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FEATURES OF AMBULANCE CALLS FOR COMPLAINTS OF DYSPNEA IN A METROPOLIS (ON THE EXAMPLE OF TASHKENT)

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Abstract
Over the period 2015–2025, obstructive pulmonary diseases have maintained high medical and social significance, remaining among the leading causes of ambulance calls and hospitalizations. The analysis included ambulance service data for the city of Tashkent over the first six months of 2025. Of 16,827 total calls, 2,478 (14.7%) were related to dyspnea attacks. Women accounted for 58% (n=1,442) and men for 42% of cases. The largest proportion of calls occurred in patients aged 60–75 years. These data reflect a significant burden on emergency medical services and emphasize the need for unified pre-hospital management protocols for patients with bronchial obstruction and stronger coordination between emergency and pulmonology services.

Keywords: dyspnea, ambulance calls, metropolis, complaints

Introduction

Between 2015 and 2025, obstructive pulmonary diseases remain a major cause of emergency medical calls and hospital admissions. Unified pre-hospital algorithms, timely therapeutic escalation, and close coordination between ambulance services, emergency departments, and pulmonology units are essential to improve outcomes and reduce system burden. Exacerbations often develop acutely, requiring rapid ambulance response, emergency department admission, and initiation of therapy at the pre-hospital stage. Current clinical guidelines underline that a substantial

proportion of patients with COPD/asthma exacerbations follow the "ambulance → emergency department → hospital" trajectory, imposing a considerable load on both pre-hospital and inpatient care systems [1–3]. Epidemiologically, asthma and COPD account for millions of emergency visits each year. In the United States, >1.8 million asthma-related emergency visits are recorded annually; although the age-standardized incidence and mortality rates have declined over the last decade, the overall burden remains substantial, with marked demographic disparities. For ambulance services, this corresponds to a constant flow of calls related to dyspnea and bronchial obstruction, emphasizing the need for standardized pre-hospital management protocols [4–6].

Operational monitoring data from the UK Emergency Medical Services show stable and seasonally fluctuating levels of "difficulty breathing" calls, correlating with peaks in respiratory infections. National quality indicators (AQI) make it possible to track workload and outcomes over time, underscoring the need for integration between epidemiological surveillance, ambulance, and inpatient services for optimized patient routing **[7–9].**

Materials and Methods

The study analyzed ambulance call records in Tashkent for the first six months of 2025.

Results

Of the 16,827 total calls received by ambulance stations, 2,478 (14.7%) were due to dyspnea episodes. Among these, 58% (n=1,442) were female and 42% were male patients. The age distribution showed 317 cases under 18 years, 332 between 18–44 years, 606 between 45–59 years, and 945 cases in patients aged 60–75 years during the study period.

Conclusion

The analysis of ambulance call data in Tashkent for the first half of 2025 demonstrated that women and patients aged 60–75 years most frequently requested emergency assistance for dyspnea. These findings confirm the persistent burden of obstructive pulmonary pathology on urban emergency

medical systems and highlight the need for evidence-based pre-hospital management protocols and interdepartmental coordination.

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