

COVID-19 Evidence Alert – 16th July 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. Residential settings
- 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').

We are also working on other key areas of interest such as impacts on inequalities and marginalised groups, which will be added to the alert once completed.

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

<u>Preventing and controlling outbreaks of COVID-19 in prisons and places of detention.</u>
Public Health England & Ministry of Justice. (updated 14/7/20).

<u>COVID-19 guide for care staff supporting adults with learning disabilities or autistic adults.</u> SCIE, Department of Health & Social Care. (updated July 2020).

Emerging evidence

Why, in almost all countries, was residential care for older people so badly affected by COVID-19? Declerq A et al., Observatoire Social Européen paper series. (published online July 2020). "During COVID-19, it became clear which parts of our health and social care systems function



well, but also which parts are unsuited to the context of a global pandemic. In many countries, residential care for older people was one of the settings not prepared for a pandemic. In industrialised countries, the impact of COVID-19 has been most severe in residential care and for their residents. It is too early for a clear view of the total incidence and fatality rate, because testing strategies and methods of counting vary among countries (Gordon et al. 2020). While we need to be careful when interpreting these numbers, it is possible to identify a number of trends. In Belgium, which was severely hit by COVID-19, almost 6,200 persons – or 64.5% of all COVID-19 deaths – were people who lived in a nursing home. Of those, 14% died in a hospital, the others died in the nursing home (Sciensano 2020). In the United States, New York, New Jersey and Massachusetts were COVID-19 hotspots, with over half the deaths in residential care. Some countries (e.g. France and the Netherlands) did not report nursing home deaths in their initial COVID-19 communications (Fraser et al. 2020), but 72% of France's deaths were in these facilities (2); the equivalent number in the Netherlands was 46% (RIVM 2020). International data from 19 countries show that, where there have been at least 100 deaths in total, the percentage of care home residents as a share of total deaths ranges from 24% in Hungary to 82% in Canada (Comas-Herrera et al. 2020). In Italy – with a low number of residential care beds – 31% of confirmed COVID-19 deaths still happened in residential care. This is about the same as in Germany, with many more residential care beds. The percentages in France (46%) and Belgium (50%) are higher. Except for Hungary, only limited data are available from Eastern European countries. For example, the Czech Health Statistics Office does not collect these data. Local data show that in Prague, fewer than 10% of the facilities were affected and the proportion of nursing home deaths in the total death rate is about 20%. In Prague, as in Hong Kong, all recommended measures were quickly in place (Topinkova and Petrova 2020). Statistics were reported very late in other countries, and so government responses were also delayed. The European Centre for Disease Prevention and Control (ECDC 2020) states that the lack of special surveillance systems and the differences in testing strategies and capacities among countries may have led to a significant under-ascertainment and under-reporting of cases, contributing to a general underestimation of the disease burden and mortality in residential care. Many deaths were preventable, the quality of life was severely affected and the working life of staff was filled with stress and risk of burn-out. One Canadian long-term care nurse stated that "the trauma from that will change you forever" (Welsh 2020)."

Prevalence testing and infection control best practices. Eckardt P et al., American Journal of Infection Control (pre-proof). "In a hospital affiliated long term care facility, we found an opportunity to interrupt a potential outbreak of COVID-19 using a point prevalence testing containment strategy and applying infection prevention and control best practices. Three serial point prevalence studies were conducted on all residents and employees in fourteen day intervals and percent positive was used as marker for effective infection control efforts. A multidisciplinary strike team from acute care was used to disseminate infection control education and support to long term care partners. These results highlight the need for swift identification and action in congregant high risk settings to prevent rapid spread and large scale outbreaks of COVID-19."

<u>care homes in one geographic region.</u> Burton JK et al., MedRXiv (pre-print). "Background: COVID-19 has had large impact on care-home residents internationally. This study systematically examines care-home outbreaks of COVID-19 in a large Scottish health board. Methods: Analysis of



testing, cases and deaths using linked care-home, testing and mortality data for 189 care-homes with 5843 beds in a large Scottish Health Board up to 15/06/20. Findings: 70 (37.0%) of care-homes experienced a COVID-19 outbreak, 66 of which were in care-homes for older people where care-home size was strongly associated with outbreaks (OR per 20-bed increase 3.50, 95%CI 2.06 to 5.94). There were 852 confirmed cases and 419 COVID-related deaths, 401 (95.7%) of which occurred in care-homes with an outbreak, 16 (3.8%) in hospital, and two in the 119 care-homes without a known outbreak. For non-COVID related deaths, there were 73 excess deaths in care-homes with an outbreak, but no excess deaths in care-homes without an outbreak, and 24 fewer deaths than expected of care-home residents in hospital. A quarter of COVID-19 related cases and deaths occurred in five (2.6%) care-homes, and half in 13 (6.9%) care-homes. Interpretation: The large impact on excess deaths appears to be primarily a direct effect of COVID-19, with cases and deaths are concentrated in a minority of care homes. A key implication is that there is a large pool of susceptible residents if community COVID-19 incidence increases again. Shielding residents from potential sources of infection and rapid action into minimise outbreak size where infection is introduced will be critical in any wave 2. Funding: Not externally funded."

<u>Atypical Presentations of COVID-19 in Care Home Residents presenting to Secondary Care:</u> <u>A UK Single Centre Study.</u> Rawle MJ et al., MedRXiv (pre-print). Doi:

10.1101/2020.07.07.20148148. "Background: The United Kingdom (UK) care home population has experienced high mortality during the COVID-19 pandemic. Atypical presentations of COVID-19 are being reported in older adults and may pose difficulties for early isolation and treatment, particularly in institutional care settings. We aimed to characterise the presenting symptoms and associated mortality of COVID-19 in older adults, with a focus on care home residents and older adults living in the community. Methods: This was a retrospective cohort study of consecutive inpatients over 80 years old hospitalised with PCR confirmed COVID-19 between 10th March 2020 and 8th April 2020. Symptoms at presentation, including those associated with frailty, were analysed. Differences between community dwelling and care home residents, and associations with mortality, were assessed using between-group comparisons and logistic regression. Results: Care home residents were less likely to experience cough (46.9% vs 72.9%, p=0.002) but more likely to present with delirium (51.6% vs 31.4%, p=0.018), particularly hypoactive delirium (40.6% vs 24.3%, p=0.043). Mortality was more likely in the very frail (OR 1.25, 95% CI 1.00, 1.58, p=0.049) and those presenting with anorexia (OR 3.20, 95% CI 1.21, 10.09, p=0.028). There were no differences in either mortality or length of stay between those admitted from care homes and community dwelling older adults. Conclusion: COVID-19 in those over 80 does not always present with typical symptoms, particularly in those admitted from institutional care. These individuals have a reduced incidence of cough and increased hypoactive delirium. Individuals presenting atypically, especially with anorexia, have higher mortality."

<u>Leaving the most vulnerable behind: Reflection on the Covid-19 pandemic and Direct Provision in Ireland.</u> Gusciute E. Irish Journal of Sociology. Doi: 10.1177/0791603520940145.

"The outbreak of the Covid-19 pandemic has dramatically altered our daily routines, social interactions, workplaces, future plans and social norms. Social distancing, isolating or 'cocooning', and avoiding all non-essential contact are the 'new normal'. In one of his speeches, An Taoiseach, Leo Varadkar highlights the frustration felt by many in adapting to the 'new normal' and the longing for simple things we all perhaps have taken for granted. This, he goes on to say, is necessary to stop the spread of the virus and to 'shelter our most vulnerable and [to] protect them' (Varadkar, 2020).



However, the measures taken to protect those deemed vulnerable have not been extended to include some 7700 international protection applicants living in Direct Provision centres. In this short article, I reflect on how asylum seekers, one of the most vulnerable groups in Irish society, have been left behind during the outbreak of the Covid-19 pandemic."

The COVID-19 Epidemic and the Prison System in Italy. Cingolani M et al., Journal of Correctional Health Care. Doi: 10.1177/1078345820929733. "The Italian Ministry of Justice and that of Health have established two strategies to limit the spread of COVID-19 in prisons: progressive isolation from the external world and adoption of practices to identify possible cases and to treat infected subjects. After the announcement of regulations revolts erupted in numerous Italian prisons. The motivations and effects of these strategy are discussed critically into the search for a balance between the right to health and other rights of prisoners in Italian prisons with the problem of an occupancy level of 121.75%."

Detrimental effects of confinement and isolation on the cognitive and psychological health of people living with dementia during COVID-19: emerging evidence. Suárez-González A. International Long Term Care Policy Network. (published online 23/6/20- last updated 1/7/20). "Only 2 case studies reporting strategies to support people with dementia in care homes have been produced so far4-5. One describes a quarantine care plan for a person with FTD and the other, a mitigating strategy to ease the distress experienced by a man when his family stopped visiting during the pandemic. People living with dementia in care homes have experienced a particularly harsh version of lockdown. Although no observational studies on the effects of confinement in care home residents have been published yet, the ban on visits from spouses and partners in care is believed to be causing a significant deterioration in the health and wellbeing of residents with dementia6. It is worth noting that a study involving 26 care homes proved that it is possible to implement successful infection control measures at the same time that visits are permitted7. COVID-19 infections will continue happening until a vaccine is developed. Learnings from this first COVID-19 wave can help the home care and day care sector prepare to minimise the disruption of their services in future waves so support can continue for people with dementia in the community. In care homes, evidence-based compassionate protocols should contribute to mitigating the detrimental effects of isolation and quarantine in residents with dementia (and their families)."

Nurse Staffing and Coronavirus Infections in California Nursing Homes. Harrington C et al., Policy, Politics, & Nursing Practice. Doi: 10.1177/1527154420938707. "In the United States, 1.4 million nursing home residents have been severely impacted by the COVID-19 pandemic with at least 25,923 resident and 449 staff deaths reported from the virus by June 1, 2020. The majority of residents have chronic illnesses and conditions and are vulnerable to infections and many share rooms and have congregate meals. There was evidence of inadequate registered nurse (RN) staffing levels and infection control procedures in many nursing homes prior to the outbreak of the virus. The aim of this study was to examine the relationship of nurse staffing in California nursing homes and compare homes with and without COVID-19 residents. Study data were from both the California and Los Angeles Departments of Public Health and as well as news organizations on nursing homes reporting COVID-19 infections between March and May 4, 2020. Results indicate that nursing homes with total RN staffing levels under the recommended minimum standard (0.75 hours per resident day) had a two times greater probability of having COVID-19 resident infections. Nursing homes with lower Medicare five-star ratings on total nurse and RN staffing levels (adjusted for acuity), higher total health deficiencies, and more beds had a higher probability of having COVID-19 residents.



Nursing homes with low RN and total staffing levels appear to leave residents vulnerable to COVID-19 infections. Establishing minimum staffing standards at the federal and state levels could prevent this in the future."

Improving the care of older patients during the COVID-19 pandemic. Bianchetti A et al., Aging Clinical and Experimental Research. "The SARS-CoV-2 pandemic has led to a dramatic crisis of Health Care Systems worldwide, and older people have been among the most disadvantaged. Specific recommendations and reports have been released both at International and National level, regarding the diagnosis and management of COVID-19 in the elderly. However, little has been proposed for an appropriate response to older, frail and multimorbid patients in different settings of care (acute care units, long term care facilities, nursing homes and primary care) and for the management of geriatric syndromes (i.e. delirium, sarcopenia, falls). We presume that the current pandemic of will leads to substantial changes in health care systems, and we suggest some key guide principles that could inspire the provision of healthcare services to older people and their families. These principles are primarily directed to physicians and nurses working in the geriatric field but could also be useful for other specialists."

Commentaries

<u>COVID-19 pandemic: urgent need for action in care homes and senior citizens' homes from a medical-ethics perspective.</u> Schone-Seifert B & Van Aken HK. Current Opinion in Anaesthesiology. (published online 7/7/20).

Impacts of lifting restrictions

Commentary from the collaboration

<u>Lessons from the last hospital building programme, and recommendations for the next.</u> Edwards N. Nuffield Trust. (published online 16/7/20).

<u>Covid-19: lessons for hospital building programmes.</u> Edwards N. Nuffield Trust. (published online 16/7/20).

Guidance

<u>Impact of easing COVID-19 lockdown restrictions on domestic violence and abuse.</u> Social Care Institute for Excellence. (SCIE). (published online July 2020).

Emerging evidence

<u>Economic interventions to ameliorate the impact of COVID-19 on the economy and health:</u> <u>an international comparison</u>. Danielli S et al., Journal of Public Health. Doi:

10.1093/pubmed/fdaa104. "The COVID-19 pandemic continues to challenge governments and policymakers worldwide. They have rightfully prioritised reducing the spread of the virus through social distancing interventions. However, shuttered business and widespread restrictions on travel and mobility have led to an economic collapse with increasing uncertainty of how quickly recovery will be achieved. The authors carried out a review of publicly available information on the economic intervention's countries have put in place to ameliorate the impact of COVID-19. The strategies and scale of economic interventions have been broad, ranging from 2.5% to a reported 50% of Gross



Domestic Product. Numerous countries are beginning to ease lockdown restrictions and restart economies in different ways. There is therefore evolving, real-world data that should be used dynamically by governments and policymakers. The strategies on restarting the economy must be balanced against the uncertainty of a possible second wave of COVID-19. A nuanced approach to easing restrictions needs to take into account not only immediate risk to life but longer-term risks of widening inequalities and falling life expectancy."

Reopening Schools in the Context of COVID-19: Health and Safety Guidelines From Other Countries. Melnick H & Darliing-Hammond et al., Learning Policy Institute. Policy Brief. "As the United States considers wave of the COVID-19 pandemic, policymakers and administrators need to consider how to reopen in a way that keeps students and staff safe. This brief provides insight into health and safety guidelines and social distancing strategies used in other countries that have successfully reopened their schools in the context of COVID-19. Examples are intended to support school policymakers and administrators in the United States as they plan for reopening."

Social distancing, population density, and spread of COVID-19 in England: a longitudinal study. Tammes P. BJGP, bjgpopen20X101116. "Background: The UK government introduced social distancing measures between 16-22 March 2020, aiming to slow down transmission of COVID-19. Aim: To explore the spreading of COVID-19 in relation to population density after the introduction of social distancing measures. Design & setting: Longitudinal design with 5-weekly COVID-19 incidence rates per 100 000 people for 149 English Upper Tier Local Authorities (UTLAs), between 16 March and 19 April 2020. Method: Multivariable multilevel model to analyse weekly incidence rates per 100 000 people; time was level-1 unit and UTLA level-2 unit. Population density was divided into quartiles. The model included an interaction between week and population density. Potential confounders were percentage aged ≥65, percentage non-white British, and percentage in two highest classes of the National Statistics Socioeconomic Classification. Co-variates were male life expectancy at birth, and COVID-19 prevalence rate per 100 000 people on March 15. Confounders and co-variates were standardised around the mean. Results: Incidence rates per 100 000 people peaked in the week of March 30-April 5, showing higher adjusted incidence rate per 100 000 people (46.2; 95% confidence interval [CI] = 40.6 to 51.8) in most densely populated ULTAs (quartile 4) than in less densely populated ULTAs (quartile 1: 33.3, 95% CI = 27.4 to 37.2; quartile 2: 35.9, 95% CI = 31.6 to 40.1). Thereafter, incidence rate dropped in the most densely populated ULTAs resulting in rate of 22.4 (95% CI = 16.9 to 28.0) in the week of April 13–19; this was lower than in quartiles 1, 2, and 3, respectively 31.4 (95% CI = 26.5 to 36.3), 34.2 (95% CI = 29.9 to 38.5), and 43.2 (95% CI = 39.0 to 47.4). Conclusion: After the introduction of social distancing measures, the incidence rates per 100 000 people dropped stronger in most densely populated ULTAs."

Perspective. Zheng L et al., Int J Environ Res Public Health, 17(12). "Lockdown measures have been widely used to control and prevent virus transmission in pandemic regions. However, the psychological effects of lockdown measures have been neglected, and the related theoretical research lags behind the practice. The present study aimed to better understand the mechanism of social anxiety in pandemic regions where the lockdown measures were imposed, based on the conceptual framework of the Stimulus-Organism-Response (SOR). For that, this research investigated how lockdown measures and psychological distance influenced social anxiety in the pandemic region. The Chinese national data was analyzed for the outcome. The results showed that



(1) psychological distance mediated the relationship between pandemic COVID-19 severity and social anxiety, (2) lockdown measures buffered the detrimental effect of the COVID-19 pandemic severity on social anxiety, (3) lockdown measures moderated the mediation effect of psychological distancing on social anxiety caused by the COVID-19 pandemic. In conclusion, under the SOR framework, the lockdown measures had a buffer effect on social anxiety in pandemic regions, with the mediating role of psychological distancing."

12 Lessons learned from the management of the coronavirus pandemic. Forman R et al., Health Policy, 124(6). "The Coronavirus SARS-CoV-2 has spread rapidly since the first cases hit Wuhan, China at the end of 2019, and has now landed in almost every part of the world. By mid-February 2020, China, South Korea, Singapore, Taiwan, and – to some extent – Japan began to contain and control the spread of the virus, while conversely, cases increased rapidly in Europe and the United States. In response to the pandemic, many countries have had to introduce drastic legally mandated lockdowns to enforce physical separation, which are ravaging economies worldwide. Although it will be many months or even years before the final verdict can be reached, we believe that it is already possible to identify 12 key lessons that we can learn from to reduce the tremendous economic and social costs of this pandemic and which can inform responses to future crises. These include lessons around the importance of transparency, solidarity, coordination, decisiveness, clarity, accountability and more."

Policing Social Distancing: Gaining and Maintaining Compliance in the Age of Coronavirus.

Grace S. Policing: A Journal of Policy and Practice, paaa029. "Drawing on motivational posturing theory (MPT) and procedural justice theory (PJT), this article makes recommendations for how best to secure compliance with social distancing regulations. Applying those theories to—mostly observational—data from a study on the use and impact of penalty notices for disorder, the influences on cooperation during police—citizen encounters are explored. Whilst focusing on the English data/regulations, as both MPT and PJT have been tested internationally, the conclusions have relevance beyond these shores. The article proposes a sixth posture—compulsion, a form of resistant compliance—to the five set out by MPT. Focusing attention not just on whether compliance is achieved but how recognizes the risk to future legitimacy posed by only achieving compliance through coercion or the threat thereof. Lessons from the research are applied to policing social distancing, with regards to: securing compliance during interactions, self-regulation and enforcement action, and how to preserve police legitimacy."

Commentaries

Sports medicine leaders working with government and public health to plan a 'return-to-sport' during the COVID-19 pandemic: the UK's collaborative five-stage model for elite sport. Kemp S et al., Br J Sports Med. (published online 14/7/20).

There will be no 'back to normal'. Haley C et al., NESTA (updated July 2020).

We don't want 'normal' - we want better. Marmot M, NESTA. (published online July 2020).

<u>Pandemic peak SARS-CoV-2 infection and seroconversion rates in London frontline health-care workers.</u> Houlihan et al., The Lancet. (published online 9/7/20).



Harnessing behavioural science in public health campaigns to maintain 'social distancing' in response to the COVID-19 pandemic: key principles. Bonnell C et al., Epidemiology & Community Health, 74(8). (published online 8/5/20).

Why Scotland's slow and steady approach to covid-19 is working. Sridhar A & Chen A. BMJ, 370:m266. (published online 6/7/20).

We must rapidly learn lessons from Leicester's local lockdown to prevent further outbreaks. Nazareth J et al., BMJ Opinion. (published online 10/7/20).

<u>Covid-19: How does local lockdown work, and is it effective?</u> Mahase E. BMJ, 370:m2679. (published online 3/7/30).

Long term rehabilitation needs

Guidance

<u>Expert consensus on protocol of rehabilitation for COVID-19 patients using framework and approaches of WHO International Family Classifications.</u> Zeng B et al., Aging Medicine. Doi: 10.1002/agm2.12120. (published online 6/7/30).

Emerging evidence

Follow-up study of the pulmonary function and related physiological characteristics of **COVID-19 survivors three months after recovery.** Zhao YM et al., The Lancet. Doi: 10.1016/j.eclinm.2020.100463. "Background: The long-term pulmonary function and related physiological characteristics of COVID-19 survivors have not been studied in depth, thus many aspects are not understood Methods: COVID-19 survivors were recruited for high resolution computed tomography (HRCT) of the thorax, lung function and serum levels of SARS-CoV-2 IgG antibody tests 3 months after discharge. The relationship between the clinical characteristics and the pulmonary function or CT scores were investigated. Findings: Fifty-five recovered patients participated in this study. SARS-CoV-2 infection related symptoms were detected in 35 of them and different degrees of radiological abnormalities were detected in 39 patients. Urea nitrogen concentration at admission was associated with the presence of CT abnormalities (P = 0.046, OR 7.149, 95% CI 1.038 to 49.216). Lung function abnormalities were detected in 14 patients and the measurement of D-dimer levels at admission may be useful for prediction of impaired diffusion defect (P = 0.031, OR 1.066, 95% CI 1.006 to 1.129). Of all the subjects, 47 of 55 patients tested positive for SARS-CoV-2 IgG in serum, among which the generation of Immunoglobulin G (IgG) antibody in female patients was stronger than male patients in infection rehabilitation phase. Interpretation: Radiological and physiological abnormalities were still found in a considerable proportion of COVID-19 survivors without critical cases 3 months after discharge. Higher level of Ddimer on admission could effectively predict impaired DLCO after 3 months discharge. It is necessary to follow up the COVID-19 patients to appropriately manage any persistent or emerging long-term sequelae."

Intensive care admissions of children with paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) in the UK: a multicentre observational study. Davies P et al., Lancet Child Adolesc Health. Background: In April, 2020, clinicians in the UK



observed a cluster of children with unexplained inflammation requiring admission to paediatric intensive care units (PICUs). We aimed to describe the clinical characteristics, course, management, and outcomes of patients admitted to PICUs with this condition, which is now known as paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS). Methods: We did a multicentre observational study of children (aged <18 years), admitted to PICUs in the UK between April 1 and May 10, 2020, fulfilling the case definition of PIMS-TS published by the Royal College of Paediatrics and Child Health. We analysed routinely collected, de-identified data, including demographic details, presenting clinical features, underlying comorbidities, laboratory markers, echocardiographic findings, interventions, treatments, and outcomes; serology information was collected if available. PICU admission rates of PIMS-TS were compared with historical trends of PICU admissions for four similar inflammatory conditions (Kawasaki disease, toxic shock syndrome, haemophagocytic lymphohistiocytosis, and macrophage activation syndrome). Findings: 78 cases of PIMS-TS were reported by 21 of 23 PICUs in the UK. Historical data for similar inflammatory conditions showed a mean of one (95% CI 0.85-1.22) admission per week, compared to an average of 14 admissions per week for PIMS-TS and a peak of 32 admissions per week during the study period. The median age of patients was 11 years (IQR 8-14). Male patients (52 [67%] of 78) and those from ethnic minority backgrounds (61 [78%] of 78) were over-represented. Fever (78 [100%] patients), shock (68 [87%]), abdominal pain (48 [62%]), vomiting (49 [63%]), and diarrhoea (50 [64%]) were common presenting features. Longitudinal data over the first 4 days of admission showed a serial reduction in C-reactive protein (from a median of 264 mg/L on day 1 to 96 mg/L on day 4), D-dimer (4030 μ g/L to 1659 μ g/L), and ferritin (1042 μ g/L to 757 μ g/L), whereas the lymphocyte count increased to more than 1.0 ×109 cells per L by day 3 and troponin increased over the 4 days (from a median of 157 ng/mL to 358 ng/mL). 36 (46%) of 78 patients were invasively ventilated and 65 (83%) needed vasoactive infusions; 57 (73%) received steroids, 59 (76%) received intravenous immunoglobulin, and 17 (22%) received biologic therapies. 28 (36%) had evidence of coronary artery abnormalities (18 aneurysms and ten echogenicity). Three children needed extracorporeal membrane oxygenation, and two children died. Interpretation: During the study period, the rate of PICU admissions for PIMS-TS was at least 11-fold higher than historical trends for similar inflammatory conditions. Clinical presentations and treatments varied. Coronary artery aneurysms appear to be an important complication. Although immediate survival is high, the longterm outcomes of children with PIMS-TS are unknown."

<u>Guillain-Barré syndrome associated with COVID-19 infection: a case from the UK.</u> Tiet MY & AlShaikh, BMJ Case Reports, 13(7). "Originating from Wuhan, China, COVID-19 has rapidly spread worldwide. Neurological manifestations are more commonly associated with severe COVID-19 infection. Guillain-Barré syndrome (GBS) is a rare immune-mediated postinfectious neuropathy. It has been reported as a possible rare complication of COVID-19. We report a case of GBS associated with COVID-19 in the UK."

Meeting the Transitional Care Needs of Older Adults with COVID-19. Naylor MD et al., Journal of Aging & Social Policy, 32(4). "Older adults with COVID-19 who survive hospitalizations and return to their homes confront substantial health challenges and an unpredictable future. While understanding of the unique needs of COVID-19 survivors is developing, components of the evidence-based Transitional Care Model provide a framework for taking a more immediate, holistic response to caring for these individuals as they moved back into the community. These components include: increasing screening, building trusting relationships, improving patient engagement,



promoting collaboration across care teams, undertaking symptom management, increasing family caregiver care/education, coordinating health and social services, and improving care continuity. Evidence generated from rigorous testing of these components reveal the need for federal and state policy solutions to support the following: employment/redeployment of nurses, social workers, and community health workers; training and reimbursement of family caregivers; widespread access to research-based transitional care tools; and coordinated local efforts to address structural barriers to effective transitions. Immediate action on these policy options is necessary to more effectively address the complex issues facing these older adults and their family caregivers who are counting on our care system for essential support."

A Proposal for Multidisciplinary Tele-rehabilitation in the Assessment and Rehabilitation of COVID-19 survivors. Green SA et al., Environmental Research and Public Health, 17(13). "A global pandemic of a new highly contagious disease called COVID-19 resulting from coronavirus (severe acute respiratory syndrome (SARS)-Cov-2) infection was declared in February 2020. Though primarily transmitted through the respiratory system, other organ systems in the body can be affected. Twenty percent of those affected require hospitalization with mechanical ventilation in severe cases. About half of the disease survivors have residual functional deficits that require multidisciplinary specialist rehabilitation. The workforce to deliver the required rehabilitation input is beyond the capacity of existing community services. Strict medical follow-up guidelines to monitor these patients mandate scheduled reviews within 12 weeks post discharge. Due to the restricted timeframe for these events to occur, existing care pathway are unlikely to be able to meet the demand. An innovative integrated post-discharge care pathway to facilitate follow up by acute medical teams (respiratory and intensive care) and a specialist multidisciplinary rehabilitation team is hereby proposed. Such a pathway will enable the monitoring and provision of comprehensive medical assessments and multidisciplinary rehabilitation. This paper proposes that a model of telerehabilitation is integrated within the pathway by using digital communication technology to offer quick remote assessment and efficient therapy delivery to these patients. Tele-rehabilitation offers a quick and effective option to respond to the specialist rehabilitation needs of COVID-19 survivors following hospital discharge."

Persistent Symptoms in Patients After Acute COVID-19. Carfi A et al., JAMA, doi:

10.1001/jama.2020.12603. "In Italy, a large proportion of patients with coronavirus disease 2019 (COVID-19) presented with symptoms (71.4% of 31 845 confirmed cases as of June 3, 2020).1 Common symptoms include cough, fever, dyspnoea, musculoskeletal symptoms (myalgia, joint pain, fatigue), gastrointestinal symptoms, and anosmia/dysgeusia.2-4 However, information is lacking on symptoms that persist after recovery. We assessed persistent symptoms in patients who were discharged from the hospital after recovery from COVID-19. From April 21 to May 29, 2020, 179 patients were potentially eligible for the follow-up post—acute care assessment; 14 individuals (8%) refused to participate and 22 had a positive test result. Thus, 143 patients were included. The mean age was 56.5 (SD, 14.6) years (range, 19-84 years), and 53 (37%) were women. During hospitalization, 72.7% of participants had evidence of interstitial pneumonia. The mean length of hospital stay was 13.5 (SD, 9.7) days; 21 patients (15%) received noninvasive ventilation and 7 patients (5%) received invasive ventilation. Patients were assessed a mean of 60.3 (SD, 13.6) days after onset of the first COVID-19 symptom; at the time of the evaluation, only 18 (12.6%) were completely free of any COVID-19—related symptom, while 32% had 1 or 2 symptoms and 55% had 3 or more. None of the patients had fever or any signs or symptoms of acute illness. Worsened quality



of life was observed among 44.1% of patients. The Figure shows that a high proportion of individuals still reported fatigue (53.1%), dyspnea (43.4%), joint pain, (27.3%) and chest pain (21.7%)."

Frailty and COVID-19: A Systematic Scoping Review. Maltese G et al., J Clin Med. "Older people have paid a huge toll in terms of mortality during the coronavirus disease-19 (COVID-19) pandemic. Frailty may have contributed to the vulnerability of older people to more severe clinical presentation. We aimed at reviewing available evidence about frailty and COVID-19. We searched PUBMED, Web of Science, and EMBASE from 1 December 2019 to 29 May 2020. Study selection and data extraction were performed by three independent reviewers. Qualitative synthesis was conducted and quantitative data extracted when available. Forty papers were included: 13 editorials, 15 recommendations/guidelines, 3 reviews, 1 clinical trial, 6 observational studies, 2 case reports. Editorials and reviews underlined the potential clinical relevance of assessing frailty among older patients with COVID-19. However, frailty was only investigated in regards to its association with overall mortality, hospital contagion, intensive care unit admission rates, and disease phenotypes in the few observational studies retrieved. Specific interventions in relation to frailty or its impact on COVID-19 treatments have not been evaluated yet. Even with such limited evidence, clinical recommendations on the use of frailty tools have been proposed to support decision making about escalation plan. Ongoing initiatives are expected to improve knowledge of COVID-19 interaction with frailty and to promote patient-centered approaches."

Global evaluation of echocardiography in patients with COVID-19. Dweck MR et al., European Heart Journal- Cardiovascular imaging, jeaa178. "Aim: To describe the cardiac abnormalities in patients with COVID-19 and identify the characteristics of patients who would benefit most from echocardiography. Methods: In a prospective international survey, we captured echocardiography findings in patients with presumed or confirmed COVID-19 between 3 and 20 April 2020. Patient characteristics, indications, findings, and impact of echocardiography on management were recorded. Multivariable logistic regression identified predictors of echocardiographic abnormalities. Results: A total of 1216 patients [62 (52-71) years, 70% male] from 69 countries across six continents were included. Overall, 667 (55%) patients had an abnormal echocardiogram. Left and right ventricular abnormalities were reported in 479 (39%) and 397 (33%) patients, respectively, with evidence of new myocardial infarction in 36 (3%), myocarditis in 35 (3%), and takotsubo cardiomyopathy in 19 (2%). Severe cardiac disease (severe ventricular dysfunction or tamponade) was observed in 182 (15%) patients. In those without pre-existing cardiac disease (n = 901), the echocardiogram was abnormal in 46%, and 13% had severe disease. Independent predictors of left and right ventricular abnormalities were distinct, including elevated natriuretic peptides [adjusted odds ratio (OR) 2.96, 95% confidence interval (CI) 1.75-5.05) and cardiac troponin (OR 1.69, 95% CI 1.13-2.53) for the former, and severity of COVID-19 symptoms (OR 3.19, 95% CI 1.73–6.10) for the latter. Echocardiography changed management in 33% of patients. Conclusion: In this global survey, cardiac abnormalities were observed in half of all COVID-19 patients undergoing echocardiography. Abnormalities were often unheralded or severe, and imaging changed management in one-third of patients."

Commentaries

<u>Severe refractory Kawasaki disease in seven infants in the COVID-19 era.</u> Vergnano S et al., Lancet Rheumatol. Doi: 10.1016/S2665-9913(20)30231-9. (published online 10/7/20).



<u>Behavioral interventions in acute COVID-19 recovery: A new opportunity for integrated</u> <u>care.</u> Jaywant A et al., Gen Hosp Psychiatry.

<u>Patients' experiences of "longcovid" are missing from the NHS narrative.</u> Rayner C et al., BMJ Opinion. (published online 23/6/20).

Covid-10:What do we know about "long covid"? Mahase E. BMJ. (published online 14/7/20)

An adult with Kawasaki-like multisystem inflammatory syndrome associated with COVID-19. Shaigany S et al., The Lancet. (published online 10/7/20).

Screening and testing

Commentary from the collaboration

<u>'Leaky' test and trace system has long way to go to reach 'world-beating'</u>. Palmer B. Nuffield Trust. (published online 9/7/20).

Guidance

<u>Transmission of SARS-CoV-2: implications for infection prevention precautions.</u> WHO Scientific Brief. (published online 9/7/20).

Emerging evidence

Clinical utility of targeted SARS-CoV-2 serology testing to aid the diagnosis and management of suspected missed, late or post-COVID-19 infection syndromes: results from a pilot service. Sweeny N et al., MedRXiv (pre-print). "Objectives: Determine indications and clinical utility of SARS-CoV-2 serology testing in adults and children. Design: Prospective evaluation of initial three weeks of a daily Monday to Friday pilot SARS-CoV-2 serology service for patients. Setting: Early post 'first-wave' SARS-CoV-2 transmission period at single centre London teaching hospital that provides care to the local community, as well as regional and national referral pathways for specialist services. Participants: 110 (72 adults, 38 children, age range 0-83 years, 52.7% female (n=58)). Interventions: Patient serum from vetted referrals tested on CE marked and internally validated lateral flow immunoassay (LFIA) (SureScreen Diagnostics) detecting antibodies to SARS-CoV-2 spike proteins, with result and clinical interpretation provided to the direct care team. Main outcome measures: Performance characteristics, source and nature of referrals, feasibility and clinical utility of the service, particularly the benefit for clinical decision-making. Results: The LFIA was deemed suitable for clinical advice and decision making following evaluation with 310 serum samples from SARS-CoV-2 PCR positive patients and 300 pre-pandemic samples, giving a sensitivity and specificity of 96.1% and 99.3% respectively. For the pilot, 115 referrals were received leading to 113 tests performed on 108 participants (sample not available for two participants); paediatrics (n=35), medicine (n=69), surgery (n=2) and general practice (n=2). 43.4% participants (n=49) had detectable antibodies to SARS-CoV-2. There were three main indications for serology; new acute presentations potentially triggered by recent COVID-19 infection e.g. PIMS-TS (n=26) and pulmonary embolism (n=5), potential missed diagnoses in context of a recent compatible illness (n=40), and making infection control and immunosuppression treatment decisions in persistently SARS-CoV-2 RNA PCR positive individuals (n=6). Conclusions: This study shows acceptable performance



characteristics, feasibility and clinical utility of a SARS-CoV-2 serology service using a rapid, inexpensive and portable assay for adults and children presenting with a range of clinical indications. Results correlated closely with a confirmatory in-house ELISA. The study showed the benefit of introducing a serology service where there is a reasonable pre-test probability, and the result can be linked with clinical advice or intervention. Experience thus far is that the volume of requests from hospital referral routes are manageable within existing clinical and laboratory services; however, the demand from community referrals has not yet been assessed. Given recent evidence for a rapid decline in antibodies, particularly following mild infection, there is likely a limited window of opportunity to realise the benefit of serology testing for individuals infected during the 'first-wave' before they potentially fall below a measurable threshold. Rapidly expanding availability of serology services for NHS patients will also help understand the long-term implications of serostatus and prior infection in different patient groups, particularly before emergence of any 'second-wave' outbreak or introduction of a vaccination programme."

Rapid Large-Scale COVID-19 Testing during Shortages. Beetz C et al., Diagnostics, MDPI. "The Coronavirus disease 2019 (COVID-19) pandemic caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) has resulted in economic and social lockdowns in most countries all over the globe. Early identification of infected individuals is regarded as one of the most important prerequisites for fighting the pandemic and for returning to a 'New Normal'. Large-scale testing is therefore crucial, but is facing several challenges including shortage of sample collection tools and of molecular biological reagents, and the need for safe electronic communication of medical reports. We present the successful establishment of a holistic SARS-CoV-2 testing platform that covers proband registration, sample collection and shipment, sample testing, and report issuing. The RT-PCR-based virus detection, being central to the platform, was extensively validated: sensitivity and specificity were defined as 96.8% and 100%, respectively; intra-run and inter-run precision were <3%. A novel type of sample swab and an in-house-developed RNA extraction system were shown to perform as good as commercially available products. The resulting flexibility guarantees independence from the current bottlenecks in SARS-CoV-2 testing. Based on our technology, we offered testing at local, national, and global levels. In the present study, we report the results from approx. 18,000 SARS-CoV-2 tests in almost 10,000 individuals from a low-frequency SARS-CoV-2 pandemic area in a homogenous geographical region in north-eastern Germany for a period of 10 weeks (21 March to 31 May 2020). Among the probands, five SARS-CoV-2 positive cases were identified. Comparative analysis of corresponding virus genomes revealed a diverse origin from three of the five currently recognized SARS-CoV-2 phylogenetic clades. Our study exemplifies how preventive SARS-CoV-2 testing can be set up in a rapid and flexible manner. The application of our test has enabled a safe maintenance/resume of critical local infrastructure, e.g., nursing homes where more than 5000 elderlies and caretakers got tested. The strategy outlined by the present study may serve as a blueprint for the implementation of large-scale preventive SARS-CoV-2 testing elsewhere."

Fighting the COVID-19 pandemic: onsite mass workplace testing for COVID-19 in the Republic of Korea. Seo E et al., Ann Occup Environ Med, 32,e22. "The ongoing coronavirus disease 2019 (COVID-19) pandemic is causing tremendous damage globally. The Republic of Korea (ROK), a highly export-dependent nation, is a leader in the fight against the COVID-19 pandemic and coping well with the disaster. Like the drive-through COVID-19 testing, which reflects the brilliant flexibility of the Korean medical system, onsite mass workplace testing for COVID-19, which our hospital has



been performing over the past few months, is a unique and valuable countermeasure. We believe it is time that the current health examination system for workers in the ROK considered the risk of transmissible diseases."

Suitability and Sufficiency of Telehealth Clinician-Observed, Participant-Collected Samples for SARS-CoV-2 Testing: The iCollect Cohort Pilot Study. Guest JL et al., JMIR Public Health Surveill, 6(2), e19731. "The severe acute respiratory coronavirus 2 (SARS-CoV-2) pandemic calls for expanded opportunities for testing, including novel testing strategies such as home-collected specimens. We aimed to understand whether oropharyngeal swab (OPS), saliva, and dried blood spot (DBS) specimens collected by participants at home and mailed to a laboratory were sufficient for use in diagnostic and serology tests of SARS-CoV-2. Eligible participants consented online and were mailed a participant-collection kit to support collection of three specimens for SARS-CoV-2 testing: saliva, OPS, and DBS. Participants performed the specimen collection procedures during a telehealth video appointment while clinical observers watched and documented the suitability of the collection. The biological sufficiency of the specimens for detection of SARS-CoV-2 by reverse transcriptase-polymerase chain reaction and serology testing was assessed by laboratorians using visual inspection and quantification of the nucleic acid contents of the samples by ribonuclease P (RNase P) measurements. Of the enrolled participants, 153/159 (96.2%) returned their kits, which were included in this analysis. All these participants attended their video appointments. Clinical observers assessed that of the samples collected, 147/153 (96.1%) of the saliva samples, 146/151 (96.7%) of the oropharyngeal samples, and 135/145 (93.1%) of the DBS samples were of sufficient quality for submission for laboratory testing; 100% of the OPS samples and 98% of the saliva samples had cycle threshold values for RNase P <30, indicating that the samples contained sufficient nucleic acid for RNA-PCR testing for SARS-CoV-2. These pilot data indicate that most participant-collected OPS, saliva, and DBS specimens are suitable and sufficient for testing for SARS-CoV-2 RNA and serology. Clinical observers rated the collection of specimens as suitable for testing, and visual and quantitative laboratory assessment indicated that the specimens were biologically sufficient. These data support the utility of participant-collected and mailed-in specimens for SARS-CoV-2 testing."

Commentaries

<u>Taking a covid-19 test at home: the fragile base on which track-and-trace is built.</u> Smith R, BMJ Opinion. (published online 3/7/20).

Useful resources

<u>COVID-19 Second Wave Public Health Policy Recommendations.</u> Chavkin W et al., Columbia Mailman School of Public Health. (published online June 2020).

What do countries need to do to implement effective 'find, test, trace, isolate and support' systems? Rajan S et al., J Royal Soc Med. (published online 14/7/20).

Broader impacts on health outcomes

Commentary from the collaboration

Obesity: time for action. Buck D. The King's Fund. (published online 14/7/20).

Guidance



<u>Safeguarding children and families during the COVID-19 crisis.</u> Social Care Institute for Excellence. (published online July 2020)

Rapid reviews

Pre-existing conditions

Impacts of COVID-19 Mitigation on People with Pre-Existing Substance Use and Addictions Issues. Bornstein S. Newfoundland and Labrador Centre for Applied Health Research. "Please note that, for this report, we have mainly included resources that focus on the impact of mitigation on non-COVID-19 populations with pre-existing substance use and addiction problems. In the guidance section, we included subcategories to distinguish between guidance documents exclusively about substance use and addictions and guidance documents that also discuss mental health issues. For more specific information on mental health impacts, please see our related COVID-19 Quick Response Report on the impacts of COVID-19 mitigation on people with pre-existing mental health conditions (LINK). We found a number of guidance documents, many of which focused on the impact of COVID-19 mitigation on service provision, in terms of both healthcare service providers and service users. These documents often provided guidance or recommendations on how to adapt services to pandemic conditions. We also found a set of systematic reviews collected by the Cochrane Collaboration, a number of other reviews, primary studies, and a variety of expert opinion pieces. These resources tended to examine: 1) the impacts of the disruption and/or changes in service provision for those with substance use and addiction issues; and/or 2) the impacts of isolation for people with substance use and addiction issues. In the final section of the report, we have included some relevant news articles."

<u>Impacts of COVID-19 Mitigation on People with Pre-existing Mental Health Conditions.</u>

Bornstein S. Newfoundland and Labrador Centre for Applied Health Research. "Please note that, for this report, we have included resources that focus on the impact of COVID-19 mitigation on non-COVID-19 populations with pre-existing mental health conditions. We have divided the section on guidance documents into two subsections— one that includes documents that provide guidance exclusively for people with mental health conditions and the other that provides a broader scope by offering guidance for people with both mental health and substance use/addictions issues. For information on the impact of COVID-19 mitigation specifically on people with addictions and substance use issues, please see our related COVID-19 Quick Response Report on the impacts of COVID-19 mitigation on people with pre-existing substance use and addictions issues. We found a number of guidance documents, many of which focused on the impact of COVID-19 mitigation on changes to service provision, in terms of both mental health professionals and service users. These documents often provided guidance or recommendations on how to adapt to pandemic conditions. We also found one systematic review, and a number of other reviews, primary studies, and expert opinions. These resources tended to either speculate or report on: 1) the psychological or psychosocial impacts of isolation for those with pre-existing mental health conditions and/or 2) the impacts of disruption or changes in service provision for those with preexisting mental health conditions and their providers. In the final section of the report, we have included some related news articles."

Emerging Evidence

Public health



Change in the Incidence of Stillbirth and Preterm Delivery During the COVID-19 Pandemic.

Khalil A et al., JAMA, doi: 10.1001/jama.2020.12746. "High rates of preterm birth and cesarean delivery have been reported in women with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.¹ However, studies have inadequate power to assess uncommon outcomes like stillbirth (fetal death ≥24 weeks' gestation). The UK Obstetric Surveillance System reported 3 stillbirths among 247 completed pregnancies in women with confirmed coronavirus disease 2019 (COVID-19) vs the national rate (12.1 per 1000 births vs 4-5 per 1000 births).² We assessed the change in stillbirth and preterm delivery rates during the pandemic.".

How the COVID-19 Pandemic Is Focusing Attention on Loneliness and Social Isolation.

Smith BJ & Lim MH. Public Health Res Pract, 30(2). "The effects of the coronavirus disease 2019 (COVID-19) pandemic upon human health, economic activity and social engagement have been swift and far reaching. Emerging evidence shows that the pandemic has had dramatic mental health impacts, bringing about increased anxiety and greater social isolation due to the physical distancing policies introduced to control the disease. In this context, it is possible to more deeply appreciate the health consequences of loneliness and social isolation, which researchers have argued are enduring experiences for many people and under-recognised contributors to public health. In this paper, we examine the social and psychological consequences of the COVID-19 pandemic, with a focus on what this has revealed about the need to better understand and respond to social isolation and loneliness as public health priorities. Social isolation and loneliness are understood to be distinct conditions, yet each has been found to predict premature mortality, depression, cardiovascular disease and cognitive decline. Estimates of the prevalence and distribution of social isolation and loneliness vary, possibly ranging from one-in-six to one-in-four people, and the lack of knowledge about the extent of these conditions indicates the need for population monitoring using standardised methods and validated measures. Reviews of the evidence relating to social isolation and loneliness interventions have found that befriending schemes, individual and group therapies, various shared activity programs, social prescription by healthcare providers, and diverse strategies using information and communication technologies have been tried. There remains uncertainty about what is effective for different population groups, particularly for prevention and for addressing the more complex condition of loneliness. In Australia, a national coalition - Ending Loneliness Together - has been established to bring together researchers and service providers to facilitate evidence gathering and the mobilisation of knowledge into practice. Research-practice partnerships and cross-disciplinary collaborations of this sort are essential for overcoming the public health problems of loneliness and social isolation that have pre-existed and will endure beyond the COVID-19 pandemic."

Prevalence and correlates of physical activity in a sample of UK adults observing social distancing during the COVID-19 pandemic. Smith L et al., BMJ Open Sport & Exercise Medicine, 6, e000850. "Objective To investigate the levels and correlates of physical activity during COVID-19 social distancing in a sample of the UK public. Methods This paper presents analyses of data from a cross-sectional study. Levels of physical activity during COVID-19 social distancing were self-reported. Participants also reported on sociodemographic and clinical data. The association between several factors and physical activity was studied using regression models. Results Nine hundred and eleven adults were included (64.0% were women and 50.4% of the participants were aged 35–64 years). 75.0% of the participants met the physical activity guidelines during social distancing. Meeting these guidelines during social distancing was significantly



associated with sex (reference: male; female: OR=1.60, 95% CI 1.10 to 2.33), age (reference: 18–34 years; ≥65 years: OR=4.11, 95% CI 2.01 to 8.92), annual household income."

Mental health - General public

The mental health impact of COVID-19 and pandemic related stressors among adults in the UK. Chandola T et al., MedRxiv (pre-print). "Background: The coronavirus pandemic has resulted in a wide range of social and economic changes that could, in turn, have affected the mental health of the UK adult population. Previous research has not been able to measure the broad range of potential stressors, nor examine whether recent changes in those stressors have positively or negatively impacted on common mental disorders. Furthermore, it is unclear whether the stressful impact of the lockdown on mental health has accumulated over time or whether people have adapted to the new conditions of lockdown. This study examines whether there was an increase in the prevalence and incidence of Common Mental Disorders (CMD) in the UK adult population during the first few months of lockdown related to the coronavirus pandemic and whether changes in CMD were associated with an increase in stressors related to lockdown and the pandemic. Methods: Longitudinal data from the UK Household Longitudinal Study (wave 9: 2017-2019 and waves 1 and 2 of the Coronavirus survey in April and May 2020 respectively), a representative sample of UK population, were analysed. Common mental disorders (CMD) were measured using the GHQ-12 (cut off >2) at all waves. The difference in the GHQ-12 (using Likert scores) between waves measured changes in psychological well-being. The incidence of CMD and changes in psychological well-being were analysed in relation to pandemic specific stressors and changes in economic, financial, household and psychosocial stressors. Findings: Around 30% of UKHLS adults without CMD in 2017/9 had a CMD in April 2020. However from April to May 2020, the incidence reduced considerably to below 13%. Much of the increase in incident CMD between April and May was associated with an increase in feelings of loneliness, but some of this increase was also associated with increasing domestic work demands (arising out of childcare and home-schooling), working from home, and the receipt of care from outside the home. The reduction in the incidence of many of these stressors in May (compared to April) coincided with a reduction in the incidence of CMD in May. Conclusion: The pandemic and resultant lockdown were associated with an increase in the incidence of CMD in the UK adult population initially in April 2020. These changes were associated with increases in feelings of loneliness and stressors related to work and domestic life and receipt of care. There was some evidence of adaptation to many of these stressors over the lockdown period by May 2020. However, if levels of unemployment and redundancy increase in the near future, the implications for the mental health of the population need careful thought and monitoring."

Abuse, self-harm and suicidal ideation in the UK during the COVID-19 pandemic. Iob E et al., British Journal of Psychiatry, 1-4. "This study explored patterns of abuse, self-harm and thoughts of suicide/self-harm in the UK during the first month of the COVID-19 pandemic using data from the COVID-19 Social Study (n=44 775), a non-probability sample weighted to population proportions. The reported frequency of abuse, self-harm and thoughts of suicide/self-harm was higher among women, Black, Asian and minority ethnic (BAME) groups and people experiencing socioeconomic disadvantage, unemployment, disability, chronic physical illnesses, mental disorders and COVID-19 diagnosis. Psychiatric medications were the most common type of support being used, but fewer than half of those affected were accessing formal or informal support."



How do Funeral Practices impact Bereaved Relatives' Mental Health, Grief and Bereavement? A Mixed Methods Review with Implications for COVID-19. Burrell A & Selman LE et al., Journal of Death and Dying. Doi: 10.1177/0030222820941296. "Those who are bereaved during the current COVID-19 pandemic are subject to restrictions on funeral sizes and practices. We conducted a rapid review synthesising the quantitative and qualitative evidence regarding the effect of funeral practices on bereaved relatives' mental health and bereavement outcomes. Searches of MEDLINE, PsycINFO, KSR Evidence, and COVID-related resources were conducted. 805 records were screened; 17 studies of variable quality were included. Current evidence regarding the effect of funeral practices on bereaved relatives' mental health and bereavement outcomes is inconclusive. Five observational studies found benefits from funeral participation while six did not. However, qualitative research provides additional insight: the benefit of after-death rituals including funerals depends on the ability of the bereaved to shape those rituals and say goodbye in a way which is meaningful for them. Findings highlight the important role of funeral officiants during the pandemic. Research is needed to better understand the experiences and sequalae of grief and bereavement during COVID-19."

Healthcare workers

The Impact of the COVID-19 Pandemic on Final Year Medical Students in the United Kingdom: A National Survey. Choi B et al., BMC Med Educ, 20(1). "Background: The coronavirus disease (COVID-19) global pandemic has resulted in unprecedented public health measures. This has impacted the UK education sector with many universities halting campus-based teaching and examinations. The aim of this study is to identify the impact of COVID-19 on final year medical students' examinations and placements in the United Kingdom (UK) and how it might impact their confidence and preparedness going into their first year of foundation training. Methods: A 10-item online survey was distributed to final year medical students across 33 UK medical schools. The survey was designed by combining dichotomous, multiple choice and likert response scale questions. Participants were asked about the effect that the COVID-19 global pandemic had on final year medical written exams, electives, assistantships and objective structured clinical examinations (OSCEs). The survey also explored the student's confidence and preparedness going into their first year of training under these new unprecedented circumstances. Results: Four hundred forty students from 32 UK medical schools responded. 38.4% (n = 169) of respondents had their final OSCEs cancelled while 43.0% (n = 189) had already completed their final OSCEs before restrictions. 43.0% (n = 189) of assistantship placements were postponed while 77.3% (n = 340) had electives cancelled. The impact of COVID-19 on OSCEs, written examinations and student assistantships significantly affected students' preparedness (respectively p = 0.025, 0.008, 0.0005). In contrast, when measuring confidence, only changes to student assistantships had a significant effect (p = 0.0005). The majority of students feel that measures taken during this pandemic to amend their curricula was necessary. Respondents also agree that assisting in hospitals during the outbreak would be a valuable learning opportunity. Conclusions: The impact on medical student education has been significant, particularly affecting the transition from student to doctor. This study showed the disruptions to student assistantships had the biggest effect on students' confidence and preparedness. For those willing to assist in hospitals to join the front-line workforce, it is crucial to maintain their wellbeing with safeguards such as proper inductions, support and supervision."

Pre-existing conditions



Child Suicide Rates during the COVID-19 Pandemic in England: Real-time Surveillance. Odd

D et al., National Child Mortality Database. "In 2020, during the 82 days before lockdown, there were 26 likely child suicides and a further 25 in the first 56 days of lockdown (Rate ratio (RR) 1·41 (95% CI 0·80-2·46), p=0·230), and the proportion of cases under 15 years of age appeared higher (28·0% vs 11·5%, p=0·173), but these differences did not reach statistical significance. In a similar proportion of pre-lockdown (33%) and post-lockdown (36%) cases, the child or young person was currently in contact with mental health or social care services. A diagnosis of Autism Spectrum Disorder (ASD) or Attention Deficit Hyperactivity Disorder (ADHD) had been recorded in six (25%) pre-lockdown and in six (24%) post-lockdown. Comparing 2020 with 2019 gave similar results. In 12 (48%) of the 25 post-lockdown deaths, factors related to Covid-19 or lockdown were thought to have contributed to the deaths. There is a concerning signal that child suicide deaths may have increased during the first 56 days of lockdown, but risk remains low and numbers are too small to reach definitive conclusions. Amongst the likely suicide deaths reported after lockdown, restriction to education and other activities, disruption to care and support services, tensions at home and isolation appeared to be contributing factors. Previous research has highlighted suicide risk in people with autism. We found a quarter of individuals both pre and post lockdown had ASD or ADHD. Although the finding of increased risk is unconfirmed statistically, clinicians and services should be aware of the possible increase and the need for vigilance and support."

Do psychiatric patients experience more psychiatric symptoms during COVID-19 pandemic and lockdown? A case-control study with service and research implications for immunopsychiatry. Hao F et al., Brain Behav Immun, 87. "This study aimed to assess and compare the immediate stress and psychological impact experienced by people with and without psychiatric illnesses during the peak of 2019 coronavirus disease (COVID-19) epidemic with strict lockdown measures. Seventy-six psychiatric patients and 109 healthy control subjects were recruited from Chongqing, China and completed a survey on demographic data, physical symptoms during the past 14 days and a range of psychiatric symptoms using the Impact of Event Scale-Revised (IES-R), Depression, Anxiety and Stress Scale (DASS-21) and Insomnia Severity Index (ISI). IES-R measures PTSD symptoms in survivorship after an event. DASS-21 is based on tripartite model of psychopathology that comprise a general distress construct with distinct characteristics. The mean IES-R, DASS-21 anxiety, depression and stress subscale and ISI scores were higher in psychiatric patients than healthy controls (p < 0.001). Serious worries about their physical health, anger and impulsivity and intense suicidal ideation were significantly higher in psychiatric patients than healthy controls (p < 0.05). More than one-third of psychiatric patients might fulfil the diagnostic criteria post-traumatic stress disorder (PTSD). More than one-quarter of psychiatric patients suffered from moderately severe to severe insomnia. Respondents who reported no change, poor or worse physical health status and had a psychiatric illness were significantly more likely to have higher mean IES-R, DASS depression, anxiety and stress subscale scores and ISI scores (p < 0.05). This study confirms the severity of negative psychological impact on psychiatric patients during the COVID-19 epidemic with strict lockdown measures. Understanding the psychological impact on psychiatric patients during the COVID-19 pandemic has the potential to provide insight into how to develop a new immunopsychiatry service. Further research is required to compare pro-inflammatory cytokines between psychiatric patients and healthy controls during the pandemic."

Substance Use Disorder in the COVID-19 Pandemic: A Systematic Review of Vulnerabilities and Complications. Wei Y & Shah R (pre-print). "As the world endures the coronavirus disease



2019 (COVID-19) pandemic, conditions of 35 million vulnerable individuals struggling with substance use disorders (SUDs) worldwide have not received sufficient attention for their special health and medical needs. Many of these individuals are complicated by underlying health conditions, such as cardiovascular and lung diseases and undermined immune systems. During the pandemic, access to the healthcare systems and support groups is greatly diminished. Current research on COVID-19 has not addressed the unique challenges facing individuals with SUDs, including the heightened vulnerability and susceptibility to the disease. In this systematic review, we will discuss the pathogenesis and pathology of COVID-19, and highlight potential risk factors and complications to these individuals. We will also provide insights and considerations for COVID-19 treatment and prevention in patients with SUDs."

Long term conditions

Detrimental effects of confinement and isolation on the cognitive and psychological health of people living with dementia during COVID-19: emerging evidence. Suárez-González A. International Long Term Care Policy Network. (published online 23/6/20- last updated 1/7/20). "3 papers describing the effects of lockdown on people with dementia living in the community have been published to date1-2-3. They show a worsening of functional independence and cognitive symptoms during the first month of lockdown (31% of people surveyed) and also exacerbated agitation, apathy and depression (54%), along with the deterioration of health status (40%) and increased used of antipsychotics or related drugs (7%). People with frontotemporal dementia (FTD) and their family caregivers seem to be particularly struggling to comply with protective measures."

Social isolation due to the COVID-19 pandemic has led to worse outcomes in females with inflammatory arthritis. Maguire S & O'Shea F. Irish Journal of Medical Science. "Background Prolonged social isolation as a result of the COVID-19 global pandemic has been a source of considerable psychological distress for many people. This can manifest in many ways and if left undetected can impact negatively on general health. It is essential to understand the impact of these conditions on inflammatory arthritis (IA) patients, especially axial spondyloarthropathy (axSpA). Aim To capture the level of psychological distress for patients with IA following prolonged social isolation. Methods A survey was sent out to patients with a confirmed diagnosis of IA. This captured changes in sleep, mood, disease activity, employment and general health since the beginning of the social isolation period. A PHQ-4 (Patient Health Questionnaire) was included to determine level of psychological distress. Results Females with IA reported significantly higher rates of decline in general health (40% vs 16%, p = 0.01), mood disturbance (43.4% vs 26%, p = 0.03) and increased disease activity (50% vs 16%, p = 0.01) compared to males. Evaluating the mean PHQ-4 scores, no significant difference was noted between genders (4.80 vs 3.44, p = 0.10). However, females demonstrated a non-significant trend toward increased rates of moderate to severe psychological distress (40% vs 30%, p = 0.13). Subanalysis of patients with axSpA found high rates of moderate to severe distress in both genders. Conclusions Females with IA reported significantly higher rates of decline in general health, mood disturbance and increased disease activity during the period of social isolation. This was reflected in a trend towards greater levels of psychological distress."

Commentaries

<u>The Lancet COVID-19 Commission.</u> Sachs JD et al., The Lancet. (published online 9/7/20).



Public health

Obesity and COVID-19: a call for action from people living with obesity. Le Brocq S et al., Lancet Diabetes Endocrinol. Doi: /10.1016/S2213-8587(20)30236-9. (published online 9/7/20).

<u>Coronavirus and Quarantine: Catalysts of Domestic Violence.</u> Bouillon-Minoi JB et al., Violence Against Women. (published online 6/7/20).

A crisis of accountability for women's, children's, and adolescents' health. Phumaphi J et al., The Lancet. (published online 12/7/20).

Structural racism remains a primary public health risk amidst COVID and beyond in the United Kingdom. Clementi R. Journal of Public Health, fdaa102. Doi: 10.1093/pubmed/fdaa102. (published online 10/7/20).

<u>Combating physical inactivity during the COVID-19 pandemic.</u> Pinto AJ et al., Nat Rev Rheumatol.

Mental health

<u>Trauma-informed responses in addressing public mental health consequences of the COVID-19 pandemic: position paper of the European Society for Traumatic Stress Studies (ESTSS).</u> Javakhishvili JD et al., European Journal of Psychotraumatology. 11, 1780782.

The Mental Health Impact of the COVID-19 Pandemic Across Different Cohorts. Khan KS et al., International Journal of Mental Health and Addiction. Doi: 10.1007/s11469-020-00367-0

Healthcare workers

<u>Impact of COVID-19 on ophthalmic specialist training in the United Kingdom—the trainees' perspective.</u> Hussain R et al., Eye.

Useful resources

<u>Bereavement Support on the Frontline of COVID-19: Recommendations for Hospital Clinicians.</u> Selman LE et al., Journal of Pain and Symptom Management (jn press).

<u>Wider Impacts of COVID-19 on Health (WICH) monitoring tool</u>. Public Health England. (updated 16/7/20).

Impact on non-Covid care

Commentary from the collaboration

The NHS will not be able to restart all of its services at once and difficult decisions will have to be made. Gardner T. The Health Foundation. (published online 9/7/20).

<u>Story of two halves as NHS struggles to shake off effects of coronavirus.</u> Edwards N. Nuffield Trust. (published online 9/7/20).



<u>Despite gains, Covid-19 will intensify the challenge of keeping nurses and midwives within</u> the NHS. Dayan M. Nuffield Trust. (published online 9/7/20).

The road to renewal: five priorities for health and care. Charles A & Ewbank L. The King's Fund. (published online 16/7/20).

<u>Chart of the week: Number of people waiting over a year for treatment has rocketed in months since onset of pandemic.</u> Scobie S. Nuffield Trust. (published online 15/7/20).

Guidance

<u>COVID-19: guidance for commissioners and providers of services for people who use drugs or alcohol.</u> Department of Health and Social Care & Public Health England. (updated 14/7/30).

<u>Preparing for a challenging winter 2020/21.</u> The Academy of Medical Sciences. (published online 14/7/20).

<u>Rebuilding the NHS. Improving medical pathways for acute care.</u> Royal Colleges of General Practitioners, Emergency Medicine and Physicians & Society for Acute Medicine. (published online 10/7/20).

ARCS and BFS U.K. best practice guidelines for reintroduction of routine fertility treatments during the COVID-19 pandemic. Association of Reproductive and Clinical Scientists (ARCS) & British Fertility Society (BFS). (published online May 2020, updated June 2020).

Rapid reviews

Primary care

Recommendations for the re-opening of dental services: a rapid review of international sources. COVID-19 Dental Services Evidence Review (CoDER) Working Group. "This review reports on national recommendations for the re-structuring and reopening of dental services from 16 countries. There is a highly variable level of detail given across international sources. Most sources recommend patient triage by telephone; some recommend also temperature screening at reception. Most sources recommend avoiding aerosol generating procedures (AGPs), if possible. Most sources recommend surgical masks for non-COVID-19 cases not requiring AGPs. Most sources recommend filtering facepiece class 2 (FFP2, equivalent to N95) masks for non-COVID-19 cases undergoing AGPs and all suspected or confirmed COVID-19 cases undergoing any procedure. Sources include recommendations on how to reduce the risk of transmission (e.g. use of pre-operative mouthwashes; high volume suction; rubber dam; and Personal Protective Equipment [PPE]). Most sources recommend cleaning and disinfection procedures. Across sources, for most statements there is no referenced, underpinning evidence and some of them are unlikely to have strong (or any) research evidence. All sources emphasise the need to focus on activities that minimise risk (to staff/patients/public) but still support high quality clinical care. There is a need to consider the interrelationship between the appropriate use of PPE (including donning and doffing), AGPs and interventions to reduce aerosol generation."

Reorganisation of primary care for older adults during COVID-19: a cross-sectional database study in the UK. Joy M et al., Br J Gen Pract. "BACKGROUND: The coronavirus disease



2019 (COVID-19) pandemic has resulted in a rapid change in workload across healthcare systems. Factors related to this adaptation in UK primary care have not yet been examined. AIM: To assess the responsiveness and prioritisation of primary care consultation type for older adults during the COVID-19 pandemic. DESIGN AND SETTING: A cross-sectional database study examining consultations between 17 February and 10 May 2020 for patients aged >/=65 years, drawn from primary care practices within the Oxford Royal College of General Practitioners (RCGP) Research and Surveillance Centre (RSC) sentinel network, UK. METHOD: The authors reported the proportion of consultation type across five categories: clinical administration, electronic/video, face-to-face, telephone, and home visits. Temporal trends in telephone and face-to-face consultations were analysed by polypharmacy, frailty status, and socioeconomic group using incidence rate ratios (IRR). RESULTS: Across 3 851 304 consultations, the population median age was 75 years (interquartile range [IQR] 70-82); and 46% (n = 82 926) of the cohort (N = 180 420) were male. The rate of telephone and electronic/video consultations more than doubled across the study period (106.0% and 102.8%, respectively). Face-to-face consultations fell by 64.6% and home visits by 62.6%. This predominantly occurred across week 11 (week commencing 9 March 2020), coinciding with national policy change. Polypharmacy and frailty were associated with a relative increase in consultations. The greatest relative increase was among people taking >/=10 medications compared with those taking none (face-to-face IRR 9.90, 95% CI = 9.55 to 10.26; telephone IRR 17.64, 95% CI = 16.89 to 18.41). CONCLUSION: Primary care has undergone an unprecedented in-pandemic reorganisation while retaining focus on patients with increased complexity."

Emerging evidence

The load and capacity model of healthcare delivery: considerations for the crisis management of the COVID-19 pandemic. Steiger J & Moxham J. J Thorac Dis, 12(6). "In the early phase of the year 2020, a novel virus outbreak led to a worldwide pandemic with millions of confirmed cases (1) that caused large proportions of the world population to be in temporary lockdown. With non-essential travel discouraged and everyone but key workers staying at home the world economy came to a sudden pause (2). The containment of the virus, a novel coronavirus named COVID-19, required quick resource re-allocation on a large scale and was prioritised on every level of healthcare delivery, first identified in East Asia. As the outbreak continued the epicentre shifted to Europe and the Middle East, and eventually affected the Americas (3). It led to restrictions on public life previously unimaginable during times of peace (4). Schools were closed, work from home was strongly encouraged, and non-essential travel was forbidden; some regions, and even countries, were entirely locked down for weeks or months (5). Restrictions to public life were necessary to avoid many people being infected at the same time which would have led to a collapse of the healthcare system. With no immunity to this new virus in the general population and many people being infected and potentially requiring critical care treatment at the same time, it was essential to reduce the rate of new infections (6). In this document, we discuss factors that must be considered during pandemic outbreaks, and introduce the load-to-capacity model for healthcare delivery, to explain how saturation of the system can be averted (7), and explore what the implications are for long-term investment decisions in healthcare."

Social care

COVID-19: Implications for the Support of People with Social Care Needs in England.
Comas-Herrera A et al., Journal of Aging & Social Policy, 32(4). "This perspective examines the



challenge posed by COVID-19 for social care services in England and describes responses to this challenge. People with social care needs experience increased risks of death and deteriorating physical and mental health with COVID-19. Social isolation introduced to reduce COVID-19 transmission may adversely affect well-being. While the need for social care rises, the ability of families and social care staff to provide support is reduced by illness and quarantine, implying reductions in staffing levels. Consequently, COVID-19 could seriously threaten care availability and quality. The government has sought volunteers to work in health and social care to help address the threat posed by staff shortages at a time of rising need, and the call has achieved an excellent response. The government has also removed some barriers to effective coordination between health and social care, while introducing measures to promote the financial viability of care providers. The pandemic presents unprecedented challenges that require well-co-coordinated responses across central and local government, health services, and non-government sectors."

Primary care

Staring our experiences. Hammond D et al., British Journal of Oral & Maxillofacial Surgery. "An integrated Urgent Dental Care Centre with Tier 2 Oral Surgery support was set up in Blackpool starting 24th March 2020. This was in reaction to the COVID-19 pandemic. In the first month 1433 patients had telephone consultations and 713 extractions were performed. The challenges surrounding set up and continuity of care are discussed."

The Oxford Royal College of General Practitioners Clinical Informatics Digital Hub: Protocol to Develop Extended COVID-19 Surveillance and Trial Platforms. De Lusignan S et al., JMIR Public Health Surveill, 6(3), e19773. "Background: Routinely recorded primary care data have been used for many years by sentinel networks for surveillance. More recently, real world data have been used for a wider range of research projects to support rapid, inexpensive clinical trials. Because the partial national lockdown in the United Kingdom due to the coronavirus disease (COVID-19) pandemic has resulted in decreasing community disease incidence, much larger numbers of general practices are needed to deliver effective COVID-19 surveillance and contribute to in-pandemic clinical trials. Methods: We will apply the FAIR (Findable, Accessible, Interoperable, and Reusable) metadata principles to a new, integrated digital health hub that will extract routinely collected general practice electronic health data for use in clinical trials and provide enhanced communicable disease surveillance. The hub will be findable through membership in Health Data Research UK and European metadata repositories. Accessibility through an online application system will provide access to study-ready data sets or developed custom data sets. Interoperability will be facilitated by fixed linkage to other key sources such as Hospital Episodes Statistics and the Office of National Statistics using pseudonymized data. All semantic descriptors (ie, ontologies) and code used for analysis will be made available to accelerate analyses. We will also make data available using common data models, starting with the US Food and Drug Administration Sentinel and Observational Medical Outcomes Partnership approaches, to facilitate international studies. The Surveillance Platform will provide access to data for health protection and promotion work as authorized through agreements between Oxford, the Royal College of General Practitioners, and Public Health England. All studies using the Trials Platform will go through appropriate ethical and other regulatory approval processes. Results: The hub will be a bottom-up, professionally led network that will provide benefits for member practices, our health service, and the population served. Data will only be used for SQUIRE (surveillance, quality improvement, research, and



education) purposes. We have already received positive responses from practices, and the number of practices in the network has doubled to over 1150 since February 2020. COVID-19 surveillance has resulted in tripling of the number of virology sites to 293 (target 300), which has aided the collection of the largest ever weekly total of surveillance swabs in the United Kingdom as well as over 3000 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) serology samples. Practices are recruiting to the PRINCIPLE (Platform Randomised trial of INterventions against COVID-19 In older PeopLE) trial, and these participants will be followed up through ORCHID. These initial outputs demonstrate the feasibility of ORCHID to provide an extended national digital health hub. Conclusions: ORCHID will provide equitable and innovative use of big data through a professionally led national primary care network and the application of FAIR principles. The secure data hub will host routinely collected general practice data linked to other key health care repositories for clinical trials and support enhanced in situ surveillance without always requiring large volume data extracts. ORCHID will support rapid data extraction, analysis, and dissemination with the aim of improving future research and development in general practice to positively impact patient care."

Secondary care

Impact of the 2020 COVID-19 pandemic on the workload of the orthopaedic service in a busy UK district general hospital. Murphy T & Mutimer AJ., Injury. "The COVID -19 outbreak has had a profound effect on the management of healthcare service provision in the UK. Orthopaedic departments have been no exception to this and have needed to adapt to the changing circumstances by releasing resources and focusing on 'essential' activity. The aim of this study is to quantify the reduction in trauma and, in addition, describe any changes in the type of referrals to the trust which may have been affected by the pandemic itself and the social distancing measures employed by the UK government. The study was performed in a UK District Hospital which is also a Trauma Unit providing trauma and orthopaedic care to a population of 625,000 people. The trust based electronic database of trauma referrals was used to compare the numbers of, and types of referral to our trauma service during the COVID-19 pandemic and the corresponding time periods in the previous 3 years. The mean number of referrals per week to the service reduced by 33% in the time period following the confirmation of the outbreak as a pandemic (p<0.0001). Number of operations performed per week reduced by 26% (p = 0.001). There was no change in the number of referrals relating to domestic abuse or non-accidental injury. In addition, numbers of hip fractures, periprosthetic fractures and prosthetic joint dislocations were unchanged. There was a significant reduction in the number of referrals for simple fractures, native joint dislocations, wounds and soft tissue injuries. Within the paediatric population, similarly, a reduction in simple fracture referrals was demonstrated."

COVID-19 preparedness and response at a large UK major trauma operating theatres department. Britton CR et al., Journal of Perioperative Practice, 30(7). "This article aims to describe the early experience of a large major trauma operating theatres department in the East of England during the outbreak of the coronavirus disease 2019 (COVID-19) pandemic. To date and to our knowledge, a small amount of reports describing a surgical department's response to this unprecedented pandemic have been published, but a well-documented account from within the United Kingdom (UK) has not yet been reported in the literature. We describe our preparation and response, including: operating theatres management during the COVID-19 pandemic, operational aspects and communication, leadership and support. The process review of measures presented covers approximately the two-month period between March and May 2020 and emphasises the



fluidity of procedures needed. We discuss how significant challenges were overcome to secure implementation and reliable oversight. The visible presence of clinical leads well sighted on every aspect of the response guaranteed standardisation of procedures, while sustaining a vital feedback loop. Finally, we conclude that an effective response requires rapid analysis of the complex problem that is of providing care for patients intraoperatively during the COVID-19 pandemic, and that retrospective sense-making is essential to maintain adaptability."

COVID-19 pandemic and its impact on service provision: A cardiology prospect. Adam S et al., Acta Cardiologica. Doi: 10.1080/00015385.2020.1787636. "Coronavirus disease 2019 (COVID-19) pandemic has significantly impacted the availability of cardiology services and management of cardiac conditions. Elective surgeries, outpatient appointments and cardiac imaging have been largely cancelled across the world due to the risk of infection transmission and the need for reallocation of resources to deal with the increasing number of COVID-19 patients. The impact on patients with cardiac co-morbidities during these times may be drastic. However, cardiologists and hospitals across the world have implemented measures to ensure on-going monitoring and care of patients remotely. In this review, we discuss the impact of COVID-19 on cardiac services including interventional cardiology services, cardiac imaging and outpatient appointments. In addition, implications for future research and clinical practice are also discussed."

COVID-19 pandemic and admission rates for and management of acute coronary syndromes in England. Mafham M et al., The Lancet. "Hospital admissions for acute coronary syndrome declined from mid-February, 2020, falling from a 2019 baseline rate of 3017 admissions per week to 1813 per week by the end of March, 2020, a reduction of 40% (95% CI 37-43). This decline was partly reversed during April and May, 2020, such that by the last week of May, 2020, there were 2522 admissions, representing a 16% (95% CI 13-20) reduction from baseline. During the period of declining admissions, there were reductions in the numbers of admissions for all types of acute coronary syndrome, including both STEMI and NSTEMI, but relative and absolute reductions were larger for NSTEMI, with 1267 admissions per week in 2019 and 733 per week by the end of March, 2020, a percent reduction of 42% (95% CI 38–46). In parallel, reductions were recorded in the number of PCI procedures for patients with both STEMI (438 PCI procedures per week in 2019 vs 346 by the end of March, 2020; percent reduction 21%, 95% CI 12-29) and NSTEMI (383 PCI procedures per week in 2019 vs 240 by the end of March, 2020; percent reduction 37%, 29-45). The median length of stay among patients with acute coronary syndrome fell from 4 days (IQR 2-9) in 2019 to 3 days (1-5) by the end of March, 2020. Compared with the weekly average in 2019, there was a substantial reduction in the weekly numbers of patients with acute coronary syndrome who were admitted to hospital in England by the end of March, 2020, which had been partly reversed by the end of May, 2020. The reduced number of admissions during this period is likely to have resulted in increases in out-of-hospital deaths and long-term complications of myocardial infarction and missed opportunities to offer secondary prevention treatment for patients with coronary heart disease. The full extent of the effect of COVID-19 on the management of patients with acute coronary syndrome will continue to be assessed by updating these analyses"

Elective care

Remodelling elective hospital services in the COVID-19 era – designing the new normal.

King AL & Hothi SS. Future Healthcare Journal, 7(3). "The provision of elective clinical services has decreased during the initial phase of the coronavirus disease 2019 (COVID-19) pandemic to enable



hospitals to focus on acute illness. Any end to the pandemic through widespread vaccination, effective treatment or development of herd immunity may be years away. Until then, hospitals will need to resume treating other diseases while also attempting to eradicate transmission of COVID-19 within the healthcare setting. In this article we suggest six major themes which could affect the design and delivery of elective clinical services: hospital avoidance, separation of high- and low-risk groups, screening, maintenance of adequate infection control, and new ways of working."

Cancer services

Considerations for the treatment of pancreatic cancer during the COVID-19 pandemic: the UK consensus position. Jones CM et al., British Journal of Cancer. "The coronavirus disease 2019 (COVID-19) pandemic epicentre has moved to the USA and Europe, where it is placing unprecedented demands on healthcare resources and staff availability. These service constraints, coupled with concerns relating to an increased incidence and severity of COVID-19 among patients with cancer, should lead to re-consideration of the risk—benefit balance for standard treatment pathways. This is of particular importance to pancreatic cancer, given that standard diagnostic modalities such as endoscopy may be restricted, and that disease biology precludes significant delays in treatment. In light of this, we sought consensus from UK clinicians with an interest in pancreatic cancer for management approaches that would minimise patient risk and accommodate for healthcare service restrictions. The outcomes are described here and include recommendations for treatment prioritisation, strategies to bridge to later surgical resection in resectable disease and factors that modify the risk—benefit balance for treatment in the resectable through to the metastatic settings. Priority is given to strategies that limit hospital visits, including through the use of hypofractionated precision radiotherapy and chemoradiotherapy treatment approaches."

Commentaries

<u>Covid-19: an opportunity to reduce unnecessary healthcare.</u> Moynihan R et al., BMJ, 370:m2752.

Primary care

Children's oral health. Barraclough O et al., BDJ in Practice, 33(7). (pubslihed online 6/7/20).

<u>General practice in the post Covid world. Challenges and opportunities for general practice</u>. Royal College of General Practitioners.

Cancer services

<u>Cancer has not gone away: A primary care perspective to support a balanced approach for timely cancer diagnosis during COVID-19.</u> Helsper CW et al., Eur J Cancer Care. (published online 7/7/20).

Secondary care

<u>COVID-19 scenario modelling for the mitigation of capacity-dependent deaths in intensive</u> <u>care</u>. Wood RM et al., Health Care Manag Sci.

Outpatient care



Rebuilding the NHS - Resetting outpatient services for the 21st century in the context of COVID-19. Royal College of General Practitioners & Royal College of Physicians.

Useful resources

Reimagining the future of health and social care. How to learn the lessons from the Covid19 crisis for a next generation health and care system. Webster H & Hannan R. Royal Society for the encouragement of Arts, Manufactures and Commerce & Accenture.

10 Leaps Forward – Innovation in the Pandemic. London South Bank University.

A Framework for Aging-Friendly Services and Supports in the Age of COVID-19. Hoffman GJ et al., Journal of Aging and Social Policy, 34(4).

<u>COVID-19 and telepsychiatry: an evidence-based guidance for clinicians.</u> Smith K et al., (accepted pre-print), JMIR.

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:

https://www.strategyunitwm.nhs.uk/covid19-and-coronavirus or contact our Covid

Evidence team on: mlcsu.covidevidence@nhs.net