≥60 months [aOR 3.750, p = 0.004] and frequency of TB contact ≥6 times [aOR 8.828, p = 0.005]. Clinical risk scoring system was created by assigning scores as following: age ≥30 years (score =1), duration of work ≥60 months (score = 1) and frequency of TB contact ≥ 6 times (score = 2). Using T-spot TB® positivity as standard for LTBI diagnosis, this score had an area under the curve by receiver operating curve analysis of 0.762 (p <0.001). Having clinical risk score ≥3 had the best performance in diagnosing LTBI with sensitivity, specificity, positive predictive value and negative predictive value of 69.6%, 70.9%, 32% and 93.2%, respectively.

Conclusions: LTBI was prevalent among Thai HCWs. Clinical risk score system may be used as an alternative LTBI diagnostic test in our setting.

AOL007

ROLE OF CBNAAT IN THE EARLY DETECTION OF RIFAMPICIN RESISTANCE IN RETREATMENT CASES OF PULMONARY AND EXTRAPULMONARY TUBERCULOSIS

ZUBER AHMAD[1], ISHMA ZUBAIR[2]

[1]Department of TB and Respiratory Diseases, J N Medical College, AMU, Aligarh, India, and [2]Intern, J N Medical College, AMU, Aligarh, India

Background and Aim: India is the highest tuberculosis burden country in the world. The global incidence of multidrug-resistant TB (MDR-TB) is 630,000 cases. India constitutes one tenth of the global burden with 64,000 cases, presently. Though the conventional drug susceptibility testing (DST) is considered the "Gold standard" for the detection of drug-resistant TB, it is time-consuming taking about 6–8 weeks. Cartridge-based nucleic acid amplification test (CBNAAT) not only detects M.tuberculosis but also detects rifampicin resistance in a very short period of 2-3 hours only. We conducted this study to know the usefulness of the test in early detection of rifampicin resistance in retreatment cases of pulmonary and extra pulmonary tuberculosis.

Methods: This study was conducted in the department of TB and respiratory Diseases, J.N.Medical college, AMU, Aligarh, India from April 2016 to July 2017. Sputum samples of retreatment cases of pulmonary tuberculosis patients and needle aspirates, fluids and biopsy material, etc from extra pulmonary sites were subjected to CBNAAT for detection of M. tuberculosis and rifampicin resistance.

Results: A total of 1381 samples taken from retreatment cases of pulmonary and extra pulmonary tuberculosis patients were subjected to CBNAAT. M.tuberculosis was detected in 752 (53.75%) out of 1213 sputum samples of pulmonary tuberculosis patients. Out of these 752 cases, rifampicin resistance was detected in 117 (17.9%) cases. A total of 168 different samples from extra pulmonary sites were examined. Out of these M.tuberculosis was detected in 67 (39.88%) samples and rifampicin resistance was detected in 13 (19.40%) samples.

Conclusion: We found a very high rate of rifampicin resistance, 18-19%, in retreatment cases of tuberculosis. CBNAAT was found to be a extremely useful tool for early detection of rifampicin resistance.

Respiratory Infections (non-tuberculosis) 2

AO072

A SINGLE CENTRE, PROSPECTIVE, LONGITUDINAL STUDY OF THE HUMAN RESPIRATORY VIROME AFTER LUNG TRANSPLANTATION

ALICIA MITCHELL[1,2,3], BASSEL MOURAD[3], MARK BENZIMRA[2], MONIQUE MALOUF[2], LUCY MORGAN[4], BRIAN OLIVER[1,3], ALLAN GLANVILLE[2]

[1]Woolcock Institute of Medical Research, Glebe, Australia, [2]St Vincent's Hospital, Sydney, Darlinghurst, Australia, [3]University of Technology, Sydney, Ultimo, Australia, and [4]Concord Clinical School, University of Sydney, Concord, Australia

Background: The pulmonary component of the human respiratory virome (a subset of the human microbiome) is transplanted into the recipient at lung transplantation (LTX). We explored the role of community acquired respiratory viruses (CARV) within the transplanted pulmonary virome.

Methods: Single centre, prospective, longitudinal study of viruses in recipient nasopharyngeal swabs prior to LTX, swabs of explanted lungs, donor lungs prior to implantation and bronchoalveolar lavage (BAL) on post-operative days (POD) 1, 7, 21, 42, 63, 84. Nucleic acids were isolated, followed by RT-qPCR for CARV [human rhinovirus (HRV), respiratory syncytial virus, influenza A and B, parainfluenza virus (PIV) 1, 2, 3, and human metapneumovirus].

Results: 47 consecutive LTX were recruited (bilateral: heart lung: lung-liver = 44:1:2). Average age 48±14 years, mean ±SD (range 20-63) (M= 23). Follow up: 185±100 days, range 11-352 with 94% crude survival. Indications: emphysema (n=19), cystic fibrosis (n=9), chronic lung allograft dysfunction (n=7), pulmonary fibrosis (n=7) and other (n=5). Explanted lung swabs were positive for viruses in 14/40 (influenza A=11, B=3, HRV=2) despite recipient vaccination and negative recipient NPS. POD1 BAL showed influenza A (n=21), HRV (n=6) and PIV (n=1). Donor swabs showed influenza (A=1, B=1), and HRV (n=2). Donor transmission of influenza A was observed. 40/47 recipients were viral positive in BAL (26/40 on multiple BAL) and viruses persisted for 3-12 weeks. Concurrent surveillance transbronchial biopsies revealed acute cellular rejection Grade A1 (n=12), Grade A2 (n=3) and Grade B1R (n= 6) but no relationship with viral detection was observed.

Conclusions: Frequent donor transmission and early acquisition of CARV (particularly Flu A) support the importance of respiratory virome surveillance after LTX to direct acute therapies. While a direct relationship with acute rejection was not detected, ongoing data collection will facilitate analysis of long term clinical outcomes related to the changing dynamics of the pulmonary microbiome after lung transplantation.

AO073

THE FIRST CASE OF COMMUNITY-ACQUIRED INVASIVE PNEUMONIA DUE TO K2 SEROTYPE HYPERVIRULENT KLEBSIELLA PNEUMONIAE IN AN ADULT PATIENT

JUN HIRAI[1,2], JI YOUNG[3], DAISUKE SAKANASHI[4], HIROYUKI SUEMATSU[4], TAKESHI KINJO[1], SHUSAKU HARANAGA[1], HIROSHIGE MIKAMO[4], JIRO FUJITA[1]

[1]Department of Infectious Diseases, Respiratory, and Digestive Medicine, Control and Prevention of Infectious Diseases, Faculty of Medicine, University of the Ryukyus, Okinawa, Japan, [2]Department of Respiratory Medicine, Okinawa Miyako Hospital, Okinawa, Japan, [3]Department of Family Medicine, Adventist Medical Center, Okinawa, Japan, Okinawa, Japan, and [4]Department of Infection Control and Prevention, Aichi Medical University Hospital, Aichi, Japan

Background and Aims: The incidence of hypervirulent *Klebsiella pneumoniae* [hvKP] infection has been increasing particularly in Asian countries. It causes severe and metastatic infections such as pyogenic liver abscesses, bacteremia, meningitis, osteomyelitis, and endophthalmitis even in healthy individuals; however, pneumonia due to this strain is not common.

Methods: A 79-year-old Japanese woman with dementia, primary aldosteronism, and bed-ridden status after cerebellar hemorrhage, was admitted to our hospital complaining of three days of fever, productive