

COVID-19 Evidence Alert – 4th September 2020

Welcome

COVID-19 Evidence alert is a weekly update highlighting emerging evidence on the following key topics identified as useful in supporting Covid recovery planning:

- 1. <u>Residential settings</u>
- 2. Impacts of lifting restrictions
- 3. Long term rehabilitation needs
- 4. Screening and testing
- 5. Broader impacts on health outcomes
- 6. Impact on non-Covid care

This update follows on from a series of rapid evidence scans on these key topics, with corresponding evidence trackers providing details of relevant papers.

The evidence scans and corresponding evidence trackers can be found here:

https://www.strategyunitwm.nhs.uk/covid19-and-coronavirus (see 'Evidence - Helping you to keep up to date').

Please note that this week's alert excludes summaries of emerging evidence and rapid reviews and will instead present abstracts from these sources, due to the breadth and volume of evidence covered.

Analytical Collaboration for COVID-19

As previously described the collaboration is supporting ad hoc immediate questions raised by national bodies but are also using their expertise to focus on <u>questions</u> that the NHS may lack the immediate resources to look at, which may be more medium-term, cut across sectors, or benefit from independent analysis.

Residential settings

Guidance

Coronavirus (COVID-19): admission and care of people in care homes. Department of Health and Social Care, Care Quality Commission, Public Health England, and NHS England. (last updated 27/08/2020)

<u>COVID-19: how to work safely in care homes.</u> Public Health England. (last updated 28/08/2020)

<u>COVID-19: how to work safely in domiciliary care in England.</u> Public Health England. (last updated 28/08/2020)

Rapid reviews

COVID-19 mortality and long-term care: a UK comparison. Bell D et al., International Long Term Care Policy Network. (Last updated 29/8/20). "The impact of the COVID-19 pandemic on the oldest old, especially those within care home settings, has been devastating in many countries. The UK was no exception. This article reviews the path of the COVID-19 pandemic across the UK longterm care (LTC) sector, indicating how it evolved in each of the four home nations. It prefaces this with a description of LTC across the UK, its history and the difficulties encountered in establishing a satisfactory policy for the care of frail older people across the home nations. The paper makes several contributions. First, it provides an up to date estimate of the size of the adult care home sector across the UK – previous work has been bedevilled by inaccurate estimates of the number of care home places available. It also assembles the limited information that is available on delayed transfers of care and testing of care home residents, both of which played a role in the evolution and consequences of the pandemic. Its most important contributions are estimates of the number and share (the P-Score) of "excess deaths" in care homes in each of the home nations. The P-Scores provide measures that allow comparisons across care home populations of different size. Not only do we discuss the number of individuals affected, we also compare the proportions of care homes in each of the home nations that experienced a COVID-19 infection. The paper also discusses deaths of care home residents outside care homes, largely in hospitals. It reviews the sparse information on deaths at home of people who were receiving social care. Throughout our narrative, it will become clear that there have been major deficiencies in both the amount and the consistency of data available to clinicians, care sector staff and researchers trying to understand and to alleviate what has happened in care homes. Thus, the final section makes some recommendations about the scope and timeliness of relevant data. Collection of such data would seem to be a necessary condition to inform best practice and thus avoid a repeat of the troubling effects of the pandemic on people who use formal care between March and June 2020."

Emerging evidence

Long-stay mental health care institutions and the COVID-19 crisis: identifying and addressing the challenges for better response and preparedness. The World Health Organization. "This report presents the results of a survey conducted by the Mental Health Programme, WHO Regional Office for Europe, with 169 long-stay institutions in the WHO European Region to assess the impact of the COVID-19 pandemic on services, staff, service users and residents with psychosocial and intellectual disabilities. Specific themes are how well the institutions were prepared for the crisis by authorities, the quality of communications within institutions and with service users and family members, the availability of personal protective equipment and challenges to the delivery of care, and the impact of the risk of infection and protective measures on staff and residents. The survey results are presented in four thematic sections through the lens of the United Nations Convention on the Rights of Persons with Disabilities. The report also presents some preliminary key considerations."

The Experience of Care Home Staff During Covid-19. A Survey Report by the QNI's

International Community Nursing Observatory. The Queen's Nursing Institute. International Community Nursing Observatory. "In May and June of 2020, a survey of the QNI's Care Home Nurses Network was carried out by the QNI International Community Nursing Observatory (ICNO) to understand more about the impact of Covid-19 on the Care Home Nurse workforce within the UK. This survey was launched in the early weeks of the pandemic in response to grave concerns about the safety of the workforce and the gaps in provision that it was facing. The survey responses confirm that for the majority of respondents, the pandemic has been a very challenging experience. They indicated that their work and wellbeing has been worse or much worse than at normal times, during the survey period. Having to accept patients from hospitals with unknown Covid-19 status,

being told about plans not to resuscitate residents without consulting families, residents or care home staff, lack of guidance on issues like personal protection and issues of poor access to pay if they became ill were some of the major issues the care home workforce faced during March and April 2020. While two thirds of respondents said they 'always' had access to appropriate personal protective equipment (PPE) and most others said that it was usually available, a small minority were not provided with PPE and had to improvise, by obtaining it themselves or by making it. The need for appropriate PPE in care homes is of critical importance in staff and resident safety: 21% of respondents said that their home accepted people discharged from hospital who had tested positive for Covid-19. The majority of survey respondents found it easy to access hospital care for their residents when this was required; however, a substantial minority found this difficult or very difficult. Additionally, a substantial number found it difficult to access District Nursing and GP services, which are universal parts of the National Health Service. In addition, many indicated that they were not able to access essential training from other health professionals at this time. Some respondents refocused work to consider how they could improve on their approach to end of life care. Worryingly, some who responded raised serious ethical and professional concerns, for example GPs, Clinical Commissioning Groups and hospital trusts making resuscitation decisions without first speaking to residents, families and care home staff or trying to enact 'blanket' 'do not resuscitate' decisions for whole groups of people."

Risk factors for outbreaks of COVID-19 in care homes following hospital discharge: a

national cohort analysis. Emmerson C et al., MedRxiv. (pre-print). "Background Adult residential and nursing care homes are settings in which older and often vulnerable people live in close proximity. This population experiences a higher proportion of respiratory and gastrointestinal illnesses than the general population and has been shown to have a high morbidity and mortality in relation to COVID-19. Methods We examined the number of hospital discharges to all Welsh adult care homes and the subsequent outbreaks of COVID-19 occurring over an 18 week period 22 February and 27 June 2020. A Cox proportional hazards regression model was used to assess the impact of time-dependent exposure to hospital discharge on the incidence of the first known outbreak, over a window of 7-21 days after discharge, and adjusted for care home characteristics (including size, type of provision and health board). Results A total of 1068 care homes were monitored; 330 homes experienced an outbreak of COVID-19, and 511 homes received a discharge from hospital over the study period. The exposure to discharge from hospital was not associated with a significant increase in the risk of a new outbreak (hazard ratio 1.15, 95% Cl 0.89, 1.49, p =0.28), after adjusting for care home size, which was by far the most significant predictor. Hazard ratios (95% CI) in comparison to homes of <10 residents were: 3.4 (2.0, 5.8) for 10-24 residents; 8.3 (5.0, 13.8) for 25-49 residents; and 17.3 (9.6, 31.1) for homes of 50+ residents. When stratified for care home size, the outbreak rates were very similar for periods when homes were exposed to a hospital discharge, in comparison to periods when homes were unexposed. Conclusion Our analyses showed that large homes were at considerably greater risk of outbreaks throughout the epidemic, and after adjusting for care home size, a discharge from hospital was not associated with a significant increase in risk."

Improving care in Care Homes: what can Primary Care Networks learn from the

<u>Vanguards?</u> Coleman A et al., Journal of Integrated Care. "Purpose: We trace the evolution of a new integrated care policy in the English NHS (enhanced health care in care homes, EHCH) from pilot model to wider roll out, over a 4 year period, into the circumstances of COVID-19.

Design/methodology/approach: Using published evidence and official documentation we compared and contrasted the original EHCH model/framework, subsequent draft specifications and the final proposals, ahead of implementation. Findings: The Primary Care Network EHCH service specification has clearly arisen from the Vanguard programme; however problems related to GP contracts and COVID-19 means, at least initially, there is likely to be some variability over who will be responsible for delivery. It is unknown whether this service, delivered at pace in the current circumstances, will achieve or affect the outcomes envisaged by the pilots. Originality: This paper reveals the fragility of health and care policymaking in the current climate. From initial concept, through development and testing, into forced early roll out, our observations reflect the unique impact of a global pandemic shock. Research limitations/implications: This is our interpretation of the developing policy for enhanced health care in care homes, which requires further follow up research. We are beginning our final fieldwork phase in Summer 2020, to report on the Vanguard legacy. Practical implications: Evaluations of policy success/failure should consider the context and the differing power relations that are present and may impact subsequent take-up and roll-out across the system. We recommend a longitudinal approach to enable a holistic view of policy implementation."

National Intelligence Report Personal protective equipment (PPE): care workers delivering homecare during the Covid-19 response. Healthcare Safety Investigation Branch. "Background: A safety risk was identified based on a referral to HSIB in April 2020 by a member of the public. The referral highlighted confusion around personal protective equipment (PPE) use requirements when visiting a patient at home who was in the 'clinically extremely vulnerable' category. The referral stated that some care workers did not use PPE when visiting their home during the Covid-19 response. Purpose: This report documents how concerns raised by HSIB were responded to by Public Health England, the body responsible for the development of guidelines for the appropriate use of PPE. Outcome: There are multiple Covid-19 guidelines for different care sectors. PPE guidelines should be used in conjunction with other guidelines, such as infection control guidelines, so that care providers can develop protocols for care delivery. This is challenging when guidelines are updated, or new guidelines are issued. There is a risk that guidance may be missed."

Death risk stratification in elderly patients with covid-19. A comparative cohort study in nursing homes outbreaks. Bernabeu-Wittel M et al., Archives of Gerontology and Geriatrics. "Elderly people are more severely affected by COVID-19. Nevertheless scarce information about specific prognostic scores for this population is available. The main objective was to compare the accuracy of recently developed COVID-19 prognostic scores to that of CURB-65, Charlson and PROFUND indices in a cohort of 272 elderly patients from four nursing homes, affected by COVID-19. Accuracy was measured by calibration (calibration curves and Hosmer-Lemeshov (H-L) test), and discriminative power (area under the receiver operation curve (AUC-ROC). Negative and positive predictive values (NPV and PPV) were also obtained. Overall mortality rate was 22.4 %. Only ACP and Shi et al. out of 10 specific COVID-19 indices could be assessed. All indices but CURB-65 showed a good calibration by H-L test, whilst PROFUND, ACP and CURB-65 showed best results in calibration curves. Only CURB-65 (AUC-ROC = 0.81 [0.75–0.87])) and PROFUND (AUC-ROC = 0.67 [0.6–0.75])) showed good discrimination power. The highest NPV was obtained by CURB-65 (95 % [90–98%]), PROFUND (93 % [77–98%]), and their combination (100 % [82–100%]); whereas CURB-65 (74 % [51– 88%]), and its combination with PROFUND (80 % [50–94%]) showed highest PPV. PROFUND and CURB-65 indices showed the highest accuracy in predicting death-risk of elderly patients affected by COVID-19, whereas Charlson and recent developed COVID-19 specific tools lacked it, or were not

available to assess. A comprehensive clinical stratification on two-level basis (basal death risk due to chronic conditions by PROFUND index, plus current death risk due to COVID-19 by CURB-65), could be an appropriate approach."

Restoring trust: COVID-19 and the future of long-term care in Canada. Estabrooks CA et al., FACETS. "The Royal Society of Canada Task Force on COVID-19 was formed in April 2020 to provide evidence-informed perspectives on major societal challenges in response to and recovery from COVID-19. The Task Force established a series of working groups to rapidly develop policy briefings, with the objective of supporting policy makers with evidence to inform their decisions. This paper reports the findings of the COVID-19 Long-Term Care (LTC) working group addressing a preferred future for LTC in Canada, with a specific focus on COVID-19 and the LTC workforce. First, the report addresses the research context and policy environment in Canada's LTC sector before COVID-19 and then summarizes the existing knowledge base for integrated solutions to challenges that exist in the LTC sector. Second, the report outlines vulnerabilities exposed because of COVID-19, including deficiencies in the LTC sector that contributed to the magnitude of the COVID-19 crisis. This section focuses especially on the characteristics of older adults living in nursing homes, their caregivers, and the physical environment of nursing homes as important contributors to the COVID-19 crisis. Finally, the report articulates principles for action and nine recommendations for action to help solve the workforce crisis in nursing homes."

Commentaries

<u>Commentary: COVID in care homes—challenges and dilemmas in healthcare delivery.</u> Gordon AL et al., Age and Ageing.

Ageism and COVID-19: what does our society's response say about us? Fraser S et al., Age and Ageing.

<u>Staying at home with severe Covid-19: risks to family and carers.</u> Jenkins L & Waterman L. Oxford CEBM. (published online 1/9/20).

Useful resources

<u>Preventing and managing COVID-19 across long-term care services (web annex).</u> World Health Organisation. (published online 28/8/20).

Impacts of lifting restrictions

Rapid reviews

Rapid response to crisis: Health System Lessons from the active period of COVID-19: A Framework for Rapid Response. Salvador-Carulla L et al., Health Policy and Technology.

"Background: This paper outlines the need for a health systems approach and rapid response strategy for gathering information necessary for policy decisions during pandemics and similar crises. It suggests a new framework for assessing the phases of the pandemic. Method: The paper draws its information and conclusions from a rapid synthesis and translation process (RSTP) of a series of webinars and online discussions from the Pandemic-Mental Health International Network (Pan-MHIN) - policy experts from across 16 locations in Australia, Denmark, Italy, Spain, Taiwan, the UK and the USA. While the initial focus of this research was on mental health, COVID-19 has raised much broader issues and questions for health planners. Results: We identified gaps affecting the capacity to respond effectively and quickly, including in relation to system indicators, the inadequacy of the prior classification of the phases of the pandemic, the absences of a healthcare ecosystem approach, and the quick shift to digital technologies. The strengths and weaknesses of COVID-19 responses across different systems, services, sites and countries been identified and compared, including both low and high impacted areas. Conclusions: There is an urgent need for managerial epidemiology based on healthcare ecosystem research encompassing multidisciplinary teams, visualization tools and decision analytics for rapid response. Policy and healthcare context played a key role in the response to COVID-19. Its severity, the containment measures and the societal response varied greatly across sites and countries. Understanding this variation is vital to assess the impact of COVID-19 in specific areas such as ageing or mental health."

Emerging evidence

<u>Coronavirus: the lockdown laws.</u> Brown J. House of Commons Library. "This Commons Library briefing paper describes the law enforcing the UK's coronavirus lockdown. It discusses police enforcement of the lockdown and legal commentary of the lockdown rules."

I Don't Want to Go Back: Examining the Return to Physical Workspaces During COVID-19.

Liu Z et al., PsyArxiv. (pre-print). "We study employee perspectives on return to physical workspaces to ultimately inform employers' and policy makers' decision making around the return to work during COVID-19. Methods: We tested the three-component conceptual model using survey data collected in the United States in May 2020 from samples of energy workers (N = 333). Results: Females, non-Caucasians, and employees living in multi-generational households were less willing to return. Concerns about childcare were negatively related to willingness to return, whereas organizational strategies for mitigating COVID-19 transmission at work were positively related to willingness to return. COVID-19 infections in an employees' network were also negatively related to employees' willingness to return. Conclusions: Blanket policies may miss the nuanced needs of different employee groups. Employers and policy makers should adopt flexible approaches to ensure a return to workspaces that addresses employee concerns and needs."

The psychology of protecting the UK public against external threat: COVID-19 and the Blitz

compared. Jones E. The Lancet Psychiatry. "The COVID-19 pandemic and the World War 2 aerial bombing campaign against the UK between 1939 and 1945 both exposed the civilian population to a sustained threat. Risk, whether from exposure to viral load or the density of the bombing, led to a range of protective measures and behavioural regulations being implemented. The V1 and V2 missiles used in summer and autumn, 1944, functioned as a second wave of bombing, arriving after people believed the danger had passed. Adherence to lockdown and a reluctance to return to work after the lifting of lockdown during the COVID-19 pandemic in the UK were mirrored in the preference for using home-based bomb shelters during the air raids. Heightened sensitivity to risk, or a so-called deep shelter mentality, did not materialise even during the second wave of bomb attacks and some deep bomb shelters were closed because of low occupancy. The most popular protective measures were those that reflected people's preferences, and not necessarily those that provided the greatest safety. As with the COVID-19 pandemic, the public drove government policy as much as they followed it."

COVID-19 pandemic in Finland – preliminary analysis on health system response and

economic consequences. Tiirinki H et al., Health Policy and Technology. "Objectives: The objective of this study was to describe and analyze the impact of the coronavirus disease COVID-19 on health policy, social- and health system, and economic and financing system to prevent, treat, contain and monitor the virus in Finland. Methods: This study provides early outcomes of health policy measures, social- and health system capacity as well as economic challenges in COVID-19 pandemic in Finland. This paper is based available documents and reports of different ministries and social, health and economic authorities collected online. This was complemented by other relevant pandemic data from Finland. Results: The impact of COVID-19 pandemic on the Finnish society has been unpredictable although it has not been as extensive and massive than in many other countries. As the situation evolved the Government took strict measures to stop the spread of the virus (e.g. Emergency Powers Act). Available information shows that the economic consequences will be drastic also in Finland, albeit perhaps less dramatic than in large industrial economies. Conclusions: Finland has transferred gradually to a "hybrid strategy", referring to a move from extensive restrictive measures to enhanced management of the epidemic. However, health system must be prepared for prospective setback. It is possible, that COVID-19 pandemic has accelerated the development of digital health services and telemedicine in Finnish healthcare system."

Two metres or one: what is the evidence for physical distancing in covid-19? Jones NR et

al., BMJ. "Rigid safe distancing rules are an oversimplification based on outdated science and experiences of past viruses, argue Nicholas R Jones and colleagues. Physical distancing is an important part of measures to control covid-19, but exactly how far away and for how long contact is safe in different contexts is unclear. Rules that stipulate a single specific physical distance (1 or 2 metres) between individuals to reduce transmission of SARS-CoV-2, the virus causing covid-19, are based on an outdated, dichotomous notion of respiratory droplet size. This overlooks the physics of respiratory emissions, where droplets of all sizes are trapped and moved by the exhaled moist and hot turbulent gas cloud that keeps them concentrated as it carries them over metres in a few seconds.12 After the cloud slows sufficiently, ventilation, specific patterns of airflow, and type of activity become important. Viral load of the emitter, duration of exposure, and susceptibility of an individual to infection are also important. Instead of single, fixed physical distance rules, we propose graded recommendations that better reflect the multiple factors that combine to determine risk. This would provide greater protection in the highest risk settings but also greater freedom in lower risk settings, potentially enabling a return towards normality in some aspects of social and economic life."

DeepSOCIAL: Social Distancing Monitoring and Infection Risk Assessment in COVID-19

Pandemic. Rezaei M & Azarmi M. Preprint. "Social distancing is a recommended solution by the World Health Organisation (WHO) to minimise the spread of COVID-19 in public places. The majority of governments and national health authorities have set the 2-meter physical distancing as a mandatory safety measure in shopping centres, schools and other covered areas. In this research, we develop a generic Deep Neural Network-Based model for automated people detection, tracking, and inter-people distances estimation in the crowd, using common CCTV security cameras. The proposed model includes a YOLOv4-based framework and inverse perspective mapping for accurate people detection and social distancing monitoring in challenging conditions, including people occlusion, partial visibility, and lighting variations. We also provide an online risk assessment scheme by statistical analysis of the Spatio-temporal data from the moving trajectories and the rate of social

distancing violations. We identify high-risk zones with the highest possibility of virus spread and infection. This may help authorities to redesign the layout of a public place or to take precaution actions to mitigate high-risk zones. The efficiency of the proposed methodology is evaluated on the Oxford Town Centre dataset, with superior performance in terms of accuracy and speed compared to three state-of-the-art methods."

COVID-19 Pandemic: Identifying Key Issues using Social Media and Natural Language

Processing. Oyebode O et al., Preprint. "The COVID-19 pandemic has affected people's lives in many ways. Social media data can reveal public perceptions and experience with respect to the pandemic, and also reveal factors that hamper or support efforts to curb global spread of the disease. In this paper, we analyzed COVID-19-related comments collected from six social media platforms using Natural Language Processing (NLP) techniques. We identified relevant opinionated keyphrases and their respective sentiment polarity (negative or positive) from over 1 million randomly selected comments, and then categorized them into broader themes using thematic analysis. Our results uncover 34 negative themes out of which 17 are economic, socio-political, educational, and political issues. 20 positive themes were also identified. We discuss the negative issues and suggest interventions to tackle them based on the positive themes and research evidence."

Motivations for Social Distancing and App Use as Complementary Measures to Combat the COVID-19 Pandemic: Quantitative Survey Study. Kaspar K., J Med Internet Res.

"Background: The current COVID-19 pandemic is showing negative effects on human health as well as on social and economic life. It is a critical and challenging task to revive public life while minimizing the risk of infection. Reducing interactions between people by social distancing is an effective and prevalent measure to reduce the risk of infection and spread of the virus within a community. Current developments in several countries show that this measure can be technologically accompanied by mobile apps; meanwhile, privacy concerns are being intensively discussed. Objective: The aim of this study was to examine central cognitive variables that may constitute people's motivations for social distancing, using an app, and providing health-related data requested by two apps that differ in their direct utility for the individual user. The results may increase our understanding of people's concerns and convictions, which can then be specifically addressed by public-oriented communication strategies and appropriate political decisions. Methods: This study refers to the protection motivation theory, which is adaptable to both healthrelated and technology-related motivations. The concept of social trust was added. The quantitative survey included answers from 406 German-speaking participants who provided assessments of data security issues, trust components, and the processes of threat and coping appraisal related to the prevention of SARS-CoV-2 infection by social distancing. With respect to apps, one central focus was on the difference between a contact tracing app and a data donation app. Results: Multiple regression analyses showed that the present model could explain 55% of the interindividual variance in the participants' motivation for social distancing, 46% for using a contact tracing app, 42% for providing their own infection status to a contact tracing app, and 34% for using a data donation app. Several cognitive components of threat and coping appraisal were related to motivation measurements. Trust in other people's social distancing behavior and general trust in official app providers also played important roles; however, the participants' age and gender did not. Motivations for using and accepting a contact tracing app were higher than those for using and accepting a data donation app. Conclusions: This study revealed some important cognitive factors

that constitute people's motivation for social distancing and using apps to combat the COVID-19 pandemic. Concrete implications for future research, public-oriented communication strategies, and appropriate political decisions were identified and are discussed."

Commentaries

Excess all-cause mortality during the first wave of the COVID-19 epidemic in France, March to May 2020. Fouillet A et al., Euro Surveil.

Long term rehabilitation needs

Rapid reviews

Rehabilitation of patients post-COVID-19 infection: a literature review. Demeco A et al., Journal of International Medical Research. "Rehabilitation is important for patients with coronavirus disease 2019 (COVID-19) infection. Given the lack of guidelines in English on the rehabilitation of these patients, we conducted a review of the most recent reports. We performed this literature review using the principal research databases and included randomized trials, recommendations, quasi-randomized or prospective controlled clinical trials, reports, guidelines, field updates, and letters to the editor. We identified 107 studies in the database search, among which 85 were excluded after screening the full text or abstract. In total, 22 studies were finally included. The complexity of the clinical setting and the speed of spread of the severe acute respiratory syndrome coronavirus 2, which leads to rapid occupation of beds in the intensive care unit, make it necessary to discharge patients with COVID-19 who have mild symptoms as soon as possible. For these reasons, it is necessary to formulate rehabilitation programs for these patients, to help them restore physical and respiratory function and to reduce anxiety and depression, particularly patients with comorbidities and those who live alone or in rural settings, to restore a good quality of life."

Systematic rapid living review on rehabilitation needs due to COVID-19: update as of April 30th, 2020. de Sire A et al., EDIZIONI MINERVA MEDICA. "INTRODUCTION: This paper adds to the series of systematic rapid living reviews, started in April 2020, to provide the rehabilitation community with updates on the latest scientific literature on rehabilitation needs due to COVID-19 pandemic. The aim of this paper is to present the results of a systematic scientific literature search performed on papers published from April 1st to April 30th, 2020. EVIDENCE ACQUISITION: A systematic search was performed on PubMed, Embase, Scopus, CINAHL, PEDro, Web of Science and the main international guideline databases for articles published (including Epub), in English, from April 1st to April 30th, 2020. Papers were included if they reported on one of the following: 1) prevalence and features of the emerging disability after COVID-19; 2) rehabilitation strategies applied for COVID-19 patients, regardless of setting or stage; 3) information about rehabilitation services after COVID-19; 4) impact on diseases of rehabilitative interest; 5) complications of rehabilitative interest. EVIDENCE SYNTHESIS: Out of 445 articles retrieved for the time frame, 50 were finally included for qualitative analysis. They consist of seven guidelines, one scoping review, one randomized controlled trial, four descriptive studies (gualitative), one case series, one case report, and 35 expert opinions. CONCLUSIONS: This systematic rapid living review showed an increasing evidence on rehabilitation needs due to COVID-19 outbreak during April 2020. The main novelties include: 1) the first appearance of epidemiological data on the likely high incidence of

neurological complications/disabling sequelae in patients hospitalized for COVID-19; 2) rapid guidelines on the management of chronically disabled patients in the COVID-19 era; 3) advices to provide COVID-19 patients with early respiratory rehabilitation in the acute phase, and with telemonitoring and telerehabilitation in the post-acute phase. Although the overall quality of studies has increased, prospective cohort studies on disability course in COVID-19 pandemic and experimental studies on the effects of rehabilitation are still warranted."

Respiratory follow-up of patients with COVID-19 pneumonia. George PM et al., Thorax (Epub ahead of print). "The COVID-19 pandemic has led to an unprecedented surge in hospitalised patients with viral pneumonia. The most severely affected patients are older men, individuals of black and Asian minority ethnicity and those with comorbidities. COVID-19 is also associated with an increased risk of hypercoagulability and venous thromboembolism. The overwhelming majority of patients admitted to hospital have respiratory failure and while most are managed on general wards, a sizeable proportion require intensive care support. The long-term complications of COVID-19 pneumonia are starting to emerge but data from previous coronavirus outbreaks such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) suggest that some patients will experience long-term respiratory complications of the infection. With the pattern of thoracic imaging abnormalities and growing clinical experience, it is envisaged that interstitial lung disease and pulmonary vascular disease are likely to be the most important respiratory complications. There is a need for a unified pathway for the respiratory followup of patients with COVID-19 balancing the delivery of high-quality clinical care with stretched National Health Service (NHS) resources. In this guidance document, we provide a suggested structure for the respiratory followup of patients with clinicoradiological confirmation of COVID-19 pneumonia. We define two separate algorithms integrating disease severity, likelihood of long-term respiratory complications and functional capacity on discharge. To mitigate NHS pressures, virtual solutions have been embedded within the pathway as has safety netting of patients whose clinical trajectory deviates from the pathway. For all patients, we suggest a holistic package of care to address breathlessness, anxiety, oxygen requirement, palliative care and rehabilitation."

ACE2, TMPRSS2 distribution and extrapulmonary organ injury in patients with COVID-19.

Dong M et al., Biomedicine & Pharmacotherapy. "At the end of 2019, the coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), emerged in China. Currently, it is breaking out globally and posing a serious threat to public health. The typically clinical characteristics of COVID-19 patients were fever and respiratory symptoms, and a proportion of patients were accompanied by extrapulmonary symptoms including cardiac injury, kidney injury, liver injury, digestive tract injury, and neurological symptoms. Angiotensin converting enzyme 2 (ACE2) has been proven to be a major receptor for SARS-CoV-2 and could mediate virus entry into cells. And transmembrane protease serine 2 (TMPRSS2) could cleave the spike (S) protein of SARS-CoV-2, which facilitates the fusion of SARS-CoV-2 and cellular membranes. The mRNA expressions of both ACE2 and TMPRSS2 were observed in the heart, digestive tract, liver, kidney, brain and other organs. SARS-CoV-2 may have a capacity to infect extrapulmonary organs due to the expressions of ACE2 and TMPRSS2 in the cells and tissues of these organs. It seems that there is a potential involvement of ACE2 and TMPRSS2 expressions in the virus infection of extrapulmonary organs and the manifestation of symptoms related to these organs in patients with COVID-19. Here, we revealed the expressions of ACE2 and TMPRSS2 in extrapulmonary organs, and we also summarized

the clinical manifestation and the management of extrapulmonary complications in patients with COVID-19."

Scaling the Need, Benefits, and Risks Associated with COVID-19 Acute and Postacute Care Rehabilitation: A Review. Shah SZA et al., Rehabilitation Research and Practice. "Coronavirus is an RNA virus, which attacks the respiratory system causing complications including severe respiratory distress and pneumonia and many other symptoms. Recently, a novel coronavirus (COVID-19) outbreak emerged in Wuhan, which caused a significant number of infections in China and resulted in a global pandemic. The main aim of this study is to review and summarize the evidence regarding the supportive role of physical rehabilitation techniques in managing COVID-19associated pneumonia. In this review, we also emphasize the use of rehabilitation techniques in the management of pneumonia in COVID-19-infected patients. Based on the evidence presented, we conclude that certain physical rehabilitation techniques and modalities could be of great support in the management of COVID-19-associated pneumonia. The safety of staff and patients when applying rehabilitation intervention requires attention. The combination of physical rehabilitation and medical treatment would result in improved treatment outcomes, faster recovery, and shorter hospital stay. Many rehabilitation techniques are safe and feasible and can be easily incorporated into the management protocol of COVID-19 victims. Decisions of early rehabilitation induction should be based on the patient's medical condition and tolerability."

A public health perspective of aging: do hyper-inflammatory syndromes such as COVID-19, SARS, ARDS, cytokine storm syndrome, and post-ICU syndrome accelerate short- and longterm inflammaging? Bektas A et al. Immunity & Ageing. "A central clinical question as the world deals with the COVID-19 pandemic is what the long-term sequelae for the millions of individuals will be who recover from the hyperinflammatory state characterizing COVID-19 and in particular for the hundreds of thousands who are ill enough to need hospitalization and in particular ICU care. Even when the pandemic is finally controlled, will COVID-19 survivors face exaggerated internal inflammatory processes, worsening co-morbidities, and increased susceptibility to age-related diseases? Clues for what may happen in postCOVID-19 patients can be elicited from those who recovered from other conditions that lead to similar hyperinflammatory states such as Severe Acute Respiratory Syndrome (SARS), acute respiratory disease syndrome (ARDS), cytokine storm syndrome, and post-ICU syndrome. The short-and long-term sequalae following recovery from each of these conditions suggests that these syndromes lead to an accelerated state of chronic subclinical systemic inflammation often seen in aging (termed inflammaging) resulting in increased and worsening agerelated conditions including frailty even in younger individuals."

Emerging evidence

Catching our breath: reshaping rehabilitation services for COVID-19. Khoo TC et al.,

Disability and Rehabilitation. "Purpose War and natural disaster have been spurs to the creation of rehabilitation services. The COVID-19 pandemic poses a different question for existing rehabilitation services: how best to respond to a disaster that is anticipated from afar, but whose shape has yet to take full form? Methods Applying the 5-phase crisis management model of Pearson and Mitroff, we report our experience at one of Scotland's largest centres for rehabilitation, in planning to cope with COVID-19. Results Contingency rehabilitation planning can be framed in a 5-phase crisis management model that includes (i) signal detection; (ii) prevention/preparedness; (iii) damage limitation; (iv) recovery; and (v) learning. We have reported the impact of COVID-19 on rehabilitation

services within a Scottish context and shared some of our learning. Conclusion COVID-19 has challenged healthcare worldwide and has served as an amplifier for the recognised ill effects of poverty and inequality. As rehabilitation clinicians, we are in a position to continue advocating for people facing disability, and also seeking and responding to signals of COVID-19's late effects in both COVID-19 and non-COVID-19 patients alike."

The

Unit

Strategy

Commentaries

Pulmonary Rehabilitation: Time for an Upgrade. Sebio-García R. Journal of Clinical Medicine.

<u>After Care of Survivors of COVID-19—Challenges and a Call to Action.</u> Geberhiwot T et al. JAMA Network.

The COVID-19 rehabilitation pandemic. De Biase S et al., Age and Ageing.

Screening and testing

Guidance

<u>NHS Test and Trace: how it works.</u> Department of Health and Social Care. (updated 27/08/2020).

Rapid reviews

COVID-19 diagnostic testing: Technology perspective. Xu M et al., Clin Transl Med. "The corona virus disease 2019 (COVID-19) is a highly contagious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). More than 18 million people were infected with a total of 0.7 million deaths in ~188 countries. Controlling the spread of SARS-CoV-2 is therefore inherently dependent on identifying and isolating infected individuals, especially since COVID-19 can result in little to no symptoms. Here, we provide a comprehensive review of the different primary technologies used to test for COVID-19 infection, discuss the advantages and disadvantages of each technology, and highlight the studies that have employed them. We also describe technologies that have the potential to accelerate SARS-CoV-2 detection in the future, including digital PCR, CRISPR, and microarray. Finally, remaining challenges in COVID-19 diagnostic testing are discussed, including (a) the lack of universal standards for diagnostic testing; (b) the identification of appropriate sample collection site(s); (c) the difficulty in performing large population screening; and (d) the limited understanding of SARS-COV-2 viral invasion, replication, and transmission."

Integrating emerging technologies into COVID-19 contact tracing: Opportunities,

<u>challenges and pitfalls.</u> Mbunge E. Diabetes & Metabolic Syndrome: Clinical Research & Reviews. "Background and aims With no approved vaccines for treating COVID-19 as of August 2020, many health systems and governments rely on contact tracing as one of the prevention and containment methods. However, there have been instances when the infected person forgets his/her contactpersons and does not have their contact details. Therefore, this study aimed at analyzing possible opportunities and challenges of integrating emerging technologies into COVID-19 contact tracing. Methods The study applied literature search from Google Scholar, Science Direct, PubMed, Web of Science, IEEE and WHO COVID-19 reports and guidelines analyzed. Results While the integration of technology-based contact tracing applications to combat COVID-19 and break transmission chains promise to yield better results, these technologies face challenges such as technical limitations, dealing with asymptomatic individuals, lack of supporting ICT infrastructure and electronic health policy, socio-economic inequalities, deactivation of mobile devices' WIFI, GPS services, interoperability and standardization issues, security risks, privacy issues, political and structural responses, ethical and legal risks, consent and voluntariness, abuse of contact tracing apps, and discrimination. Conclusion Integrating emerging technologies into COVID-19 contact tracing is seen as a viable option that policymakers, health practitioners and IT technocrats need to seriously consider in mitigating the spread of coronavirus. Further research is also required on how best to improve efficiency and effectiveness in the utilisation of emerging technologies in contact tracing while observing the security and privacy of people in fighting the COVID-19 pandemic." The

Unit

Strategy

Emerging evidence

<u>Coronavirus: Testing for Covid-19.</u> Rough E, House of Commons Library. "This Commons Library briefing paper provides an overview of testing for Covid-19 in England. It covers the different types of test that are in use and in development, as well as testing capacity, the criteria for being tested, and the presentation of testing data."

Drive-through testing for SARS-CoV-2 in symptomatic health and social care workers and household members: an observational cohort study. Parcell BJ et al., Thorax. "The requirement for health and social care workers to self-isolate when they or their household contacts develop symptoms consistent with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection can lead to critical staff shortages in the context of a pandemic. In this report, we describe the implementation of a drive-through testing service in a single National Health Service region in Scotland. From 17 March 2020 to 11 April 2020, 1890 SARS-CoV-2 reverse transcription PCR assay (RT-PCR) tests were performed. 22% of tests were positive. Allowing the remaining 78% of staff to return to work within 24 hours was estimated to save over 8000 working days during the peak pandemic period."

Population-scale longitudinal mapping of COVID-19 symptoms, behaviour and testing.

Allen WE et al., Nature Human Behaviour. "Despite the widespread implementation of public health measures, coronavirus disease 2019 (COVID-19) continues to spread in the United States. To facilitate an agile response to the pandemic, we developed How We Feel, a web and mobile application that collects longitudinal self-reported survey responses on health, behaviour and demographics. Here, we report results from over 500,000 users in the United States from 2 April 2020 to 12 May 2020. We show that self-reported surveys can be used to build predictive models to identify likely COVID-19-positive individuals. We find evidence among our users for asymptomatic or presymptomatic presentation; show a variety of exposure, occupational and demographic risk factors for COVID-19 beyond symptoms; reveal factors for which users have been SARS-COV-2 PCR tested; and highlight the temporal dynamics of symptomatic, demographic, exposure and behavioural self-reported data to fight the COVID-19 pandemic."

Broader impacts on health outcomes

Commentary from the collaboration

Chart of the week: Sickness absence rates in the NHS in April were at their highest since records began. Rolewicz L, Nuffield Trust. (28/08/2020)

<u>Generation COVID-19. Building the case to protect young people's future health.</u> Leavey C et al., The Health Foundation. (30/08/2020).

Rapid reviews

Mental health

Impact of COVID-19 and Lockdown on Mental Health of Children and Adolescents: A Narrative Review with Recommendations. Singh S et al., Psychiatry Research. "Background: COVID-19 pandemic and lockdown has brought about a sense of fear and anxiety around the globe. This phenomenon has led to short term as well as long term psychosocial and mental health implications for children and adolescents. The quality and magnitude of impact on minors is determined by many vulnerability factors like developmental age, educational status, pre-existing mental health condition, being economically underprivileged or being quarantined due to infection or fear of infection. Aims: This paper is aimed at narratively reviewing various articles related to mental-health aspects of children and adolescents impacted by COVID-19 pandemic and enforcement of nationwide or regional lockdowns to prevent further spread of infection. Methodology: We conducted a review and collected articles and advisories on mental health aspects of children and adolescents during the COVID-19 pandemic. We selected articles and thematically organized them. We put up their major findings under the thematic areas of impact on young children, school and college going students, children and adolescents with mental health challenges, economically underprivileged children, impact due to quarantine and separation from parents and the advisories of international organizations. We have also provided recommendations to the above. Conclusion: There is a pressing need for planning longitudinal and developmental studies, and implementing evidence based elaborative plan of action to cater to the psycho social and mental health needs of the vulnerable children and adolescents during pandemic as well as post pandemic. There is a need to ameliorate children and adolescents' access to mental health support services geared towards providing measures for developing healthy coping mechanisms during the current crisis. For this innovative child and adolescent mental health policies policies with direct and digital collaborative networks of psychiatrists, psychologists, paediatricians, and community volunteers are deemed necessary."

Adolescents' health in times of COVID-19: a scoping review. de Oliveira WA et al., Cad. Saúde Pública. "COVID-19, the disease caused by SARS-CoV-2 (novel coronavirus), emerged in China in December 2019 and spread quickly throughout the world. In this scenario, the current study aimed to identify the impact or effects of the COVID-19 pandemic on adolescents' health. This is a scoping literature review based on the following databases: Web of Science, CINAHL, PsycINFO, SciELO, and PUBCOVID19. The study adopted the stages proposed by the Joanna Briggs Institute for scoping reviews, and the question orienting the procedures consisted of the acronym PCC (population; concept; context). Eleven articles were included in the review. Clinically, adolescents present the same COVID-19 symptoms as adults. The pandemic and the health measures taken to control transmission were found to be associated with mental health problems in adolescents. Specifically, adolescents have a negative experience with social distancing measures and closing of schools. These measures can also favor situations of violence or aggressive behaviors in the home environment. Healthcare services that treat the adolescent population had to reorient their practices, adopting a virtual model to replace face-to-face care, and even research projects involving adolescence had to be rethought. This scoping review addressed an emerging theme in relation to a population that has received little attention in studies on COVID-19. The results suggest that the pandemic can be considered a determinant that affects different dimensions of adolescents' lives."

"The COVID-19 Pandemic and its Effect on Mental Health in USA – A Review with Some

<u>Coping Strategies</u>". Bhattacharjee B and Acharya T, Psychiatric Quarterly. "The COVID-19 pandemic has resulted in enormous losses in terms of human lives and economy in United States. The outbreak has been continuing to heavily impact the mental health of people. Developing key strategies to prevent mental illnesses is extremely important for the well-being of people. A survey conducted during the last week of March 2020 showed that 72% of Americans felt that their lives were impacted by the outbreak, which was a 32% increase from the survey conducted only 2 weeks earlier. The results show a positive correlation between COVID-19 infections/casualties and growing public concern. These observations suggest possible increase in mental health illnesses in United States as a consequence of the pandemic. The authors review a recently published model on COVID-19 related fear among the people. The fear of being infected or dying from the disease is one of the most significant causes of mental health disorders. Loss of employment or the fear of losing employment is another major concern leading to mental illnesses. Several unique strategies to prevent or mitigate mental illnesses are discussed."

International Experiences of the Active Period of COVID-19 - Mental Health Care.

Rosenberg S et al. Health Policy and Technology. "Aim: To summarise commonalities and variations in the mental health response to COVID-19 across different sites and countries, with a view to better understanding key steps not only in crisis management, but for future systemic reform of mental health care. Method We conducted a Rapid Synthesis and Translation Process of lessons learned from an international panel of experts, collecting on the ground experiences of the pandemic as it evolved in real time. Digital conferencing and individual interviews were used to rapidly acquire knowledge on the COVID-19 outbreak across 16 locations in Australia, Denmark, Italy, Spain, Taiwan, the UK, and the USA. Results COVID-19 has had massive impacts on mental health care internationally. Most systems were under-resourced and under-prepared, struggling to manage both existing and new clients. There were significant differences between sites, depending on the explosivity the pandemic and the readiness of the mental health system. Integrated, community mental health systems exhibited greater adaptability in contrast to services which depended on face-to-face and hospital-based care. COVID-19 has demonstrated the need for a new approach to rapid response to crisis in mental health. New decision support system tools are necessary to ensure local decision-makers can effectively respond to the enormous practical challenges posed in these circumstances. Conclusions The process we have undertaken has generated clear lessons for mental health policymakers worldwide, beyond pandemic planning and response to guide next steps in systemic mental health reform. Key here is achieving some balance between national leadership and local context adaptation of evidence."

A rapid review of the impact of COVID-19 on the mental health of health and social care workers: implications for psychological interventions. De Kock JH et al., Preprint. "Background Health and social care workers (HSCWs) have carried a heavy burden during the COVID-19 crisis and in the challenge to control the virus have directly faced its consequences. Supporting their psychological wellbeing continues therefore to be a priority. This rapid review was carried out to identify whether there are any identifiable risk factors for adverse mental health outcomes amongst HSCWs during the COVID-19 crisis. The review also sought to identify a participant population for the trial of a digital intervention to support HSCW's psychological wellbeing during the pandemic.

Methods We undertook a rapid review of the literature following guidelines by the WHO and the COVID-19 Cochrane Collaboration's recommendations. We searched across 14 databases, executing the search at two different time points. We included published observational and experimental studies that reported the psychological effects on health and care workers during the COVID-19 pandemic. Results The 24 studies included in this review reported data predominantly from China (18 out of 24 included studies) and most sampled urban hospital staff. Our study indicates that COVID-19 has a considerable impact on the psychological wellbeing of front line hospital staff. Results suggest that nurses may be at higher risk of adverse mental health outcomes during this pandemic, but no studies compare this group with the social care or primary care workforce. Other risk factors identified were underlying organic illness, gender (female), concern about family, fear of infection, lack of personal protective equipment (PPE) and close contact with COVID-19. Resilience was identified as a factor protecting against adverse mental health outcomes. Conclusions The evidence to date suggests that female nurses with close contact with COVID-19 patients may have the most to gain from psychological interventions. However, inconsistencies in findings and a lack of data outside of hospital settings, suggest that we should not exclude any groups when addressing psychological wellbeing in health and social care workers. Psychological interventions aimed at enhancing psychological resilience and utilising innovative methods to personalise treatments without excluding groups may be of benefit."

Emerging evidence

Mental health – public

The association between COVID-19 WHO non-recommended behaviors with psychological distress in the UK population: A preliminary study. Ben-Ezra et al., Journal of Psychiatric Research. "The novel Coronavirus COVID-19 has led the WHO to warn of the risk of potentially disruptive behaviors. However, the association between maladaptive actions and mental health has not been empirically assessed. A national study of 1293 participants from the UK recorded location, underlying medical conditions and non-recommended behaviors along with psychological distress. Elevated psychological distress was associated with living in London, underlying medical conditions and practicing non-recommended behaviors. Findings suggest that medical authorities should address the association between psychological distress and adoption of potentially maladaptive behaviors."

COVID-19 Pandemic and Lockdown Measures Impact on Mental Health Among the

<u>General Population in Italy.</u> Rossi r et al., Front. Psychiatry. "Background: The psychological impact of the COronaVIrus Disease 2019 (COVID-19) outbreak and lockdown measures on the Italian population are unknown. The current study assesses rates of mental health outcomes in the Italian general population three to 4 weeks into lockdown measures and explores the impact of COVID-19 related potential risk factors. Methods: A web-based survey spread throughout the internet between March 27th and April 6th 2020. Eighteen thousand one hundred forty-seven individuals completed the questionnaire, 79.6% women. Selected outcomes were post-traumatic stress symptoms (PTSS), depression, anxiety, insomnia, perceived stress, and adjustment disorder symptoms (ADS). Seemingly unrelated logistic regression analysis was performed to identify COVID-19 related risk factors. Results: Endorsement rates for PTSS were 6,604 (37%), 3,084 (17.3%) for depression, 3,700 (20.8%) for anxiety, 1,301 (7.3%) for insomnia, 3,895 (21.8%) for high perceived stress and 4,092 (22.9%) for adjustment disorder. Being woman and younger age were associated

with all of the selected outcomes. Quarantine was associated with PTSS, anxiety and ADS. Any recent COVID-related stressful life event was associated with all the selected outcomes. Discontinued working activity due to the COVID-19 was associated with all the selected outcomes, except for ADS; working more than usual was associated with PTSS, Perceived stress and ADS. Having a loved one deceased by COVID-19 was associated with PTSS, depression, perceived stress, and insomnia. Conclusion: We found high rates of negative mental health outcomes in the Italian general population 3 weeks into the COVID-19 lockdown measures and different COVID-19 related risk factors. These findings warrant further monitoring on the Italian population's mental health."

Mental Health Burden of the COVID-19 Outbreak in Germany: Predictors of Mental Health

Impairment. Bäuerle A et al., Journal of Primary Care & Community Health. "Introduction: COVID-19 is causing an enormous psychological burden for most people. This study aims to assess individual changes in mental health and health status before and after the COVID-19 outbreak, and to explore potential predictors of change. Methods: A cross-sectional study in Germany (n = 15 037) were conducted. Demographics, depression and anxiety symptoms (PHQ-2, GAD-2), distress (DT), and health status (EQ-5D-3L) were assessed. Additionally, all instruments used were adapted to measure the participants' mental health and health status before the COVID-19 outbreak. COVID-19- related fear, trust in governmental actions to face COVID-19, and the subjective level of information about COVID-19 were examined. Results: Overall, the participants showed a significant increase in depression and anxiety symptoms, and distress, while health status deteriorated since the COVID-19 outbreak. Impairment in mental health was predicted by COVID-19-related fear. Pre-existing mental illness predicted an increase in depression symptoms and a deterioration in health status. Trust in governmental actions and the subjective level of information predicted less increase in psychological burden. Conclusions: Our data revealed that there have been changes in mental health and health status at an individual level since the outbreak of COVID-19. In order to maintain mental health, the observed predictors should be addressed."

Mental health - Pre-existing conditions

Videoconferencing Psychotherapy for Panic Disorder and Agoraphobia: Outcome and Treatment Processes From a Non-randomized Non-inferiority Trial. Bouchard S et al., Front. Psychol. "Background: In the context of the COVID-19 pandemic, legislations are being modified around the world to allow patients to receive mental health services through telehealth. Unfortunately, there are no large clinical trial available to reliably document the efficacy of delivering videoconferencing psychotherapy (VCP) for people with panic disorder and agoraphobia (PDA) and whether basic psychotherapeutic processes are altered. Methods: This 2-arm intent-totreat non-inferiority study reports on a clinical trial on VCP and documents how therapeutic working alliance and motivation toward psychotherapy are associated to treatment outcome. We hypothesized that VCP would not be inferior to standard face-to-face (FF) cognitive behavior therapy for PDA. No specific hypothesis was stated to address working alliance and treatment mechanisms. VCP was compared to a gold-standard psychotherapy treatment for PDA, which was delivered either in person or in videoconference, with a strict tolerance criterion of about 2 points on the primary outcome measure. Seventy one adult patients were recruited. Measures of working alliance were collected after the first, fifth, and last session. Motivation toward therapy at pre-treatment and working alliance after the fifth therapy session were used as predictors of treatment outcome and compared with change in dysfunctional beliefs toward bodily sensations. Results: Panic disorder, agoraphobia, fear of sensations and depressed mood all showed significant improvements and large

effect-sizes from pre to post-treatment. Gains were maintained at follow-up. No significant differences were found between VCP and FF, and effect sizes were trivial for three of the four outcome measures. Non-inferiority tests confirmed that VCP was no less effective than FF therapy on the primary outcome measure and two of the three secondary outcome measures. Working alliance was very strong in VCP and did not statistically differ from FF. Working alliance and motivation did not predict treatment outcome, which was significantly predicted by the reduction in dysfunctional beliefs. The strength of the therapeutic bond was correlated with change in dysfunctional beliefs. Conclusion: Mental health professionals can use VCP to provide services to patients with PDA. Building and maintaining a sound working alliance should not be a source concern. Practical recommendations are formulated."

Mental health – Healthcare workers

COVID-19 and the female health and care workforce: Survey of health and care staff for the Health and Care Women Leaders Network (August 2020). Health & Care Women Leaders Network (HCWLN). "The COVID-19 pandemic has placed unprecedented pressure on health and care staff. In June the Health & Care Women Leaders Network (HCWLN) commissioned a survey to better understand the impact the pandemic has had on women working across health and care services. Over 1,300 women responded, this report and accompanying slide deck explain the findings. The report describes the struggles, pains and fears women working in health and care services have faced during the pandemic. The physical and emotional impact due to caring responsibilities both in and outside of work are significant. It also draws out some of the positive experiences, such as opportunities for learning and the strength of support many have received from their managers. The HCWLN guiding group wanted to understand the impact the pandemic was having on HCWLN members. They wanted to capture this experience to inform learning and understand any immediate actions and practical steps that can be taken to improve the support to women working in health and care services."

Commentaries

Mental health

Debate: Emergency mental health presentations of young people during the COVID-19 lockdown. Ougrin D., Child and Adolescent Mental Health.

Public Health

Physical Activity for Oncological Patients in COVID-19 Era: No Time to Relax. Avancini A et al., JNCI Cancer Spectrum.

Impact on non-Covid care

Commentary from the collaboration

<u>Children and young people's emergency care during Covid-19: what have we learned?</u> Fisher E. Nuffield Trust. (02/09/2020).

How has children and young people's usage of A&E been impacted by lockdown and social distancing? McConkey R et al., The Health Foundation. (03/09/2020).

How Covid-19 has magnified some of social care's key problems. Bottery S. King's Fund. (published online 25/8/20).

Rapid reviews

Outpatient Care

Outpatient management of heart valve disease following the COVID-19 pandemic: implications for present and future care. Shah BN et al., Heart. "The established processes for ensuring safe outpatient surveillance of patients with known heart valve disease (HVD), echocardiography for patients referred with new murmurs and timely delivery of surgical or transcatheter treatment for patients with severe disease have all been significantly impacted by the novel coronavirus pandemic. This has created a large backlog of work and upstaging of disease with consequent increases in risk and cost of treatment and potential for worse long-term outcomes. As countries emerge from lockdown but with COVID-19 endemic in society, precautions remain that restrict 'normal' practice. In this article, we propose a methodology for restructuring services for patients with HVD and provide recommendations pertaining to frequency of follow-up and use of echocardiography at present. It will be almost impossible to practice exactly as we did prior to the pandemic; thus, it is essential to prioritise patients with the greatest clinical need, such as those with symptomatic severe HVD. Local procedural waiting times will need to be considered, in addition to usual clinical characteristics in determining whether patients requiring intervention would be better suited having surgical or transcatheter treatment. We present guidance on the identification of stable patients with HVD that could have follow-up deferred safely and suggest certain patients that could be discharged from follow-up if waiting lists are triaged with appropriate clinical input. Finally, we propose that novel models of working enforced by the pandemic—such as increased use of virtual clinics—should be further developed and evaluated."

Emergency care

Where did all the trauma go? A rapid review of the demands on orthopaedic services at a U.K. Major Trauma Centre during the COVID-19 pandemic. Greenhalgh M et al., International Journal of Clinical Practice. "AIMS: This retrospective study aims to quantify the early impact of the COVID-19 pandemic on trauma and orthopaedic surgery at a Major Trauma Centre (MTC) in the United Kingdom. We hypothesise that the social restrictions placed on the public by the government will reduce the amount of trauma presentations and operations performed. METHODS: A database of all trauma patients at the MTC was retrospectively reviewed from start of social restrictions on 16(th) March 2020, to 22(nd) April 2020 inclusive. Referrals to the orthopaedic team were identified and included; these were sub-classified into major trauma patients, fragility hip fractures and paediatric trauma. All patients undergoing surgical intervention were identified. The outcome measures were the total number of referrals and trauma operations performed in the time period. This was compared to the corresponding dates of the 2019. RESULTS: There was an overall decrease in the number of referrals to the orthopaedic team from 537 in 2019 to 265 in 2020 (50.7% reduction). The number of trauma operations carried out at the trust decreased from 227 in 2019 to 129 in 2020 (43.2% reduction). The number of paediatric referrals decreased from 56 in 2019 to 26 in 2020 (53.6% reduction), and the number of major trauma patients reduced from 147 in 2019 to 95 in 2020 (35.4%). Fragility hip fracture referrals remained similar, with 52 in 2019 compared to 49 in 2020. CONCLUSION: The COVID-19 pandemic has had a profound effect of the provision of trauma

and orthopaedic surgery. We report a significant decrease in all orthopaedic referrals during the pandemic, leading to a greatly reduced number of trauma operations performed. This has allowed for reallocation of staff and resources. We must plan for the lifting of social restrictions, which may lead to an increase in patients presenting with trauma requiring operative intervention."

Cancer care

Caring for cancer patients in the Covid pandemic: choosing between the devil and deep

sea. Chakraborty M and Pandey M. World Journal of Surgical Oncology. "Background: Healthcare is an essential service at any time more so in the crisis like Covid. With increase in number of cases and mortality from Covid, the primary focus is shifted to the management of the Covid crisis and other health emergencies thus affecting normal health services and routine treatment of other diseases like cancer. Methods: This article reviews the published literature and guidelines on Covid and cancer and discusses them to optimize the care of cancer patients during Covid pandemic to improve treatment outcomes. Results: The results of the review of published literature show a twofold increase in probability of getting CoV2 infection by the cancer patients and a four-fold increase in chance of death. On the other hand, if left untreated a 20% increase in cancer death is expected. Data further show that none of the medicines like remdesivir, hydroxy chloroguin, dexamethasone, or azithromycin improves survival and response to Covid in cancer patients. Surgical results too show similar outcome before and after the pandemic though most of these report on highly selected patients populations. Conclusions: The Covid 2019 pandemic places cancer patients in a very difficult situation wherein if they seek treatment, they are exposing themselves to a risk of developing CoV2 infection and if they do not, the probability of dying without treatment increases. Hence, for them it is a choice between the devil and deep sea, and it is for the healthcare providers to triage patients and treat who cannot wait even though the data from the carefully selected cohort of patients show no increase in mortality or morbidity from treatment during Covid."

Maternity Services

A Narrative Review of the Risks of Covid-19 Vertical Transmission during Pregnancy. Shuja KH et al., Foundation University Journal of Psychology. "Background: With the start of COVID-19, a general concern for the health and safety of people remained the chief priority for medical health professionals. Likewise, one concern which was initially overlooked was for the pregnant women and the new-born child's health during the pandemic. With recent reports of an excessive increase in pregnancy during lockdown, it is a critical area to consider that whether there is a chance of vertical transmission of the infectious disease from the mother to the fetus. Methods: Using narrative review approach the present study endeavoured in highlighting the importance of protecting expecting mothers and their infants upon birth from COVID-19. The study collected all the relevant literature on the matter of pregnancy during COVID-19 and its impact using key terms such as pregnancy, COVID-19, vertical transmission. Moreover, the study tried suggesting recommendations based on literature review. Results: It can be inferred that though currently not enough evidence has been brought into light to suggest pregnant mothers or the infant children as vulnerable, however proper precautionary measures must be taken during these testing times to subdue the imminent threat coronavirus can brought on to the mother or child. Conclusions: The current study is an attempt to call out to the official authorities and health professionals to develop policies and interventions to support the mother and child during the birthing process and take in consideration the suggested recommendations."

Emerging evidence

Pulse survey on continuity of essential health services during the COVID-19 pandemic: interim report, 27 August 2020. World Health Organisation. "The Pulse survey on continuity of essential health services during the COVID-19 pandemic aimed to gain initial insight from country key informants into the impact of the COVID-19 pandemic on essential health services across the life course. The survey results in this interim report can improve our understanding of the extent of disruptions across all services, the reasons for disruptions, and the mitigation strategies countries are using to maintain service delivery."

Primary care

Addressing COVID-19 Worry and Social Isolation in Home-Based Primary Care. Weiskittle

RE et al., PsyArxiv. (pre-print). "Social distancing measures following the outbreak of COVID-19 have led to a rapid shift to virtual and telephone care. Social workers and mental health providers in VA home-based primary care (HBPC) teams face challenges providing psychosocial support to their homebound, medically complex, socially isolated patient population who are high risk for poor health outcomes related to COVID-19. We developed and disseminated an 8-week telephone or virtual group intervention for front-line HBPC social workers and mental health providers to use with socially isolated, medically complex older adults. The intervention draws on skills from evidence-based psychotherapies for older adults including Acceptance and Commitment Therapy, Cognitive-Behavioral Therapy, and Problem-Solving Therapy. The manual was disseminated to VA HBPC clinicians and geriatrics providers across the United States in March 2020 for expeditious implementation. Eighteen HBPC teams and three VA Primary Care teams reported immediate delivery of a local virtual or telephone group using the manual. In this paper we describe the manual's development and clinical recommendations for its application across geriatric care settings. Future evaluation will identify ways to meet longer-term social isolation and evolving mental health needs for this patient population as the pandemic continues."

Outpatient Care

The Role of Virtual Consultations in Plastic Surgery During COVID-19 Lockdown. Sinha V et al., Aesthetic Plastic Surgery. "BACKGROUND: COVID-19 has led to government enforced 'lockdown' in the UK severely limiting face-to-face patient interaction. Virtual consultations present a means for continued patient access to health care. Our aim was to evaluate the use of virtual consultations (VCons) during lockdown and their possible role in the future. METHODS: An anonymous survey was disseminated to UK and European plastic surgeons via social media, email sharing and via the European Association of Societies of Aesthetic Plastic Surgery newsletter. Uptake of VCons, modality, effectiveness, safety and future utility were assessed. RESULTS: Forty-three senior plastic surgeons responded to the survey. The majority of the respondents (97.7%) reported using VCons during COVID-19 lockdown, of which 74.4% had no prior experience. Two-thirds of surgeons utilised commercial platforms such as Zoom, FaceTime and Skype, 38.1% of respondents did not know about or were unsure about adequate encryption for health care use, and just under a half (47.6%) reported they were unaware of or lacking GDPR compliance. Most (97.6%) say they are likely to use virtual consultations after lockdown. CONCLUSION: Virtual consultations have had a crucial role in patient care during UK lockdown. It is clear that they will serve as an adjunct to face-to-face consultation in the future. Further regulation is required to ensure platforms offer adequate safety and security measures and are compliant with relevant data protection laws."

Emergency care

Changes in Emergency General Surgery During Covid-19 in Scotland: A Prospective Cohort Study. Lachlan D et al., World J Surg. "INTRODUCTION: Covid-19 has had a significant impact on all aspects of health care. We aimed to characterise the trends in emergency general surgery at a district general hospital in Scotland. METHODS: A prospective cohort study was performed from 23/03/20 to 07/05/20. All emergency general surgery patients were included. Demographics, diagnosis and management were recorded along with Covid-19 testing and results. Thirty-day mortality and readmission rates were also noted. Similar data were collected on patients admitted during the same period in 2019 to allow for comparison. RESULTS: A total of 294 patients were included. There was a 58.3 per cent reduction in admissions when comparing 2020 with 2019 (85 vs 209); however, there was no difference in age (53.2 vs 57.2 years, p = 0.169) or length of stay (4.8 vs 3.7 days, p = 0.133). During 2020, the diagnosis of appendicitis increased (4.3 vs 18.8 per cent, p = <0.05) as did severity (0 per cent > grade 1 vs 58.3 per cent > grade 1, p = < 0.05). The proportion of patients undergoing surgery increased (19.1 vs 42.3 per cent, p = < 0.05) as did the mean operating time (102.4 vs 145.7 min, p = < 0.05). Surgery was performed in 1 confirmed and 1 suspected Covid-19 patient. The latter died within 30 days. There were no 30-day readmissions with Covid-19 symptoms. CONCLUSION: Covid-19 has significantly impacted the number of admissions to emergency general surgery. However, emergency operating continues to be needed at pre-Covid-19 levels and as such provisions need to be made to facilitate this."

Where are our patients? Retrospective cohort study of acute medical unit admissions during and prior to the COVID-19 pandemic. Lange PW et al., Internal Medicine Journal.

"Admissions to hospital have declined markedly during the COVID-19 pandemic in Australia. This may be due to patients not presenting with acute illness or managing their chronic illness at home. We reviewed a cohort admitted to the Acute Medical Unit of the Royal Melbourne Hospital during and before the pandemic and found admissions were more acutely unwell and more comorbid. This may lead to worse outcomes for those not presenting, as well as those presenting late. We recommend a public health campaign to encourage Australians to present to hospital if unwell."

Fragility hip fractures in the COVID-19 pandemic – a local experience in the United

Kingdom. Sheikh Saleem J. and Ali Fazal M. International Journal of Orthopaedic and Trauma Nursing. Background: Fragility hip fractures are a major cause of morbidity and mortality in the UK. The 2019 novel coronavirus disease (COVID-19) pandemic led to restrictions on trauma services in several hospitals with potential operating delays and unintended negative outcomes. This local study describes the impact of operative pathway changes on clinical outcomes of patients undergoing fragility hip fracture fixation during the COVID-19 pandemic. Methods: A single centre, retrospective analysis was performed for all patients who presented with fragility hip fractures for operative management between the 23rd March and 29th April 2020. Results: 34 patients met the inclusion criteria for analysis. The median patient age was 88 years old, with a median inpatient stay of 8 days. Three patients died prior to being operated on. 48% of patients were operated on within 36 hours. The 30 day all-cause mortality from the date of presentation of injury was 20%. Discussion: Our study demonstrates that the pandemic and changes to operating pathways has had a sizeable impact on the hip fracture service with delays in surgery and an increase in the 30 day mortality. These disruptions to surgical operating systems are likely to continue, with potential ongoing unintended negative consequences as demonstrated in this study. We believe that a focus on solving logistical issues including availability of sufficient operating theatre capacity, redeployment of staff, early multidisciplinary input and counselling patients on the increased outcome risks will help to mitigate risks posed to this vulnerable patient population during these periods.

Thirty-day mortality following surgical management of hip fractures during the COVID-19 pandemic: findings from a prospective multi-centre UK study. Narang A et al., International Orthopaedics. "PURPOSE: Thirty-day mortality of patients with hip fracture is well researched and predictive; validated scoring tools have been developed (Nottingham Hip Fracture Score, NHFS). COVID-19 has significantly greater mortality in the elderly and comorbid patients which includes hip fracture patients. Non-operative treatment is not appropriate due to significantly higher mortality, and therefore, these patients are often exposed to COVID-19 in the peri-operative period. What is unclear is the effect of concomitant COVID-19 infection in these patients. METHODS: A multicentre prospective study across ten sites in the United Kingdom (responsible for 7% of hip fracture patients per annum in the UK). Demographic and background information were collected by independent chart review. Data on surgical factors included American Society of Anesthesiologists (ASA) score, time to theatre, Nottingham Hip fracture score (NHFS) and classification of fracture were also collected between 1st March 2020 and 30th April 2020 with a matched cohort from the same period in 2019. RESULTS: Actual and expected 30-day mortality was found to be significantly higher than expected for 2020 COVID-19 positive patients (RR 3.00 95% CI 1.57-5.75, p < 0.001), with 30 observed deaths compared against the 10 expected from NHFS risk stratification. CONCLUSION: COVID-19 infection appears to be an independent risk factor for increased mortality in hip fracture patients. Whilst non-operative management of these fractures is not suggested due to the documented increased risks and mortality, this study provides evidence to the emerging literature of the severity of COVID-19 infection in surgical patients and the potential impact of COVID-19 on elective surgical patients in the peri-operative period."

The impact of the COVID-19 pandemic on cardiology services. Fersia O et al., Open Heart.

"OBJECTIVE: The COVID-19 pandemic resulted in prioritisation of National Health Service (NHS) resources to cope with the surge in infected patients. However, there have been no studies in the UK looking at the effect of the COVID-19 work pattern on the provision of cardiology services. We aimed to assess the impact of the pandemic on cardiology services and clinical activity. METHODS: We analysed key performance indicators in cardiology services in a single centre in the UK in the periods prior to and during lockdown to assess reduction or changes in service provision. RESULTS: There has been a greater than 50% drop in the number of patients presenting to cardiology and those diagnosed with myocardial infarction. All areas of cardiology service provision sustained significant reductions, which included outpatient clinics, investigations, procedures and cardiology community services such as heart failure and cardiac rehabilitation. CONCLUSIONS: As ischaemic heart disease continues to be the leading cause of death nationally and globally, cardiology services need to prepare for a significant increase in workload in the recovery phase and develop new pathways to urgently help those adversely affected by the changes in service provision."

Mental health services

Impact on mental health care and on mental health service users of the COVID-19 pandemic: a mixed methods survey of UK mental health care staff. Johnson S et al., Social Psychiatry and Psychiatric Epidemiology. "PURPOSE: The COVID-19 pandemic has potential to disrupt and burden the mental health care system, and to magnify inequalities experienced by mental health service users. METHODS: We investigated staff reports regarding the impact of the COVID-19 pandemic in its early weeks on mental health care and mental health service users in the UK using a mixed methods online survey. Recruitment channels included professional associations and networks, charities, and social media. Quantitative findings were reported with descriptive statistics, and content analysis conducted for qualitative data. RESULTS: 2,180 staff from a range of sectors, professions, and specialties participated. Immediate infection control concerns were highly salient for inpatient staff, new ways of working for community staff. Multiple rapid adaptations and innovations in response to the crisis were described, especially remote working. This was cautiously welcomed but found successful in only some clinical situations. Staff had specific concerns about many groups of service users, including people whose conditions are exacerbated by pandemic anxieties and social disruptions; people experiencing loneliness, domestic abuse and family conflict; those unable to understand and follow social distancing requirements; and those who cannot engage with remote care. CONCLUSION: This overview of staff concerns and experiences in the early COVID-19 pandemic suggests directions for further research and service development: we suggest that how to combine infection control and a therapeutic environment in hospital, and how to achieve effective and targeted tele-health implementation in the community, should be priorities. The limitations of our convenience sample must be noted."

Maternity services

Impact of restrictions on parental presence in neonatal intensive care units related to coronavirus disease 2019. Mahoney AD et al., Journal of Perinatology. "Objectives To determine the relationship between the emergence of COVID-19 and neonatal intensive care unit (NICU) family presence as well as how NICU design affects these changes. Study design A cross-sectional survey from April 21 to 30, 2020. We queried sites regarding NICU demographics, NICU restrictions on parental presence, and changes in ancillary staff availability. Results Globally, 277 facilities responded to the survey. NICU policies preserving 24/7 parental presence decreased (83–53%, p < 0.001) and of preserving full parental participation in rounds fell (71–32%, p < 0.001). Singlefamily room design NICUs best preserved 24/7 parental presence after the emergence of COVID-19 (single-family room 65%, hybrid-design 57%, open bay design 45%, p = 0.018). In all, 120 (43%) NICUs reported reductions in therapy services, lactation medicine, and/or social work support. Conclusions Hospital restrictions have significantly limited parental presence for NICU admitted infants, although single-family room design may attenuate this effect."

Tertiary care

Pediatric Surgery during the COVID-19 Pandemic: An International Survey of Current

Practice. Nasher O et al., Eur J Pediatr Surg. "Introduction Understanding the challenges experienced by pediatric surgeons in the early phases of the pandemic may help identify key issues and focus research. Materials and Methods Two pediatric surgeons from each of the 10 countries most affected by COVID-19 were surveyed over a 10-day period. Data were obtained regarding service provision, infection control, specific surgical conditions, and the surgical workforce. Results Twenty pediatric surgeons responded. All centers had postponed non-emergency surgery and clinics for nonurgent conditions with virtual consultations being undertaken in 90% of centers. A majority (65%) of centers had not yet knowingly operated on a positive patient. Minimal access surgery was

performed in 75% centers but a further 75% had reduced or stopped upper gastrointestinal endoscopy. The management of simple appendicitis was unchanged in 70% centers, patients with intussusception were being referred for radiological reduction in all centers and definitive pullthrough surgery for Hirschsprung patients was performed by 95% where washouts were successful. Timing of surgery for reducible neonatal inguinal hernias had changed in 55% of centers and the management of urgent feeding gastrostomy referrals and of inflammatory bowel disease patients failing with biological therapy varied considerably. Conclusion Service provision has been severely affected by COVID-19 leading to an inevitable increase in untreated surgical pathology. Better understanding of extrapulmonary infectivity, the risk of asymptomatic carriage in children, and the reliability of testing for surgical scenarios may allow appropriate use of conventional surgery, including laparoscopy and endoscopy, and rational development of the novel care pathways needed during the pandemic."

Impact of the COVID-19 pandemic on paediatric orthopaedic trauma workload in central London: a multi-centre longitudinal observational study over the "golden weeks". The

COVid Emergency Related Trauma and orthopaedics (COVERT) Collaborative. Sugand K et al., Acta Orthopaedica. "Background and purpose — The COVID-19 pandemic has been recognised as an unprecedented global health crisis. This study assesses the impact on a large acute paediatric hospital service in London, evaluating the trends in the acute paediatric orthopaedic trauma referral caseload and operative casemix before (2019) and during (2020) COVID-19 lockdown. Patients and methods — A longitudinal retrospective observational prevalence study of both acute paediatric orthopaedic trauma referrals and operative caseload was performed for the first 6 "golden weeks" of lockdown. These data were compared with the same period in 2019. Statistical analyses included median (± median absolute deviation), risk and odds ratios as well as Fisher's exact test to calculate the statistical significance, set at $p \le 0.05$. Results — Acute paediatric trauma referrals in 2020 were reduced by two-thirds compared with 2019 (n = 302 vs. 97) with a halving risk (RR 0.55) and odds ratios (OR 0.43) of sporting-related mechanism of injuries (p = 0.002). There was a greater use of outpatient telemedicine in the COVID-19 period with more Virtual Fracture Clinic use (OR 97, RR 84, p < 0.001), and fewer patients being seen for consultation and followed up face to face (OR 0.55, RR 0.05, p < 0.001). Interpretation — The impact of the COVID-19 pandemic has led to a decline in the number of acute paediatric trauma referrals, admissions, and operations during the COVID period. There has also been a significant change in the patient pathway with more being reviewed via the means of telemedicine to reduce the risk of COVID-19 transmission and exposure. More work is required to observe for similar trends nationwide and globally as the pandemic has permanently affected the entire healthcare infrastructure."

Fifteen-minute consultation: A practical approach to remote consultations for paediatric patients during the COVID-19 pandemic. Galway N et al., Arch Dis Child Educ Pract. "Objective This practical approach to the use of telehealth aims to offer clinicians a framework for video and telephone interactions with children and families accessing healthcare. Design Using a standardised case to illustrate how video and telephone consultations can be used during the COVID-19 pandemic. Setting The emergence of 2019 novel coronavirus (COVID-19) is having a massive impact on society. Routine face-to-face consultations were reduced to reduce potential spread of the virus. Clinicians still need to provide ongoing safe care, particularly for more complex patients. Telehealth is the delivery of healthcare services across geographical barriers using information and communication technologies to improve health outcomes. Intervention In this article, we describe a 'How to' approach to using virtual consultations based on our experience and a review of expert guidelines. Conclusion Virtual consultations can be more convenient and have the potential to improve access for patients. Many have embraced these technologies for the first time during this pandemic."

Cancer care

Prioritisation by FIT to mitigate the impact of delays in the 2-week wait colorectal cancer referral pathway during the COVID-19 pandemic: a UK modelling study. Loveday C et al., Gut. "OBJECTIVE: To evaluate the impact of faecal immunochemical testing (FIT) prioritisation to mitigate the impact of delays in the colorectal cancer (CRC) urgent diagnostic (2-week-wait (2WW)) pathway consequent from the COVID-19 pandemic. DESIGN: We modelled the reduction in CRC survival and life years lost resultant from per-patient delays of 2-6 months in the 2WW pathway. We stratified by age group, individual-level benefit in CRC survival versus age-specific nosocomial COVID-19-related fatality per referred patient undergoing colonoscopy. We modelled mitigation strategies using thresholds of FIT triage of 2, 10 and 150 microg Hb/g to prioritise 2WW referrals for colonoscopy. To construct the underlying models, we employed 10-year net CRC survival for England 2008-2017, 2WW pathway CRC case and referral volumes and per-day-delay HRs generated from observational studies of diagnosis-to-treatment interval. RESULTS: Delay of 2/4/6 months across all 11 266 patients with CRC diagnosed per typical year via the 2WW pathway were estimated to result in 653/1419/2250 attributable deaths and loss of 9214/20 315/32 799 life years. Risk-benefit from urgent investigatory referral is particularly sensitive to nosocomial COVID-19 rates for patients aged >60. Prioritisation out of delay for the 18% of symptomatic referrals with FIT >10 microg Hb/g would avoid 89% of these deaths attributable to presentational/diagnostic delay while reducing immediate requirement for colonoscopy by >80%. CONCLUSIONS: Delays in the pathway to CRC diagnosis and treatment have potential to cause significant mortality and loss of life years. FIT triage of symptomatic patients in primary care could streamline access to colonoscopy, reduce delays for true-positive CRC cases and reduce nosocomial COVID-19 mortality in older true-negative 2WW referrals. However, this strategy offers benefit only in short-term rationalisation of limited endoscopy services: the appreciable false-negative rate of FIT in symptomatic patients means most colonoscopies will still be required."

The patient's pathway for breast cancer in the COVID-19 era: An Italian single-center

experience. Casella D et al., The Breast Journal. "COVID-19 has been declared a pandemic by the World Health Organization. As of April 1, 2020, Italy was the country with the second highest number of cases in the world. The spread of COVID-19 has required a rapid reorganization of health service delivery in face of the pandemic. Breast cancer units have reprioritized their workload to guarantee the health of oncologic patients at the highest risk and regular screening activities. However, at the end of the pandemic emergency, many benign and reconstructive cases will return to our attention and their surgical treatment will be necessary as soon as possible."

Commentaries

Primary care

Primary care networks: the impact of covid-19 and the challenges ahead. Pettigrew LM et al., BMJ.

Outpatient Care

Epilepsy course during COVID-19 pandemic in three Italian epilepsy centers. Cabona C et al., Epilepsy & Behavior.

Mental health services

Experience of an acute old age psychiatric ward in the early stages of the coronavirus disease 2019 pandemic in the UK. Nizama-Via A et al., Psychogeriatrics.

Cancer care

Perspectives in surgical and anaesthetic management of lung cancer in the era of coronavirus disease 2019 (COVID-19). Fiorelli S et al., Eur J Cardiothorac Surg.

Interstitial pneumonitis in the COVID-19 era: a difficult differential diagnosis in patients with lung cancer. Catania C et al., Tumori Journal.

Management of breast cancer in an EUSOMA-accredited Breast Unit in Lombardy, Italy, during the COVID-19 pandemic. Corsi F et al., The Breast Journal.

Extraordinary emergency measures set up by a Breast Unit to prevent COVID-19: Report of our experience. Testori A et al., The Breast Journal.

<u>COVID-19: Current and future crisis planning in breast imaging.</u> Gerlach et al., The Breast Journal.

The impact of the COVID-19 pandemic on breast cancer patients awaiting surgery: Observational survey in an Italian University hospital. Magno S et al., The Breast Journal.

Useful resources

<u>Video consultations in ordinary and extraordinary times.</u> Duncan C & Macleod AD. Practical Neurology.



This update forms part of a national evidence update service, provided by the Strategy Unit, as part of a collaboration to provide analytical support to the health and care system to help in the fight against COVID-19. For more information, visit: <u>https://www.strategyunitwm.nhs.uk/covid19-and-coronavirus</u> or contact our Covid Evidence team on: <u>mlcsu.covidevidence@nhs.net</u>