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**Title:** Legionella pneumonia in patients hospitalized with community-acquired pneumonia (CAP) in Norway

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**Body:** Introduction: European studies have reported that Legionella pneumonia accounts for 0-10% of the cases of CAP in hospitalized patients. In Norway, data on the etiology of CAP in hospitalized patients is limited, and Legionella pneumonia has been considered a rare disease. Aim: To investigate the frequency of Legionella pneumonia among hospitalized CAP-patients in Norway. Methods: Adult patients with radiologically confirmed CAP were prospectively included at the main acute care hospitals of two counties in Norway (Telemark and Østfold) during a 20-month study period in 2007-2008. Microbiological analyses included culture of blood and sputum, urinary antigen testing for Streptococcus pneumoniae and Legionella pneumophila serogroup 1, real time polymerase chain reaction (PCR) of a throat swab for atypical agents, and serology for L. pneumophila serogroup 1-6. Results: A total of 374 patients were included in the study. Legionella pneumonia was identified in 21 cases (6%). Eight cases were identified during the hospital stay by urinary antigen testing, and 13 cases were identified later by serology, of whom four were classified as probable cases (single high convalescent titer). Three of the patients were part of a small outbreak of Legionella, and another two patients probably were infected from the same hot tub. Two of the cases might have been travel-associated. Otherwise, S. pneumoniae was the most common etiological agent detected (20%), followed by Haemophilus influenzae (6%). Conclusion: Legionella pneumonia seems to be more prevalent than previously recognized in Norway, and testing for Legionella should be considered more frequently than current practice.