

TITLE: Addressing the Staff Shortage and Ensuring Patient Safety in German Hospitals: The Role of Data Acquisition and Analysis

Introduction

The German DRG institute (InEK) was established in 2001 to implement a Diagnosis Related Groups-based per-case payment system. Since the end of the noughties an increased reduction in nursing staff had been recognised. Accordingly, governmental funding programs have been established to create additional nursing jobs. Last but not least the COVID-19 pandemic has exacerbated the challenges of nursing staff shortages and high staff workloads and has underscored the critical importance of data collection to analyse the processes in hospitals.

Methods

As previous funding only targeted personnel recruitment, from 2018 on, the German government has taken steps to ensure the quality of patient care and to improve working conditions for nursing staff in hospitals.

InEK was commissioned to identify care-sensitive areas in hospitals and to define minimum nursing staff limits (MNSL) in the respective areas, including the creation of the necessary database. MNSL determine how many patients may be cared for by one nurse in the respective care-sensitive hospital area.

In addition, a new law stipulated the uncoupling of nursing staff remuneration from the G-DRGs in 2020 and financing via a cost recovery principle (care budget).

Results

According to the legal mandates, InEK collected data from hospitals on the number and qualification of nursing staff, the number of patients and the specialist departments occupied as well as structural data according to §21 Krankenhausentgeltgesetz. The MNSL were calculated on the basis of collected data from selected hospitals and brought into effect by the government. A nursing staff ratio was calculated in order to assess the number of nursing staff in relation to the nursing workload ensuring appropriate care and patient safety throughout the hospital. Hospitals are obliged to provide InEK with quarterly data on compliance with the requirements in the identified care-sensitive areas.

Data acquisition of the nursing staff cost data was also established as part of the care budget separation. Data were provided by the hospitals and health insurance companies.

By collecting and analysing data, InEK can contribute to answering the questions: How many nursing staff do we have in each hospital (MNSL)? What are the associated costs (care budget)? Is this data reliable (§21-data)?

The data not only provide information on the composition of staff (e.g. nursing staff, nursing assistants and academic nursing staff), but also on compliance with minimum standards in nursing care. The data collected also made it possible to determine the legally entitled recipients of special benefits in the context of the coronavirus pandemic ("COVID-19 bonus").

Discussion

The completeness, accuracy and connectivity of the data collected are fundamental aspects of InEK's work, as they directly impact the validity of the findings derived from the data and the effectiveness of measures taken to improve patient care.

While a paradigm shift in hospital planning through the hospital reform is under discussion and legislation, needs for additional data collection (e.g. midwives, doctors as part of §21-data collection), as well as for alternative methods of recording the nursing workload using a suitable methodology for the assessment of staff needs (PPR2.0) are becoming increasingly evident.

Another goal of the government is to create transparency for patients in the German hospital landscape by implementing a new register, providing information on the quality, performance and staffing levels of hospitals. InEK's data acquisition can be the basis for this.