Prehospital dyspnoea patients in the North Denmark Region

**Background:** Prehospital dyspnoea patients are a frequent group with a high mortality. However, there is limited knowledge about their characteristics. We aimed to investigate causes for dispatched ambulances to patients diagnosed with dyspnoea, and diagnoses given to patients to whom an ambulance was dispatched due to dyspnoea.

**Method:** Retrospective cohort study in the North Denmark region in the period 2012-2015. We included all emergency ambulance patients where the main cause for a dispatched ambulance was “Breathing difficulty”, and all emergency ambulance patients who were diagnosed within the ICD-10 chapter “Diseases of the respiratory system” at hospital.

**Results:** 4933 patients had an ambulance dispatched due to “Breathing difficulty”. Their most frequent diagnoses at hospital were ICD-10 chapter “Diseases of the respiratory system” (49.45%), “Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified” (18.56%), “Diseases of the circulatory system” (9.20%), and “Factors influencing health status and contact with health services” (5.71%). Contrariwise, 5163 emergency ambulance patients received a diagnosis within ICD-10 chapter “Diseases of the respiratory system” at hospital. The most frequent causes for dispatched ambulances to these patients were “Breathing difficulty” (49.45%), “Unclarified problem” (11.16%), and “Chest pain - heart disease” (9.55%). 16.00% of dispatches were without cause.

**Conclusion:** Only half of the patients had both ambulance dispatch and hospital diagnose related to breathing difficulties. The variation and distribution of causes for ambulance dispatch and diagnoses given at hospital, suggests that dyspnoea is a symptom present in many conditions and the patient group is complex.