The Strategy Unit
At NHS Midlands and Lancashire Commissioning Support Unit

COVID-19 Evidence Alert – 3 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 the alert will now exclude section summaries due to the breadth and volume of evidence covered in the alert.

Analytical Collaboration for COVID-19

As previously described the collaboration are supporting ad hoc immediate questions raised by national bodies but are also using their expertise to focus on questions 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.

- **Exploring the fall in A&E visits during the pandemic.** McConkey R & Wyatt S. The Health Foundation & The Strategy Unit. (published online 30/06/20)

Residential settings

Guidance

COVID-19 highlights the need for universal adoption of standards of medical care for physicians in nursing homes in Europe. O'Neill D et al, *Eur Geriatr Med* (2020). https://doi.org/10.1007/s41999-020-00347-6.

Guidelines for the management of diabetes in care homes during the Covid-19 pandemic. Sinclair A et al. Diabet. Med, 1090-93.

Rapid reviews

COVID-19 related mortality and spread of disease in long-term care: a living systematic review of emerging evidence (updated 29/6/20). Salcher-Konrad et al. MedRXiv, https://doi.org/10.1101/2020.06.09.20125237. This living systematic review synthesises results from 33 study reports (across 30 unique primary studies or outbreak reports) concerning COVID-19 outbreaks and spread within long-term care facilities. Overall, incidence rates among residents varied from 0.0% to 71.7% between studies; for staff, the incidence rate was between 1.5% and 64.0%. Mortality rates were between 0.0% to 9.5% for all residents at facilities with an outbreak, with case fatality varying between 0.0% and 33.7%. Overall, long-term care residents appear to be particularly vulnerable to COVID-19, however, there is considerable variation between disease spread and rates of mortality between outbreaks at individual facilities.

Mortality associated with COVID-19 outbreaks in care homes: early international evidence (updated 26/6/20). Comas-Herrera A et al, Article in LTCcovid.org, International Long-Term Care Policy Network, CPEC-LSE, (updated 26 June 2020). This resource now includes data from a larger number of countries, and calls into question the earlier suggestion that the share of all COVID-19 deaths that occur in care homes increases with the total number of deaths- for example, New Zealand and Slovenia despite both having small numbers of COVID-19 deaths contribute a large share of deaths among care home residents of around 72 and 81%, respectively. There is also variation in the impact of COVID-19 on care home residents internationally, as some countries (Hong Kong, Jordan, Malta) report no deaths or infections in this setting whereas others report care home deaths as a high proportion of total deaths (e.g. 72 and 81%). For the 18 countries which have data on the share of all care homes deaths that are linked or attributable to COVID-19, the proportion of those who have died from COVID-19 ranges from 0% to 6.1%.

Emerging evidence

COVID-19 outcomes among people with intellectual and developmental disability living in residential group homes in New York State. Landes SD et al., Disability and Health Journal, https://doi.org/10.1016/j.dhjo.2020.100969. This brief report describes the COVID-19 case rate, case -fatality and mortality among people with IDD living in residential group homes in New York through 28th May 2020. People with IDD living in residential group homes were at higher risk of severe COVID-19, with 7,841 cases per 100,000 people compared to a case rate of 1,910 per 100,000 for New York State. The case fatality rate was almost double for those with IDD (15% vs. 7.9% for New York State), with considerably higher mortality rates for people with IDD at 1,175 per 100,000 (vs. 151 per 100,000). The authors highlight that COVID-19 appears to present a greater risk to people with IDD living in group residential settings.

Commentaries

Covid-19 and lack of linked datasets for care homes. Hanratty B et al., *BMJ*; 369 doi: https://doi.org/10.1136/bmj.m2463 (Published 24 June 2020)

COVID-19 in jails and prisons: A neglected infection in a marginalized population. Franco-Paredes C et al, PLOS Neglected Tropical Diseases, https://doi.org/10.1371/journal.pntd.0008409 (22/6/20)

Covid-19: Continued outbreaks in care homes risk extending pandemic, say experts. Griffin S, BMJ 369:m2530 (24/6/20).

Useful resources

A special issue of the *Journal of Aging & Social Policy* on the COVID-19 pandemic was just published online, entitled, "Older Adults and COVID-19: Implications for Aging Policy and Practice," Volume 32, Issue 4/5. The issue consists of 28 contributions by leading scholars who explore the myriad ways in which the COVID-19 pandemic has affected older adults and their families, caregivers, and communities. It proposes policies and strategies for protecting and improving the lives of older people during the pandemic. It draws lessons for aging policy and practice more generally, given underlying challenges brought to the fore by government, provider, community, and individual responses to the pandemic.

Impacts of lifting restrictions

Ongoing studies

Preliminary analyses from the ongoing **COVID-19 Social Study at University College London** have been conducted and released weekly since lockdown began. See here for links to weekly reports.

Emerging evidence

Depression, Environmental Reward, Coping Motives and Alcohol Consumption During the COVID-19 Pandemic. McPhee MD et al, (preprint). This US based cross-section study assessed associations between depression, COVID-19 related distress, motivations around drinking and alcohol use outcomes 30 days prior to social distancing policies and 30 days after policy implementation. There were significant increases in the severity of depression, using alcohol to cope and the frequency of solitary drinking; drinking motivations related to sociability and conformity were significantly lower after social distancing policies. The typical quantity and frequency of alcohol consumption did not change significantly, however time spent drinking and the frequency of binge drinking were significantly higher during lockdown.

Lay Perspectives on Social Distancing and Other Official Recommendations and Regulations in the Time of COVID-19: A Qualitative Study of Social Media Posts. Ölcer S et al. BMC Public Health, 20(1). Doi: 10.1186/s12889-020-09079-5. Systematically searching three major social media forums (Reddit, YouTube, Twitter) in the first three weeks of March, it was found that the reasons surrounding non-compliance with official recommendations related to : information pollution on social media, persistent uncertainty about viral spread, the impact of the social environment on the individual, and a range of fears related to socioeconomic uncertainty (fear of unemployment, inequality in distribution of income).

Are we all in this together? Longitudinal assessment of cumulative adversities by socioeconomic position in the first 3 weeks of lockdown in the UK. Wright L et al. Epidemiology & Community Health. Doi: 10.1136/jech-2020-214475). This study looked at changes in patterns of adversity relating to COVID-19 by socioeconomic position (SEP). Results highlighted that the number of adverse events experienced weekly has higher for those with lower SEP, with a steeper gradient for financial adversities (e.g. unemployment) and meeting basic needs, than for experiences relating directly to the virus. Longitudinally, no reduction in these inequalities between socioeconomic groups was shown.

Early assessment of the impact of mitigation measures on the COVID-19 outbreak in Italy. Vincentini C et al. Public Health, 185. This study used publicly available data on the number of patients hospitalised in intensive care at three-time intervals between 19th Feb and 9th April to show

the impact of progressive lockdown measures (1) containment and travel restriction; 2) lockdown restricted to outbreak epicentre; 3) national lockdown and school closures). Results show that measures were effective in reducing transmission and increasing the number of intensive care beds available to manage severe cases.

Impact of Lockdown on the Epidemic Dynamics of COVID-19 in France. Roques L et al. Frontiers in Medicine. Lockdown restrictions reduced disease transmission in France (R_e = effective reproduction number of COVID-19) by a factor of 7 (R_e = 0.47, 95%-CI: 0.45–0.50). The authors highlight that, even under the assumption that lockdown measures mitigate infection rates strongly, keeping R_e low is crucial to avoiding an uncontrollable second wave of infections.

Evaluation of the Potential Incidence of COVID-19 and Effectiveness of Containment Measures in Spain: A Data-Driven Approach. Aleta A & Moreno Y. BMC Med, 18(1). This simulation-based study used an SEIR metapopulation model to estimate the potential effects of different containment strategies upon the disease incidence rate of COVID-19 in Spain. Model results suggest that containment efforts to reduce individual movement or travel are less effective than measures intended for early case identification and isolation. It is highlighted that following early detection and isolation with public recommendations to reduce disease transmissibility, while insufficient to eradicate the disease, could produce a "second order effect" in delaying the rise in infected cases by several days.

Correcting misperceptions of exponential coronavirus growth increases support for social distancing. Lammers J et al, PNAS, first published June 24, 2020 https://doi.org/10.1073/pnas.2006048117. This research article reports on the results of three US studies conducted during mass-spread of COVID-19, which may suggest that lack of support for social distancing may result partially from the misconception of the virus' exponential growth (exponential growth bias). Results show that correcting the mistaken belief or perceptual error that coronavirus grows in a linear manner significantly increases support for social distancing. The authors suggest that this highlights the importance of statistical literacy in relation to adherence to public health measures of disease containment and mitigation.

Evidence for transmission of 2 COVID-19 prior to symptom onset. Tindale LC et al, eLife (preprint). This pre-print article analyses contact tracing data collected from COVID-19 clusters in Singapore, Tianjin and China to demonstrate the level of pre-symptomatic transmission via estimating viral incubation periods and serial intervals. Results showed that serial intervals were shorter than incubation periods which the authors suggest means that pre-symptomatic transmission may make up a large proportion of transmission events.

Asymptomatic transmission and the infection fatality risk for COVID-19: Implications for school reopening. Vermund SH and Pitzer VE. This study aims to clarify confusion in around age-specific risks of transmission, disease severity and variation around definitions used to represent the COVID-19 mortality. The above are discussed in context to possible implications for students returning to education post-lockdown, from pre-school through to university settings.

Older and 'staying at home' during lockdown: informal care receipt during the COVID-19 pandemic amongst people aged 70 and over in the UK. Evandrou M et al. (preprint). Using new data from the *Understanding Society* COVID 19 survey, linked to previous data collected in 2018/19, this study examines support received by older adults in lockdown from a range of sources (e.g. family

members; members of a different household). Results highlight an increase in the receipt of assistance with Instrumental Activities of Daily Living (IADLs), mainly for shopping, particularly among those living alone with an older partner. However, the majority reported no change in support received, and amongst those who required support with at least one ADL task before the pandemic, around 25% reported no care from outside the household. Finally, 10% of those with 2 or more care needs related to ADLs reported a reduction in help received.

Commentaries

Health policy and controlling Covid-19 in England: sociological insights [version 1; peer review: awaiting peer review] Calnan, M, Emerald Open Research.

COVID-19 pandemic and environmental pollution: A blessing in disguise? Muhammed S et al. Sci Total Environ. 728, 133820.

Decline in PM2.5 concentrations over major cities around the world associated with COVID-19. Chauhan A & Singh RP. Environmental Research. 187, 109634

COVID-19 and the Re-Opening of Schools: A Policy Maker's Dilemma. Fantini MP et al. Ital J Paediatr. (published online 09/6/20)

Covid-19: social distancing or social isolation? Gupta R & Dhamija R. BMJ (published online 18/6/20)

Lockdown During COVID-19: The Greek Success. Moris D & Schizas D. In vivo, 34(3).

Is the lockdown important to prevent the COVID-19 pandemic? Effects on psychology, environment and economy-perspective. Atalan A, Annals of Medicine and Surgery, 56, 38-42.

Why lockdown of the elderly is not ageist and why levelling down equality is wrong. Savulesco J and Cameron J, Journal of Medical Ethics, doi: 10.1136/medethics-2020-106336.

Long term rehabilitation needs

Guidance

Support for Rehabilitation: Self-Management after COVID-19 Related Illness. WHO.

Rapid reviews

Post-viral fatigue and COVID-19: lessons from past epidemics. Islam MF et al., Fatigue: Biomedicine, Health & Behavior, DOI: 10.1080/21641846.2020.1778227. This narrative review looks at previous research on recovery needs and possible complications post-epidemic and post-infection recovery. For example, past research shows high levels of fatigue as common for survivors of SARS and Ebolavirus; and that this fatigue can be with an increased risk of viral and bacterial infection. It is thought that patterns observed in previous outbreaks may re-occur. The authors highlight that an insufficient amount of time has passed to fully understand the long-term trajectory of COVID-19 and any longer-term health consequences and correspondent recovery needs.

COVID-19 Cardiac Injury: Implications for Long-Term Surveillance and Outcomes in Survivors. Mitrani RD et al, Heart Rhythm (pre-proof) DOI: https://doi.org/10.1016/j.hrthm.2020.06.026. There are no data on how treatment for acute COVID-19 affects long-term cardiac recovery and function. This is particularly concerning for the recovery of COVID-19 patients, given that viral

myocarditis has been known to progress to overt or subclinical myocardial dysfunction, and has been described in context to risk of sudden death in the recovery phase (or convalescent phase). The authors highlight the importance of screening for residual cardiac abnormalities in this phase for those recovering from COVID-19 associated cardiac injury. Concluding that planning for appropriate registries and clinical trials is needed now, to properly understand and prepare for the long-term health implications of 'post-COVID-19 Cardiac Syndrome'.

Emerging evidence

Guillain-Barré syndrome following COVID-19: a newly emerging post-infectious complication (case report). Webb S et al, BMJ Case Reports, 13 (6), http://dx.doi.org/10.1136/bcr-2020-236182. This source presents details of the first reported case of Guillain-Barré syndrome secondary to COVID-19 in the UK. Reporting on the clinical presentation, examination and investigation results, and outcomes of treatment and follow-up for a 57-year old man with evidence of rare neurological complications from COVID-19.

Commentaries

Chronic pain after COVID-19: implications for rehabilitation. Kemp HI et al. British Journal of Anaesthesia, in press.

Personalized recovery of severe COVID19: Rehabilitation from the perspective of patient needs. Bij de Vaate E et al. European Journal of Clinical Investigation, https://doi.org/10.1111/eci.13325.

Screening and testing

Guidance

Infection prevention and control during health care when coronavirus disease (COVID-19) is suspected or confirmed. Interim guidance. World Health Organisation.

Rapid Reviews

Overcoming the Bottleneck to Widespread Testing: A Rapid Review of Nucleic Acid Testing Approaches for COVID-19 Detection. Esbin MN et al. RNA, 26(7). This rapid review presents a collection of peer-reviewed and pre-print articles regarding recent advancements in nucleic acid testing following a rapidly increasing volume of evidence exploring potential advances, comparable alternatives for reagents used, and possible alternatives to the CDC's real-time polymerase chain reaction test (RT-PCR)- given increased demand for these tests and bottlenecks in the supply chain in light of COVID-19. In context to a large volume of non-peer reviewed studies the authors urge researchers to validate results in their own laboratories.

Meta-analysis of Diagnostic Performance of Serological Tests for SARS-CoV-2 Antibodies Up to 25 April 2020 and Public Health Implications. Caini S et al. Euro Surveill, 25(23). Random effects model meta-analysis assessed the diagnostic accuracy of SARS-CoV-2 serological tests. Summary sensitivity was 82% for IgM antibodies and 85% for IgG and total antibodies; pooled specificity was 98% for IGM antibodies and 99% for IgG and total antibodies. The authors suggest that serological tests should only be used to survey prevalence in particularly hard-hit areas; given that in populations with 5% or fewer seroconverted individuals, unless assays had 100% specificity, this would translate to a rate of identification for true positive cases of 88% or lower.

Diagnostic accuracy of serological tests for covid-19: systematic review and meta-analysis. Bastos ML et al, BMJ, 370 doi: https://doi.org/10.1136/bmj.m2516 (Published 01 July 2020). This meta-analysis and systematic review aimed to assess the diagnostic accuracy of serological tests for COVID-19. This tested several variables in relation to method of serological testing, including enzyme linked immunosorbent assays (ELISAs), lateral flow immunoassays (LFIAs), chemiluminescent immunoassays (CLIAs) and immunoglobulin class (IgG, IgM, or both). Among the 49 included studies, there was a high risk of patient selection basis (98% of studies) with a high or unclear risk of bias around the performance or interpretation of the serological test (73%). Pooled sensitivity of ELISAs measuring IgG or IgM antibodies was 83.4% (95% CI= 75.6 to 90.9%); for LFIAs it was 66.0% (95% CI= 49.3% to 79.3%) and for CLIAs it was highest at 97.8% (95% CI= 46.2 to 100%). In all analyses, pooled specificity estimates range from 96.6 to 97.8%. Overall, the authors highlight that available evidence does not support continued use of the serological tests used at point-of-care, alongside an urgent need for better quality clinical studies assessing the diagnostic accuracy of serological tests for COVID-19.

Emerging evidence

Digital contact tracing for COVID-19. Kleinman RA & Merkel C. CMAJ, 192(24). This analysis outlines the benefits and limitations of implementing digital contact tracing technology for COVD-19. Centrally, the authors describe technical limitations such as trade-offs between user privacy and effectiveness. They outline crucial considerations on whether and how to deploy digital contracting. Including that successful use of digital contact tracing depends on availability/ accessibility diagnostic testing, ensuring widespread adoption, and the efficacy of specific technologies implemented in identifying cases of exposure.

Identification and Estimation of Undetected COVID-19 Cases Using Testing Data from Iceland. Aspelund KM et al, MedRxiv preprint. This study looks at methods (e.g. excluding quarantined individuals from testing; factoring in low participant in random screening programs) to estimate the rate of undetected COVID-19 cases using Icelandic testing data in the early stages, in context early testing strategies which targeted only those at high risk of infection. The authors highlight an undetected rate of between 89% and 93% for such testing strategies prior to programs widening eligibility criteria; after broadening criteria the rate of undetected cases was between 80% and 90%.

Establishing prison-led contact tracing to prevent outbreaks of COVID-19 in prisons in Ireland. Clarke M et al, Journal of Public Health, https://doi.org/10.1093/pubmed/fdaa092. This paper describes the contact tracing approach taken by the Irish Prisons Service (IPS) in context to the challenge of preventing COVID-19 transmission within the confined spaces of prisons. Including implementation of a programme to develop and train in-prison contact tracing teams, in context to a partnership approach between organisations involved. Results show all prisons and two support agencies within the IPS as having fully functional contact tracing systems- highlighting that contact tracing is highly important for preventing outbreaks, yet resource intensive.

Chest CT screening for COVID-19 in elective and emergency surgical patients: experience from a UK tertiary centre. Chetan MR et al, Clinical Radiology, https://doi.org/10.1016/j.crad.2020.06.006. This retrospective study involved patients having imaging prior to urgent elective surgery (n=156) or acute abdominal imaging (n=283). For the overall cohort, 1.6% received subsequent positive confirmation of COVID-19 via RT-PCR. 3% of CT examinations demonstrated findings of probable/classic COVID-19 pneumonia, with 4% being indeterminate for COVID-19. Overall, the

authors report a 7% incidence of potential COVID-19 in relation to lung changes in patients receiving preoperative CT scans. While the importance of compositive CT and RT-PCR screening is highlighted in context to lifting lockdown, and population prevalence becoming more apparent, the authors state that the utility of any preoperative chest CT must be balanced against the risk of harm from delaying the operation.

COVID-19 autopsy in people who died in community settings: the first series. Youd E and Moore L, Journal of Clinical Pathology, Published Online First: 30 June 2020. doi: 10.1136/jclinpath-2020-206710. This short report presents pathological and histological findings from nine complete autopsies of individuals who died within community settings in the UK, including three positive cases of COVID-19, three negative cases (which the authors state were likely false negatives) and three other deaths attributed to other respiratory infections. Findings highlight the importance of testing for COVID-19 at autopsy, particularly for community cases where availability of testing may be low, and the risk of onward transmission is high.

Wastewater surveillance for population-wide Covid-19: The present and future. Daughton CG. Sci Total Environ, 736, 139631. This study presents and overview of Wastewater-Based Epidemiology (WBE) as a tool for detecting and mitigating COVDI-19 outbreaks at a community level (enabling reporting community-wide trends/inter-community comparisons of COVID-19). Despite its assumed utility and having been developed and validated by environmental scientists over 20 years, this tool has yet to be embraced by epidemiologists or public health professionals. Overall, an outline is given for how and why governments should evaluate WBE and develop standardised methodology for this; namely, deployment of WBE methods within monitoring networks may provide a basis for comparison for data across nations.

Measuring the Effectiveness of an Automated Text Messaging Active Surveillance System for COVID-19 in the South of Ireland, March to April 2020. Barrett PM et al. Euro Surveill, 25(23). This rapid communication reports on the effectiveness of an active surveillance system for asymptomatic close contacts of those confirmed cases of COVID-19- based on an automated text messaging service. Over the first 7 weeks of the initial outbreak, 12,421 automated texts were sent to 1,336 close contacts of COVID-19 cases; 120 of these (9%) reported symptoms requiring referral for diagnostic testing, with 35 (2.6%) contacts testing positive for COVID-19. The authors highlight a large clinical and administrative resource burden required to manage a high rate of no-reply (17.1%; n=2,121).

Commentaries

Preoperative SARS-CoV-2 screening: Can it really rule out COVID-19? Lother SA, Canadian Journal of Anesthesia.

An urgent need to institute COVID-19 testing in patients with IBD experiencing flares. Quraishi MN et al, Frontline Gastroenterology, 1–2. doi:10.1136/flgastro-2020-101477

How Northern Ireland relaunched contact tracing for covid-19 a month before the rest of the UK. Baraniuk C, BMJ, 369:m2373.

Case isolation, contact tracing, and physical distancing are pillars of COVID-19 pandemic control, not optional choices. MacIntyre CR, Lancet Infectious Diseases, https://doi.org/10.1016/ S1473-3099(20)30512-0.

Lessons in contact tracing from Germany. Reintjes R, BMJ, 369 doi: https://doi.org/10.1136/bmj.m2522 (Published 25 June 2020).

How countries are using genomics to help avoid a second coronavirus wave. Watson C. Nature. (27/5/20).

Real-Time Smart Patient Monitoring and Assessment Amid COVID-19 Pandemic – an Alternative Approach to Remote Monitoring. Naik NB et al. J Med Syst, 44(7).

Wastewater Monitoring of SARS-CoV-2: Lessons From Illicit Drug Policy. Lancaster K & Rhodes T. Lancet Gastroenterol Hepatol, 5(7) (published online 15/6/20).

Useful resources

COVID-19 antibody testing: What coding and CDI professionals need to know. McCall S. Briefings on APCs, 21(6). (published online May 2020).

Making the Best Use of Test Kits for COVID-19. Weinberg CR. Am J Epidemiol, 189(5). (published online 07/05/20).

Broader impacts on health outcomes

Commentary from the collaboration

How are changes to employment and finances impacting mental health during lockdown? Finch D & Eastaugh A. The Health Foundation. (published online 25/06/20).

Caring for our carers: what can COVID-19 teach us about NHS staff wellbeing? Wood S. The Health Foundation. (published online 26/06/20)

Urgent steps need to be taken to avoid future COVID-19 deaths. Dixon J. The Health Foundation. (published online 26/06/20).

Ongoing studies

Preliminary analyses from the ongoing **COVID-19 Social Study at University College London** have been conducted and released weekly since lockdown began. See here for links to 14 weekly reports.

Rapid Reviews

The impact of the COVID-19 pandemic on the mental health of healthcare professionals . **Braquehais MD et al, QJM, hcaa207, https://doi.org/10.1093/qjmed/hcaa207**. Most studies report a high prevalence of anxiety and depressive symptoms among HPs that can be associated with: a) COVID-19 exposure; b) epidemiological issues; c) material resources; d) human resources; and e) personal factors. The role of certain variables, before, during and after the pandemic, remains unexplored. Longitudinal studies will help elucidate which factors are associated with a higher risk of developing long-lasting negative effects. Qualitative studies may contribute to understanding the influence of individual and social narratives in HPs' distress.

A rapid review of the impact of quarantine and restricted environments on children's play and health outcomes. **Graber K et al. PsyArXiv (pre-print).** This rapid review aimed to assess available evidence on the impact of quarantine (and other restrictive circumstances) upon children's access to

play. Most studies found evidence for changes in children's access to play under restrictive circumstances, however, no studies were found on the effect of isolation or restriction that is specific to infectious disease containment. While some studies suggested a positive impact of play in mitigating potential adverse impacts of isolation and lockdown upon health and educational outcomes, studies were limited in scope and quality.

Emerging Evidence

Mental health - General public

How are adversities during COVID-19 affecting mental health? Differential associations for worries and experiences and implications for policy. Wright L et al. MedRxiv. Doi: 10.1101/2020.05.14.20101717 (preprint). Drawing on data from 35,784 adults in the UK, this study examined longitudinal associations over time between 1) worries about adversity and 2) experiences of adversity on depression and anxiety, in context to the moderating effect of socio-economic status. Increased worry about adversity and experiences of adversity were associated with higher anxiety and depression. Having more worries was associated with higher levels of anxiety than depression. Whereas the number of adverse experiences was related to higher levels of both anxiety and depression. Overall, it is highlighted that individuals with lower socio-economic status were more likely to experience negative psychological effects from adverse experiences.

Years of life lost due to the psychosocial consequences of COVID-19 mitigation strategies based on Swiss data. Moser DA et al. European Psychiatry, 63(1). This study aims to estimate the psychosocial consequences of COVID-19 by examining the years of life lost due to lockdown restrictions and migration restriction strategies. Projections suggest a mean of 0.2 years of life lost (YLL), but that this is distributed unevenly in the population- with 2.1% of the population experiencing 9.8 YLL on average. It is also highlighted that these results likely underestimate the true psychosocial impact of mitigation strategies.

The psychological impact of COVID-19 on the mental health in the general population. Serafini G et al, QJM, hcaa201, https://doi.org/10.1093/qjmed/hcaa201. This comprehensive review of available evidence on the impact of COVID-19 on the mental health of the general population demonstrates the psychological impact of high levels of fear and anxiety created by rapid pandemic spread, potentially compounded by psychological reactions towards quarantine and isolation. The authors outline the relevance of known risk and protective factors linked to the development of psychiatric disorders to this situation. Discussing the urgent need for preventive strategies, they highlight this as a global public health priority.

Loneliness in the UK during the COVID-19 pandemic: Cross-sectional results from The COVID-19 Psychological Wellbeing Study. Groarke JM et al, preprint. This analysis of baseline data (N=1963) collected from the COVID-19 Psychological Wellbeing Study between 23rd March and 24th April 2020 showed the prevalence of loneliness as 27% in this UK sample (530/1963). Logistic regression demonstrated that the following risk factors were associated with greater levels of loneliness: younger age (Odds Ratio [OR]= 4.67 to 5.31), separation or divorce (OR= 2.29), depression scores above clinical thresholds (OR= 1.74), greater emotion regulation difficulties (OR= 1.04) and sleep disturbance due to COVID-19 (OR= 1.30). Protective factors included higher social support, being married or living with a partner, and living with a higher number of adults- however, odds ratios for these were all < 1.0 (Range=0.35 to 0.92).

Grief and the COVID-19 Pandemic in Older Adults. Goveas JS and Shear MK, American Journal of Geriatric Psychiatry, DOI: https://doi.org/10.1016/j.jagp.2020.06.021. Examining the challenges faced by older adults who have experienced bereavement during COVID-19, this review outlines a high risk for prolonged grief disorder in this population. Particularly where physical and social distancing restrictions have subverted usual expectations and practices around the process of grieving. It is also thought that a range of wider COVD-19 related stressors (e.g. emotionally distressing media coverage; frequent reminders of deaths) may adversely impact the grieving process.

Mental health - Health care workers

Provider Burnout and Fatigue During the COVID-19 Pandemic: Lessons Learned From a High-Volume Intensive Care Unit. Sasangohar F et al. Anesth Analg. This US based article outlines lessons learned by an interdisciplinary ICU team and collaborating scientists around the experiences of medical personnel working in intensive care in context to occupational fatigue and burnout. Including policy recommendations and practical guidelines for organisational readiness.

Trauma and orthopaedic team members' mental health during the COVID-19 pandemic. Thakrar A et al, Bone Joint Open, 1-6:316–325. This UK based cross-sectional study surveyed levels of generalised anxiety disorder (GAD) and major depressive disorder (MDD) in members of an orthopaedics team. Among the 62 respondents, higher prevalence of GAD (17.7% vs. 5.9%,p<0.001) and MDD (19.4% vs. 3.3.%, p<0.0001) was noted compared to the general population. Prevalence of MDD was highest for senior hours officers (p<0.01). Team members who identified as 'Black, African, Caribbean or Black British' felt least supported at work (p<0.001) and had a higher prevalence of GAD (p<0.002).

Pre-existing conditions

Trajectories of depression and anxiety during enforced isolation due to COVID-19: longitudinal analyses of 59,318 adults in the UK with and without diagnosed mental illness. Fancourt D et al. MedRxiv. Doi: 10.1101/2020.06.03.20120923 (preprint). This longitudinal study, based on population weighted data from 53,328 UK adults, investigated changes in depression and anxiety symptoms over the first two months of lockdown, comparing the experiences of those with and without diagnosed mental illness. In the first two months of lockdown, results show a slight decrease in anxiety levels overall, with fluctuations in depression levels (decreasing between weeks 3 and 6 and increasing slightly in weeks 7 and 8). While adults with existing mental health issues had higher levels of anxiety and depression, there was no evidence for widening inequalities compared to those without existing mental illness.

Early Life Stress Predicts Depressive Symptoms in Adolescents During the COVID-19 Pandemic: The Mediating Role of Perceived Stress. Gotlib IH et al, (preprint). This pre-print of a longitudinal US study assessed levels of stress and depression during COVID-19 among a sample of adolescents (n=100; age range= 13-20 years) who were characterised 4-7 years earlier as having been exposed to early life stress (ELS). High levels of depression during COVID-19 were predicted by exposure to more severe ELS- however, this relationship was mediated by high levels of perceived stress during COVID-19. The authors highlight perceived stress as a potentially modifiable target for preventing exacerbation of depressive symptoms.

The impact of the COVID-19 pandemic on patients with OCD: Effects of contamination symptoms and remission state before the quarantine in a preliminary naturalistic study. **Davide P et al, Psychiatry Research, 291, 113213**. This study aimed to assess changes in levels of OCD symptoms in context to quarantine. Investigating the impact of: a) contamination symptoms, and b) remission state before lockdown, upon severity of symptoms during quarantine. Findings highlight increases in symptoms severity for obsessive and compulsive symptoms; increasing symptom severity during lockdown was predicted by status of remission before lockdown, and the presence of obsessive or compulsive symptoms related to contamination fears before lockdown.

Public health

COVID-19, smoking, and inequalities: a cross-sectional survey of adults in the UK. Jackson SE et al. MedRxiv. This pre-print reports on the results of an online UK cross-sectional study around COVID-19 prevalence, smoking status and socioeconomic status (represented by post-16 qualifications attained). It was found that current smoking status was independently associated with confirmed COVID-19 infection- however, this association was only present among those without post-16 qualifications, highlighting socioeconomic disparity. It was also found that smokers disclosed lower adherence to guidelines, despite reporting higher levels of worry around contracting or becoming seriously ill from COVID-19.

Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey. Di Renzo et al. J Transl Med. 18, 229. This cross-sectional population-based study looked at lifestyle change, dietary and eating habits during the COVID-19 lockdown in Italy. Data from 3,533 respondents showed a perceived increase in weight gain in around 50% (with 8% reporting substantial weight gain); 38% of respondents reported an increase in physical activity, and 3.3% of smokers reported having stopped smoking.

Insomnia During COVID-19 Pandemic and Lockdown: Prevalence, Severity, and Associated Risk Factors in French Population. Kokou-Kpolou CK et al., Psychiatry Res, 26:290:113128. This French population based cross-sectional study reports on data from 556 participants. Showing a high prevalence of clinical insomnia (19.1%), the authors report that COVID-19 related stressors, loneliness levels, education status and having a pre-existing mental health condition as major risk factors.

Delayed Presentation of Acute Ischemic Strokes During the COVID-19 Crisis. Schirmer CM et al. J Neurointerv Surg, 12(7). A US based study extracted data from a prospective quality database to assess the timing and severity of ischemic stroke presentations from February to March 2019, compare this with data from February to March 2020. There was a marked decrease in patients presenting with ischemic stroke; yet no difference in severity or age at presentation was found between the two periods. Compared to 2019, the mean interval from last-known-well (LKW) time to presentation was significantly longer during COVID-19 ([603+/- 1035 mins] vs. 442+/-435 min], $p<0.02$).

Commentaries

Mental health

Dementia in the COVID-19 Period. Korczyn AD. Journal of Alzheimer's Disease. DOI 10.3233/JAD-200609 (published online 15/06/20)

Emotional Health in the Midst of the Coronavirus Disease 2019 (COVID-19) Pandemic. Benzel E. World Neurosurg, 138.

The Urgent Need to Address Violence Against Health Workers During the COVID-19 Pandemic. Rodríguez-Bolaños R et al. Med Care, 11(58). (published online 11/5/20)

Maternal Mental Health in the Time of the COVID-19 Pandemic. Thapa SB et al. Acta Obstet Gynecol Scand. (published online 05/20)

Health anxiety and behavioural changes of pregnant women during the COVID-19 pandemic. Corbett GA et al. Eur J Obstet Gynecol Reprod Biol.(published online 13/04/20).

COVID-19 Impacts on Child and Youth Anxiety and Depression: Challenges and Opportunities. Courtney D et al, Canadian Journal of Psychiatry, https://doi.org/10.1177/0706743720935646 (22/6/20)

Potential effects of "social" distancing measures and school lockdown on child and adolescent mental health. Clemens V et al. European Child & Adolescent Psychiatry, 29,739-742.

Public health

COVID-19: the great unequaliser. Devakumar D et al. J Royal Soc Med. Doi:10.1177/0141076820925434

Coronavirus disease 2019 (COVID-19): not one epidemic but four. Wooley I. Int Med J, 50(6). Doi: 10.1111/imj.14866. (published online 14/06/20)

The Challenge of Maintaining Metabolic Health During a Global Pandemic. King AJ et al. Sports Medicine, 50:1233-1241.

The consequences of the COVID-19 pandemic. Chien P. BJOG, 127(8). (published 11/6/20)

Sleepless in COVID-19: How Not to Lose Sleep in Lockdowns. Yadav SR, Kumar R, Kumar A et al. Moaldi Arch Chest Dis, 90(2). (published 12/6/20)

Child abuse: a hidden crisis during COVID-19 quarantine. Andreas Storz M. J Paediatr Child Health, 56(6). (published online 9/6/20).

Drinking alone: COVID-19, lockdown, and alcohol-related harm. The Lancet Gastroenterology and Hepatology. (published online May 2020)

Useful resources

Battle Buddies: Rapid Deployment of a Psychological Resilience Intervention for Health Care Workers During the COVID-19 Pandemic. Albott CS et al. Anesth Analg, 131(1).

Impact on non-Covid care

Guidance

Coronavirus: health and social care key issues and sources. Briefing paper Number CBP 8887, 30 June 2020. House of Commons Library.

Clinical guidance for healthcare professionals on maintaining immunisation programmes during COVID-19. Public Health England, Royal College of General Practitioners and Royal College of Paediatrics and Child Health (published June 2020).

Guidance for maternal medicine services in the evolving coronavirus (COVID-19) pandemic. Royal College of Obstetricians and Gynaecologists (published 26/06/20).

Restoration and Recovery: Priorities for Obstetrics and Gynaecology. A prioritisation framework for care in response to COVID-19. Royal College of Obstetricians and Gynaecologists (published 26/06/20).

Joint BMS / RCOG / RCGP / FSRH framework for restoration of menopause services in response to COVID-19. Royal College of Obstetricians & Gynaecologists (published 26/06/20).

Rapid reviews

Mental Health Services

Ensuring Mental Health Care During the SARS-CoV-2 Epidemic in France: A Narrative Review. Chevance A et al. Encephale, 46(3). This narrative review explores the evidence so that guidance to ensure mental health care during the SARS-CoV epidemic in France can be proposed. Four types of major vulnerabilities among patients with mental disorders during this pandemic were identified: (1) medical comorbidities that are more frequently found among patients with mental disorders (cardiovascular and pulmonary pathologies, diabetes, obesity, etc.) which are risk factors for severe covid-19 infection; (2) age (the elderly form the population most vulnerable to the coronavirus); (3) cognitive and behavioural disorders, which can hamper compliance with confinement and hygiene measures and finally and (4) psychosocial vulnerability as a result of stigmatization and/or socioeconomic difficulties.

Cancer services

Impact of the COVID-19 Outbreak on the Management of Patients With Cancer. Raymond E et al. Target Oncol, 15(3). The coronavirus SARS-CoV-2 (COVID-19) outbreak is impacting several aspects of the management of patients with cancer. Protection of patients with cancer and health caregivers remains a high priority. An impact on the overall mortality of patients with cancer may result from acute COVID-19 infection as well as from remote effects related to the breakdown of healthcare and the economic crisis.

Maternity services

Considerations for Obstetric Care during the COVID-19 Pandemic. Dotters-Katz & Hughes BL. The implications for pregnancy remain largely unknown. Early data suggest that COVID-19 may not pose increased risk in the pregnant population. Vertical transmission has not been confirmed. Because no treatment, no vaccine and no herd immunity exist, social distancing is the best mechanism available to protect patients and health care workers from infection. This review will discuss what is known about the virus as it relates to pregnancy and then consider management considerations based on these data.

Emerging evidence

Primary Care

The first six weeks - setting up a UK urgent dental care centre during the COVID-19 pandemic. Carter E et al, British Dental Journal, 228, 842-8. The COVID-19 pandemic has posed many challenges, including provision of urgent dental care. This paper presents a prospective service evaluation during establishment of urgent dental care in the North East of England over a six-week period.

Outpatient Care

The Italian Fight Against the COVID-19 Pandemic in the Second Phase: The Renewed Opportunity of Telemedicine. Giansanti, D. Telemedicine and eHealth (preprint). Now, during the second phase of the fight against the pandemic, we need: (1) to maintain social distancing; (2) to face new imminent criticalities highlighted in recent studies published in Telemedicine and e-Health; (3) to protect fragile subjects and to support disabled subjects; and (4) to still care/rehabilitate critical patients (still present even if in a decreased number). Telemedicine is still important and must also be rethought. The study, starting from the needs of chronic patients, highlighted in the recent studies published in this journal, expanded the possibilities of multiple opportunities for telemedicine integration during the second phase. An emerged categorization takes into consideration (1) the subjects with fragility, including those with rare diseases; (2) the experience gained during the emergency; (3) the new opportunities emerged for telemedicine boundaries; and (4) the new needs for telemedicine-based pulmonary rehabilitation at home.

Elective Care

Change in practice due to COVID-19 – Early experiences of a United Kingdom district general hospital in trauma & orthopaedics. Faria G et al, Journal of Orthopaedics, 22, 288-90. In Trauma and Orthopaedics, there has been a significant change in the workload but departments have been compelled to change their practice in order to match the demand, as well as respond to the escalating situation of COVID. Some guidance is available on these changes from bodies such as the National Health Service (NHS), Public Health England and the British Orthopaedic Association (BOA). The article explores certain changes that have been implemented at a university district general hospital trauma and orthopaedic department with regard to staff roles, outpatient and inpatient care and operative protocols. Changes and their effects on patient care are presented in an attempt to share these with colleagues who may face similar pressures and make some recommendations to help others prepare for a possible second wave of COVID-19.

Response of UK interventional radiologists to the COVID-19 pandemic – survey findings. Rostampour S et al, *CVIR Endovasc* 3, 41 (2020). https://doi.org/10.1186/s42155-020-00133-2. Members of the British Society of Interventional Radiologists were surveyed to obtain a snapshot of the experiences of UK Interventional Radiologists (IR) in response to COVID-19. Two thirds of respondents work in a Tertiary unit and 33% deliver IR in a District Hospital. 84% have a day-case facility. After the COVID-19 crisis, 81% of respondents were able to maintain 24–7 On-call service. 59% of respondents had been required change their day to day practice to allow the on-call service to continue. 55% of respondents were involved in providing a central line service. Of those questioned, 91% continued to offer endovascular services, 98% genitourinary and 92% hepatobiliary services, although a degree of service reduction was described. 38% have provided IR trainees with additional training material during this pandemic.

Emergency Care

Impact of the COVID-19 pandemic on orthopedic trauma workload in a London level 1 trauma center: the "golden month". **Park C et al, Acta Orthopaedica, DOI: 10.1080/17453674.2020.1783621.** Acute trauma referrals in the post-COVID period were almost halved compared with 2019, with similar distribution between pediatric and adult patients, requiring a significant 19% more admissions (RR 1.3, OR 2.6, p = 0.003). Hip fractures and polytrauma cases accounted for an additional 11% of the modal number of injuries in 2020, but with 19% reduction in isolated limb injuries that were modal in 2019. Total operative cases fell by a third during the COVID-19 outbreak. There was a decrease of 14% (RR 0.85, OR 0.20, p = 0.006) in aerosol-generating anesthetic techniques used.

Secondary Care

Recovery Position: What next for the NHS? NHS Providers. This briefing shares the results of the first NHS Providers survey carried out with the chairs and chief executives of trusts since the COVID-19 pandemic began. It offers a snapshot view of the sector's position as trusts emerge from the first peak of the outbreak and move towards a 'new normal'. It shares the different approaches trusts have put in place to continue caring for non-COVID patients, highlights the work they are doing to return to a sustainable level of services, and demonstrates the complexity of calculating what a sustainable level of service provision should be.

Returning the NHS to an even keel. P**arliamentary Briefing. Royal College of Physicians (29 June 2020).** The scale of the challenge facing the NHS after the first wave of COVID-19 in England is only just coming to light. The NHS adapted at speed to redeploy staff, change estate configurations, reduce non-COVID-19 face-to-face appointments and redesign patient pathways. This briefing captures several aspects of restarting activity including specialty capacity, adaptations to services, co-dependencies. It also provides an insight into potential capacity scenarios in genitourinary medicine and rheumatology.

Forecasting spatial, socioeconomic and demographic variation in COVID-19 health care demand in England and Wales. Verhagen MD et al, BMC Medicine, 18, Article number: 203 (2020). Combining census estimates and hospital capacity data from ONS and NHS at the Administrative Region, Ceremonial County (CC), Clinical Commissioning Group (CCG) and Lower Layer Super Output Area (LSOA) level from England and Wales, we calculate the number of individuals at risk of COVID-19 hospitalization. Combining multiple sources, we produce geospatial risk maps on an online dashboard that dynamically illustrate how the pre-crisis health system capacity matches local variations in hospitalization risk related to age, social deprivation, population density and ethnicity, also adjusting for the overall infection rate and hospital capacity. By providing fine-grained estimates of expected hospitalization, we identify areas that face higher disproportionate health care burdens due to COVID-19, with respect to pre-crisis levels of hospital bed capacity. Including additional risks beyond age-composition of the area such as social deprivation, race/ethnic composition and population density offers a further nuanced identification of areas with disproportionate health care demands.

Cancer services

Changes in Breast Cancer Management During the Corona Virus Disease 19 Pandemic: An International Survey of the European Breast Cancer Research Association of Surgical Trialists

(EUBREAST). Gasparri ML et al. Breast, 52. A multidisciplinary group on behalf of European Breast Cancer Research Association of Surgical Trialists developed a survey which aimed to provide a real time international snapshot of modifications of breast cancer management during the COVID-19 pandemic. The survey was distributed via breast cancer societies, with one reply per breast unit requested. 377 breast centres from 41 countries completed the questionnaire. Breast cancer management was considerably modified during the COVID-19 pandemic. The authors conclude that the data provide a base to investigate whether these changes impact oncologic outcomes.

A Practical Approach to the Management of Cancer Patients During the Novel Coronavirus Disease 2019 (COVID-19) Pandemic: An International Collaborative Group. Al-Shamsi et al. Oncologist, 25(6). The main management strategies for treating cancer patients during the COVID-19 epidemic include clear communication and education about hand hygiene, infection control measures, high-risk exposure, and the signs and symptoms of COVID-19. Consideration of risk and benefit for active intervention in the cancer population must be individualized. Postponing elective surgery or adjuvant chemotherapy for cancer patients with low risk of progression should be considered on a case-by-case basis. Minimizing outpatient visits can help to mitigate exposure and possible further transmission. Telemedicine may be used to support patients to minimize number of visits and risk of exposure. More research is needed to better understand SARS-CoV-2 virology and epidemiology.

Commentaries

Primary care

The primary care response to COVID-19 in England's National Health Service. Majeed A Et al. J Royal Soc Med. 113(6).

Long Term Conditions Management

Twin epidemics of covid-19 and non-communicable disease. Sheldon T and Wright J, BMJ, 369 m2618.

Elective care

Cardiac surgery in the time of the coronavirus. Fudulu DP & Angelini GD. J Card Surg. (published online (04/20)

Covid-19: Doctors feel shut out of plans for dealing with backlog of missed care. Rimmer A, BMJ, 369 doi: https://doi.org/10.1136/bmj.m2535 (Published 24 June 2020).

Cancer services

Cancer Patient Care during COVID-19. Harky A et al. Cancer Cell, 37(6). (published online 08/6/20)

Cancer Treatment During the Coronavirus Disease 2019 Pandemic: Do Not Postpone, Do It!. Omarini C et al. Eur J Cancer, 133. (published online 12/05/20).

Cancer care during and after the pandemic. Neal RD et al, BMJ, 370, doi: https://doi.org/10.1136/bmj.m2622 (Published 02 July 2020).

Mental Health Services

"You Have to Wait a Little Longer": Transgender (Mental) Health at Risk as a Consequence of Deferring Gender-Affirming Treatments During COVID-19. Van der Miesen et al. Archives of Sexual Behaviour.

Patient and Public Involvement

Patient and public involvement in covid-19 policy making. Richards T and Scowcroft H, BMJ, 370, m2575.

Useful resource

Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond. Van Daele T et al. Journal of psychotherapy integration, 30(2).