PDT = pathogen directed treatment group, n=134

Treatment at admission according to syndromic approach*, n=72 (54%).
Mortality, n=2 (3%).
Clinical failure, n=11 (15%).

Treatment directed at results of rapid microbial investigation#, n=62 (46%).
Mortality, n=8 (13%).
Clinical failure, n=15 (24%).

Overall outcome, n=134.
Mortality, n=10 (7%).
Clinical failure, n=26 (19%).

* Recommended antibiotic treatment according to table 1.
# The results of a Gram stain from sputum or pleural fluid, pneumococcal antigen detection in sputum or pleural fluid, *Legionella pneumophila* serogroup 1 urinary antigen detection test could be obtained within 2 hours of admission, 24 hours a day.

**Figure S1** Outcome of treatment strategies at admission and after obtaining microbial culture results in pathogen directed treatment group.