

# Planning for the Size of the Nursing Staff at an Outpatient Chemotherapy Unit

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**Background:** Use of a patient classification system particular to the unit, including size of nursing staff, is required for nurses to have adequate staffing and provide high-quality nursing care in oncology units.

**Objectives:** The study was conducted to create a planning system for nursing staff size for an outpatient chemotherapy unit at a university hospital.

**Methods:** The study was conducted with the nurses working in an outpatient chemotherapy unit of a university hospital and patients who received five weeks of treatment. Patients were classified by using the Magnuson Model. Data related to job analysis were collected by two independent observers who made measurements with a stopwatch, in line with safety and quality standards on the chemotherapy units.

**Findings:** A total of 1,795 patients who received care at the outpatient chemotherapy unit were classified using the model. Based on the job analysis, on average, 17.12 nurses per day were needed to care for the patients.

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The scarcity of nurses in many countries has resulted in an increased workload for nurses and affects the quality and outcomes of patient care (Needleman et al., 2011). Regulating the workload of nurses is a vital component of the healthcare system that is improved by the implementation of an effective planning system for nursing staff size.

To plan the size of nursing staff required for patient care, the workload of nurses must be defined (Morris, MacNeela, Scott, Treacy, & Hyde, 2007). Patient classification systems are one method used for calculating nursing staff size and nurse workload. One classification system takes into account the duration of nursing care required by patients. The top priority of that patient classification system is aligning the patients'

requirements with the existing nurse resources (Giovannetti & Johnson, 1990; Hurst, 2002). Although many patient classification systems were developed for general purposes, newer ones were developed for specific patient groups and units (Shaha, 1995), including outpatient chemotherapy units.

Many cancer centers around the world use patient classification systems to direct nurse staffing with appropriate qualifications and quantity, establish nursing staff size planning, and satisfy care requirements of patients with cancer. At Warren Grant Magnuson Clinical Center in Bethesda, Maryland, Cusack, Jones-Wells, and Chisholm (2004) developed a nursing staff size planning system with patient classification for oncology units called the Magnuson Model. This easy-to-use system deals with care requirements of patients, as well as the illness level