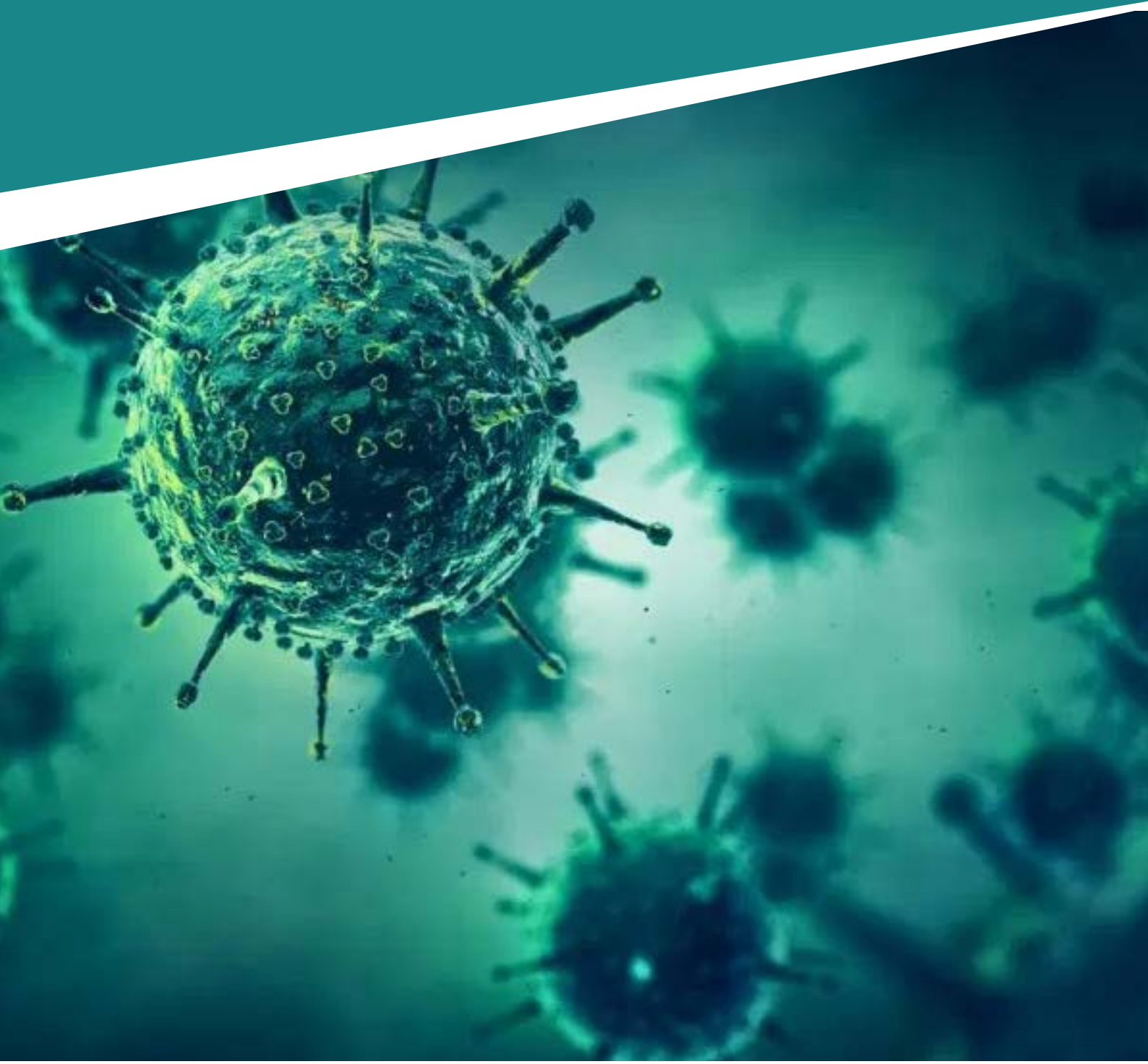
3rd Annual Meeting on

Infectious Diseases, Microbiology & Beneficial Microbes

April 27-28, 2022 | Webinar



Escherichia coli (e. Coli) associated hematogenous sternoclavicular joint osteomyelitis: a rare condition with a rare causative pathogenic microorganism

Tyler Luu
Loyola University Medical Center, United States

Escherichia coli is the most common microorganism that causes urinary tract infections (UTIs), including acute prostatitis. However, E. coli osteomyelitis, especially ones that involve sternoclavicular joint, are rare hematogenous complications. We present a case of an immunocompetent man who presented with symptoms of UTI and right shoulder pain. Urine cultures and blood cultures grew E. coli. There was also radiographic evidence of a large prostatic abscess and a right sternoclavicular joint osteomyelitis. Our patient was treated with antibiotic and improved clinically. This case is noteworthy given the rarity of both the condition as well as the causative pathogenic agent. It is important for clinicians to be aware of E. coli sternoclavicular osteomyelitis in adults with preceding bacterial prostatitis.

Biography

Tyler Luu is an internal medicine resident at the Loyola University Chicago. He has a profound passion for infectious disease, His work in research has a focus on bacteriology, antibiotics and antibiotic stewardship.

tylerqluu@gmail.com

3rd Annual Meeting on
Infectious Diseases, Microbiology & Beneficial Microbes
April 27-28, 2022 | Webinar
Volume: 10

De-adoption of routine skin test for cephalosporin prescribing in a tertiary hospital in China

Yingqiu Ying
Peking University Third Hospital, China

Although most hospitals perform cephalosporin skin test in China for various reasons. Studies suggest that cephalosporin skin tests are not effective in predicting immediate allergic reactions, leading to unnecessary skin testing procedures, resulting in unnecessary drug consumption. Second-line or high-grade antimicrobials will be selected after a positive cephalosporin skin test, and treatment of severe allergic reactions will be ignored. The National Health and Health Commission of China published Principle for Skin Testing of β-Lactam Antibacterial Drugs in 2021, in which pointed out that there is no need for skin test before cephalosporin use. We launched an AMS programme to cancel cephalosporin skin test in our hospital, in which we implemented several interventions, including education programmes for prescribers and nurses, order review-feedback, regular drug use surveillance in cephalosporin skin test, and updated the Regulation for Skin Testing of β-Lactam Antibacterial Drugs in our hospital. Our data show that the AMS programme has a significant impact on the de-adoption of routine skin test for cephalosporin prescribing, the cephalosporin skin test operations reduced and consumption structure of antibiotics was improved in our hospital.

Biography

Yingqiu Ying is a infectious disease pharmacist of Pharmacy department in Peking University Third Hospital. She is Associate-Chief pharmacist in Peking University Third Hospital. She received her M.D. in clinical pharmacy at Peking University. As the only anti-infective specialist pharmacist in the hospital, she has more than 10 years experiences in clinical practice and AMS programmes. Her research interest includes AMS roles in rational use of antibiotics, evidence based drug evaluation in infectious diseases. She is the Young vice-chairman of anti-infective pharmacology Committee of Beijing Pharmacological Society. She is the author or coauthor of more than 30 papers in journals and more than 10 conference contributions. She won the third prize of the 2021 Chinese Hospital Association Hospital Science and Technology Innovation Award for her outstanding achievements in the fight against COVID-19.

yingyingqiu@bjmu.edu.cn

3rd Annual Meeting on
Infectious Diseases, Microbiology & Beneficial Microbes
April 27-28, 2022 | Webinar
Volume: 10

Ocular symptoms as atypical presentation of re-emerging pathogen

Brian McCann
United Lincolnshire Hospitals, UK

We present an unusual case of a patient presenting with blurry vision, and rapid visual loss over two days as their main symptom. Examination demonstrated a maculopapular rash, which the patient had previously dismissed. Opthalmology examination showed significantly reduced visual acuity in left eye 1.06 logMAR, and features consistent with uveitis. A broad differential diagnosis was considered. Investigations showed Treponema pallidum IgM positive,VDRL/ RPR positive, titre 1:32. HIV negative. Lumbar puncture was performed with CSF PCR treponema pallidum positive VDRL 1:80. Treated with IV benzathine penicillin 2.4g six times a day, for fourteen days, in addition to high dose steroids. Rapid improvement in visual acuity and end of treatment, and resolution of rash. Partner also successfully treated. Syphilis is a disease caused by the spirochete treponema pallidum, which is transmitted sexually, and from mother to child. This organism has the ability to affect any body system, which explains why it presents a diagnostic headache for clinicians, as it can present itself in a multitude of ways. The incidence of syphilis cases is at its highest since WW2. Syphilis contributes to approximately 2% of uveitis cases, and forms an important part of a differential diagnosis. There are infrequent case reports in the literature presenting this way. Investigation and interpretation of lab results can be difficult, and these must always be interpreted in context of clinical picture. This case highlights the importance of taking a sexual history as part of a routine systemic enquiry, as this can direct us towards possible diagnoses, and guide investigation. The rising incidence highlights a need for clinicians to be vigilant of this infection, as it is highly difficult to diagnose. But importantly, it is also highly curable.

Biography

Dr Brian McCann is a doctor in training working in Lincolnshire, who is interested in pursuing a career in infectious diseases.

brianmcc791@gmail.com

Antibiotic Effects on Outcomes of Patients with Post Treatment Lyme Disease Syndrome

Lauryn Ciszek
MCPHS University, United States

Post-treatment Lyme disease syndrome (PTLDS) is debilitating, chronic condition affecting increasing amounts of people throughout the United States. Controversy surrounds the topic of PTLDS as numerous agencies disagree on proper treatment guidelines. Treatment with antibiotics for patients diagnosed with PTLDS is widely debated related to the risks that may occur with long-term antibiotic therapy. Oppositely, several studies site the chronic symptoms that patients with PTLDS experience daily and that affect their ability to live healthy, quality lives. In this paper, the varying studies with be both synthesized and critiqued, and gaps in the literature and implications for the future will be discussed. The clinical relevance for all providers is significant, as they must meticulously evaluate the research for reliability and determine their own opinions regarding PTLDS therapy. The overall goal of this paper is to educate providers with a thorough review of the research on PTLDS and inform them on best treatment options for improving patient outcomes.

Biography

Lauryn Ciszek has completed her MSN at the age of 30 year from MCPHS University. She is a registered nurse who travels around New England and is currently fighting the pandemic of COVID19 within the United States. This is her first research paper on the topic of Lyme disease.

lfciszek@gmail.com

3rd Annual Meeting on
Infectious Diseases, Microbiology & Beneficial Microbes
April 27-28, 2022 | Webinar
Volume: 10

Improving hand hygiene compliance rate in intensive care unit

Nermeen M.A. Abdallah
Ain Shams University,Cairo Egypt

Hand hygiene is one of the most important infection prevention and control strategies. Increasing compliance to Hand hygiene is challenging, in fact health care worker are not always aware of their incompliance to Hand hygiene practice and usually overestimate their commitment to infection control policies. This study aimed at improving Hand hygiene compliance in intensive care unit of a curative foundation hospital in Cairo. Measurement of Hand hygiene compliance rate was done pre and post intervention through WHO observation tool , fish bone analysis, data collection in the form of (HCW interview and survey, , previous infection control records) was done .Pareto chart was plotted to address intervention panes . Method of intervention included [on job training, education (videos), reminders (posters)]. Post intervention assessment indicated improved Hand hygiene compliance from 26% to 50% in 4 months periods. Applied improvement plan based on HCW perception of the problem aimed at their engagement and positive involvement. Although cost effectiveness of Hand hygiene campaigns is still under investigation, the outcome of increasing Hand hygiene compliance and subsequent decrease in infection rate justify their use.

Biography

Nermeen Abdallah has completed her PhD at the age of 33 years from Ain Shams University and postdoctoral studies in the same University. She has published 9 papers in reputed journals in the field biofilm , antimicrobial resistance and on MERS-Cov.

drnermah@yahoo.com

3rd Annual Meeting on
Infectious Diseases, Microbiology & Beneficial Microbes
April 27-28, 2022 | Webinar
Volume: 10

Glutathione Pathway and GST Polymorphisms in the Immune Response to SARS-CoV-2: The Missing Piece of the COVID-19 Puzzle?

Bene Ekine-Afolabi
University of East London, United Kingdom

The pandemic of COVID-19 disease, a respiratory condition caused by a novel coronavirus (SARS-CoV-2) in December 2019, has been evidently effectively controlled by vaccines. As of 31st May 2021, there are 170,189,835 confirmed cases in over 240 countries with over 3,538,196 deaths. It is characterized by a myriad of both respiratory and non-respiratory symptoms. Most individuals with the infection will have mild symptoms that are naturally resolved by an active immune system. However, a subset of people with a higher risk of infection are the elderly and those with comorbidities such as heart disease, diabetes, asthma, and cancer. The human immune response against viral infection is mainly dependent on active T cell function. Glutathione (GSH), a ubiquitous tripeptide antioxidant known for homeostasis regulation and important in oxidative stress response, is essential for T cell effector functions through its regulation of metabolic activity. Glutamyl cysteine ligase (GCL) catalyzes the rate-limiting step of glutathione synthesis. Polymorphisms in this enzyme impedes glutathione synthesis. Glutathione S-transferases (GSTs) catalyze the conjugation of glutathione to xenobiotics, reactive oxygen species (ROS), toxins, and other cellular by-products. Alterations in the structure, function, or level of expression of GST genes could alter the ability of the cell to inactivate toxins, thereby aggravating the progression of infection. GST polymorphisms have been clearly associated with such comorbidities including various cancers and respiratory diseases. It is well known that oxidative stress is a major factor in the pathogenesis of viral respiratory infections. Evidently, full dosed individual is still susceptible to infection and severe illness from the virus with possible hospitalization. Recovery from infection is associated with traumatic pain and fatigue, breathlessness, and negatively impacted morbidity. It is therefore possible that GST polymorphisms may impair immune response against the coronavirus. To the best of our knowledge, the potential implications of GCLC & GST gene polymorphisms on SARS-CoV-2 infection have not been elucidated.

Biography

Bene Ekine-Afolabi is a graduate of River State University of Science & Technology in Applied Biology (Medical Microbiology option); with an MRes degree at University of East London, United Kingdom. She had her PhD. study & worked at the Department of Natural Sciences, Middlesex University, UK. Trained in practical approach to toxicology in drug development (American College of Toxicology/British Toxicology Society). Bene does research in Microbiology, Molecular Biology and Cancer: Her current focus of research (which has yielded eight designed models), is on the Investigation of molecular mechanism of colorectal cancer and due to the current pandemic, has been involved in drug development for COVID-19. Bene had Harvard University part-sponsored training in therapeutic research in Cancer Biology & Therapeutic. Bene has been involved in three published peer reviewed article, two manuscript awaiting publication, among which one is on COVID-19 and was submitted to the Chief Medical Officer of United Kingdom to assist in response to the pandemic.

dcr@zeabtherapeutic.com