

AIMS | Original Investigation | **CARING FOR THE CRITICALLY ILL PATIENT**

Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China

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OBJECTIVE: In December 2019, novel coronavirus (2019-nCoV)-infected pneumonia (NCP) occurred in Wuhan, China. The number of cases has increased rapidly but information on the clinical characteristics of affected patients is limited.

DESIGN: To describe the epidemiological and clinical characteristics of NCP.

SETTING: **DESIGN:** **SETTING:** A tertiary-care, single-center case series of 138 hospitalized patients with confirmed NCP at Pingliang Hospital of Wuhan University in Wuhan, China, from January 1 to January 28, 2020. First date of follow-up: February 1, 2020.

EXPOSURES: Documented NCP.

MEASUREMENTS AND MAIN RESULTS: Epidemiological, demographic, clinical, laboratory, radiological, and treatment data were collected and analyzed. Outcomes of critically ill patients and noncritically ill patients were compared. Proximal hospital-related transmission was supported for those of the critically ill patients and hospital-based patients in the same ward because infection and exposure to the source of infection could be tracked.

RESULTS: Of 138 hospitalized patients with NCP, the median age was 58 years (interquartile range, 42-66; range, 20-92 years) and 75 (54.3%) were men. Hospital-associated transmission was suspected in the proximal mechanism of infection for affected health professionals (44/204%) and hospitalized patients (17/12.3%). Common symptoms included fever (95/69.6%), fatigue (76/55.1%), and cough (61/44.2%). Symptomatic pneumonia count: 58 + 97% (interquartile range: 50-65) occurred in 89 patients (79.7%), and lung consolidation (interquartile range: 50-65) occurred in 80 patients (58%). Chest computed tomography scans showed lobular or patchy shadows or ground-glass opacity in the lungs of all patients. Most patients received intravenous therapy (antibiotics, 54/39.1%), and many received antibacterial therapy (antibiotics, 50/36.2%), corticosteroids, 14/10.1%; interferon- α , 15/10.9%; and glucocorticoid therapy 60/43.5%). Thirty-six patients (26.1%) were transferred to the intensive care unit (ICU) because of complications, including acute respiratory distress syndrome (22/59.7%), sepsis (16/44.4%), and shock (1/2.8%). The median time from first symptoms to ICU was 13 days, to hospital admission was 7.0 days, and to ICU was 6.0 days. Patients treated in the ICU ($n = 36$), compared with patients not treated in the ICU ($n = 102$), were older (median age, 68 years vs 56 years), were more likely to have underlying comorbidities (24/67.7% vs 14/13.7%), and were more likely to have chronic (2/5.6%) vs 11/10.8%), and acute (2/5.6%) vs 11/10.8%) of the 24 cases in the ICU, 4 (17%) received high-flow oxygen therapy, 5 (21%) received noninvasive ventilation, and 17 (67%) received invasive ventilation (most switched to noninvasive ventilation upon improvement). In total, patients, 47 patients (34.1%) were discharged and 91 died (65.9%) (4.3%), but the remaining patients are still hospitalized. Among those discharged ($n = 47$), the median hospital stay was 10 days (IQR, 7.0-14.0).

CONCLUSIONS AND RELEVANCE: In this single-center case series of 138 hospitalized patients with confirmed NCP in Wuhan, China, proximal hospital-related transmission of 2019-nCoV was supported in 44% of patients, 26% of patients received ICU care, and mortality was 4.3%.

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Author disclosures of potential conflicts of interest and author contributions are found at the end of this article.

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