

Designing of digital tool for hospital-to-home transitional care for older adults with chronic obstructive pulmonary disease

H. S. Jo¹, Y. Park², S. M. Jung³, Y. S. Hwang¹, S. K. Kim¹

Purpose Repeated hospitalization in elderly patients with chronic diseases is a risk factor for deteriorated quality of life, functional decline, and mortality. Support for transitional care of hospitalized elderly patients is essential to prevent unnecessary readmission. Transitional care services (TCS) are comprehensive programs designed to enhance the self-care competency of patients discharged from hospitals and help them recover and resume normal daily routines (Naylor et al., 2011). TCS requires comprehensive and systematic activities that identify risk factors for readmission through the initial screening of patients upon admission and provides plans for healthcare, education, and post-discharge care, as well as connection to community resources (Naylor & Sochalski, 2010). TCS is currently not covered by insurance in South Korea but is being implemented as a pilot project at 17 regional and 35 local accountable care hospitals nationwide (Ministry of Health and Welfare, 2018). The key to the success of these programs lies in the expertise and patient management skills of the coordinators in charge of TCS, which depend on the competencies of individual coordinators. TCS can be widely disseminated across multiple hospitals by developing digital tools for patient screening upon admission, items requiring personalized care, and customized services for discharged patient care. This study aimed to develop a digital tool that enabled coordinators to effectively manage TCS in elderly patients hospitalized with Chronic Obstructive Pulmonary Disease (COPD) and make decisions based on necessary information. **Method** First, a TCS protocol (screening and establishing care plans for hospitalized COPD patients, providing self-care education, offering post-discharge telephone monitoring, and home visits) was developed to improve the self-care competency of hospitalized elderly patients with COPD (Jo et al., 2023). Second, TCS performance measurement indicators were derived in terms of effectiveness (e.g., readmission rates, emergency room visits), patient safety (e.g., adverse drug events, falls), and patient-centeredness (e.g., patient experience evaluation, caregiving burden) using the Organization for Economic Co-operation and Development's Health Care Quality and Outcomes Indicators and the UK National Health Service's Outcomes Framework (Kim et al., 2023). Third, a digital tool was developed to provide customized TCS for COPD patients that reflected the TCS protocol and performance indicators developed for elderly COPD patients. **Results and Discussion** Health indicators for COPD patients screened using a digital tool were linked to care plan forms for coordinators to identify patients' health risk factors and formulate intervention plans. Moreover, coordinators could connect to screening information when conducting telephone monitoring of discharged patients so that they could provide care for the discharged patient's health status and efficiently provide education. This digital tool is expected to help prevent unnecessary readmission by reducing the workload of coordinators and continuously managing the health status of patients with COPD.

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Affiliation: ¹Department of Health Policy and Management, School of Medicine, Kangwon National University, Republic of Korea;

²Department of Preventive Medicine, Kangwon National University Hospital, Republic of Korea; ³Policy Research Team, Gangwon State Public Health Policy Institute, Republic of Korea

Email: joheuisug@gmail.com; **ORCID iD:** (0000-0003-0245-3583)

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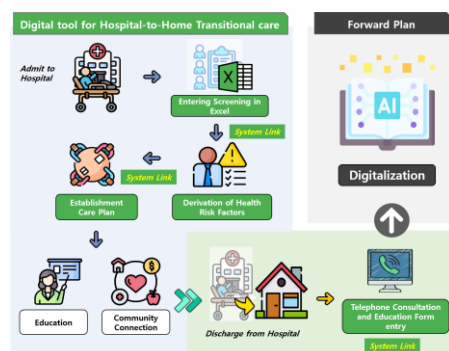


Figure 1. Overview of the protocol of the digital tool