Infection Current Awareness Update – 31/08/2020

Welcome to the weekly Infection Current Awareness Update (ICAU), produced by PHE Knowledge and Library Services. The purpose of this update is to provide you with the latest, best evidence about infection, to help you make informed decisions.

Please note: PHE KLS has set up a separate COVID-19 Daily Alert of latest research. If you would like to receive this, please email libraries@phe.gov.uk. In addition to this, a page of resources about the coronavirus is available here.

If you have any queries, please contact us at libraries@phe.gov.uk, and if you would like to request a literature search, please use the Knowledge and Library Services Enquiries Portal (PHE staff only).

Please note that not all the articles and resources referred to in this alert are freely available. Some articles may require an Athens username and password, and for PHE and NHS staff, these can be obtained here. If you do not work for PHE or the NHS, you may want to approach your local health library service to discuss how you may have access to library services.

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COVID-19 related research

COVID-19 infection

Covid-19 also a chance to assess risk reduction or prevention treatments
28 Aug 2020
I agree with Moynihan and colleagues1 that the pandemic offers a “natural experiment in less medical care,” and that the results may help identify some interventions that do more harm than good to...

Infection-related journals

American Journal of Infection Control

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Availability of Personal Protective Equipment and Infection Prevention Supplies During the First Month of the COVID-19 Pandemic: A National Study by the APIC COVID-19 Task Force
25 Aug 2020
SARS-CoV-2, the virus that causes COVID-19 disease was first discovered in China in December, 2019. The disease quickly spread globally, with the first U.S. case identified in January, 2020.1 It was officially declared a pandemic on March 11, 2020

Impact of No-Touch Ultraviolet Light Room Disinfection Systems on Clostridioides Difficile Infections
25 Aug 2020
There is a growing awareness of the hospital environment as a reservoir for multidrug-resistant organisms (MDRO) and other pathogens that can lead to the development of healthcare-associated infections. Clostridioides difficile spores are capable of surviving in the patient environment for extended periods,1 potentially contributing to C. difficile infections (CDI) in patients

Demystifying Theoretical Concerns Involving Respirators with Exhalation Valves during COVID-19 Pandemic
25 Aug 2020
The global COVID-19 pandemic continues to create unprecedented demands for respiratory protection for healthcare personnel (HCP). This demand has forced HCP to utilize respirators they might not normally use in an effort to protect themselves including those models of N95 filtering facepiece respirators and almost all models of reusable (elastomeric) respirators that include exhalation valves

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Cardiac Arrest in the Cardiac Catheterization Laboratory: Initial Experience With the Role of Simulation Setup and Training
25 Aug 2020
American Journal of Medical Quality, Ahead of Print. With rising complexity of percutaneous coronary interventions being performed, the incidence of cardiac arrest in the cardiac catheterization laboratory (CCL) is likely to increase. The authors undertook a series of multidisciplinary simulation sessions to identify practice deficiencies and propose solutions to improve patient care.

Risk factors for COVID-19 death in a population cohort study from the Western Cape Province, South Africa
29 Aug 2020
AbstractBackgroundRisk factors for COVID-19 death in sub-Saharan Africa and the effects of HIV and tuberculosis on COVID-19 outcomes are unknown. MethodsWe conducted a population cohort study using linked data from adults attending public sector health facilities in the Western Cape, South Africa.

SARS-CoV-2 RNA in serum as predictor of severe outcome in COVID-19: a retrospective cohort study
28 Aug 2020
AbstractBackgroundSevere Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) causes Coronavirus disease 2019 (COVID-19). This study aimed to determine if SARS-CoV-2 RNA in serum at admission correlated with clinical outcome in COVID-19.

Clearance of Wuchereria bancrofti infection after repeated rounds of mass drug administration with albendazole alone is closely linked to individual adherence
28 Aug 2020
AbstractBackground Two community trials conducted from 2012 to 2018 in the Republic of Congo and the Democratic Republic of the Congo demonstrated the efficacy of semi-annual mass drug administration (MDA) with albendazole (ALB) alone on lymphatic filariasis (LF). However, a high inter-individual heterogeneity in the clearance of infection was observed.

Trypanosoma brucei gambiense-iELISA: a promising new test for the post-elimination monitoring of human African trypanosomiasis
28 Aug 2020
AbstractBackground The World Health Organization targeted Trypanosoma brucei gambiense human African trypanosomiasis (gHAT) for elimination as a public health problem and for elimination of transmission. To measure gHAT elimination success with prevalences close to zero, highly specific diagnostics are necessary.

Patient Characteristics and Outcomes of 11,721 Patients with COVID-19 Hospitalized Across the United States
28 Aug 2020
AbstractBACKGROUND As COVID-19 disseminates throughout the US, a better understanding of patient characteristics associated with hospitalization, morbidity and mortality in diverse geographic regions is essential. METHODS Hospital chargemaster data on adult patients with COVID-19 admitted to 245 hospitals across 38 states between February 15 and April 20, 2020 were assessed.

Low risk of COVID-19 among patients exposed to infected healthcare workers
28 Aug 2020
Abstract
Many patients are fearful of acquiring COVID-19 in hospitals and clinics. We characterized the risk of COVID-19 amongst 226 patients exposed to healthcare workers with confirmed COVID-19; one patient may have been infected, suggesting that the risk of COVID-19 transmission from healthcare workers to patients is generally low.

The relationship between drug concentration in tuberculosis lesions, epithelial lining fluid, and clinical outcomes

28 Aug 2020

Antimicrobial stewardship in a pandemic: picking up the pieces

28 Aug 2020

Viral dynamics and immune correlates of COVID-19 disease severity

28 Aug 2020

Abstract
Background
Key knowledge gaps remain in the understanding of viral dynamics and immune response of SARS-CoV-2 infection.
Methods
We evaluated these characteristics and established their association with clinical severity in a prospective observational cohort study of 100 patients with PCR-confirmed SARS-CoV-2 infection (mean age 46 years, 56% male, 38% with comorbidities)

COVID-19 patients in earlier stages exhaled millions of SARS-CoV-2 per hour

28 Aug 2020

Abstract
Exhaled breath samples had the highest positive rate (26.9%, n=52), followed by surface swabs (5.4%, n=242), and air samples (3.8%, n=26). COVID-19 patients recruited in Beijing exhaled millions of SARS-CoV-2 RNA copies into the air per hour. Exhaled breath emission may play an important role in the COVID-19 transmission.

Using Serologic Testing to Assess the Effectiveness of Outbreak Control Efforts, Serial PCR Testing, and Cohorting of Positive SARS-CoV-2 Patients in a Skilled Nursing Facility

28 Aug 2020

Abstract
We characterized serology following a nursing home outbreak where residents were serially tested by RT-PCR and positive residents were cohorted. When tested 46–76 days later, 24/26 RT-PCR-positive residents were seropositive; none of the 124 RT-PCR-negative residents had confirmed seropositivity, supporting serial SARS-CoV-2 RT-PCR testing and cohorting in nursing homes.

Profiling cases with non-respiratory symptoms and asymptomatic SARS-CoV-2 infections in Mexico City

28 Aug 2020

Abstract
We profiled cases with non-respiratory symptoms (NRS) and asymptomatic SARS-CoV-2 assessed within Mexico City’s Epidemiological Surveillance System. We show that initially asymptomatic or NRS cases have decreased risk of adverse COVID-19 outcomes compared to cases with respiratory symptoms. Comorbidity and age influence likelihood of developing symptoms in initially asymptomatic cases.

Collateral Impact of the Covid-19 Pandemic on Tuberculosis Control in Jiangsu Province, China

28 Aug 2020

Abstract

Viewpoint of a WHO Advisory Group Tasked to Consider Establishing a Closely-Monitored Challenge Model of COVID-19 in Healthy Volunteers

28 Aug 2020

Abstract
WHO convened an Advisory Group (AG) to consider the feasibility, potential value and limitations of establishing a closely-monitored challenge model of experimental SARS-CoV-2 infection and COVID-19 in healthy adult volunteers. The AG included experts in design, establishment and performance of challenges.
The Veterans Aging Cohort Study (VACS) Index predicts mortality in a community-recruited cohort of HIV-positive people who use illicit drugs
28 Aug 2020
AbstractThe Veterans Aging Cohort Study (VACS) index combines commonly collected clinical biomarkers to estimate HIV disease severity. Among a prospective cohort of HIV-positive people who use illicit drugs (PWUD) (n=948), we found that the VACS index was significantly associated with mortality over a 20-year study period.

Intrapulmonary pharmacokinetics of first-line anti-TB drugs in Malawian tuberculosis patients
28 Aug 2020
AbstractBackgroundFurther work is required to understand the intrapulmonary pharmacokinetics of first-line anti-tuberculosis drugs. This study aimed to describe the plasma and intrapulmonary pharmacokinetics ofrifampicin, isoniazid, pyrazinamide, and ethambutol, and explore relationships with clinical treatment outcomes in patients with pulmonary tuberculosis.

Reduction in Expected Survival Associated with Nontuberculous Mycobacterial Pulmonary Disease
28 Aug 2020
AbstractBackgroundNontuberculous mycobacteria (NTM) are opportunistically pathogenic bacteria that are found abundantly in the soil and water. Susceptible individuals exposed to NTM-containing aerosols from environmental sources may develop NTM pulmonary disease (NTM-PD). Reported survival after NTM-PD diagnosis varies widely among existing studies.

Outbreak of COVID-19 in a nursing home associated with aerosol transmission as a result of inadequate ventilation
28 Aug 2020

Primary and Acquired Immunodeficiencies Associated with Severe Varicella-Zoster Infections
28 Aug 2020
AbstractBackgroundWhile most cases of varicella or zoster are self-limited, patients with certain immune deficiencies may develop severe or life-threatening disease. MethodsWe studied a patient with varicella-zoster virus (VZV) CNS vasculopathy and as part of the evaluation, tested his plasma for antibodies to cytokines.

In the Fog of COVID
28 Aug 2020

Reduced vitamin K status as a potentially modifiable risk factor of severe COVID-19
27 Aug 2020
AbstractBackgroundRespiratory failure and thromboembolism are frequent in SARS-CoV-2-infected patients. Vitamin K activates both hepatic coagulation factors and extrahepatic endothelial anticoagulant protein S, required for thrombosis prevention. In times of vitamin K insufficiency, hepatic procoagulant factors are preferentially activated over extrahepatic proteins.

Methylprednisolone for COVID-19: Was Benjamin Rush prescient?
26 Aug 2020

First real world evidence of meningococcal group B vaccine, 4CMenB, protection against meningococcal group W disease; prospective enhanced national surveillance, England
26 Aug 2020
AbstractBACKGROUND4CMenB is a protein-based meningococcal group B vaccine but the vaccine antigens may also be present on non-group B meningococci. In September 2015, the UK implemented 4CMenB into the national infant immunisation programme, alongside an emergency adolescent meningococcal ACWY (MenACWY) programme to control a national outbreak of group W (MenW) disease caused by a hypervirulent

26 Aug 2020

Abstract

Combatting disparities is a crucial goal of ongoing efforts to end the HIV epidemic. In multivariable analysis of a U.S. Midwest cohort, racial/ethnic disparities in HIV viral suppression are no longer robust after accounting for other sociodemographic factors. Neighborhood deprivation and low income are independently, inversely associated with viral suppression.

A Randomized Controlled Trial of Intravenous N-acetylcysteine in the Management of Anti-tuberculosis Drug-Induced Liver Injury

26 Aug 2020

Abstract

Background

Liver injury is a common complication of first-line anti-tuberculosis therapy. N-acetylcysteine (NAC) is widely used in patients with paracetamol toxicity with limited evidence of benefit in liver injury due to other causes.

Reply to Volpicelli et al

26 Aug 2020

Tying Structural Racism to HIV Viral Suppression

26 Aug 2020

The impact of a meningococcal protein-based serogroup B vaccine on serogroup W invasive disease in children

26 Aug 2020

The role of combination therapy in critically ill patients with methicillin susceptible Staphylococcus aureus blood stream infections: does the question remain?

26 Aug 2020

Antibody Responses and Clinical Outcomes in Adults Hospitalized with Severe COVID-19: A Post hoc Analysis of LOTUS China Trial

25 Aug 2020

Abstract

Background

The characteristics of neutralizing antibodies (NAbs) and antibody against major antigen proteins related to clinical outcomes in severe COVID-19 patients were still less known. Methods

The neutralizing antibodies (NAbs) and antibodies targeting nucleocapsid (N), spike protein (S), and the receptor-binding domain (RBD) in longitudinal plasma samples from the LOTUS China trial were

Controlling the COVID-19 pandemic blindly: Silent spread in absence of rapid viral screening

25 Aug 2020

COVID-19SARS-CoV-2Public HealthTransmissionTesting

Temporal, Spatial, and Epidemiologic Relationships of SARS-CoV-2 Gene Cycle Thresholds: A Pragmatic Ambi-directional Observation

25 Aug 2020

Abstract

Prospective serial sampling of 70 patients revealed clinically relevant cycle thresholds (Ct) occurred 9, 26, and 36 days after symptom onset. Race, gender, or corticosteroids did not appear to influence RNA-positivity. Retrospective analysis of 180 patients revealed that initial Ct did not correlate with requirement for admission or intensive care.

Duration of SARS-CoV-2 Infectivity: When is it Safe to Discontinue Isolation?

25 Aug 2020

Abstract

Defining the duration of infectivity of SARS-CoV-2 has major implications for public health and infection control practice in healthcare facilities. Early in the pandemic, most hospitals required two negative RT-PCR tests before discontinuing isolation in patients with Covid-19.
Two fatal cases of acute liver failure due to HSV-1 infection in COVID-19 patients following immunomodulatory therapies

AbstractWe reported two fatal cases of acute liver failure secondary to Herpes Simplex Virus 1 infection in COVID-19 patients, following tocilizumab and corticosteroid therapy. Screening for and prompt recognition of Herpes Simplex Virus 1 reactivation in these patients, undergoing immunomodulatory treatment, may have potentially relevant clinical consequences.

Concomitant marked decline in prevalence of SARS-CoV-2 and other respiratory viruses among symptomatic patients following public health interventions in Australia: data from St Vincent’s Hospital and associated screening clinics, Sydney, NSW.

AbstractOur Australian hospital tested almost 22,000 symptomatic people over 11 weeks for SARS-CoV-2 in a multiplex PCR assay. Following travel bans and physical distancing, SARS-CoV-2 and other respiratory viruses diagnoses fell dramatically. Increasing rhinovirus diagnoses as social control measures were relaxed may indirectly indicate an elevated risk of COVID-19 resurgence.

Association between Body Mass Index and Risk of COVID-19: A Nationwide Case-Control Study in South Korea

AbstractBackground Increased body mass index (BMI) has been associated with higher risk of severe coronavirus disease 2019 (COVID-19) infections. However, whether obesity is a risk factor for contracting COVID-19 has been hardly investigated so far.

Operationalizing HIV cure-related trials with analytic treatment interruptions during the SARS-CoV-2 pandemic: A collaborative approach

AbstractEfforts to recognize and minimize the risk to study participants will be necessary to safely and ethically resume scientific research in the context of the ongoing SARS-CoV-2 pandemic. These efforts are uniquely challenging in the context of HIV-cure clinical trials, which often involve complex experimental therapy regimens and perhaps analytic treatment interruption (ATI), in which

COVID-19 re-infection by a phylogenetically distinct SARS-coronavirus-2 strain confirmed by whole genome sequencing

AbstractBackground Waning immunity occurs in patients who have recovered from COVID-19. However, it remains unclear whether true re-infection occurs. Methods Whole genome sequencing was performed directly on respiratory specimens collected during two episodes of COVID-19 in a patient. Comparative genome analysis was conducted to differentiate re-infection from persistent viral shedding.

Herpes Zoster and Post-Herpetic Neuralgia: Changing Incidence Rates from 1994 to 2018 in the United States

AbstractIntroduction The incidence of herpes zoster (HZ) has been increasing in recent decades. Although two vaccines for HZ are available, there have been few studies on the incidence rates of HZ and post-herpetic neuralgia (PHN) since their introduction.

Herpes Zoster and Postherpetic Neuralgia

Efavirenz Pharmacogenetics and Weight Gain following Switch to Integrase Inhibitor-containing Regimens

AbstractBackground Unwanted weight gain affects some people living with HIV who are prescribed integrase strand transfer inhibitors (INSTI). Mechanisms and risk factors are
incompletely understood.

**Methods**

We utilized two cohorts to study pharmacogenetics of weight gain following switch from efavirenz- to INSTI-based regimens.

**Imaging a Fever – Redefining the role of 18FDG-PET/CT in FUO Investigations**

23 Aug 2020

Abstract

Growing evidence suggests 2-deoxy-2-[18F]fluoro-D-glucose (18FDG)-positron emission tomography/computed tomography (PET/CT) is a useful imaging technique for the evaluation of fever of unknown origin (FUO).

**BCG vaccination in infancy does not protect against COVID-19. Evidence from a natural experiment in Sweden**

23 Aug 2020

Abstract

Background

The Bacille Calmette-Guérin (BCG) tuberculosis vaccine has immunity benefits against respiratory infections. Accordingly, it has been hypothesized to have a protective effect against COVID-19. Recent research found that countries with universal BCG childhood vaccination policies tend to be less affected by the COVID-19 pandemic.

**The distribution and spread of susceptible and resistant Neisseria gonorrhoeae across demographic groups in a major metropolitan center**

23 Aug 2020

Abstract

Background

Genomic epidemiology studies of gonorrhea in the United States have primarily focused on national surveillance for antibiotic resistance, and patterns of local transmission between demographic groups of resistant and susceptible strains are unknown.

**A Genome-Wide Association Study Identifies SERPINB10, CRLF3, STX7, LAMP3, IFNG-AS1 and KRT80 As Risk Loci Contributing to Cutaneous Leishmaniasis In Brazil**

23 Aug 2020

Abstract

Background

Our goal was to identify genetic risk factors for cutaneous leishmaniasis (CL) caused by Leishmania braziliensis.

Methods

Genotyping 2066 CL cases and 2046 controls using Illumina HumanCoreExomeBeadChips provided data for 4,498,586 imputed single nucleotide variants (SNVs).

**Cryptococcal antigen in serum and cerebrospinal fluid for detecting cryptococcal meningitis in adults living with HIV: systematic review and meta-analysis of diagnostic test accuracy studies**

23 Aug 2020

Abstract

Cryptococcal antigen (CrAg) detection could direct timely initiation of antifungal therapy. We searched MEDLINE and EMBASE for studies where CrAg detection in serum/cerebrospinal fluid (CSF) and CSF fungal culture were done on HIV-positive adults with suspected cryptococcal meningitis (CM).

**Clinical Microbiology and Infection**

**Evaluation of a new point-of-care test to determine prior dengue infection for potential use in pre-vaccination screening**

28 Aug 2020

Publication date: Available online 28 August 2020

Source: Clinical Microbiology and Infection

Author(s): Jedas Veronica Daag, Michelle Ylade, Cameron Adams, Ramesh Jadi, Maria Vinna Crisostomo, Riacarl Alpay, Emma Teresa Carmela Aportadera, In-Kyu Yoon, Laura White, Jacqueline Deen, Aravinda M. de Silva, Anna Lena Lopez

**Performance of lipid fingerprint-based MALDI-ToF for the diagnosis of mycobacterial infections**

28 Aug 2020
Dalbavancin exposure in vitro selects for dalbavancin-nonsusceptible and vancomycin-intermediate strains of methicillin-resistant Staphylococcus aureus
28 Aug 2020

Treatment with tocilizumab or corticosteroids for COVID-19 patients with hyperinflammatory state: a multicentre cohort study (SAM-COVID-19)
27 Aug 2020

In the name of common sense: EUCAST breakpoints and potential pitfalls
27 Aug 2020

Effect of hydroxychloroquine with or without azithromycin on the mortality of COVID-19 patients: a systematic review and meta-analysis
27 Aug 2020

Impact of bacterial persisters on their host
30 Aug 2020

Molecular mechanisms employed by enteric bacterial pathogens to antagonise host innate immunity
28 Aug 2020

Innate responses to gut microbiota; critical assessment of the necessary experimental controls
24 Aug 2020

Comparison of two fully automated tests detecting antibodies against nucleocapsid N and spike S1/S2 proteins in COVID-19
Update on the In Vitro activity of Dalbavancin against indicated species (Staphylococcus aureus, Enterococcus faecalis, β-hemolytic streptococci, and Streptococcus anginosus group) collected from United States hospitals in 2017–2019

In vitro activity of KHP-3757 (a novel LpxC inhibitor) and comparator agents against recent and molecularly characterized Pseudomonas aeruginosa isolates from a global surveillance program (2017–2018)

Emerging Infectious Diseases Journal - ahead of print

Antibody Profiles According to Mild or Severe SARS-CoV-2 Infection, Atlanta, Georgia, USA, 2020

Multidrug-Resistant Candida auris Infections in Critically Ill Coronavirus Disease Patients, India, April–July 2020

Abrupt Subsidence of Seasonal Influenza after Coronavirus Disease Outbreak, Hong Kong, China

Pooling Upper Respiratory Specimens for Rapid Mass Screening of COVID-19 by Real-Time RT-PCR

Enterovirus D68–Associated Acute Flaccid Myelitis, United States, 2020

Eurosurveillance latest updates

Letter to the editor: importance of a careful investigation to avoid attributing Legionnaires’ disease cases to an incorrect source of infection

Authors’ response: importance of a careful investigation to avoid attributing Legionnaires' disease cases to an incorrect source of infection
27 Aug 2020

Expression of concern for Euro Surveill. 2020;25(33)
27 Aug 2020

Eight-year trends in the relative isolation frequency and antimicrobial susceptibility among bloodstream isolates from Greek hospitals: data from the Greek Electronic System for the Surveillance of Antimicrobial Resistance – WHONET-Greece, 2010 to 2017
27 Aug 2020

Background Antimicrobial resistance (AMR) changes over time and continuous monitoring provides insight on trends to inform both empirical treatment and public health action. Aims To survey trends in relative isolation frequency (RIF) and AMR among key bloodstream pathogens using data from the Greek Electronic System for the Surveillance of AMR (WHONET-Greece)

Excess all-cause mortality during the first wave of the COVID-19 epidemic in France, March to May 2020
27 Aug 2020

Through a weekly all-cause mortality surveillance system, we observed in France a major all-cause excess mortality from March to May 2020, concomitant with the coronavirus disease (COVID-19) epidemic. The excess mortality was 25,030 deaths, mainly among elderly people. Five metropolitan regions were the most affected, particularly Île-de-France and the Grand-Est regions

Timely monitoring of total mortality associated with COVID-19: informing public health and the public
27 Aug 2020

Erratum for Euro Surveill. 2020;25(33)
27 Aug 2020

Infection

Continuous infusion of ceftolozane-tazobactam resulted in high cerebrospinal fluid concentrations of ceftolozane in a patient with multidrug-resistant Pseudomonas aeruginosa meningitis
29 Aug 2020

Abstract Multidrug-resistant Pseudomonas aeruginosa has limited treatment options. Treatment of healthcare-associated meningitis requires agents active against the organism in vitro and able to penetrate the cerebrospinal fluid adequately

Microbiology testing and antibiotic treatment for urinary tract infections in general practice: a nationwide observational study
29 Aug 2020

Abstract Purpose Routine urine testing is recommended prior to antibiotic treatment for urinary tract infections (UTIs) among high-risk groups for complicated UTIs. This study aims to examine whether the proportion of UTI encounters where antibiotics are prescribed that have accompanying urine testing differs by patient groups

Aspergillus fumigatus cholangitis in a patient with cholangiocarcinoma: case report and review of the literature
29 Aug 2020

Abstract Aspergillus spp. cholangitis is an uncommon presentation of invasive aspergillosis. Only few cases are described in the literature affecting severely immunocompromised patients or patients following biliary surgery
Risk factors for Covid-19 severity and fatality: a structured literature review
28 Aug 2020
Abstract Purpose Covid-19 is a global threat that pushes health care to its limits. Since there is neither a vaccine nor a drug for Covid-19, people with an increased risk for severe and fatal courses of disease particularly need protection. Furthermore, factors increasing these risks are of interest in the search of potential treatments

Detection of HIV-1 viral load in tears of HIV/AIDS patients
26 Aug 2020
Abstract Objectives The tear, as an important bodily secretion, plays a crucial role in preventing infection and maintaining homeostasis of ocular surfaces. Although accumulating studies have reported on the HIV-1 viral load profile among varying bodily fluids and secretions, little was known concerning HIV-1 dynamics in tears

Risk for infective endocarditis in bacteremia with Gram positive cocci
25 Aug 2020
Abstract Purpose Infective endocarditis (IE) is a serious complication of bacteremia and is most often caused by Gram positive cocci. We investigated the prevalence of IE in patients where echocardiography was encouraged when bacteremia with Gram positive cocci was present

Cardiac manifestations of COVID-19 infection: the role of echocardiography in patient management
24 Aug 2020

Testosterone regulates the intracellular bacterial community formation of uropathogenic Escherichia coli in prostate cells via STAT3
30 Aug 2020
Publication date: Available online 29 August 2020Source: International Journal of Medical MicrobiologyAuthor(s): Chen-Hsun Ho, Yu-Chuan Lu, Chia-Kwung Fan, Hong-Jeng Yu, Hsin-Tien Liu, Chia-Chang Wu, Kuan-Chou Chen, Shih-Ping Liu, Po-Ching Cheng

Molecular and epidemiological surveillance of polymyxin-resistant Klebsiella pneumoniae strains isolated from Brazil with multiple mgrB gene mutations
28 Aug 2020
Publication date: Available online 28 August 2020Source: International Journal of Medical MicrobiologyAuthor(s): Kesia Esther da Silva, To Nguyen Thi Nguyen, Christine J. Boinett, Stephen Baker, Simone Simionatto

Pseudomonas aeruginosa isolates from cystic fibrosis patients induce neutrophil extracellular traps with different morphologies that could correlate with their disease severity
28 Aug 2020
Publication date: Available online 27 August 2020Source: International Journal of Medical MicrobiologyAuthor(s): S. Martínez-Alemán, A.E. Bustamante, R.J. Jimenez-Valdes, G.M. González, A. Sánchez-González

Pilus Islets and the clonal spread of piliated Streptococcus pneumoniae: A review
28 Aug 2020
Publication date: Available online 27 August 2020Source: International Journal of Medical MicrobiologyAuthor(s): Nurul Diana Dzaraly, AbdulRahman Muthanna, Mohd Nasir Mohd Desa, Niaziin Mohd Taib, Siti Norbaya Masri, Nor Iza A. Rahman, Zarizal Suhaili, Tuan Suhaila Tuan Soh, Fatimah Haslina Abdullah

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Infection Control & Hospital Epidemiology - FirstView Article

Nudging empiric prescribing: Embedding antimicrobial stewardship program order sets into a general medicine admission order set
28 Aug 2020
Published online by Cambridge University Press:

The impact of a bundle to prevent hospital-acquired pneumonia in a cohort of nonventilated patients on enteral nutrition
27 Aug 2020
Published online by Cambridge University Press:

Travel-screening documentation to enable the “Identify–Isolate–Inform” framework for emerging infectious diseases: It’s all in the details
27 Aug 2020
Published online by Cambridge University Press:

Utilization of cumulative antibiograms for public health surveillance: Trends in Escherichia coli and Klebsiella pneumoniae susceptibility, Massachusetts, 2008–2018
27 Aug 2020
Published online by Cambridge University Press:

Antibiotic prescription during the COVID-19 pandemic: a biphasic pattern – ERRATUM
26 Aug 2020
Published online by Cambridge University Press:

Conditional reflex to urine culture: Evaluation of a diagnostic stewardship intervention within the Veterans' Affairs and Centers for Disease Control and Prevention Practice-Based Research Network
25 Aug 2020
Published online by Cambridge University Press:

Identifying targets for improvement using a nationally standardized survey: Surgical antimicrobial prophylaxis in orthopedic surgery
25 Aug 2020
Published online by Cambridge University Press:

Managing humidity support in intubated ventilated patients with coronavirus disease 2019 (COVID-19)
12 Aug 2020
Published online by Cambridge University Press:

Retesting for severe acute respiratory coronavirus virus 2 (SARS-CoV-2): Patterns of testing from a large US healthcare system
10 Aug 2020
Published online by Cambridge University Press:

Understanding public perception of coronavirus disease 2019 (COVID-19) social distancing on Twitter
06 Aug 2020
Published online by Cambridge University Press:

International Journal of Infectious Diseases

In vitro efficacy of ceftazidime-avibactam, aztreonam-avibactam and other rescue antibiotics against carbapenem-resistant Enterobacterales from the Arabian Peninsula
30 Aug 2020
Diagnosis of oral syphilis remains a challenge – A case report
27 Aug 2020
Publication date: October 2020Source: International Journal of Infectious Diseases, Volume 99Author(s): Ágnes Sonnevend, Akela Ghazawi, Dania Darwish, Greeshma Barathan, Rayhan Hashmey, Tanveer Ashraf, Tahir A. Rizvi, Tibor Pál

Journal of Clinical Virology

SARS-CoV-2 sample-to-answer nucleic acid testing in a tertiary care emergency department: evaluation and utility
27 Aug 2020

Clinical characteristics and outcomes of measles outbreak in adults: a multicenter retrospective observational study of 93 hospitalized adults in Greece
26 Aug 2020

Another false-positive problem for a SARS-CoV-2 antigen test in Japan
25 Aug 2020

Is there a higher risk of a complicated course of hepatitis A in kidney transplant patients?
25 Aug 2020

Comparative Evaluation of SARS-CoV-2 IgG Assays in India
24 Aug 2020

Journal of Hospital Infection

Airborne or Droplet – is it possible to say?
29 Aug 2020

It had been assumed that we could, through the identification of a pathogen and/or procedure, accurately categorise airborne pathogens from those transmitted via droplets. For SARS-CoV-2 the main routes of transmission are via droplets and contact. There is an increased risk of airborne transmission under certain conditions. Airborne transmission necessitates airborne precautions, i.e.

Susceptibility of patients receiving chemotherapy for haematological malignancies to scabies
28 Aug 2020

Scabies is a contagious dermatosis. The risk factors for its transmission remain unclear. A scabies outbreak, involving patients who were receiving chemotherapy for haematological malignancies, occurred at our hospital.

Highly effective prophylaxis with ertapenem for transrectal ultrasound-guided prostate biopsy: effects on overall antibiotic use and inpatient hospital exposure
27 Aug 2020

Ertapenem prophylaxis for transrectal ultrasound-guided prostate biopsy (TRUS-PB) has proven highly effective at our institution. A subsequent study showed no selection for carbapenem-resistance, but antimicrobial stewardship (AMS) concerns remained.

Effects of environmental cleaning bundles on reducing healthcare-associated Clostridioides difficile infection: A systematic review and meta-analysis
27 Aug 2020
Environmental contamination with Clostridioides difficile plays an important role in the transmission of C. difficile infection (CDI) in healthcare and long-term care facilities, which results in prolonged length of stay, higher risk of mortality, and increased healthcare costs. Environmental cleaning bundles are introduced to improve environmental cleanliness.

Journal of Infection

CCL28 mucosal expression in SARS-CoV-2-infected patients with diarrhea in relation to disease severity
29 Aug 2020
To the editor:

Viral spreading in asymptomatic cases with SARS-CoV-2 infections: a Pilot study
29 Aug 2020
Numerous reports have suggested transmission from asymptomatic SARS-Cov2 patients [1] in the community [2], within the family [3] or in public places [4]. Most of these reports highlighted the role of pre symptomatic carriers for transmission [5]. Also, the viral load in mild and asymptomatic patients seems similar to that found in symptomatic patients [6].

Can we distinguishing HHV-6B encephalitis/myelitis in the early phase of cord blood transplantation by next-generation sequencing of peripheral blood?
26 Aug 2020
Most studies emphasized cerebrospinal fluid (CSF) analysis was the main contributor to the human herpes virus-6 (HHV-6) B encephalitis/myelitis diagnosis. Thus, little is known identifying HHV-6 encephalitis/myelitis without CSF samples.

Klebsiella pneumoniae bacteremia revisited: comparison between 2007 and 2017 prospective cohorts at a medical center in Taiwan
26 Aug 2020
Community onset K. pneumoniae bacteremia (KPB) is a major problem in Taiwan for decades. We aimed to revisit the role of virulent genotype K1/K2 and possible predisposing factors, compared to our published 2007 cohort.

High rates of SARS-CoV-2 seropositivity in nursing home residents
26 Aug 2020
Nursing home residents have high morbidity and mortality due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Spread of the virus within nursing homes has been estimated in point prevalence surveys using real time reverse transcriptase polymerase-chain reaction (RT-PCR) and naso/oro-pharyngeal swabs.

Rethinking environmental contamination and fomite transmission of SARS-CoV-2 in the healthcare
26 Aug 2020
Experimental studies have reported prolonged survival of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) on inanimate surfaces and objects under laboratory conditions (e.g., a large inoculum of 10^7 virus particles on a small surface). Extrapolating these findings into a real-life situation of the community may lead to an exaggerated risk of fomite transmission.

Household transmission of COVID-19-a systematic review and meta-analysis
25 Aug 2020
We read with interest the recent study of Wang et al., regarding the household transmission of coronavirus disease 2019 (COVID-19). In December 2019, an outbreak of COVID-19, caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-COV-2), became a global pandemic.

Disparities in the excess risk of mortality in the first wave of COVID-19: cross sectional study of the English sentinel network
The UK, particularly England, has experienced significant increases in all-cause mortality during the COVID-19 pandemic. England and Spain appear to have fared worst among European countries in terms of COVID-19 related mortality.

Geographically widespread invasive meningococcal disease caused by a ciprofloxacin resistant non-groupable strain of the ST-175 clonal complex

Invasive meningococcal disease (IMD) caused by non-serogroupable (NG) strains mainly affects immunocompromised individuals. Reduced susceptibility to penicillin in meningococci is increasing in Europe but ciprofloxacin resistance remains rare.

Positive Rate of Serology and RT-PCR for COVID-19 among Healthcare Workers during Different Periods in Wuhan, China

We have read with interest the recent paper of Tu H et al1, which suggesting that healthcare workers have a high risk of infection when providing clinical care for patients with coronavirus disease 2019 (COVID-19). As of February 12, 2020, more than 3,000 healthcare workers in Hubei Province, China, have been infected, and most of them are from non-infectious disease departments2.

Diagnostic significance of SARS-CoV-2 IgM positive/IgG negative antibody profile in symptomatic patients with suspected COVID-19 testing negative by RT-PCR

We were very interested to read the article by Pan and colleagues,1 and related letter by Cancella de Abreu2 supporting the diagnostic utility of SARS-CoV-2 Lateral Flow Immunochromatographic assays (LFIC) for acute COVID-19 in patients testing negative by RT-PCR at initial screening, provided that serological testing is performed at least one week after symptoms onset.

Detection of SARS-CoV-2 in ophthalmic secretions in Pakistan: A preliminary report

We read with great interest the article entitled “COVID-19 and the eye” recently published in this journal.1 The authors comprehensively evaluated the transmission of SARS-CoV-2 through ocular surfaces and here we present the preliminary data regarding the detection of SARS-CoV-2 from the eye swabs.

COVID-19 patients display distinct SARS-CoV-2 specific T-cell responses according to disease severity

SARS-CoV-2 virus induces symptoms of variable severity; some patients only have mild illness whereas other rapidly become critically ill progressing to an acute respiratory distress syndrome (ARDS). This critical state of the disease supports the immediate relevance for the development of protective therapeutics against SARS-CoV-2 but requires fundamental knowledge concerning adaptive immune.

Positive RT-PCR nasopharyngeal swab in patients recovered from COVID-19 disease: When does quarantine really end?

We read with great interest the review by Walsh and colleagues1 summarising the evidence on the detection pattern and viral load of SARS-CoV-2 over the course of an infection (including any asymptomatic or pre-symptomatic phase), and the duration of infectivity.

Characterizing COVID-19 severity, epidemiology and SARS-CoV-2 genotypes in a regional business hub of China

We read with great interest the article of Sijia Tian et al.1 on “Characteristics of COVID-19 infection in Beijing”, which informed the ratio of COVID-19 clinical outcome and epidemiological characteristics in Beijing.
Post-discharge persistent symptoms and health-related quality of life after hospitalization for COVID-19

24 Aug 2020

In this journal, we recently reported a series of 279 hospitalized patients with novel coronavirus 2019 disease (COVID-19) and their short-term outcome. However, only a few studies have assessed post-discharge persistent symptoms and health-related quality of life (HRQoL) after hospitalization for COVID-19.

SARS-CoV-2 IgG and IgA antibody response is gender dependent; and IgG antibodies rapidly decline early on

24 Aug 2020

Serology is an important pillar in the diagnostics of SARS-CoV-2 infection, especially when PCR may no longer be positive. We thus read with interest the recent report by Tré-Hardy et al. on SARS-CoV-2 serology three weeks into COVID-19. With new data from a longitudinal cohort study, we here complement this knowledge by following patients up to 10 weeks after proven SARS-CoV-2 infection.

Journal of Infection Prevention

Bacterial contamination of protective lead garments in an operating room setting

29 Aug 2020

Journal of Infection Prevention, Ahead of Print. Background: Protective lead garments (PLG) worn in the operating room are a potential source for bacterial colonisation and thus may increase the risk of intraoperative infection. The clinical significance of such bacterial contamination has yet been established. Although disinfection protocols have been employed, their effectiveness is also unknown.

Sterile processing in low- and middle-income countries: an integrative review

29 Aug 2020

Journal of Infection Prevention, Ahead of Print. Background: Worldwide disparities in surgical capacity are a significant contributor to health inequalities. Safe surgery and infection prevention and control depend on effective sterile processing (SP) of surgical instruments; however, little is known about SP in low- and middle-income countries (LMICs), where surgical site infection is a major concern.

Enhanced clinical microbiology methods in outbreak management

29 Aug 2020

Journal of Infection Prevention, Ahead of Print. Conventional microbiological investigations, including pathogen detection, antibiotic susceptibility testing and molecular epidemiological testing, are valuable tools in helping to manage nosocomial outbreaks.

Journal of Microbiology, Immunology and Infection

Helicobacter pylori infection and autoimmune diseases: Is there an association with systemic lupus erythematosus, rheumatoid arthritis, autoimmune atrophy gastritis and autoimmune pancreatitis? A systematic review and meta-analysis study

28 Aug 2020

Publication date: Available online 28 August 2020Source: Journal of Microbiology, Immunology and InfectionAuthor(s): Masoud Youssefi, Mohsen Tafaghodi, Hadi Farsiani, Kiarash Ghazvini, Masoud Keikha
[Seminar] Gastric cancer
28 Aug 2020
Gastric cancer is the fifth most common cancer and the third most common cause of cancer death globally. Risk factors for the condition include Helicobacter pylori infection, age, high salt intake, and diets low in fruit and vegetables. Gastric cancer is diagnosed histologically after endoscopic biopsy and staged using CT, endoscopic ultrasound, PET, and laparoscopy.

Lancet: Infectious Diseases

[Clinical Picture] Mycobacterium bovis infection mimicking pancreatic cancer
27 Aug 2020
An 80-year-old woman presented with a 2-year history of fatigue, poor appetite, weight loss, and night sweats. She had an established diagnosis of paroxysmal nocturnal haemoglobinuria and aplastic anaemia, which had been managed with regular blood transfusions and fortnightly eculizumab infusions, an anti-complement C5 monoclonal antibody, for the past 7 years.

[Clinical Picture] Contact lens-related fungal keratitis
27 Aug 2020
A previously healthy 21-year-old woman, who uses extended-wear soft contact lenses, was referred to our university hospital because of progressive pain in her right eye despite 2 weeks of topical antibacterial treatment. A slit-lamp examination initially revealed a small superficial corneal ulcer (figure A), upon which treatment was extended with amphotericin B and voriconazole eye drops.

[Correspondence] Racism and medical education
27 Aug 2020
The death of George Floyd has sparked a global discussion and demanded an introspection of racism that exists within society. This introspection extends to medical care, and although physicians are obligated to treat all patients equally, the system in which we operate has intrinsic racist elements.

[Newsdesk] Infectious disease surveillance update
27 Aug 2020
As of Aug 6, 2020, the Ministry of Health has reported 2047 suspected cases of chikungunya across 15 provinces in Cambodia. More than 80% of the cases have been reported from Banteay Meanchey, Kampong Cham, Siem Reap, and Takeo provinces. The Ministry of Health began awareness campaigns that focus on seeking treatment if symptoms are present.

[Profile] Alison Galvani—a modeller whose career has flourished early
27 Aug 2020
Alison Galvani experienced tragedy at an early age, losing her mother at 5 years old, which fractured her family life and led to her being sent away from home in San Francisco, CA, USA, to boarding school in the UK. Ever since those difficult early years, she has immersed herself firstly in her education, and now in her career and family life.

[Editorial] Air travel in the time of COVID-19
27 Aug 2020
The COVID-19 pandemic is changing the way we think about travelling. Most countries in the world have adopted some measure of lockdown or restriction to movement to reduce transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and ease the burden of admissions in struggling health systems.

[Correspondence] It's worse than we thought: the US market for novel Gram-negative antibiotics
27 Aug 2020
We commend Jeffrey Strich and colleagues for their needs assessment of novel antibiotics against Gram-negative bacteria in US hospitals, which supported and extended the findings and conclusions of our independent analyses.

[Newsdesk] The origin of SARS-CoV-2
27 Aug 2020
The fact that severe acute respiratory syndrome coronavirus 2 derived from bat coronaviruses highlights inherent issues of the way we interact with the environment. Talha Burki reports.

[Newsdesk] Research brief
27 Aug 2020
A group of researchers has identified how embryos might be susceptible to coronavirus. Genes thought to play a role in how severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infects cells have been found to be active in embryos as early as the second week of pregnancy.

[Obituary] Flossie Wong-Staal
27 Aug 2020
The scientist, who helped clone HIV, was instrumental in finding the link between HIV and AIDS. She died of pneumonia on July 8, 2020.

[Media Watch] A provocative intellectual history of HIV
27 Aug 2020
HIV/AIDS is the most widely and deeply researched disease in history. Despite decades of meticulous work, spanning the first identified cases of the virus in the USA in 1981 and despite the billions of dollars committed to ‘fighting’ the epidemic, South Africa’s national HIV incidence remains stubbornly high.

Morbidity and Mortality Weekly Report (MMWR)

Nonfatal Drug and Polydrug Overdoses Treated in Emergency Departments - 29 States, 2018-2019
27 Aug 2020
This report describes an analysis of suspected nonfatal drug overdoses treated in emergency departments during 2018-2019 in 29 states.

Progress Toward Hepatitis B and Hepatitis C Elimination Using a Catalytic Funding Model - Tashkent, Uzbekistan, December 6, 2019-March 15, 2020
27 Aug 2020
This report describes a funding program in Uzbekistan designed to identify and treat cases of hepatitis B virus (HBV) and hepatitis C virus (HCV) infection at a lowered cost with the goal of meeting the World Health Organization’s targets to eliminate HBC and HCV infection.

Erratum: Vol 69, No 31
27 Aug 2020
Erratum: Vol 69, No 31

Support for Transition from Adolescent to Adult Health Care Among Adolescents With and Without Mental, Behavioral, and Developmental Disorders - United States, 2016-2017
27 Aug 2020
This report found that only one in six adolescents with mental, behavioral, or developmental disorders received the recommended support from their health care provider to help them transition from pediatric health care to adult health care.

Notes from the Field: Universal Statewide Laboratory Testing for SARS-CoV-2 in Nursing Homes - West Virginia, April 21-May 8, 2020
27 Aug 2020
This report describes how nursing homes in West Virginia used universal COVID-19 testing of residents and staff members to slow the spread of infections and prevent large outbreaks in this population at higher risk.

**Notes from the Field: Candida auris and Carbapenemase-Producing Organism Prevalence in a Pediatric Hospital Providing Long-Term Transitional Care - Chicago, Illinois, 2019**

27 Aug 2020

This report describes the prevalence of the emerging fungal pathogen Candida auris in a Chicago pediatric hospital that provides long-term care.

**Notes from the Field: CDC Polio Surge Response to Expanding Outbreaks of Type 2 Circulating Vaccine-Derived Poliovirus - Africa and Philippines, September 2019-March 2020**

27 Aug 2020

This report describes how disruptions in routine immunizations because of the COVID-19 pandemic have elevated the risk for increases in vaccine-preventable diseases such as polio in Africa and the Philippines.

**QuickStats: Rates of Deaths Attributed to Unintentional Injury from Fire or Flames, by Age Group and Urbanization Level - National Vital Statistics System, United States, 2018**

27 Aug 2020

This report describes the death rates from unintentional injury from fire or flames based on data from the United States in 2018.

**EARLY RELEASE: Preventing and Mitigating SARS-CoV-2 Transmission - Four Overnight Camps, Maine, June-August 2020**

26 Aug 2020

This report describes the COVID-19 prevention and mitigation strategy implemented by four Maine overnight camps during the 2020 summer camp season.

**EARLY RELEASE: Primary Indicators to Systematically Monitor COVID-19 Mitigation and Response - Kentucky, May 19-July 15, 2020**

25 Aug 2020

This report describes Kentucky's indicator monitoring report that allows systematic assessment of the state's mitigation, response, and reopening efforts.

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**A message from the grave**

Nature Reviews Microbiology, Published online: 25 August 2020; doi:10.1038/s41579-020-00442-2

This study shows that dying cells can release a signal that alerts their kin to the presence of antibiotics and makes them more resistant.

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**Cardiovascular and Renal Outcomes with Empagliflozin in Heart Failure**

New England Journal of Medicine, Ahead of Print.

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Effectiveness of surgical, KF94, and N95 respirator masks in blocking SARS-CoV-2: a controlled comparison in 7 patients
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Hospital discharges of hepatocellular carcinoma and non-alcohol related cirrhosis in the EU/EEA and United Kingdom: a descriptive analysis of 2004–2015 data
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Digestive health in Europe – lack of concerted action, exposed by COVID-19, starts with lack of uniform data reporting in liver disease
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COVID-19: Public Health management of the first two confirmed cases identified in the UK.
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Emerging preclinical evidence does not support broad use of hydroxychloroquine in COVID-19 patients.
28 Aug 2020

Assessing the Dynamics and Control of Droplet- and Aerosol-Transmitted Influenza Using an Indoor Positioning System.
28 Aug 2020

Related Articles Assessing the Dynamics and Control of Droplet- and Aerosol-Transmitted Influenza Using an Indoor Positioning System. Sci Rep. 2019 02 18;9(1):2185 Authors: Smieszek T, Lazzari G, Salathé M Abstract There is increasing evidence that aerosol transmission is a major contributor to the spread of influenza
Inactivation analysis of SARS-CoV-2 by specimen transport media, nucleic acid extraction reagents, detergents and fixatives.
26 Aug 2020