

**Findings:** 9.1% (42/461) of children were positive causing significant bacteriuria. [M:F 1:1, > 50% > 10 years]. *E.coli* was the predominant uropathogen (83.3%, 35/42) followed by *Klebsiella pneumoniae* (12%, 5/42), and *Proteus* spp. (4.7%, 2/42). Sixty percent of the *E.coli* isolates were ESBL producers. Genome sequence of the ESBL+ve *E.coli* was observed to carry large number of AMR genes such as *bla*NDM-5, *bla*Oxa-1, *bla*CTX-M-15/14, AmpC, AAC(3)-IIa/IIc/Ib and others. ST131 phylogroup was the most prevalent. Plasmid IncFIB and IncFIA found in more than 50% isolates. Composite transposon, IS26 was found in many isolates carrying *bla*Oxa-1, *bla*NDM-5, *bla*CTX-M-15/14, *bla*TEM, *aac*(3)-Ib with at least 98% identity and coverage.

**Conclusion:** Our data represents a large-scale nationwide community study among children indicating ESBL+ve *E.coli* isolates harbouring multidrug-resistant genes with high-risk clones. There is an urgent need for augmented surveillance at the local level for the recent knowledge of AMR patterns in the community; thereby preventing the imminent threat of an epidemic of AMR in near future.

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#### ACUTE PYELONEPHRITIS WITH CANDIDEMIA CAUSED BY FLUCONAZOLE RESISTANT CANDIDA ALBICANS

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**Intro:** An increasing number of azole-resistant *Candida albicans* strains have arisen due to the evolution of acquired resistance and an epidemiological shift toward less vulnerable species. Here we highlight a case of acute pyelonephritis with candidemia caused by fluconazole-resistant *Candida albicans* in a patient with no previous exposure to antifungals.

**Methods:** A 44-year-old woman with newly diagnosed diabetes mellitus presented with right loin pain and dysuria for 2 weeks. She was febrile and hemodynamically stable. Clinical examinations reveal tenderness at the right lumbar region. Laboratory values were significant for leukocytosis of  $19 \times 10^9/L$  with raised CRP of 37 mg/dl. Urinalysis showed positive urinary nitrites and leukocytes. Blood culture grew yeast awaiting species identifications and urine culture grew *Candida* species. Ultrasound showed right pyelonephrosis. She later underwent right ureteric stenting and removal of ureteric stone. She was empirically treated with intravenous fluconazole.

**Findings:** Antifungal susceptibility testing done in our laboratory is via the Sensititre YeastOne susceptibility system method. Her results later revealed that the *Candida albicans* was resistant to fluconazole. She was immediately started on intravenous Amphotericin B, which was sensitive as echinocandin was expensive at our centre. Repeated cultures after antifungal initiation remained negative from day three onwards. She was discharged after two weeks of treatment with intravenous Amphotericin B without any further sequelae.

**Discussion:** Fluconazole drug resistance is generally induced by an increase in the efflux of the drug from the fungal cell and alterations to the sterol biosynthesis pathway caused by point mutations, such as the twofold deletion of ERG3 in *Candida albicans*.

**Conclusion:** This is a rare case of *Candida albicans* candidemia which was fluconazole-resistant in an immunocompetent host

with no previous exposure to azoles adds to the evidence of de novo azole resistance in our local Malaysia setting.

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#### THE ASSOCIATION BETWEEN THE PRESENCE OF TYPICAL PNEUMONIA FINDINGS AND THE NEED FOR OXYGEN AND ANTIVIRAL THERAPY DURING THE OMICRON VARIANT EPIDEMIC IN JAPAN

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**Intro:** Since the Omicron variant of novel coronavirus infection became endemic, the number of cases presenting with pneumonia has decreased and the prognosis has improved. However, it is unclear whether the typical pneumonia affected the need for antiviral treatment and oxygenation and outcome in case of Omicron variants. In this study, we analyzed the association between the presence of typical pneumonia findings and treatment and oxygenation, and prognosis during the Omicron variant epidemic in Japan.

**Methods:** We enrolled patients who was hospitalized from January 1, 2022 to February 7, 2022, and whose CT scans were taken. The certainty of typical pneumonia on CT at admission, was analyzed using the COVID-19 Pneumonia Image Analysis Program of the 3D Image Analysis System Volume Analyzer Synapse Vincent. Patient background, treatment, oxygenation, and outcome were extracted from the medical records.

**Findings:** Fifty-seven patients were included in the study, with a median CT certainty score of 58, ranging from 9 to 99. There were 22 patients in the highscore group, 13 in the intermediate-score group, and 22 in the low-score group. For the high, intermediate, and low score group, the rate of antiviral treatment 86%, 72%, and 72%, respectively ( $p=0.53$ ). The rate of supplemental oxygen was required in 64%, 55%, 23%, respectively ( $p=0.02$ ). The mortalities were 5%, 18%, 5%, respectively ( $p=0.33$ ).

**Conclusion:** During the Omicron variant epidemic, typical pneumonia findings were associated with oxygen supplementation, but not with antiviral therapy or mortality.

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#### MEDICAL CHART REVIEW ON THE CLINICAL CHARACTERISTICS OF PATIENTS WITH COMMUNITY-ACQUIRED INVASIVE E. COLI DISEASE

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**Intro:** The objective of this medical chart review (MCR) was to describe the clinical characteristics of elderly patients with community-acquired invasive *Escherichia coli* disease (IED), as well as their treatment, clinical outcomes, and the associated medical resource use in Germany.

**Methods:** This retrospective MCR study utilized data documented from 11 hospitals across Germany. Hospitals searched their in-house electronic medical record system to identify IED cases (*E. coli* mono-infection, age  $\geq 60$ ) hospitalized between January 2018 and February 2020. Two mutually exclusive groups were identified through a clinical case definition (CCD): *E. coli* in blood or other sterile sites (Group B) or *E. coli* in urine, with the presence of urosepsis and without identifiable other sources of infection (Group U). Cases were subsequently excluded if the infection was hospital-acquired or if they did not meet the CCD.

**Findings:** Of 221 documented IED cases, 134 (60.60%) were ultimately eligible (mean age:  $77.98 \pm 8.52$ , females: 47.01%). Of these, 107 (79.85%) were in group B and 27 (20.15%) in group U. Across both groups, the average length of hospitalization was  $13.07 \pm 11.37$  days, and most patients were admitted as emergencies (91.79%). The most common encoded main diagnoses were sepsis due to *E. coli* (ICD-10: A41.51; 38.06%) and unspecified urinary tract infection (ICD-10: N39.0; 11.94%). The patients' average sepsis-related organ failure assessment score was  $3.21 \pm 2.43$  at admission; 8.96% of patients had a septic shock, and 29.85% were in the intensive care unit during their hospitalization. In total, 10.45% of the patients died during their index hospitalization; of the surviving patients, 18.33% had at least one readmission within 90-days after discharge.

**Conclusion:** In elderly patients (age  $\geq 60$ ) with IED, severe courses associated with increased health care resource utilization and sometimes fatal outcomes were observed. Therefore, advances in recognition and treatment seem to be necessary.

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## RELATIONSHIP BETWEEN DETECTION OF TB AND TREATMENT OF MDR/XDR TB

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**Intro:** Increasing the effectiveness of treatment of patients with multi- and extensively drug-resistant tuberculosis (MDR/XDR-TB) is an important public health objective. The factors that have a direct impact on the results of treatment of patients with MDR/XDR-TB are well studied: late diagnosis of drug resistance, various problems of chemotherapy, and comorbidities. Factors that may indirectly influence the effectiveness of MDR/XDR TB chemotherapy are not well understood.

**Aim:** To analyze the relationship between the active TB detection methods and the effectiveness of the MDR/XDR-TB treatment.

**Methods:** Correlation analysis of the relationship between the detection of pulmonary TB by fluorography, skin immunological tests, and bacterioscopy with effective outcomes of chemotherapy in in MDR/XDR-TB patients in 85 regions of Russia over 8 years was carried out using the Spearman coefficient. Using the method of linear regression, a predictive model was developed that characterizes the link between various screening methods and the treatment effectiveness.

**Findings:** Statistically significant direct correlations were obtained between the effective treatment of MDR/XDR-TB and the methods of active detection of pulmonary TB: with fluorography ( $\rho=0.898$ ;  $p<0.001$ ); with immunological tests ( $\rho=0.731$ ;  $p<0.001$ ). The identified connections on the Chaddock scale were high. With an increase in the indicator "active detection of TB" by 1, an increase in the indicator "effective treatment of MDR/XDR TB" by 0.247 should be expected.

**Discussion:** of the results. The regression results show that the active TB detection by all methods in a patients is associated with a 24.7% increase in probability of observing the effective treatment of MDR/XDR-TB. Increasing the number of actively diagnosed TB patients should improve the efficiency of treatment of the MDR/XDR-TB patients.

**Conclusion:** The effectiveness of the treatment of patients with MDR/XDR-TB is interrelated with the active detection of patients with pulmonary TB by fluorography and immunological tests.

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## SEROTYPES AND ANTIBIOTIC SUSCEPTIBILITY PATTERNS OF OPTOCHIN RESISTANT STREPTOCOCCUS PNEUMONIAE FROM ADULTS IN NIGERIA

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