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**Scientific Tracks & Abstracts** 

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Hannatu Abdulai, J Infect Dis Ther 2023, Volume 11

### The spread of STDs in our contemporary times, the typical case of Ghana

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Sexually transmitted disease commonly referred to as the STDs is one of the <u>infectious disease</u> that has spread so rapidly in Africa and Ghana is no exception. STDs are generally acquired by sexual contact. The organisms such as bacterial, virus or parasites causes sexually transmitted diseases, that passes from person to person through blood, semen or bodily fluids. In Ghana STDs are mostly common due to lack of education and excessive unprotected sexual intercourse among the youth. According to the world health organization (WHO) about 30 percent of active youth in Ghana has STDs.

**Symptoms**: STDs being one of the infectious diseases is caused mostly by <u>parasites</u>, bacterial or virus and has numerous symptoms that appear within days, weeks, or months when one acquired it. Most common symptoms are gonorrhea, HIV, Syphilis, genital herbs, chlamydia among others. In addition to the symptoms are abnormal genital discharges, burning sensation when urinating, bleeding after sexual intercourse, and sore in the genital or anal area. These are some possible sighs of STDs. One should however note that, the sudden disappearance of the symptom does not necessary mean you are cure as it may manifest itself in different symptoms.

**Effects**: STDs has a number of effects if left untreated. It may leads to infertility, pelvic inflammatory disease, Cancer, chronic liver condition, pregnancy complications, and birth defects among other serious health issues.

**Prevention**: STDs being one of the infectious diseases has various ways of prevention. Among them are, Practice of safe sex always. Use of condom consistently and correctly or abstaining from indiscriminate sexual intercourse. This is one of the safe preventable measures from STDs.

Moreover, visiting health care facility if you suspect that you may have STDs and to encourage your sex partner to seek medical attention. In addition to prevent STDs, do not use razor or tooth brush or needles that has been used by another person's. Also, one should avoid behaviour that increases the risk of contracting a STDs such as casual sex with strangers or sex worker. These are some of the possible ways to prevent the spread of sexually transmitted diseases which is one of the infectious diseases in Ghana.

#### **Biography**

Hannatu Abdulai is my name, a midwife at Kumasi Nursing and Midwifery College, Kumasi Ghana. I completed my senior high school at LASS TUOLO and worked as a health Assistant in BAW Municipal Hospital, in the upper East region of Ghana. Currently, I am in level 200 at the midwifery school and hoping to complete my dream course to develop my community. I am passionate in community nursing, and hope to safe my community from chronic disease as it has been one of my dream. Reading novels is what I do the most during my leisure time, and playing volley ball is what I prefer after work.

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Mansour Saine, J Infect Dis Ther 2023, Volume 11

## The use of AI solution in the prevention and the response of re-emerging infectious diseases: A scoping review to identify the most recent use cases 2023

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Infectious diseases continue to pose significant global health challenges, with their potential for widespread epidemics and pandemics. The COVID-19 pandemic has underscored the need for robust infectious disease control and management strategies. This scoping review explores the integration of Artificial Intelligence (AI) into <a href="healthcare">healthcare</a> systems to address infectious diseases. It assesses the potential applications of machine learning technologies in the diagnosis, monitoring, treatment, and control of <a href="hemerging infectious diseases">emerging infectious diseases</a>. The objectives include identifying key use cases for AI in response to infectious diseases, by evaluating 2023 relevant peer-reviewed articles using PRISMA-ScR criteria, and synthesizing available literature on AI's role in clinical and public health decision-making for infectious agents.

Additionally, the review examines tools and technological approaches for data processing, monitoring, early detection, and forecasting of infectious disease rates. The search strategy focused on the (PubMed [NCBI] database. The databases searched for only the 2023 published articles on the use of AI in the identification, control, or treatment of infectious disease and extracted all the relevant peer-reviewed literature, and a total of 113 articles were retrieved. Important Machine learning, Deep Learning, Natural Language Processing, Pre trained transformers, and AI Imaging applications were identified and highlighted for this scoping review. The findings from this review contribute to our understanding of how AI can enhance infectious disease control and inform future research and development efforts. Ultimately, the integration of AI presents opportunities to strengthen healthcare systems' preparedness and response to infectious disease threats.

#### **Biography**

Mansour Saine is a dedicated professional known for his contributions to the field of infectious diseases, currently affiliated with the Medical Research Council (MRC) Unit the Gambia at the London School of Hygiene & Tropical Medicine (LSHTM) in Gambia.

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Mohammad Ali Daneshmehr, J Infect Dis Ther 2023, Volume 11

### An approach to clarify the usefulness of medicinal plants in treating certain respiratory infections

#### Mohammad Ali Daneshmehr

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It is long been established that some plants can elevate the immune response of our bodies to enable us to combat the infections. Apart from the different paths and mechanisms involved, there are accessible sources all around us, to help quite efficiently and affordable by most people.

The only reason many scientists and ordinary communities still look at these remedies by a degree of doubt, is that there are controversial reports and stories around their clear and sound usefulness.

A light to discover the truth beyond the shadow of this uncertainty is available and running elsewhere during the most important religious ceremony of "Hajj" being held each year in and around "mecca", Saudi Arabia during great "Hajj pilgrimage".

Millions of Muslims come together from various geographical locations, while each individual could be coming up from a different social, cultural and medical background meanwhile experiencing similar conditions and situations in a compact timing. Considering these facts, it could be hypothetically proposed that supplementation with Echinacea and algae would be beneficial in improving health-care in this crowded situation by inhibiting development and consequently dissemination of <u>respiratory tract infections</u>.

So, this is a spectacular clinical trial proposal that can be done for many medicines especially those that are well known medicinal plants.

### **Biography**

Mohammad Ali Daneshmehr has studied pharmacy at Tehran University of Medical Sciences (TUMS), and graduated in 1990. He started career in Shahid Beheshti University of Medical Sciences (SBMU) as an instructor. In 1993 he pursued his studies in University of Manchester, UK in medicinal chemistry and got PhD (2001) on ligands in DNA minor groove. He has been working since, in different parts of Iran as founder of a number of pharmacy schools including Hamadan (UMSHA), Kermanshah (KUMS) and currently Iran University of Medical Sciences (IUMS). Fields of interests includes natural products as lead compounds to find new drugs.

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Rohit Mishra, J Infect Dis Ther 2023, Volume 11

### Prevalence of neurocysticercosis among epilepsy patients: A hospital-based study

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**Background**: Neurocysticercosis is a parasitic infection of the central nervous system caused by the larval form of the pork tapeworm, Taenia solium. It is a leading cause of acquired epilepsy worldwide, particularly in regions with inadequate sanitation and hygiene. In India, neurocysticercosis is a significant public health concern, with a high prevalence in rural communities. Understanding the demographic, clinical, and neuroimaging characteristics of affected individuals is crucial for effective management and control strategies. This study aimed to assess these aspects among epilepsy patients in India.

**Methods**: This cross-sectional study was conducted in a tertiary care hospital. Participants were screened for neurocysticercosis seropositivity using Enzyme-Linked Immunosorbent Assay (ELISA) and clinical evaluations. Neuroimaging (CT scans) was performed to identify neurocysticercosis lesions and characterize their features. Data on demographics, epilepsy duration, seizure types, and socioeconomic status were collected. Statistical analysis included chi-squared tests, and t-tests. Ethical approvals were obtained, and informed consent was obtained from participants or their guardians.

**Results**: Of 139 participants, 51 were seropositive for neurocysticercosis. Significant differences were found in age distribution (p<0.001), with seropositive individuals more likely to be below 20 years. Mean age differed (p<0.001) with seropositive participants younger (30.5 years) than seronegative (34.6 years). Gender (p=0.028) and primary education (p=0.048) were also significant. Seropositive cases exhibited more multiple lesions (p<0.001), larger lesion size (p=0.003), calcifications (p=0.006), cysts (p<0.001), and perilesional edema (p<0.001). Ring enhancement was more common in seropositive individuals (p<0.001).

**Conclusions**: This study highlights distinct clinical and <u>neuroimaging</u> characteristics associated with neurocysticercosis in seropositive individuals compared to seronegative ones. The findings emphasize the importance of considering these factors in the context of the disease. Understanding the demographic and clinical profiles of affected individuals is crucial for improved diagnosis and tailored treatment strategies, particularly in regions with a high prevalence of neurocysticercosis.

#### **Biography**

Rohit Mishra is a Clinical Tutor of <u>Pathology</u> at St. George's University in Grenada, West Indies. He received his MBBS degree from Manipal University in India in 2008. He then completed his residency in Pathology at the University of Toledo Medical Center in Ohio in 2015.

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Reham Magdy Wasfy, J Infect Dis Ther 2023, Volume 11

## Uncover unique gut microbiota signatures in hepatitis B virus-infected patients using culturomics and metagenomic approaches: A case-control study

Reham Magdy Wasfy

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**Background**: <u>Hepatitis B virus</u> (HBV) infection is a global health epidemic that causes fatal complications leading to liver cirrhosis and hepatocellular carcinoma. The link between HBV-related dysbiosis and certain known or uncultivated bacterial taxa is still under investigation. Enterocloster is emerging as a new genus associated with dysbiosis and human diseases; however, its role in liver diseases is not reported.

**Objective**: To investigate the role of such highly abundant taxa in HBV infection.

**Methods**: We analysed the fecal samples of 24 patients with HBV and 24 healthy individuals using high-throughput culturomics (applied on 18 samples) compared to 16S rRNA sequencing. Quantification of ethanol produced from bacterial strains enriched in HBV was carried out by gas chromatography-mass spectrometry.

Results: By culturomics, 29,120 isolated colonies were analysed by MALDI-TOF to identify 340 species. In the HBV group, 48 species were already known in humans but had not been previously found in the gut, 17 known species not previously found in humans, and six new species were isolated. Comparing bacterial composition frequency, we serendipitously found Enterocloster genus with significantly enriched bacterial diversity in HBV (p= 0.0016). At the species level, significantly enriched *E. bolteae* showed high ethanol production. Moreover, Members of uncultivated Candida Phyla Radiation (CPR) are reported for the first time in HBV-associated dysbiosis such as Candidatus Saccharibacteria (p < 0.0001), and Atribacter phylum was found to be negatively correlated with prothrombin activity.

**Conclusions**: Culturomics allowed us to identify viable Enterocloster species, specifically *E. bolteae*, enriched in HBV patients. These species have never been isolated in HBV patients so far. Moreover, ethanol production by the isolated *E. bolteae* strains could contribute to <u>liver disease</u> progression. Additionally, the role of CPR in HBV-associated complications deserves further investigation.

#### Biography

Reham Magdy Wasfy is an experienced Infectious Disease Assistant Lecturer skilled and interested in clinical microbiota research in patients with infectious disorders, primarily hepatic patients. Furthermore, she possesses extensive expertise and experience in characterizing novel species introduced to the human microbiome repertory, Molecular and Immunological diagnosis of infectious disorders, Academic Teaching, Patient Safety, and Healthcare Quality. She has gained exposure to various working contexts by participating in clinical and research training opportunities at respected multinational medical facilities in the United Kingdom, Germany, and France. Her goal is to broaden her expert horizon in scientific integrity abilities through high-quality publications and to get additional scientific experience by working on projects with demand new ideas and a requirement for leadership skills.

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