Introduction:
Acute respiratory failure (ARF) due to pulmonary infections is a usual cause of Intensive Care Unit (ICU) admission. Immigration patterns and iatrogenic immune-suppression have made tuberculosis (TB) a common disease in Western Europe. Severe TB requiring ICU care is rare. Nevertheless, mortality associated with active TB and ARF is poor.

Methods:
Adult patients with TB admitted to ICU from 2014-2018 were identified retrospectively. Diagnosis was based on: positive cultures of sputum, bronchial aspirates or bronchioalveolar lavage fluid. Demographic characteristics, reasons for admission, HIV status, anti-TB treatment and mortality were recorded.

Results:
Total of 25 patients with TB were admitted to ICU. Mean APACHE II score was 20,2±6,9. Sixteen were male. Mean age 49,1±14,7 years. Eight (32%) were HIV-positive, 3 (12%) diabetes mellitus type 2, 3 (12%) chronic liver disease. Six (24%) had other causes of immune-suppression. Main causes for ICU admission were ARF due to non-Mycobacterium tuberculosis pathogens in 64%, acute liver failure in 12%, septic shock due to non-respiratory cause in 8%. Overall, 52% were on anti-TB treatment at time of admission. TB involved the lung parenchyma in all patients. Pleural involvement was present in 12% and lymph node in 20%. Extrapulmonary sites were present in 28%: urogenital, gastrointestinal, bone marrow. Pathogens identified in over-infections: 16% gram positive coccus, 20% gram negative bacilli, 16% fungal, 4% MDR-pathogen. One patient HIV-positive suffered ARF due to Pneumocystis jiroveci. Overall, 64% died during ICU stay.

Conclusion:
Besides its latent evolution, mortality of TB patients admitted to ICU is extremely high. ARF due to over-infection seems to be the main cause for ICU admission and mortality. Better preventive approach of these patients may improve their outcome.

References: