaque Shaikh*, Lok Ka Cheung, Shanju Rai, Thenmalar Vadiveloo, David Lawrie, Abdul Qadir

Department of Surgery, Aberdeen Royal Infirmary, Aberdeen, UK

Email address:
shafaque.shaikh@nhs.scot (S. Shaikh)

*Corresponding author

To cite this article:
Shafaque Shaikh, Lok Ka Cheung, Shanju Rai, Thenmalar Vadiveloo, David Lawrie, Abdul Qadir. Delivering Urgent Elective Surgery at a COVID Clean Facility During Phase 1 of the UK Lockdown and Developing a Contingency Plan for Potential Future Waves. *Journal of Surgery*. Vol. 10, No. 1, 2022, pp. 27-33. doi: 10.11648/j.js.20221001.16

Received: January 1, 2022; **Accepted**: January 25, 2022; **Published**: February 9, 2022

Abstract: Background: The COVID-19 pandemic has resulted in unprecedented disruption in the delivery of elective surgical care and fears of ongoing waves exist. Our organisation explored a model of care to enable safe delivery of urgent elective surgical care for the diagnosis of cancer across various specialties. This study presents the results of this model and the development of a contingency plan for a future wave of the COVID-19 pandemic. Methods: Early on during phase-1 of the UK lockdown, a clean facility fit for–purpose for delivering elective surgical care was identified and measures implemented to ensure safety across the process. Results: A total of 499 patients were booked between 20/03/2020 to 18/06/2020 (Phase-1), 44 were cancelled because 7 developed symptoms of COVID-19 pre-operatively, household members of 2 patients became symptomatic, 4 failed to attend and 31 were unsuitable due to co-morbidities. There was no mortality at 7 or 30 days. Twenty two patients developed complications post-operatively, 4 required escalation of care, 5 required transfer to the parent site, 13 were readmitted and 4 required a re-operation. None of the patients developed COVID-19 in the post-operative period up to 30 days. Thirty-one patients developed symptoms suggestive of COVID-19 all of whom tested negative on a swab test. Overall, patient satisfaction was good. Conclusion: It was possible to safely deliver urgent elective surgical care at a COVID clean facility in our population. This strategy may facilitate the continued delivery of urgent elective surgical care during potential further waves of COVID-19 pandemic or similar future health crisis.

Keywords: COVID-19, Surgical Care, Elective, Clean Facility, Contingency Planning

1. Introduction

The Sars-Cov-2 related COVID-19 pandemic has triggered the adoption of unprecedented approaches across the globe at a very short notice. Reaction time had to be very swift across healthcare and as a result, all elective activity was suspended to prioritise delivery of safe emergency service as well as to minimise undue risk of exposure to this cohort of patients.

Understandably, concerns exist around the implications of suspending elective activity for an unknown period of time. A recent study estimated around 81% cancellation rate for benign elective operations and just under 40% cancellation of cancer operations. [1] This implies a significant healthcare burden arising as a result of these cancellations. This becomes all the more relevant in the context of patients diagnosed with cancer.

Cancer surgery was performed mainly in hospitals that also sustained acute medical services. [2-4]

During the COVID-19 pandemic, hospitals have admitted patients with COVID-19, therefore increasing the risk of COVID-19 infection of elective surgery patients. [5, 6] Peri-operative SARS-CoV-2 have been shown to have a high risk of pulmonary complications and death. [7-10]

NHS Grampian is a Scottish Health Board caring for a population of 2.5 million. The intensive therapy unit (ITU) at Aberdeen Royal Infirmary (ARI) which is a tertiary care centre, also provides an ECMO (extracorporeal membrane oxygenation) facility. The reconfiguration of services in response to the COVID-19 pandemic involved a step-wise plan in response to

the volume of COVID-19 patients as the pandemic evolved.

ARI being a tertiary care centre, the significant aspect of the surgical elective workload included cancer surgery for several specialties namely Plastics, Head and Neck, Urology, Gynaecology and General Surgery. Colorectal cancer, the second most common cancer in Scotland and breast cancer comprise the 2 major general surgical cancer workload.

A nationwide lockdown was declared on the 20th of March 2020. The focus around this period was to ensure the safety of patients and staff at NHS Grampian from the context of the COVID-19 pandemic.

However, even at this early stage, thought was given to elective activity and discussions initiated around the identification and establishment of a COVID clean site for allow for continuing some level of elective surgical activity.

This study presents the early outcomes of such a facility and defining the principles of a contingency plan in anticipation of a future wave of COVID-19 to combat challenges if the circumstances become insidious.

2. Methods

2.1. Site Identification

NHS Grampian covers a geographically challenging topography often involving several miles of travel for patients to access relevant care. The main services delivered are located in Aberdeen city where the health board has 2 sites delivering clinical care, namely a main tertiary site (MTS) and an auxiliary site (AS). The scope of work at MTS has been briefly alluded to in the introduction section. AS is a satellite facility delivering elective orthopaedic activity and rehabilitation facilities alongside care of the elderly. Besides these facilities, there is another private facility (PF) managed by BMI healthcare which has theatres, however, lacks level 2 plus care. Unlike AS however, PF was identified as potentially clean site to process the most urgent elective activity and arrangements were secured to facilitate this.

2.2. Disease Selection

Cancer diagnoses were prioritised and certain high volume specialties identified namely Plastic surgery, Urology, Gynaecology, General Surgery. Colorectal cancer and breast cancer were the two general surgical sub-groups identified as having a high priority and feasible to process at the identified facility.

2.3. Procedure Selection

Even though the above specialties were identified, it was only possible to process a certain procedure specification within the available resources. The criteria for selection were defined as either minor procedures, day case diagnostic or therapeutic procedures, procedures involving moderately complex surgical intervention but with a quick post-operative recovery, major abdominal procedures involving right sided bowel resection, nephrectomy, hysterectomy, ovarian cancer surgery. The final category of procedures were sanctioned based on a stringent list of patient characteristics (as detailed below) to avoid any significant post-operative complications.

2.4. Patient Selection

2.4.1. Fitness

Several patient related parameters were defined. Generally only fit and healthy patients with ASA 1 or 2 with a BMI less than 40 were selected unless there were pressing reasons to select patients out with these parameters and it was deemed safe to proceed both the surgeon and anaesthetist.

2.4.2. Screening

All selected patients are symptom triaged and advised to self-isolate two weeks in advance of their procedure date. A swab test is performed around 3-4 days prior to the procedure to confirm COVID negative status. If patients are symptomatic on the day of their procedure, the procedure is cancelled.

2.4.3. Staff Selection

From the very outset, NHS Grampian specified very broad policies facilitating self-isolation for staff in conjunction with testing for staff and symptomatic family members. This allowed for only the asymptomatic, other well staff being redeployed consistently to the clean facility. This includes surgeons, anaesthetists, junior clinical staff and nursing staff. All major procedures were performed jointly as a two consultant case to ensure minimum operating times and smooth progression.

2.5. Outcome Measures

The primary outcome measures was all cause and COVID-19 related in-hospital, 7-day and 30-day mortality with the day of surgery defined as day 0. Secondary outcome measures included length of hospital stay, post-operative complications as per the Clavien Dindo classification, post-operative development of COVID-19, transfer of care to higher centre, escalation of care requiring high dependency or intensive therapy care.

Service review and patient satisfaction:

A prospective database has been maintained of all activity processed at PF since the beginning of the service from 30th March 2020. All patient related outcomes have been recorded. A patient satisfaction survey was built into the service which was performed by means of a telephone follow-up at 30 days from procedure. One of the aspects of this review was to capture data on patients developing COVID-19 symptoms post-operatively but not requiring hospital admission or testing.

3. Results

Data Analysis

Between 30th of March 2020 and 18th of June 2020, 499 patients were booked to have their procedures performed at AH. 44 of these patients were cancelled, 7 of them were unwell prior to their procedure, 2 had a symptomatic relative, 4 failed to attend, 31 were found to be unsuitable for the facility and therefore cancelled (Figure 1).

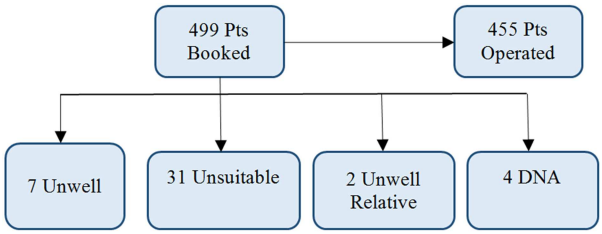

Figure 1. *Patient Selection.*

In total, 455 patients underwent their procedure at AH and these were considered for further analysis (Table 1). Patients undergoing excision of skin lesions underwent the procedure under a local anaesthetic. There were 100 such cases performed and ASA is not documented for these cases, none of these patients developed post-operative complications. Overall activity in the 5 specialities operating in a COVID-free facility is summarised (Table 2).

Table 1. *Illustrates the patient demographics overall and based on specialty.*

Number of patients booked	499
Number of patients cancelled	44
Number of patients undergoing procedure	455
Age (Mean; range)	60.6 years (Range 19-92 years old)
Gender (M:F)	3:7 (119 Male, 336 Female)
Previous COVID positive	0
ASA	
ASA – 1	128
ASA – 2	198
ASA – 3	39
ASA – 4	0
Local Anaesthesia (ASA not recorded)	89
Smoking	25
Diabetes Mellitus	19
Asthma	19
BMI >40	14
Neoadjuvant therapy	10
Immunosuppression	19

Table 2. *Outlines the activity delivered since the beginning of the lockdown at the COVID clean facility.*

A) Overall activity

Duration of study	30/03/2020 to 18/06/2020 (10 weeks)
Number of patients booked	499
Number of Specialties	5 (Breast / General / Urology / Plastics / Gynaecology)
Number of patients undergoing procedure	455
Number of patients cancelled	44
Procedure complexity	41 Minor 269 Moderate 45 Major 100 LA
Approach	Laparoscopic 64 Open 279 Minimal Invasive 111
Diagnosis	
Cancer	228
Precancerous	10
Suspected Cancer	145
Benign	72
LOS (days) [mean; range]	0.8 (Range 0-13 days)

B) Specialty specific activity

Name of Specialty	General Surgery
Number of patients operated	72
Age (Mean; range)	55.4 years (Range 22 -87 years)
Gender	52F 20M
LOS (days) [mean; range]	2.2 days (Range 0 – 13 days)
ASA	ASA 1 – 21 ASA 2 – 43 ASA3 – 8
Procedure complexity	Minor – 3 Moderate – 42 Major – 27
Laparoscopic approach	33

Name of Specialty	Breast Surgery
Number of patients operated	114
Age (Mean; range)	58.4 years (Range 33-85 years)
Gender	114F 0M
LOS (days) [mean; range]	0.6 days (0 -2 days)
ASA	ASA 1 – 47 ASA2 – 65 ASA3 – 2
Procedure complexity	Minor – 1 Moderate – 113
Laparoscopic approach	0

Name of Specialty	Gynaecology
Number of patients operated	94
Age (Mean; range)	58.5 years (Range 23-81 years)
Gender	94F
LOS (days) [mean; range]	1.1 days (Range 0-6 days)
ASA	ASA 1 – 37 ASA 2 – 42 ASA 3 – 13 LA 1
Procedure complexity	Minor – 23 Moderate – 56 Major 15
Laparoscopic approach	28

Name of Specialty	Urology
Number of patients operated	75
Age (Mean; range)	65.9 years (Range 23 – 89 years)
Gender	26F 49M
LOS (days) [mean; range]	0.9 days (Range 0-5 days)
ASA	ASA 1 – 13 ASA 2 – 46 ASA 3 – 16
Procedure complexity	Minor – 14 Moderate – 58 Major – 3
Laparoscopic approach	3

Name of Specialty	Plastic surgery
Number of patients operated	100
Age (Mean; range)	64.4 years (Range 19 – 92 years)
Gender	50F 50 M
LOS (days) [mean; range]	0.0 days (Range 0 – 1 days)
ASA	LA – 100
Procedure complexity	Minor – 100
Laparoscopic approach	0

4. Discussion

The COVID-19 pandemic has caused ongoing disruptions at a global level on nearly every aspect of normal living. There has been a tremendous pressure on health care systems incomparable in recent human history. Our nations entire healthcare system has been mobilised in response, including the requisition of support from private hospitals by the National Health Service (NHS) since March 2020.

In the early stages of Phase 1 of the lockdown, the focus of this was on managing the surge of COVID-19 patients such as to avoid overwhelming the NHS. This involved redeployment of staff and suspending all elective surgical care with a resultant significant negative impact on waiting lists. The most concerning aspect of this was the care of cancer patients understandably causing anxiety to patients and clinicians alike.

Early results from the COVIDsurg collaborative suggested that in a cohort of 250 patients who developed COVID-19 post-operatively the mortality was an astonishing 20% developing pulmonary complications. [11] On the other hand, in COVID positive or suspected patients, the mortality rose to well over 50%. This information added further concern around elective surgical care.

It was felt that whilst there was a need to maintain some level of elective surgical activity, a safe process had to be developed to be able to contemplate the delivery of such a service.

In Grampian, the health board developed stringent mechanisms to identify and maintain AH as a COVID-clean facility including a built-in frequent assessment and evaluation to ensure ongoing safety. The results of the activity delivered was evaluated on a weekly basis and outcomes monitored closely. Changes to include more complex work were introduced based on availability of data from previous weeks supporting the feasibility of this model. This allowed for developing a service model which could be constantly explored for delivering increasing complexity of work until it establishes the highest level of complexity that could be safely delivered.

The early outcomes of such a COVID-clean facility in NHS Grampian in this study have shown promising results with low morbidity, zero mortality and high patient satisfaction across all 5 specialties in 455 patients operated on over 10 weeks at the AH (Table 3, Table 4, Table 5). The majority of these patients (84.2%) either had cancer, a precancerous lesion or suspected cancer, and thus benefited from having urgent treatment in midst of a global pandemic to ensure optimal outcomes. The remaining 15.8% of patients were found to have benign disease and were chosen on the basis of severe symptoms.

The breast team operated on most patients out of the 5 specialties, with 114 patients having an operation in this 10-week period, forming 25% of all patients operated at the AH. The gynaecology team had the second most patients with 94 (21%) patients receiving treatment. With at least 46% of the patient cohort being female with breast and gynaecology pathology, it may be no surprise that there was a female predominance in this study population with M:F (3:7). This may be advantageous to our patients as COVID-19 seems to affect men more than women, possibly due to X-chromosome conferring enhanced immunity or increased expression of immune-related genes. [12]

Table 3. *Illustrates the post-operative outcomes for the overall and specialty specific activity.*

A) Overall activity

N	455
Complications (%)	
Clavien Dindo Classification	
1	4.8% (22/455)
2	
3	
4	
Escalation of care (%)	0.88% (4/455)
Transfer to another facility (%)	1.1% (5/455)
Readmission (%)	2.9% (13/455)
Re-operation (%)	0.88% (4/455)
Mortality	
In-hospital (%)	0%
7-day (%)	0%
30-day (%)	0%

B) Specialty specific activity

Complications	**General Surgery**	**Gynae**	**Breast**	**Urology**	**Plastics**
N	11.1% (8/72)	9.6% (9/94)	2.6% (3/114)	2.7% (2/75)	0
Clavien Dindo Classification					
1	4	4	3	1	0
2	1	4	0	0	0
3	2	0	0	0	0
4		1	0	1	0
Escalation of care (%)	1.4% (1/72)	2.1% (2/94)	0% (0/114)	1.3% (1/75)	0
Transfer to another facility (%)	2.8% (2/72)	2.1% (2/94)	0	13% (1/75)	0
Readmission (%)	8.3% (6/72)	4.3% (4/94)	0.9% (1/114)	2.7% (2/75)	0
Mortality	0	0	0	0	0
In-hospital	0	0	0	0	0
7-day (%)	0	0	0	0	0
30-day (%)	0	0	0	0	0

Table 4. *Represents the in-hospital and community risk of developing COVID-19 in the 30-day post-operative period.*

Post-operative COVID risk	
Symptoms suggestive of COVID-19 without testing (patient reported data)	31
Patients tested for COVID-19	34.3% (156/455) (Pre-operative)
Positive COVID-19 test	0%

Table 5. *Outlines the patients' experience and satisfaction of the service provided.*

Total responses	202/438 responses
Patients concerned about their care	Yes – 99/202 (49%)
Patients felt reassured due to Clean facility	Yes 183/202 (91%)
Patient reported COVID-19 related complications	
Patients requiring:	
A) Hospital admission	20/202 (10%)
B) Hospital attendance with your consultant	4/202 (2%)
C) Attendance at A&E	2/202 (1%)
D) Attendance at GP practice	15/202 (7%)
E) Advice from GP/Hospital over phone	21/202 (10%)
Number reporting Temperature / cough / shortness of breathe after going home	12/202 (6%)
Number tested for COVID	12/202 (6%)
Patient satisfaction from experience of procedure at clean facility	
1 - poor	0%
2 - average	1%
3 - satisfactory	2.5
4 - good	15%
5 - excellent	81%

Plastic Surgery, Urology and General Surgery cases formed the remaining 54% of patients operated on at the AH. Plastic surgery patients had the shortest mean length of stay with 0 days, General surgery patients had the highest length of stay with a mean length of stay of 2 days. This may be due to the difference in complexity of operations and patient selection, with 100% (100/100) of Plastic Surgery cases being minor and performed under local anaesthesia contrast

with 96% (69/72) General surgery cases being moderate or major in complexity. Urology patients had the highest mean age at 65.9 years (Range 23 – 89 years), and was the only specialty who had a mean age of > 65 years in this patient group, fitting one of the risk factors for severe disease and death from COVID-19 infection. [13] Older patients are more likely to have a co-morbidity, thus it is unsurprising to find that this same group of patients had the highest proportion of patients with ASA 3.

As per our knowledge there is currently no known published study exploring the outcomes of maintaining elective surgical care during the COVID-19 pandemic. Whilst data will arise in due course, this study presents an evolving model of care aimed at mitigating the healthcare burden resulting from the suspension of elective activity in response to the COVID-19 pandemic.

Although not directly comparable, complications rates in this study were low across the 5 specialties being 4.8% and < 12% in all specialties. 2.9% of the patients were readmitted, < 1% of patients had escalation of care and re-operation. The In-hospital, 7-day and 30-day mortality rates have been 0% thus far.

5. Conclusion

The implications of stopping life-saving surgery again in any further wave must be avoided by contingency planning now to ensure continuity of service. This includes maximising the use of the independent sector as a COVID-light facility for planned operations and ensuring that NHS patients with time-critical health needs are treated. The results of this study showed evidence of promising results in terms of both morbidity and mortality outcomes and patient satisfaction in such a COVID-light facility at AH within NHS Grampian. In the event of a further wave and unavailability of the independent sector as a support service, a potential second satellite NHS site has been identified with plans to convert it into a COVID-clean facility thus ensuring ongoing delivery of urgent elective surgical care.

Careful workforce planning, Personal Protective Equipment (PPE) stock preparation and availability of rapid COVID testing is required to staff such a COVID-clean facility in-order to be a sustainable service for dealing with a potential further wave and in dealing with the backlog cases cancelled as a result of the pandemic. It has been estimated that NHS services will be disrupted as a result of the pandemic for the next 4-5 years. Pre-COVID, there were 4.2 million patients on the NHS waiting list for elective surgery. It is estimated that this figure will rise to 10 million by December 2020 due to ongoing disruptions to services nationally. [14-16]

Surgical trainees, and junior doctors from across the country have been re-deployed as part of the pandemic response. They have missed out on vital opportunities to train and progress as a result of the pandemic. Trainees cannot be permanently re-deployed, and if this is not addressed, we may lose them from the already highly stretched workforce. Scheduling modifications including an allocated protected time for academic or operative training including at COVID-light facilities can be utilised to empower junior doctors to change usual working practices.

Finally, we need to reassure patients that time-critical operations can be performed safely in a such a facility designed to address these needs. The initial findings from our patient satisfaction survey are very positive, with the vast majority of our patients being reassured by being operated on at AH and the overall patient experience being excellent.

6. Limitations

The results reported here are from a relatively medium intensity region for COVID-19 infection and this was initially part of the motivation to design such a service. The maximum number of COVID positive patients in Grampian requiring ITU care simultaneously around the peak of the epidemic in Scotland (mid-April) was 16. The maximum number of hospital inpatients during the same period was 99 in Grampian. This may have helped in maintaining the COVID clean facility and is possibly reflected in the low risk of post-operative COVID in the cohort of patients in this study. However, the setting presented here also reflects the virus burden experienced by regions of a similar population density around the world and therefore presents a generaliseable model in principle in the event of a future wave.

Streamlined Contingency Planning for Future Wave:

1. COVID-Light facility – Independent healthcare sector (Social Solidarity to deal with crisis);
2. PPE Stock;
3. Testing capability;
4. Sustainable workforce planning;
5. Empowerment, Training & wellbeing of staff to prevent burn out;
6. Reassure patients (Our patients are understandably frightened, and we need to inspire confidence in our patients so that they will seek necessary care to prevent secondary casualties.

Acknowledgements

Rachael Abernethy for helping with data gathering and patient follow-up.

Lynn Smith for helping with data management.

References

[1] COVIDSurg Collaborative. Elective surgery cancellations due to the COVID-19 pandemic: global predictive modelling to inform surgical recovery plans. *BR J Surg*. 2020 Oct; 107: 1440-1449.

[2] Sullivan R, Alatise OI, Anderson BO, et al: Global cancer surgery: Delivering safe, affordable, and timely cancer surgery. *Lancet Oncol* 16: 1193-1224, 2015.

[3] Woo YL, Kyrgiou M, Bryant A, et al: Centralisation of services for gynaecological cancers - a Cochrane systematic review. *Gynecol Oncol* 126: 286-290, 2012.

[4] Faluyi OO, Connor JL, Chatterjee M, et al: Advanced pancreatic adenocarcinoma outcomes with transition from devolved to centralised care in a regional cancer centre. *Br J Cancer* 116: 424-431, 2017.

[5] El-Boghdadly K, Cook TM, Goodacre T, et al. SARS-CoV-2 infection, COVID-19 and timing of elective surgery: A multidisciplinary consensus statement on behalf of the Association of Anaesthetists, the Centre for Peri-operative Care, the Federation of Surgical Specialty Associations, the Royal College of Anaesthetists and the Royal College of Surgeons of England. *Anaesthesia.* 2021 Jul; 76 (7): 940-946. doi: 10.1111/anae.15464. Epub 2021 Mar 18.

[6] Assadian O, Golling M, Krüger CM, Leaper D, Mutters NT, Roth B, Kramer A. Surgical site infections: guidance for elective surgery during the SARS-CoV-2 pandemic - international recommendations and clinical experience. *J Hosp Infect.* 2021 May; 111: 189-199.

[7] Dai M, Liu D, Liu M, et al: Patients with cancer appear more vulnerable to SARS-COV-2: A multi-center study during the COVID-19 outbreak. *Cancer Discov* 10: 783-791, 2020.

[8] Liang W, Guan W, Chen R, et al: Cancer patients in SARS-CoV-2 infection: A nationwide analysis in China. *Lancet Oncol* 21: 335-337, 2020.

[9] Mehta V, Goel S, Kabarriti R, et al: Case fatality rate of cancer patients with COVID-19 in a New York hospital system. *Cancer Discov* 10: 935-941, 2020.

[10] Jonker PKC, van der Plas WY, Steinkamp PJ, Poelstra R, Emous M, van der Meij W, Thunnissen F, Bierman WFW, Struys MMRF, de Reuver PR, de Vries JPM, Kruijff S; Dutch Surgical COVID-19 Research Collaborative. Perioperative SARS-CoV-2 infections increase mortality, pulmonary complications, and thromboembolic events: A Dutch, multicenter, matched-cohort clinical study. *Surgery.* 2021 Feb; 169 (2): 264-274.

[11] COVIDSurg Collaborative. Mortality and pulmonary complications in patients undergoing surgery with perioperative SARS-CoV-2 infection: an international cohort study. *Lancet*. 2020 Jul; 396: 27-38.

[12] Schurz H, Salie M, Tromp G et al. The x chromosome and sex-specific effects in infectious disease susceptibility. *Hum Genomics* 2019 Jan 8; 13 (1): 2.

[13] Jordan RE, Adab P and Cheng KK. COVID-19: risk factors for severe diseases and death. *BMJ* 2020 Mar 26; 368.

[14] NHS Reset For the Future of Health And Care. Getting the NHS back on track planning for the next phase of COVID-19. NHS Confederation 2020 June.

[15] Alderson D and Henderson K. Helping the NHS recover from COVID-19 A joint memorandum from the Royal College of Emergency Medicine (RCEM) 2020 https://www.rcem.ac.uk/docs/Policy/200615_Joint_Memorandum_Commons_HSC_Committee.pdf Assessed on 21 June 2020.

[16] Health and Social Care Committee. Delivering Core NHS and Care Services during the Pandemic and Beyond. UK Parliament 2020 June https://www.parliamentlive.tv/Event/Index/9dcb0e56-5ae5-4566-a1f8-9c7cb5a33c45 (Assessed on 16 June 2020).