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Recovery and Restitution of Critical Care Services during the COVID-19 pandemic

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.

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Recovery and Restitution of Critical Care Services during the COVID-19 pandemic

Pressure on UK ICUs due to the COVID-19 pandemic will continue for many months to come, even as the vaccine reduces transmission rates. A slow recovery phase from the winter 2020-21 wave of infections will be complex and dependent on CRITCON status [1], staffing support and other operational pressures. Sustained use of surge capacity [2] is likely, and will impede recovery by impacting staffing and operational processes. This document provides a list of principles and recommendations for the recovery phase for ICUs.

Background

Outside pandemic conditions, all UK intensive care units work to Guidelines for the Provision of Intensive Care Services (GPICS) [3], a UK consensus standards document covering all aspects of critical care staffing, infrastructure and clinical practice, endorsed by 30 national professional organisations including 7 Royal Colleges. Adherence to GPICS is a cornerstone of patient safety.

During the first wave of the pandemic, 10,938 confirmed COVID-19 ICU admissions and 4,312 deaths were reported. As of the 5 February 2021, 20,675 such patients had been admitted to ICUs in England, Wales and Northern Ireland [4]. Their median length of ICU stay in the first wave was 12 days, well in excess of that of normal critically ill patients. Bed occupancy was thus greater: on 24 January 2021, 5,446 English ICU beds were occupied, compared to 3,423 in January 2020 - the difference of 2023 beds representing the equivalent of 126 extra 16-bed ICUs [4, 5]. Similar increased bed occupancy is reported for Wales (234 beds occupied, 150 baseline) [6, 7] and Northern Ireland (116 occupied, 72 baseline) [8]. Data from Scotland for the second wave are not available currently, but peak first wave data demonstrated 303 beds occupied from a baseline of 203 [9]. UK wide in January 2021, 2251 intensive care beds were occupied above baseline capacity, equivalent to 141 new 16-bedded ICUs [10].

When mapped to the recommended GPICS staffing standards, these **extra 2251** ICU beds would require the following **additional** staff for **every day** (12 hours) **shift**.

187 ICU consultants
2476 critical care nurses, **1238** with a postgraduate qualification
281 junior doctors
225 pharmacists
563 physiotherapists
225 dietitians
225 speech and language therapists.
225 occupational therapists[a]
225 clinical psychologists[a]

a While not specified in Guidelines for the Provision of Intensive Care Services (GPICS), recent data has highlighted the need for parity of these service provisions https://doi.org/10.1177/1751143720988708

These additional **trained staff do not exist**, and the discrepancy is further exacerbated by the pre-pandemic ICU shortfalls in doctors and nurses of 10-15% (allowing for regional variation [11,12]. Staffing shortages for Allied Health Professionals were well documented pre-pandemic, with Clinical Psychology (83%) and Occupational Therapy (86%) having the highest vacancies [11]. Regional variation data is available in Appendix A.

This work has been performed by existing ICU staff, supported by staff re-deployed from other departments, with varying levels of skill and experience. These staff will need to return to their specialty areas as part of local and national recovery plans in a managed fashion so as to not destabilise critical care services. We also need to protect these staff who have contributed to a pandemic response, working outside of their usual specialist areas.

Adherence to the Guidelines for the Provision of Intensive Care Services (GPICS), is fundamental to patient safety, and temporary derogation during pandemic is a necessary but time-limited measure with significant potential for harm to current and future care if prolonged. Therefore, a return to safe staffing levels in line with GPICS should be a priority for critical care services.

Aims

This document will cover 4 key areas:

1. General Principles of a Critical Care Recovery Plan with a focus on: Space and services, Staffing, Specialist Equipment and impact on Scheduled Surgery.
2. A description of the Critical Care recovery phases and definitions. The timeline for this will be unknown at this time but likely to be many months and potentially years (or at least a more significant increase in activity during Winter months than previous years).
3. Criteria and recommendations for each of the described recovery phases. This is not exhaustive but meant as a toolkit to help support trusts transition ICUs back to occupancy relative to baseline of 80-100% whilst balancing the inevitable tensions of increasing productivity in other specialist areas such as planned surgery.
4. Data showing the scale of additional ICU beds opened in January 2021 compared with January 2020. This is compared regionally. It is crucial when reviewing this data to understand that regions will have experienced peak demands at different times and therefore further analysis will be needed for bed capacity and workforce modelling in the future.

Critical Care Recovery and Restitution: General principles

Space and Services

- Many ICUs will have expanded into theatre recovery or operating room areas and general wards because of the need to have certain standards and oxygen provision.
- These expansions are structurally (space, piping, electricity) not optimal and need to be contracted appropriately and as clinical demand allows.
- If some spaces are to be re-designated as Respiratory Support Units, then appropriate infrastructure needs to be put in place.

Staffing

- GPICS standards remain the goal and any deviation must be time limited with a clear strategy for returning to these. There must be:
    - an appropriate governance structure during the period of deviation.
    - a plan to ensure the safety of these temporary models of care.
    - a temporary or permanent increase in staffing establishment to enable more critical care capacity if decompression is not achievable.
- Continuing to deviate from GPICS standards, when no longer required, is likely to have a negative impact on immediate and longer-term retention of staff. This must be taken into account during the recovery phase.
- A recent paper indicates that that after wave one, 1 in 5 nurses and 1 in 7 clinicians working in ICU reported thoughts of self-harm and 45% of clinicians have self-reported symptoms that may lead to a diagnosis of PTSD during the pandemic [13]. Many staff are reporting moral distress working outside of GPICS ratios and staff turnover is increasing, therefore reintroduction of pre-pandemic staff standards is fundamental to wellbeing and productivity and to preventing psychological harm.
- Deviation from pre-pandemic standards may have had as-yet unquantified effects on patient safety, recovery from critical illness, and longer term outcomes, and must not be assumed to be a model for extended implementation.

Specialist equipment

- To address the significant increase in patients, many ICUs have had to use non-standard ventilators, syringe drivers, monitors and other equipment. Priority needs to be given to stepping down the use of suboptimal technologies and training for any new devices.

Scheduled Surgery

- The emergency pandemic response has resulted in a significant backlog of surgical work [14]. This backlog is in addition to new cases added. Scheduled surgery will therefore need to be restarted at the earliest opportunity with provision made to reduce waiting times.
- Decisions on resumption of scheduled work should not delay any critical care recovery plan. It is also recognised that the collateral damage of delayed and life changing surgery is an ongoing burden and ICU services will wish to support the care of these patients.
- Networks will need to provide local guidance and support to ensure a shared regional approach for restarting scheduled surgery, which allows an equitable phased decompression of ICUs and includes the need for repatriations.
- Continued pandemic and increased Winter activity coupled with re-deploying staff back to theatres risks ICUs continuing to operate at well above 100% occupancy relative to baseline with stretched staffing ratios for months and years to come. An urgent service review and investment for temporary and permanent staff is therefore indicated.
- The existing intensive care workforce, including those who have supported from other specialties, will become more fatigued and stressed, with the risk of long term psychological harm and mental health concerns if time is not included for them to take their leave opportunities and recuperate.
- Use of surgical Enhanced Care areas should be optimised to support peri-operative care [15].
- The prevalence of COVID-19 within hospitals should be considered before embarking on lower priority surgery.
- A regional and national multidisciplinary approach is required for a surgical recovery plan.
- Local prioritisation committees should be established and a strategy that meets the needs of patients while making optimal use of existing facilities for elective cases [16].

Critical Care Recovery and Restitution: Phases

Phase 0

- ICU bed occupancy relative to baseline capacity is > 150%. CRITCON 3 or 4
- Staffing outside of GPICS standard
- Unit requires regional and sometimes national support to enable it to decompress if other units have managed to do so already

Phase 1

- ICU bed occupancy relative to baseline capacity has reduced and is maintained at 120 -150%. CRITCON 2-3
- Staffing outside of GPICS standard

Phase 2

- ICU bed Occupancy relative to baseline capacity has reduced and is maintained at 100 -120%. CRITCON 2-3
- Staffing outside of GPICS standard

Phase 3

- ICU bed Occupancy relative to baseline capacity is maintained at 80-100%. CRITCON 0-1
- Staffing GPICS standard achieved

Critical Care Recovery and Restitution: Definitions, Criteria & Recommendations

Critical Care Recovery and Restitution: Phase 0

- ICU bed occupancy relative to baseline capacity is > 150%.
- CRITCON 3 or 4.
- Staffing outside of GPICS standard.
- An ICU requiring regional or national support to enable it to decompress. This may be through mutual aid transfers or supporting surgery to minimise delays in priority 2 (and ultimately all) surgery requiring a post-operative intensive care bed.
- Continued use of surge Respiratory Support beds outside of critical care should be considered as a red flag sign that ICUs are unlikely to be ready for phase 1 recovery.

Critical Care Recovery and Restitution: Phase 1

PHASE 1 RECOVERY	ICU bed occupancy relative to baseline capacity has reduced and is maintained at 120 -150%. CRITCON 2-3. Staffing outside of GPICS standard.	
	CRITERIA	RECOMMENDATIONS
Space and Services	One or more surge ICU pods able to close and able to use the most appropriate areas for cohorting, oxygen provision and reducing the impact in theatres. Reliance on uncommissioned Respiratory Support Units.	
Staffing	Dependency on redeployed staff from other areas. Annual leave not restricted. Study leave may be restricted.	Local and regional decision to temporarily or permanently increase staffing to bridge staffing gaps. Regularly monitor staff wellbeing, to include PTSD screening based on guidance NG116 [17].
Specialist Equipment	Reliance on non-ICU ventilators.	Review equipment, drugs and supplies.
Scheduled Surgery	Disruption of non-emergency surgery.	Local prioritisation committees should be established and a strategy that meets the needs of patients while making optimal use of existing facilities for elective cases. Regional support on a networked basis, via an interconnected system of providers.

Critical Care Recovery and Restitution: Phase 2

PHASE 2 RECOVERY	ICU bed Occupancy relative to baseline capacity has reduced and is maintained at 100 -120%. CRITCON 2-3. Staffing outside of GPICS standard	
	CRITERIA	RECOMMENDATIONS
Space and Services	Further ICU pods closed but still not back to baseline ICU footprint. Reliance on uncommissioned Respiratory Support Units unusual.	
Staffing	ICU staff still required to perform additional (extra-contractual) shifts. Annual leave not restricted. Study leave not restricted.	Local and regional decision to temporarily or permanently increase staffing to bridge staffing gaps. Regularly monitor staff wellbeing, to include PTSD screening based on guidance NG116.
Specialist Equipment	Non-ICU ventilators rarely required.	Review equipment, drugs and supplies stock.
Scheduled Surgery	Disruption of non-emergency surgery.	Phased opening of operating theatres. Optimise use of enhanced peri-operative care facilities.

Critical Care Recovery and Restitution: Phase 3

PHASE 3 RECOVERY	ICU bed Occupancy relative to baseline capacity is maintained at 80 -100%. Critcon 0-1. Staffing GPICS standard achieved	
	CRITERIA	RECOMMENDATIONS
Space and Services	Critical care footprint returned to baseline. Uncommissioned Respiratory Support Units closed or fully commissioned under a standards-compliant Enhanced Care model.	Ensure local pandemic escalation planning document, including oxygen schematics archived appropriately.
Staffing	Pre-pandemic GPICS standards achieved for nursing and medical staff (including practitioners). Pre-pandemic GPICS standards achieved for all Allied Health Professionals. Annual leave (including time off in lieu) not restricted. Study leave not restricted. No interruptions to training modules. Staff are no longer required to work extra-contractual hours.	Staff, particularly those redeployed to ICU during the pandemic, should have opportunities for ongoing cross skill training in Intensive Care to enhance their knowledge and build resilience into the system. Rotational posts and other professional development opportunities should be considered for those wishing to work in ICUs. Consider offering an additional day of annual leave in 2021/2022 for all staff that participated in the pandemic response.
Specialist Equipment	Non-ICU ventilators no longer required.	Non-ICU ventilators returned and serviced as needed
Scheduled Surgery	No disruption of scheduled surgery.	All operating theatres open. Optimise use of Enhanced peri-operative care facilities.

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Infographic: Bed occupancy and staffing

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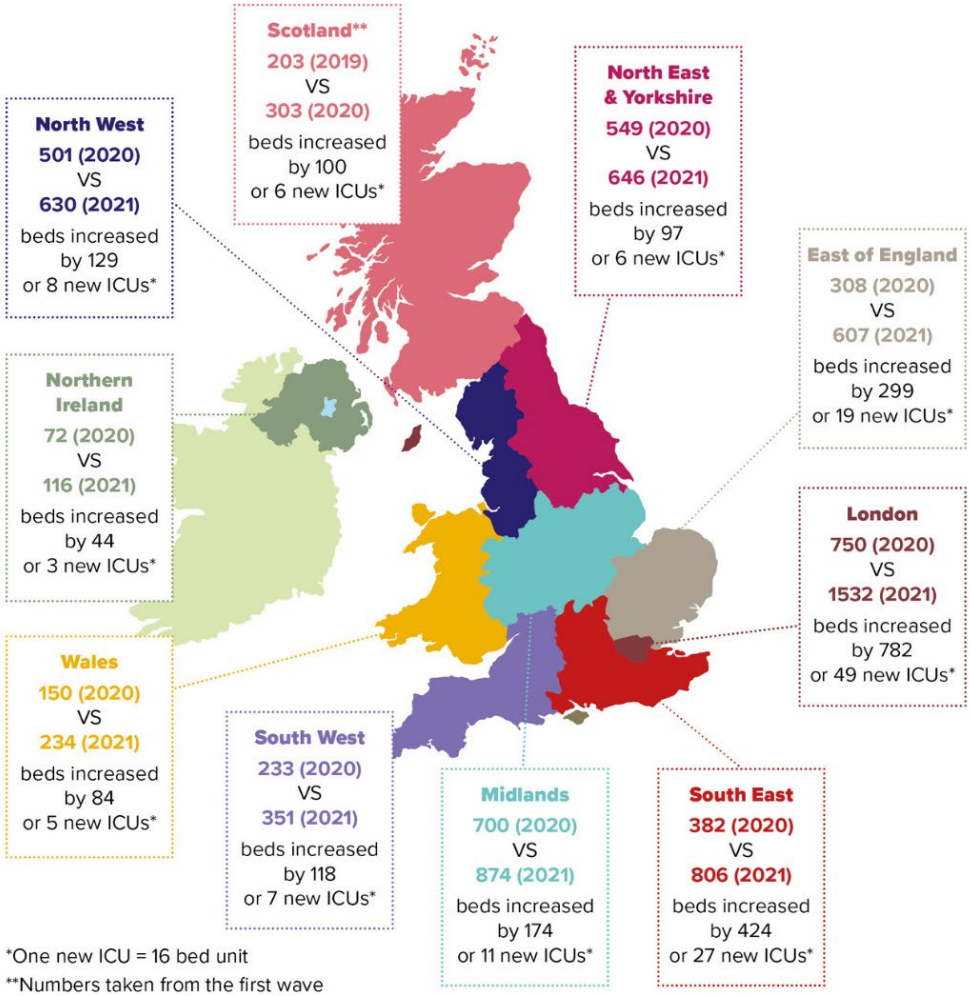

*One new ICU = 16 bed unit
**Numbers taken from the first wave

ICU beds occupied: Jan 2020 vs Jan 2021

2251
extra ICU beds were needed in January 2021 compared to 2020.

6099
is the total of ICU beds occupied across the UK in Jan 2021.

Read more https://bit.ly/ICSBedCapacity

That is the same as building an extra 141 ICUs*

One member of staff cares for..	Number of Patients Jan 2020	Number of Patients Jan 2021
Consultant	12	16 - 33
Nursing	1	1 - 3
Junior Doctor	8	12 - 23
Pharmacist	10	13 - 26
Physiotherapist	4	8 - 15
Dietitian	10	14 - 27
Speech & Language	10	39 - 76
Occupational Therapist	10	84 - 162
Psychologist	10	69 - 134

These numbers take into account pre-existing staff vacancies and 10% sickness.

Throughout the pandemic the number of fully trained intensive care staff remained the same.

To help ICU cope, people from other specialties have come to support us.

This help will soon end and staff will be left to try and cope with the physical and emotional aftermath of the pandemic.

Visit our wellbeing hub to find short and long term support, resources, wellbeing skills building and more...

www.ics.ac.uk/wellbeing

Appendix A

Assumptions made to enable nursing ratios for England and Wales for infographic

1. Based on CC3N workforce data 2020 for England and Wales
2. 16644 WTE Critical care nurses excluding educators and consultants
3. Bed days/week in Jan 2020= 25011; baseline ratio 1:1.5
4. Bed days/week in Jan 2021= 39202; surge ratio= 1:2.4
5. Allowing 5.6 week/year annual leave and 10% sickness/carer/self-isolation/shielding/bereavement =**1:2.93**

Workforce modelling across United Kingdom

- Welsh data are supplied by the All-Wales Critical Care and Trauma Network
- Scottish data are based on pre-pandemic and peak first wave data
- Northern Ireland data are supplied by the Critical Care Network Northern Ireland
- Physiotherapy ratios and vacancy rates supplied by AHPs in critical care workforce project

Assumptions made to enable staffing and workforce hours modelling (to enable like-for-like comparison)

1. Consultant: patient ratio 1:12
2. Consultants work an average of 9 DCC PAs +1 essential SPA (assumed to be a total of 40 hours)
3. All units GPICS compliant for all professional groups 24/7
4. All ICU beds occupied with L3 patients
5. The modal number of ICU beds in UK ICUs is 16.
6. Nurse staffing for L3 patients is 1.1 nurse/patient (1 nurse, + a supernumerary charge nurse for 10 patients)
7. GPICS compliance decreased during the pandemic/surge (not accounting for extra non contractual shifts worked by ICU staff)
8. Non nursing AHPs (physio, SLT, OT, Pharmacist etc) work 12 hours/day *7 days
9. Vacancy data are taken from FICM and CC3N publications
10. Junior Doctor medical hours calculated along European Working Time Directive (48hr/week)
11. Non-medical hours calculated according to Agenda for Change (37.5hr/week)
12. No annual leave taken into account for ratios. For workforce hours AFC calculated at 16% and doctors at 20%

13. Non clinical Agenda For Change staff worked 8 hours *7 days. Additional support staff based on a 16-bed ICU requiring:
    - 2 Data managers
    - 1 Cleaner
    - 5 Outreach staff
    - 2.5 Managers
    - 5 Scientists
    - 5 Health care assistants

How have NHS staff managed to look after so many extra patients during the Pandemic?

There has been no increase in the number of trained staff. All this extra work has had to be done by fewer ICU trained staff (due to shielding, isolation and illness) supported by other non-ICU staff redeployed from other specialist areas. When annual and sick leave are accounted for, this equates to 825535 additional hours a week to support intensive care units across the UK, not accounting for pre-existing staffing shortages. An additional estimated 200716 hours/week may be accrued by managers, audit clerks, healthcare scientists, healthcare assistants and cleaners. This does not account for additional work generated by many other hospital departments interacting with the intensive care units.

The effects of sustained higher intensity hours and working patterns, coupled with the moral distress associated with the pandemic and working outside of GPICS ratios is increasing. There is a significant risk to staff long term wellbeing, productivity and psychological harm. The reintroduction of pre-pandemic staff standards is therefore fundamental to any recovery plan and the timing of this must be carefully considered as staff are re-deployed back to their base specialties. Local and national service reviews are indicated to enable this transition to be supported and enable continued critical care decompression and other services being resumed.

Workforce modelling by region tables.

	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	Adjustment of baseline GPICS ratio by increase in occupied beds per region.								
With vacancies	Adjustment of pandemic ratios to account for pre-existing vacancies (FFICM and CC3N documents). Regional variations taken into account whenever possible.								
Sickness @10%	Adjustment of pandemic ratios (accounting for regional variation for vacancies where possible) and by potential sickness rates (including all non-annual leave reasons such as sickness, carer, bereavement, shielding, self-isolation etc).								
Sickness @20%									

Table 1: Mock-up of regional breakdown shown below, with further detailing regarding adjustment.

England	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	19.09	1.45	12.73	15.91	6.36	15.91	15.91	15.91	15.91
With vacancies	22.46	1.62	15.52	17.88	10.05	18.50	53.03	113.64	93.59
Sickness @10%	24.96	1.80	17.25	19.86	11.17	20.56	58.93	126.27	103.99
Sickness @20%	28.08	2.02	19.40	22.35	12.57	23.13	66.29	142.05	116.99

Table 2: Number of patients looked after by a healthcare professional in England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

London	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	24.51	1.86	16.34	20.43	8.17	20.43	20.43	20.43	20.43
With vacancies	28.84	2.19	19.93	22.95	12.91	23.75	68.09	145.90	120.16
Sickness @10%	32.04	2.43	22.14	25.50	14.34	26.39	75.65	162.12	133.51
Sickness @20%	36.05	2.74	24.91	28.69	16.13	29.69	85.11	182.38	150.20

Table 3: Number of patients looked after by a healthcare professional in London. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

East of England	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	23.66	1.79	15.77	19.71	7.88	19.71	19.71	19.71	19.71
With vacancies	27.83	1.99	19.23	22.14	12.45	22.92	65.69	140.77	115.93
Sickness @10%	30.92	2.21	21.36	24.60	13.84	25.46	72.99	156.41	128.81
Sickness @20%	34.79	2.49	24.03	27.68	15.57	28.65	82.12	175.96	144.91

Table 4: Number of patients looked after by a healthcare professional in the East of England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

South - East	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	25.32	1.92	16.88	21.10	8.44	21.10	21.10	21.10	21.10
With vacancies	29.79	2.19	20.58	23.71	13.33	24.53	70.33	150.71	124.11
Sickness @10%	33.10	2.44	22.87	26.34	14.81	27.26	78.15	167.46	137.91
Sickness @20%	37.24	2.74	25.73	29.63	16.67	30.67	87.91	188.39	155.14

Table 5: Number of patients looked after by a healthcare professional in the South-East of England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

South - West	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	18.08	1.37	12.05	15.06	6.03	15.06	15.06	15.06	15.06
With vacancies	21.27	1.45	14.70	16.93	9.52	17.52	50.21	107.60	88.61
Sickness @10%	23.64	1.61	16.33	18.81	10.58	19.46	55.79	119.56	98.46
Sickness @20%	26.59	1.82	18.37	21.16	11.90	21.90	62.77	134.50	110.77

Table 6: Number of patients looked after by a healthcare professional in the South-West of England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

North - East	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	14.12	1.07	9.41	11.77	4.71	11.77	11.77	11.77	11.77
With vacancies	16.61	1.09	11.48	13.22	7.44	13.68	39.22	84.05	69.22
Sickness @10%	18.46	1.22	12.76	14.69	8.26	15.20	43.58	93.39	76.91
Sickness @20%	20.77	1.37	14.35	16.53	9.29	17.10	49.03	105.06	86.52

Table 7: Number of patients looked after by a healthcare professional in the North-East of England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

North - West	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	15.09	1.14	10.06	12.57	5.03	12.57	12.57	12.57	12.57
With vacancies	17.75	1.24	12.27	14.13	7.95	14.62	41.92	89.82	73.97
Sickness @10%	19.73	1.37	13.63	15.70	8.83	16.25	46.57	99.80	82.19
Sickness @20%	22.19	1.54	15.34	17.66	9.93	18.28	52.40	112.28	92.46

Table 8: Number of patients looked after by a healthcare professional in the North-West of England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

Midlands	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	14.98	1.14	9.99	12.49	4.99	12.49	12.49	12.49	12.49
With vacancies	17.63	1.24	12.18	14.03	7.89	14.52	41.62	89.18	73.45
Sickness @10%	19.59	1.38	13.53	15.59	8.77	16.13	46.24	99.09	81.61
Sickness @20%	22.03	1.56	15.23	17.54	9.86	18.15	52.02	111.48	91.81

Table 9: Number of patients looked after by a healthcare professional in the Midlands of England. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

Wales	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	18.72	1.42	12.48	15.60	6.24	15.60	15.60	15.60	13.07
With vacancies	22.02	1.50	15.22	17.53	9.86	18.14	52.00	111.43	76.86
Sickness @10%	24.47	1.67	16.91	19.48	10.95	20.16	57.78	123.81	85.40
Sickness @20%	27.53	1.88	19.02	21.91	12.32	22.67	65.00	139.29	96.08

Table 10: Number of patients looked after by a healthcare professional in Wales. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

Scotland	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	17.90	1.36	11.93	14.92	5.97	14.92	14.92	14.92	14.92
With vacancies	21.06	1.44	14.55	16.76	9.43	17.34	49.72	106.54	87.74
Sickness @10%	23.40	1.60	16.17	18.62	10.48	19.27	55.24	118.38	97.49
Sickness @20%	26.32	1.80	18.19	20.95	11.79	21.68	62.15	133.18	109.67

Table 11: Number of patients looked after by a healthcare professional in Scotland. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

Northern Ireland	Cons	Nurse	J Doc	Pharm	Physio	Dietitian	SLT	Occ	Psych
GPICS compliant	12.00	0.91	8.00	10.00	4.00	10.00	10.00	10.00	10.00
Pandemic	19.33	1.46	12.89	16.11	6.44	16.11	16.11	16.11	16.11
With vacancies	22.75	1.54	15.72	18.10	10.18	18.73	53.70	115.08	94.77
Sickness @10%	25.27	1.72	17.46	20.11	11.31	20.82	59.67	127.87	105.30
Sickness@ 20%	28.43	1.93	19.65	22.63	12.73	23.42	67.13	143.85	118.46

Table 12: Number of patients looked after by a healthcare professional in Northern Ireland. Comparison is made with good practice (GPICS-compliant) and pandemic settings, and sickness (carer, bereavement, self-isolation, shielding as well as sickness) modelling.

Abbreviations

AL	Annual leave
AfC	Agenda for change
CC3N	The Critical Care National Network Nurse Leads Forum
Cons	Consultant
DCC	Direct clinical care
EWTD	European working time directive
FICM	Faculty of Intensive Care medicine
GPICS	Guidelines for the Provision of Intensive Care Medicine
J Doc	Junior Doctor
NICE	National Institute for Health and Care Excellence
PA	Programmed Activity (4 hours)
Pharm	Pharmacist
Physio	Physiotherapist
PPE	Personal Protective Equipment
SL	Study leave
SLT	Speech and language therapist
SPA	Supporting Programmed Activity (4 hours)
Occ	Occupational therapist
Psych	Psychologist