



COVID-19 Evidence Update 6

To access resources click on the blue hyperlinks, if you are unable to read the full text of any item please contact the Library@geh.nhs.uk for assistance or to make an article request.

Royal College/Society Guidance

Cochrane Library

Elsevier coronavirus information center

Database Search

Public Health England

Dynamed Plus

Wiley free articles

WHO

Useful Links

Royal College/Society Guidance

Latest information and guidance

NICE

Rapid guidelines and evidence summaries

Royal College of Emergency Medicine

Covid-19 resources

Royal College of Obstetrics & Gynaecologists

Coronavirus (COVID-19), pregnancy and women's health

Royal College of Paediatrics and Child Health

Key topics COVID 19

Royal College of Surgeons

COVID 19 Information Hub

British Society of Gastroenterology

COVID 19 updates

British Society of Echocardiography

COVID-19 clinical guidance

British Society for Haematology

COVID-19 Updates

British Society for Rheumatology

COVID-19 updates for members

Clinical Guidance

Don't forget the Bubbles

An Evidence Summary of Paediatric Covid-19 Literature

Executive Summary (updated 10 April)

COVID-19 Resources and Information

Dynamed Plus - COVID-19 (Novel Coronavirus)

Latest updates

11 APR 2020

26% mortality reported in adults ≥ 21 years old with confirmed COVID-19 admitted to COVIDonly intensive care units in Lombardy, Italy (JAMA 2020 Apr 6 early online) View in topic

10 APR 2020

1,436,198 confirmed cases of coronavirus disease 2019 (COVID-19) including 85,522 deaths worldwide reported by World Health Organization (WHO) as of April 9, 2020 (WHO Situation Report 2020 Apr 9)

View in topic

8 APR 2020

convalescent plasma transfusion reported to improve symptoms and pulmonary lesions in patients with severe COVID-19 (Proc Natl Acad Sci U S A 2020 Apr 6 early online)

View in topic

8 APR 2020

FDA issues Emergency Use Authorization permitting emergency usage of non-NIOSH approved respirators imported from and made in China, including KN95 respirators, provided they comply with certain performance and regulatory standards that can be verified by FDA (FDA emergency use authorization 2020 Apr 3)

View in topic

8 APR 2020

50% mortality reported in adults with confirmed COVID-19 admitted to intensive care units in Seattle, Washington, area (N Engl J Med 2020 Mar 30 early online)

View in topic

6 APR 2020

FDA issues Emergency Use Authorization permitting emergency usage of chloroquine phosphate for treatment of COVID-19 in hospitalized adults and adolescents weighing ≥ 50 kg for whom clinical trials are not available or participation not feasible (FDA Fact Sheet 2020 Mar 28)

View in topic

Public Health England

UK medicines and medical devices regulator investigating 14 cases of fake or unlicensed COVID-19 medical products

An increasing number of bogus medical products being sold through unauthorised websites claiming to treat or prevent COVID-19 are being investigated by the Medicines and Healthcare products Regulatory Agency (MHRA).

Personal protective equipment (PPE): export control process

Information for economic operators who will temporarily need a licence to export PPE outside the EU, EFTA member states and certain other territories.

Regulatory status of equipment being used to help prevent coronavirus (COVID-19)

There are different regulations which apply to devices and equipment including hand gels and PPE (personal protective equipment)

Coronavirus (COVID-19): scaling up testing programmes

How the government intends to scale up testing programmes to provide a test to anyone who needs one.

Guidance for manufacturers and Good Practice (GxP) laboratories on exceptional flexibilities for maintenance and calibration during the coronavirus COVID-19 outbreak

We are allowing alternative courses of actions for manufacturing or laboratory equipment during the outbreak.

Social distancing in the workplace during coronavirus (COVID-19): sector guidance Advice for employers on social distancing during coronavirus (COVID-19).

MHRA regulatory flexibilities resulting from coronavirus (COVID-19)

Guidance for industry on flexible approaches to regulation we are taking during the COVID-19 outbreak.

NHS works with tech firms to help care home residents and patients connect with loved ones Thousands of isolated residents and patients will be able to connect with their family and friends with video call devices, the government has announced.

Coronavirus (COVID-19): hospital discharge service requirements

Sets out how health and care systems and providers should change their discharging arrangements and the provision of community support during the coronavirus situation.

COVID-19: guidance for stepdown of infection control precautions within hospitals and discharging COVID-19 patients from hospital to home settings

Advice on appropriate infection prevention and control (IPC) precautions for stepdown in hospital or discharge to home or residential settings.

COVID-19: guidance for health professionals (updated 9 April)

Information on COVID-19, including guidance on the assessment and management of suspected UK cases.

World Health Organisation – Rolling Updates

Advice on the use of masks

6 April 2020

• WHO issued updated guidance on masks, including a new section on advice to decision-makers on mask use by healthy people in communities.

Key materials:

WHO Director-General's opening remarks at the media briefing on COVID-19 - 6 April 2020 Advice on the use of masks in the context of COVID-19 WHO Twitter thread on use of masks

133 countries provided with critical supplies

7 April 2020

- Since the beginning of the outbreak, the Operations Support and Logistics (OSL) unit at WHO has shipped more than 900 000 surgical masks, 62 000 N95 masks, 1 million gloves, 115 000 gowns, 17 000 goggles and 34 000 face shields to 133 countries.
- OSL has also shipped COVID-19 testing kits to 126 countries.

Key materials:

Situation Report 78 - 7 April 2020

Ad-hoc consultation on managing the COVID-19 infodemic 8-9 April 2020

- Bringing together scientists, public health decision-makers, medical journalists, technology and social media platforms and civil society, this consultation aimed to develop a framework for interventions to help share reliable information, while reducing misinformation, rumours and myths about COVID-19.
- Topics included raising awareness of the volume of information on the Internet, perceptions of the use of qualified sources for health decision-making and strengthening digital literacy.

Novel Coronavirus Information Center – Elsevier

New ventilator recommendations

Ventilator protocol from NIH-NHLBI ARDS Network (April 7, 2020)

Wiley Online Library Coronavirus & News

Healthcare Workers

Personal protective equipment during the COVID-19 pandemic – a narrative review

Recommendations from international organisations are broadly consistent, but equipment use is not. Only airborne precautions include a fitted high-filtration mask, and this should be reserved for aerosol-generating procedures. Uncertainty remains around certain details of personal protective equipment including use of hoods, mask type and the potential for re-use of equipment.

ISUOG Safety Committee Position Statement on use of personal protective equipment and hazard mitigation in relation to SARS-CoV-2 for practitioners undertaking obstetric and gynecological ultrasound

Ultrasound in Obstetrics & Gynecology

"This guidance describes steps that may be taken to minimize the risk of SARS-CoV-2 transmission between the patient and the practitioner during ultrasound examinations."

Battling COVID-19: Critical care and peri-operative healthcare resource management strategies in a tertiary academic medical centre in Singapore

Anaesthesia

"Based on the Chinese experience, some 19% of COVID-19 cases develop severe or critical disease. This results in a need for adequate preparation and mobilisation of critical care resources to anticipate and adapt to a surge in COVID-19 case-load in order to mitigate morbidity and mortality."

Infection control in non-clinical areas during COVID-19 pandemic

Anaesthesia

"SARS-CoV-2 survives in aerosols and on surfaces from hours to days, respectively [4]. Therefore, we believe non-clinical areas are potentially high-risk for transmission between healthcare workers, and often neglected by infection prevention and control protocols"

Coping with COVID-19: ventilator splitting with differential driving pressures using standard hospital equipment

Anaesthesia

"Ventilator splitting is not condoned by the authors. However, these experiments demonstrate the capacity to simultaneously ventilate two test lungs of different compliances, and using only standard hospital equipment, modify the delivered pressure, flow, and volume in each test lung."

COVID-19 pandemic: effects and evidence-based recommendations for otolaryngology and head and neck surgery practice

Head & Neck

"The procedures described are essential in trying to maintain safety of healthcare workers during COVID-19 pandemic. In particular, otolaryngologists, head and neck, and maxillofacial surgeons are per se exposed to the greatest risk of infection while caring for COVID-19 positive subjects, and their protection should be considered a priority in the present circumstances."

Improving staff safety during tracheostomy in COVID-19 patients

Head & Neck

Letter to the editor: pushing down the endotracheal tube and cuffed it at the level of the carina may avoid the spread of aerosol and, then, may add an extra security for the medical staff during a procedure at high risk of generating aerosol

Treating head and neck tumors during the SARS-CoV-2 epidemic, 2019-2020: Sichuan Cancer Hospital

Head & Neck

"This article summarizes the prevention and control of disease in our medical institution to provide a reference for front-line head and neck surgeons."

Safety testing improvised COVID-19 personal protective equipment based on a modified full-face snorkel mask

Anaesthetics

Correspondence: Several designs for improvised PPE have been circulated online and via social media. One particularly widely shared design involves a 3D printed adaptor to allow the mating of a standard anaesthetic heat and moisture exchange (HME) filter to a commercially available snorkelling mask.

Clinical and ethical challenges for emergency departments during communicable disease outbreaks: can lessons from Ebola Virus Disease be applied to the COVID-19 pandemic?

Emergency Medicine Australasia

Perspective: This perspective article draws on qualitative data from a longitudinal, ethnographic study of an Australian tertiary ED to illustrate the clinical and ethical challenges faced by EDs during PHEs.

Paediatrics

COVID-19 infection in a paucisymptomatic infant: Raising the index of suspicion in epidemic settings

Pediatric Pulmonology

Case Report: We present the case of a 32-day-old boy infected by COVID-19 that presented with an upper air way infection which resolved spontaneously and did not require any therapy. We argue that in epidemic settings children presenting with any mild symptom potentially attributable to COVID-19 should be considered contagious until proven otherwise, and that management must be guided by clinical conditions.

A comparative-descriptive analysis of clinical characteristics in 2019-Coronavirus-infected children and adults

Journal of Medical Virology

"Antiviral therapy was given to all adult patients but to none of the children."

Novel coronavirus infection in children outside of Wuhan, China

Pediatric Pulmonology

"The clinical symptoms of the new coronavirus infection in children were not typical and showed a less aggressive clinical course than teenage and adult patients."

Special considerations for the management of COVID-19 pediatric patients in the operating room and pediatric intensive care unit in a tertiary hospital in Singapore

Pediatric Anesthesia

"We present a summary of the general measures implemented at a large adult and pediatric tertiary hospital in Singapore (National University Hospital) as well as the specific strategies in place for the operating room and pediatric intensive care unit."

Clinical characteristics of a case series of children with coronavirus disease 2019

Pediatric Pulmonology

"We reported the clinical characteristics of a case series of 10 patients with coronavirus disease 2019 (COVID-19) aged from 1 year to 18 years."

Adult

Maternal and Perinatal Outcomes with COVID-19: a systematic review of 108 pregnancies Acta Obstetrica et Gynecologica Scandinavica

"Although the majority of mothers were discharged without any major complications, severe maternal morbidity as a result of COVID-19 and perinatal deaths were reported. Vertical transmission of the COVID-19 could not be ruled out."

COVID-19 in pregnancy with comorbidities: More liberal testing strategy is needed

Acta Obstetrica et Gynecologica Scandinavica

Letter to the editor: "Despite a global pandemic, reports on pregnant women with Coronavirus disease 2019 (COVID-19) are few so far, testing strategies vary substantially and management guidelines are not uniform."

Vaginal Delivery Report of a Healthy Neonate Born to a Convalescent Mother with COVID19 Journal of Medical Virology

Case Report: We report a case of a convalescing pregnant woman diagnosed as COVID-19 infection 37 days before delivery in the third trimester. A live birth without SARS-CoV-2 infection was delivered successfully via the vagina.

Lung ultrasound and computed tomographic findings in pregnant woman with COVID-19 Ultrasound in Obstetrics & Gynecology

Case Report: The point-of-care lung-ultrasound examination was easy to perform and, as such, could play an important role in the triage of women with suspected COVID-19. The neonatal swabs, cord blood, and placental swab RT-PCR tests were negative for SARS-CoV-2, a finding consistent with the published literature suggesting no vertical transmission of SARS-CoV-2 in pregnant women.

ISUOG Consensus Statement on rationalization of gynecological ultrasound services in context of SARS-CoV-2

Ultrasound in Obstetrics & Gynecology Consensus Statement

ISUOG Consensus Statement on rationalization of early-pregnancy care and provision of ultrasonography in context of SARS-CoV-2

Point-of-care lung ultrasound in patients with COVID-19 – a narrative review

Anaesthesia

"This narrative review provides a summary of evidence and clinical guidance for the use and interpretation of lung ultrasound for patients with moderate, severe and critical COVID-19 associated lung injury."

CT Scan of a COVID Positive Patient

JACEP Open

Images in Emergency Medicine: 45 year old male patient

Computed Tomography and Point-of-Care Ultrasound Findings in Two COVID-19 Patients JACEP Open

Images in Emergency Medicine: 59 year old and 60 year old male patients.

Impact of the COVID-19 pandemic on Parkinson's disease and movement disorders

Movement Disorders

Viewpoint: "in any situation of unavoidable measures of triage due to lack of intensive care resources or ventilation equipment, there is no evidence that patients with PD or any form of parkinsonism or other movement disorders have less chance of survival from COVID-19 infection than patients with similar age and comorbidities"

Triage Considerations for Patients Referred for Structural Heart Disease Intervention During the Coronavirus Disease 2019 (COVID-19) Pandemic: An ACC /SCAI Consensus Statement

Catheterization & Cardiovascular Interventions

"In this document, we suggest guidelines as to how to triage patients in need of SHD interventions and provide a framework of how to decide when it may be appropriate to proceed with intervention despite the ongoing pandemic."

Awake tracheal intubation in a suspected COVID-19 patient with critical airway obstruction Anaesthesia Reports

"There is a lack of national guidance for awake tracheal intubation and tracheostomy in COVID-19 cases. This report nevertheless addresses the key procedural modifications required."

Corticosteroid treatment of patients with coronavirus disease 2019 (COVID-19)

The Medical Journal of Australia

"Corticosteroids are widely used when treating patients with COVID-19, but we found no association between therapy and outcomes in patients without acute respiratory distress syndrome. An existing HBV infection may delay SARS-CoV-2 clearance, and this association should be further investigated."

Cardiac and arrhythmic complications in Covid-19 patients

Journal of Cardiovascular Electrophysiology

"This review focus on COVID-19 cardiac and arrhythmic manifestations and, in parallel, makes an appraisal of other virus epidemics as SARS-CoV, MERS-CoV, and H1N1 influenza."

Prevalence of venous thromboembolism in patients with severe novel coronavirus pneumonia Journal of Thrombosis & Haemostasis

"The incidence of VTE in patients with severe NCP is 25% (20/81), which may be related to poor prognosis. The significant increase of D-dimer in severe NCP patients is a good index for identifying high-risk groups of VTE."

Myocardial localization of coronavirus in COVID-19 cardiogenic shock

European Journal of Heart Failure

"We describe the first case of acute cardiac injury directly linked to myocardial localization of severe acute respiratory syndrome coronavirus (SARS-CoV-2) in a 69-year-old patient with flu-like symptoms rapidly degenerating into respiratory distress, hypotension, and cardiogenic shock."

High prevalence of obesity in severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) requiring invasive mechanical ventilation

Obesity

"The present study showed a high frequency of obesity among patients admitted in intensive care for SARS-CoV-2. Disease severity increased with BMI."

Pharmaceutical care of chloroquine phosphate in elderly patients with coronavirus pneumonia (COVID-19)

Aging Medicine

Commentary: "Elderly patients should not be treated with three or more antiviral drugs, including chloroquine phosphate."

COVID-19 And Older Adults: What We Know

Journal of the American Geriatrics Society

Review Article: In this review, we discuss the transmission, symptomatology, mortality, and possible treatments for this infection, as they relate to older adults.

Caring for patients with pain during the COVID-19 pandemic: Consensus recommendations from an international expert panel

Anaesthesia

"There are no guidelines to inform physicians and healthcare providers engaged in caring for patients with pain during this period of crisis. We assembled an expert panel of pain physicians, psychologists and researchers from North America and Europe to formulate recommendations to guide practice."

CHINA'S OLDEST CORONAVIRUS SURVIVORS

Journal of the American Geriatrics Society

Letter to the editor: "Extraordinarily, five older patients aged 98 years and over were discharged from hospitals, four of whom were in Wuhan—the epicenter of the global outbreak. Here we present their successful stories to inspire medical staff, patients, and the public."

The Challenges of the COVID-19 Pandemic: Approaches for the Elderly and those with Alzheimer's Disease

MedComm

Perspective: In this article, we review some unique challenges the elderly and people with Alzheimer's Disease face during the COVID-19 pandemic and suggest approaches that could be taken from healthcare and social approaches to better handle this pandemic.

General

The use of high-flow nasal oxygen in COVID-19

Anaesthesia

Editorial: The use of high-flow nasal oxygen (HFNO) in COVID-19 is the subject of much debate, relating to the benefits and harms that may result for patients and healthcare workers alike.

Management of Inflammatory Bowel Diseases in the Wake of COVID-19 Pandemic

Journal of Gastroenterology & Hepatology

Letter to the editor: Strategies to minimize exposure to SARS-CoV-2 virus among IBD patients:

- 1. Counseling regarding frequent hand washing; social distancing and avoid touching eyes, nose or mouth
- 2. Conducting clinics via telehealth to minimize physical exposure
- 3. Continuation of appropriate therapy to minimize flares, this has been recommended by multiple GI societies in the United States

Coronavirus disease 2019 (COVID-19) and prevalence of chronic liver disease: A meta-analysis

Liver International

Brief Definitive Report: "Individuals with severe COVID-19 disease had relevant alterations of liver enzymes and coagulative profile, probably due to the innate immune response against the virus."

Soluble pattern recognition molecules: Guardians and regulators of homeostasis at airway mucosal surfaces

European Journal of Immunology

Review: Herein we discuss how sPRRs may contribute to homeostasis but sometimes also to overt disease (e.g., airway hyperreactivity and asthma) at the alveolar-air interface

Restructuring the Inpatient Advanced Pharmacy Practice Experience to Reduce the Risk of Contracting COVID-19: Lessons from Saudi Arabia

JACCP

"In this paper, we present the experience of four faculty preceptors in restructuring the Advanced Pharmacy Practice Experience in different clinical settings, including critical care, infectious diseases, cardiology, and internal medicine, in order to reduce the risk of contracting COVID-19 at a large academic medical institution in Saudi Arabia."

SARS-COV-2 and infectivity: Possible increase in infectivity associated to integrin motif expression

Journal of Medical Virology

Letter to the editor: "Our conclusion is that further investigation into any possible links between integrinbinding peptides and their correlation with coronavirus infectivity and diffusion are needed, especially considering that their possible inhibition could be a potential therapeutic target for the SARS-COV-2 infection."

Significance of clinical phenomes of patients with COVID-19 infection: A learning from 3795 patients in 80 reports

Clinical and Translational Medicine

Short Communication: "We summarized clinical phenomes of 3795 patients with COVID-19 based on 80 published reports from the onset of outbreak to March 2020 to emphasize the importance and specificity of those phenomes in diagnosis and treatment of infection, and evaluate the impact on medical services"

Favipiravir: pharmacokinetics and concerns about clinical trials for 2019-nCoV infection

Clinical Pharmacology & Therapeutics

Mini Review: No specific antiviral drugs have been approved for the treatment of COVID-2019. In addition to the recommended antiviral drugs such as interferon-a, lopinavir/ritonavir, ribavirin, and chloroquine phosphate, some clinical trials focusing on virus RNA dependent RNA polymerase (RdRp) inhibitors have been registered and initiated. Favipiravir, a purine nucleic acid analog and potent RdRp inhibitor approved for use in influenza, is also considered in several clinical trials.

COVID-19 and Urology: A Comprehensive Review of the Literature

"In this review we discussed the impact of Covid-19 on global health, urinary tract and uro-oncologic surgeries . Additionally, we reviewed some of the available recommendations reported on oncological surgeries practice during this pandemic."

COVID-19 and the use of immunomodulatory and biologic agents for severe cutaneous disease: An Australia/New Zealand consensus statement

Australasian Journal of Dermatology

"In patients with suspected or confirmed COVID-19 disease, all immunomodulators used for skin diseases should be **immediately withheld**, with the possible exception of systemic corticosteroid therapy, which needs to be weaned."

Informing Emergency Care for COVID-19 patients: The COVID-19 Emergency Department (COVED) Quality Improvement Project Protocol

Emergency Medicine Australasia

"The COVID-19 Emergency Department (COVED) Quality Improvement Project has commenced and will provide flexible and responsive clinical tools to determine the predictors of key ED-relevant clinical outcomes."

Going remote: Maintaining normalcy in our pathology laboratories during the COVID-19 pandemic

Cancer Cytopathology

Commentary: The overall sentiment after switching to a predominantly remote environment has been overwhelmingly positive, and this presents a novel opportunity to explore additional digital workflows.

Cytologic and histologic samples from patients infected by the novel coronavirus 2019 SARS-CoV-2: An italian institutional experience focusing on biosafety procedures

Cancer Cytopathology

Commentary: The current commentary reports and focuses on the protocols and guidelines in use at a large tertiary Italian hospital that accordingly are proposed for adoption in Italian laboratories as a potential model for national guidelines for the coronavirus emergency.

Biosafety in the preparation and processing of cytology specimens with potential coronavirus (COVID-19) infection: Perspectives from Taiwan

Cancer Cytopathology

Commentary: The objective of this report is to provide cytopathology professionals a timely, in-depth, evidence-based review of biosafety practices for those at risk for coronavirus (COVID-19) infection.

Review of Emerging Pharmacotherapy for the Treatment of Coronavirus Disease 2019

Pharmacotherapy

"The purpose of this review is to summarize practical considerations for pharmacotherapy in patients with COVID-19, with the intent of serving as a resource for health care providers at the forefront of clinical care during this pandemic."

Tissue Plasminogen Activator (tPA) Treatment for COVID-19 Associated Acute Respiratory Distress Syndrome (ARDS): A Case Series

Journal of Thrombosis and Haemostasis

Case Report: "There is evidence in both animals and humans that fibrinolytic therapy in Acute Lung Injury and ARDS improves survival, which also points to fibrin deposition in the pulmonary microvasculature as a contributory cause of ARDS and would be expected to be seen in patients with ARDS and concomitant diagnoses of DIC on their laboratory values such as what is observed in more than 70% of those who die of COVID-19 (8-10)."

Digestive system involvement of novel coronavirus infection: prevention and control infection from a gastroenterology perspective

Journal of Digestive Diseases

"In this review article, we summarized the published literatures to date concerning four different aspects: (a) gastrointestinal manifestations of COVID-19 infection; (b) microbiologic and virological investigations; (c) the role of fecal—oral transmission; and (d) prevention/control infection in the digestive endoscopy room"

Therapeutic Potential for Tetracyclines in the Treatment of COVID-19

Pharmacotherapy

Letter to the editor: "It is possible that the zinc chelating properties of tetracyclines may also aid in inhibiting COVID-19 infection in humans limiting their ability to replicate within the host."

COVID-19: The Uninvited Guest in the Intensive Care Unit (ICU) Implications for Pharmacotherapy

Pharmacotherapy

Editorial: The primary clinical feature of COVID-19 is pneumonia, the severity of which directs the clinical course; it has been estimated that, of patients admitted to the ICU, up to half may require either invasive or non-invasive ventilatory support.

Providing health care to patients with hearing loss during COVID-19 and physical distancing Laryngoscope investigative otolaryngology

Editorial: By employing the communication tips and strategies discussed in this letter, we hope to raise awareness of the challenges faced by people with hearing loss during this global pandemic and to provide means to address them.

The role of growth factor receptors in viral infections: An opportunity for drug repurposing against emerging viral diseases such as COVID-19?

FASEB

"repurposing drugs that have initially been developed to target growth factor receptors and their signaling in cancer may prove to be a fast track to effective therapies against emerging new viral infections, including the coronavirus disease 19 (COVID-19)."

Coronavirus-19 Disease (COVID-19) and Decrease in Blood Donation: Experience of Iranian Blood Transfusion Organization (IBTO)

Vox Sanguinis Letter to the editor

COVID-19: A Review of Therapeutics Under Investigation

JACEP Open

"This review summarizes the existing evidence for medications currently under investigation for treatment of COVID-19, including remdesivir, chloroquine/hydroxychlorquine, convalescent plasma, lopinavir/ritonavir, IL-6 inhibitors, corticosteroids, and ACE inhibitors."

A primer on viral-associated olfactory loss in the era of COVID-19

International Journal of Allergy & Rhinology

"This review provides a brief, practical overview of viral-associated olfactory loss, realizing that evidence related to COVID-19 will likely not be clear for some time."

Handling and Processing of Blood Specimens from Patients with COVID-19 for Safe Studies on Cell Phenotype and Cytokine Storm

Journal of Quantitative Cell Science

"Here we describe our procedures in studying peripheral blood mononuclear cells (PBMCs) isolated from infected samples with the intent to provide indications for performing relatively simple immunological studies and reassure the flow cytometry community, currently on the frontline to the fight against the virus 3, since there are no particular risks if all precautions are taken."

Cochrane Library

Coronavirus (COVID-19): evidence relevant to critical care

Healthcare Databases

Medline PubMed & EMBASE

Healthcare workers

Practical Guidance for Managing EMG Requests and Testing during the COVID-19 Pandemic Muscle & Nerve

"We have stratified EDX studies into 3 categories: Urgent, Non-urgent and Possibly Urgent, in an effort to help clinicians triage these referrals. For each category, we provide a rationale and some examples."

Legal aspects of COVID-19 pandemic management for community nurses

British Journal of Community Nursing

"This article looks at how things may develop in regard to the law on professional responsibility. The article also looks briefly at the likely increase in volunteer workers, as well as an important aspect of patient confidentiality."

Surgery in COVID-19 patients: operational directives

World Journal of Emergency Surgery

Commentary: "We aim to describe recommended clinical pathways for COVID-19-positive patients requiring acute non-deferrable surgical care."

Summarizing societal guidelines regarding bronchoscopy during the COVID-19 pandemic Respirology

Commentary: Several bronchology societies have issued guidelines regarding bronchoscopy during the COVID-19 pandemic. However, none are comprehensive and significant uncertainty remains regarding in whom to perform bronchoscopy and how to perform it safely in this rapidly changing clinical environment

Protecting Labor and Delivery Personnel from COVID-19 during the Second Stage of Labor American Journal of Perinatology

Short communication: The second stage of labor can last up to 4 hours. During that time, labor and delivery personnel is in close contact to patients, who are exerting extreme effort during and frequently blow out their breath, cough, shout, and vomit, all of which put the health care team at risk, considering that COVID-19 transmission occurs through aerosol generated by coughing and sneezing.

How to Handle a COVID-19 Patient in the Angiographic Suite

CardioVascular and Interventional Radiology

Review: The selection of procedures for interventional radiology (IR), preparation of staff and interventional suite before the arrival of patients, the facility ventilation systems and intra- and post-procedural workflow optimization are described.

Rheumatologists' perspective on coronavirus disease 19 (COVID-19) and potential therapeutic targets

Clinical Rheumatology

"While waiting for evidence-based recommendations, empirical preventive measures should be implemented. Relying on expert opinion and rapidly accumulating evidence is currently the best way to avoid major mistakes."

Just the Facts: Recommendations on Point of Care Ultrasound Use and Machine Infection Control During the COVID-19 Pandemic

Canadian Journal of Emergency Medicine

The role and response of palliative care and hospice services in epidemics and pandemics: a rapid review to inform practice during the COVID-19 pandemic.

Journal of Pain and Symptom Management

"Hospice and palliative care services should: respond rapidly and flexibly; produce protocols; shift resources to the community; redeploy volunteers; facilitate staff camaraderie; communicate with patients/carers via technology; standardise data collection."

Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic

JAMA

Viewpoint: "Before effective approaches to support health care professionals can be developed, it is critical to understand their specific sources of anxiety and fear."

Symptom Cluster of ICU nurses treating COVID-19 pneumonia patients in Wuhan, China

Journal of Pain and Symptom Management

"Based on the characteristics of their SSDs, specific interventions could be implemented to safeguard the health of ICU nurses."

Supporting colleagues during covid-19: the intensive care consultant BMJ

"We made this peer support group so that people could talk to each other and try to rationalise what had happened to help them get through it"

Reducing hand recontamination of health workers during COVID-19

Infection Control and Hospital Epidemiology

Letter to the editor: We call for greater attention to the risk from hand recontamination and the opportunity for its prevention through empowering health workers and strengthening cleaning of the care environment.

Children and Neonates

Neonatal Resuscitation and Postresuscitation Care of Infants Born to Mothers with Suspected or Confirmed SARS-CoV-2 Infection

American Journal of Perinatology

"The manuscript outlines the precautions and steps to be taken before, during, and after resuscitation of a newborn born to a COVID-19 mother, including three optional variations of current standards involving shared-decision making with parents for perinatal management, resuscitation of the newborn, disposition, nutrition, and postdischarge care"

Screening and Severity of Coronavirus Disease 2019 (COVID-19) in Children in Madrid, Spain JAMA Pediatrics

"Infections in children occur early in COVID-19 epidemics. The proportion of confirmed patients among those with compatible symptoms was 11%."

Should Infants Be Separated from Mothers with COVID-19? First, Do No Harm

Breastfeeding Medicine

"The benefit of separation is that it minimizes the risk of transmission of SARS-CoV-2 from mother to infant during the hospital stay. However, if the goal is the health and well-being of mother and child in the months following birth, there are additional considerations."

Breast feeding at the time of COVID-19: do not forget expressed mother's milk, please

Archives of Disease in Childhood Fetal & Neonatal Edition

Letter: "In conclusion, protocols applied in maternity hospitals to prevent COVID-2 should consider, as far as possible, the promotion of breast feeding, without disregarding the feasible option of expressing mother's milk"

Pregnancy

Classification system and case definition for SARS-CoV-2 infection in pregnant women, fetuses, and neonates

Acta Obstetrica et Gynecologica Scandinavica

At present the evidence for intrauterine transmission from mother to fetus or intrapartum transmission from mother to the neonate is sparse. There are limitations associated with sensitivity and specificity of diagnostic tests used and classification of patients based on test results has also been questioned.

Operating Room Guide for Confirmed or Suspected COVID-19 Pregnant Patients Requiring Cesarean Delivery

American Journal of Perinatology

"Here we describe an example of a protocol developed at our institution for confirmed or suspected COVID-19 patients requiring cesarean delivery."

Corticosteroid Guidance for Pregnancy during COVID-19 Pandemic

American Journal of Perinatology

Key Points:

- Corticosteroid use is an important part of prematurity treatment because it provides benefit to the fetus.
- Corticosteroid use may be related with increased morbidity and mortality in novel coronavirus disease 2019 (COVID-19).
- Therefore, during the COVID-19 pandemic, an alteration in current corticosteroid practices is necessary to uniquely weigh the maternal risks and fetal benefits.

Delivery in pregnant women infected with SARS-CoV-2: A fast review

International Journal of Gynecology & Obstetrics

"The rate of vertical or peripartum transmission of SARS-CoV-2 is low, if any, for cesarean delivery; no data are available for vaginal delivery. Low frequency of spontaneous preterm birth and general favorable immediate neonatal outcome are reassuring."

Association of COVID-19 infection with pregnancy outcomes in healthcare workers and general women

Clinical Microbiology and Infection

Letter to the editor: "We conducted a case series study on pregnant women (n =17) infected with COVID-19 17 admitted to Hubei general hospital (Renmin Hospital) from Jan 25 to Feb 15, 2020."

COVID-19 Obstetrics Task Force, Lombardy, Italy: executive management summary and short report of outcome

International Journal of Gynecology & Obstetrics

"From February 24, 2020, a COVID-19 obstetric task force was structured to deliver management recommendations for obstetric care. From March 1, 2020, six COVID-19 hubs and their spokes were designated."

Obstetric Anesthesia During the COVID-19 Pandemic

Anesthesia & Analgesia Journal

"The goal of this review is to provide evidence-based recommendations, or expert opinion when evidence is limited, for anesthesiologists caring for pregnant women during the COVID-19 pandemic, with a focus on preparedness and best clinical obstetric anesthesia practice."

Radiological findings and clinical characteristics of pregnant women with COVID-19 pneumonia

International Journal of Gynecology & Obstetrics

"Radiological findings and clinical characteristics in pregnant women with COVID-19 were similar to those of non-pregnant women with COVID-19."

COVID-19: the perspective of Italian embryologists managing the IVF laboratory in pandemic emergency

Human Reproduction Letter to the editor

Adults and older patients

Does comorbidity increase the risk of patients with COVID-19: evidence from meta-analysis Aging

"Hypertension, diabetes, COPD, cardiovascular disease, and cerebrovascular disease are major risk factors for patients with COVID-19. Knowledge of these risk factors can be a resource for clinicians in the early appropriate medical management of patients with COVID-19"

Benign COVID-19 in an immunocompromised cancer patient - the case of a married couple. Swiss Medical Weekly

"These findings suggest that the course of COVID-19 is not necessarily ominous in the presence of a compromised immune response and tend to reinforce the emerging therapeutic concepts of a controlled mitigation of the immune cascade following SARS CoV-2 infection."

Suggestions for thromboprophylaxis and laboratory monitoring for in-hospital patients with COVID-19

Swiss Medical Weekly

"the Working Party on Hemostasis (Swiss Society of Hematology) proposes the following recommendations for pharmacological thromboprophylaxis in COVID-19 patients in the acute setting..."

Predictors for imaging progression on chest CT from coronavirus disease 2019 (COVID-19) patients

Aging

Conclusion: Age, MLR, homocysteine and period from onset to admission could predict imaging progression on chest CT from COVID-19 patients.

Fatal outcome in a liver transplant recipient with COVID-19

American Journal of Transplantation

Case Report: "The management of COVID-19 in the post-transplant setting presents complex challenges emphasizing the importance of strict prevention strategies."

Novel Coronavirus (SARS-CoV-2) Infection in A Renal Transplant Recipient: Case Report American Journal of Transplantation

"This case states the importance of close monitoring of the concentration of ciclosporin in patients treated with lopinavir/ritonavir, routine treatment of corticosteroid can be continued."

SARS-CoV-2 and COVID-19 in older adults: what we may expect regarding pathogenesis, immune responses, and outcomes

GeroScience

"Here, we briefly review the virus, its structure and evolution, epidemiology and pathogenesis, immunogenicity and immune, and clinical response in older adults, using available knowledge on SARS-CoV-2 and its highly pathogenic relatives MERS-CoV and SARS-CoV-1."

First case of COVID-19 complicated with fulminant myocarditis: a case report and insights. Infection

"A 63-year-old male was admitted with pneumonia and cardiac symptoms. He was genetically confirmed as having COVID-19 according to sputum testing on the day of admission. He also had elevated troponin I (Trop I) level (up to 11.37 g/L) and diffuse myocardial dyskinesia along with a decreased left ventricular ejection fraction (LVEF) on echocardiography."

Compassionate Use of Remdesivir for Patients with Severe Covid-19. NEJM

"In this cohort of patients hospitalized for severe Covid-19 who were treated with compassionate-use remdesivir, clinical improvement was observed in 36 of 53 patients (68%)."

Plasminogen improves lung lesions and hypoxemia in patients with COVID-19

QJM

"Whereas it is reported that plasminogen is dramatically increased in adults with ARDS, this study suggests that additional plasminogen may be effective and efficient in treating lung lesions and hypoxemia during COVID-19 infections."

Obesity in patients younger than 60 years is a risk factor for Covid-19 hospital admission Clinical Infectious Diseases

Correspondence: "based on data from our institution, obesity appears to be a previously unrecognized risk factor for hospital admission and need for critical care. This has important and practical implications, where nearly 40% of adults in the US are obese with a BMI >30 [4]."

Vaso-occlusive Crisis and Acute Chest Syndrome in Sickle Cell Disease due to 2019 Novel Coronavirus Disease (COVID-19)

American Journal of Hematology

"two patients with homozygous sickle cell disease (SCD) were admitted to our hospital with a painful vaso-occlusive crisis (VOC) triggered by COVID-19"

Expert consensus from the Italian Society for Colposcopy and Cervico-Vaginal Pathology (SICPCV) for colposcopy and outpatient surgery of the lower genital tract during the COVID-19 pandemic

International Journal of Obstetrics & Gynecology Special Article

Predictors of Mortality for Patients with COVID-19 Pneumonia Caused by SARS-CoV-2: A Prospective Cohort Study

European Respiratory Journal

We identified four risk factors, age ≥65 years, preexisting concurrent cardiovascular or cerebrovascular diseases, CD3+CD8+ T cells ≤75 cell·µL⁻¹, and cardiac troponin l≥0.05 ng·mL⁻¹, especially the latter two factors, were predictors for mortality of COVID-19 pneumonia patients.

Ocular manifestations of a hospitalised patient with confirmed 2019 novel coronavirus disease British Journal of Ophthalmology

"SARS-CoV-2 is capable of causing ocular complications such as viral conjunctivitis in the middle phase of illness."

Conservative management of Covid-19 patients – emergency palliative care in action Journal of Pain and Symptom Management

"Palliative care teams, intensivists and internal medicine specialists all work side by side as palliative care is recognised to be at the forefront of this crisis, as it can offer symptom management, support to families and spiritual care"

General

Prediction for Progression Risk in Patients with COVID-19 Pneumonia: the CALL Score Clinical Infectious Diseases

"Using the CALL score model, clinicians can improve the therapeutic effect and reduce the mortality of COVID-19 with more accurate and reasonable resolutions on medical resources."

Effect of throat washings on detection of 2019 novel coronavirus

Clinical Infectious Diseases

"Positive testing rate of throat washing was much higher than that of Nasopharyngeal swabs. Throat washing is a promising candidate for 2019-nCoV screening and monitoring due to its noninvasive and reliability"

Urgent Considerations for the Neuro-oncologic Treatment of Patients with Gliomas During the COVID-19 Pandemic

Neuro-Oncology

"In this article, we present an approach developed by an international multi-disciplinary group to optimize the care of adults with gliomas during this pandemic. We recommend measures to promote strict social distancing and minimize exposures for patients, address risk and benefit of all therapeutic interventions, pro-actively develop end of life plans, educate patients and caregivers and ensure the health of the multidisciplinary neuro-oncology workforce."

Managing Cutaneous Immune-Mediated Diseases During the COVID-19 Pandemic

American Journal of Clinical Dermatology

"Several cutaneous immune-mediated diseases, including psoriasis, atopic dermatitis, and hidradenitis suppurativa, are therapeutically managed with biologic and non-biologic immunosuppressive and immunomodulatory drugs. The outbreak of COVID-19 affects the management of these chronic conditions, not only for those who are already receiving treatment but also for those who are about to start a new treatment to control their disease."

COVID-19 and the gastrointestinal tract: more than meets the eye

Gut

Commentary: Currently, prolonged fecal shedding in infected patients even after viral clearance in respiratory tract suggests that stool testing should be considered in patients with COVID-19 with appropriate transmission precautions for hospitalised patients who remain stool positive.

Whose life to save? Scarce resources allocation in the COVID-19 outbreak

Journal of Medical Ethics

"The burden of choice—the implications of which concern us all—can no longer be put on healthcare professionals' shoulders. Now more than ever, there has to be a rigorous and adequate implementation of medical ethics in healthcare."

COVID-19: community CPAP and NIV should be stopped unless medically necessary to support life

Thorax

Letter to the editor: "In the interests of patients' families and their carers we call for a consensus opinion on clearer instructions for patients and their physicians—how to isolate while using NIV or CPAP at home, safety provisions for household members and risk—benefit analysis of temporary NIV or CPAP cessation."

Diarrhea during COVID-19 infection: pathogenesis, epidemiology, prevention and management Clinical Gastroenterology and Hepatology

"Diarrhea is a frequent presenting symptom in patients infected with SARS-CoV-2."

COVID-19 and drug-induced liver injury: a problem of plenty or a petty point?

Archives of Toxicology

Guest Editorial

Projecting demand for critical care beds during COVID-19 outbreaks in Canada CMAJ

"At the peak of COVID-19 outbreaks, the need for ICU beds will exceed the total number of ICU beds even with self-isolation at 40%"

Intensive care management of coronavirus disease 2019 (COVID-19): challenges and recommendations

The Lancet Respiratory Medicine Review

Baseline Characteristics and Outcomes of 1591 Patients Infected With SARS-CoV-2 Admitted to ICUs of the Lombardy Region, Italy

JAMA

"In this case series of critically ill patients with laboratory-confirmed COVID-19 admitted to ICUs in Lombardy, Italy, the majority were older men, a large proportion required mechanical ventilation and high levels of PEEP, and ICU mortality was 26%."

Disinfection of N95 respirators by ionized hydrogen peroxide in pandemic coronavirus disease 2019 (COVID-19) due to SARS-CoV-2

The Journal of Hospital Infection

Letter to the editor: "This experiment showed that iHP could kill influenza A virus at moderate to high levels of inoculum. Influenza A virus was chosen for this study because it is an enveloped RNA virus that has similar virological characteristics as coronaviruses."

Olfactory and gustatory dysfunctions as a clinical presentation of mild-to-moderate forms of the coronavirus disease (COVID-19): a multicenter European study

Rhinology

"The sudden anosmia or ageusia need to be recognized by the international scientifc community as important symptoms of the COVID-19 infection"

Sudden and Complete Olfactory Loss Function as a Possible Symptom of COVID-19

JAMA Otololaryngology - Head & Neck Surgery

"To our knowledge, this is the first report of a patient with COVID-19 presenting essentially with an olfactory function loss"

The Role of Chest Imaging in Patient Management during the COVID-19 Pandemic: A Multinational Consensus Statement from the Fleischner Society

Chest

"Imaging is not indicated in patients with suspected COVID-19 and mild clinical features unless they are at risk for disease progression"

COVID-19 and the Heart

Circulation Research

Lymphocytopenia, hyperinflammation, and cardiac involvement are all prominent features of the disease and have prognostic value, but the mechanistic links among these phenomena are ill-defined.

Covid-19: What is the evidence for cloth masks?

BMJ

"Wearing masks in the community can also give people a false sense of security...and lead to them neglecting other measures, such as hand hygiene and physical distancing."

Deployment of convalescent plasma for the prevention and treatment of COVID-19 Journal of Clinical Investigation

"Convalescent plasma has also been used in the COVID-19 pandemic; limited data from China suggest clinical benefit, including radiological resolution, reduction in viral loads and improved survival."

Pain Management Best Practices from Multispecialty Organizations during the COVID-19 Pandemic and Public Health Crises

Pain Medicine

"Specific issues discussed include general and interventional-specific risk mitigation, patient flow issues and staffing plans, telemedicine options, triaging recommendations, strategies to reduce psychological sequelae in health care providers, and resource utilization."

How to surge to face SARS-CoV-2 outbreak. Lessons learned from Lumbardy, Italy

Disaster Medicine and Public Health Preparedness

4 S of surge capacity theory

Microbiology / Drugs / Biomechanics / Immunology

A review on the cleavage priming of the spike protein on coronavirus by angiotensin-converting enzyme-2 and furin

Journal of Biomolecular Structure and Dynamics

"In conclusion, this review may pave the way for providing useful information about different compounds involved in improving the effectiveness of CoV vaccine or drugs with minimum toxicity against human health."

A method to prevent SARS-CoV-2 IgM false positives in gold immunochromatography and enzyme-linked immunosorbent assays

Journal of Clinical Microbiology

"Conclusion: Middle-high level of RF-IgM could lead to false-positive reactivity of SARS-CoV-2 IgM detected using GICA and ELISA, and urea dissociation tests would be helpful in reducing false-positive results of SARS-CoV-2 IgM."

Clinical evaluation of the cobas SARS-CoV-2 test and a diagnostic platform switch during 48 hours in the midst of the COVID-19 pandemic

Journal of Clinical Microbiology

"Our results showed that cobas is a reliable assay for qualitative detection of SARS-CoV-2 in nasopharyngeal swab samples collected in the UTM-RT system."

Safety Considerations in the Laboratory Testing of Specimens Suspected or Known to Contain the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)

Laboratory Medicine

"The important message is that not all laboratories are alike, and through a risk assessment, managers can put into place a process necessary to be able to provide a safe environment for the staff."

Targeting SARS-CoV-2: A Systematic Drug Repurposing Approach to Identify Promising Inhibitors Against 3C-like Proteinase and 2'-O-RiboseMethyltransferase

Journal of Biomolecular Structure & Dynamics

"After the extensive computational analysis, we proposed that Raltegravir, Paritaprevir, Bictegravir and Dolutegravir are excellent lead candidates for these crucial proteins and they could become potential therapeutic drugs against SARS-CoV-2."

Ultrarapid diagnosis, microscope imaging, genome sequencing, and culture isolation of SARS-CoV-2

European Journal of Clinical Microbiology & Infectious Diseases

"This observation is the proof of concept that from the clinical sample, it was possible to have the result of the PCR in 3 h, to have the genome in 11 h, and to recover using culture in 72 h the viral strain whose availability makes it possible to study drugs with recognized activity including those (hydroxychloroquine and chloroquine) with reported clinical activity"

Biomarkers of biological age as predictors of COVID-19 disease severity

Aging

"it is of utmost importance to biobank large number of plasma samples of both severe and mild cases, so that modern profiling technologies can be used to identify molecular risk factors during this and for future outbreaks."

PCR Assays Turned Positive in 25 Discharged COVID-19 Patients

Clinical Infectious Diseases

"We report the observation that 14.5% of COVID-19 patients had positive RT-PCR testing again after discharge."

Type 1 interferons as a potential treatment against COVID-19

Antiviral Research

In this review, we discuss preliminary data concerning the potential activity of type 1 interferons on SARS-CoV-2, and the relevance of evaluating these molecules in clinical trials for the treatment of COVID-19.

SARS-CoV-2 infects T lymphocytes through its spike protein-mediated membrane fusion Cellular and Molecular Immunology

"Based on the results of pseudovirus and live virus infection, here we proved that (1) SARS-CoV-2 could infect T cells, (2) SARS-CoV-2 infected T cells through receptor-dependent, S protein-mediated membrane fusion, and (3) infection could be inhibited by EK1 peptide."

Rapid and visual detection of 2019 novel coronavirus (SARS-CoV-2) by a reverse transcription loop-mediated isothermal amplification assay

Clinical Microbiology and Infection

The RT-LAMP assay is a powerful tool for SARS-CoV-2 identification not only in experimental laboratories, but also in hospitals as it does not require complex equipment. It may prove useful in monitoring suspected patients, close contacts, and high-risk groups.

Current Status of Cell-Based Therapies for Respiratory Virus Infections: Applicability to COVID-19

European Respiratory Journal

"To provide a rationale strategy to maximize potential therapeutic use, it is critically important to understand the relevant pre-clinical studies and postulated mechanisms of MSC actions in respiratory virus-induced lung injuries"

Immune-epidemiological parameters of the novel coronavirus – a perspective Expert Review of Clinical Immunology

Perspective: Evidence links aging to cytokine dysregulation and T-cell repertoire reduction, male population to relatively reduced anti-viral immunity, and COVID-19-related comorbidities to hyper inflammation.

Covid-19: US gives emergency approval to hydroxychloroquine despite lack of evidence BMJ

News - caution needed

Hydroxychloroquine for treatment of SARS-CoV-2 infection? Improving our confidence in a model-based approach to dose selection

Clinical and Translational Science

Commentary: "It has been reported that hydroxychloroquine (HCQ) is active against SARS-CoV-2 in vitro, and this finding was quickly supported by an open label non-randomized clinical trial that provided the first published clinical evidence HCQ may be a treatment option."

Safety considerations with chloroquine, hydroxychloroquine and azithromycin in the management of SARS-CoV-2 infection

CMAJ

"Physicians and patients should be aware of several uncommon but potentially life-threatening adverse effects should these drugs be used before better-designed studies determine their benefit, if any, in treating or preventing COVID-19."

Should chloroquine and hydroxychloroquine be used to treat COVID-19? A rapid review BJGP

"At present, there is insufficient evidence to determine whether CQ/HCQ are safe and effective treatments for COVID-19."

Towards Optimization of Hydroxychloroquine Dosing in Intensive Care Unit COVID-19 Patients Clinical Infectious Diseases

"Hydroxychloroquine (HCQ) appears to be a promising treatment for COVID-19. However, all ongoing clinical trials with HCQ use different dosing regimens, resulting on various concentrations PK studies are therefore needed to define the optimal dosing regimen."

In Silico Discovery of Candidate Drugs against Covid-19

Viruses

"Among possible interesting drugs for Covid-19 treatment, we found Nimesulide, Fluticasone Propionate, Thiabendazole, Photofrin, Didanosine and Flutamide"

Useful Links

BMJ - latest news and resources for COVID-19

European Centre for Disease Prevention and Control

GOV.UK

Health protection Scotland

New England Journal of Medicine

NHS UK

Oxford University Press

Patient.Info

Reproduced by the Clinical Librarian for William Harvey Library with kind permission from Portsmouth Hospitals NHS Trust Library.

Also available via our web pages at: https://geh.wordpress.ptfs-europe.co.uk/coronavirus-covid-19-resources/

The Clinical Librarian is here to help with evidence searches, current awareness and virtual support with information seeking skills, critical appraisal and referencing.

If you have any further enquiries please do not hesitate to get in touch.

You can contact us by email at <u>Library@geh.nhs.uk</u>
Alternatively you can the clinical librarian directly: <u>Lisa.Mason@geh.nhs.uk</u>

The Clinical Librarian team endeavours to find as much of the latest evidence in your clinical area as possible, however make no claim as to the exhaustive nature of the update.

For more specific areas of interest we would recommend a literature search or KnowledgeShare bulletin.