GENERAL CAUSES AND TREATMENT OPTIONS FOR ADVERSE EVENTS WITHIN HEALTH CARE BASED ON THE REPORTS RECEIVED IN THE HUNGARIAN REPORTING AND LEARNING SYSTEM

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Background

Employees of the Department of Patient Safety at Semmelweis University operate the NEVES (Unexpected Events) reporting system, in which adverse events related to healthcare in Hungary are reported voluntarily and anonymously. Data has been collected in the NEVES system since 2008. In the reporting system, it is possible to submit reports in 21 topics. Of these, 7 commonly occurring adverse event topics were selected for research aimed at uncovering the causes and identifying prevention options.

Methods

20,232 adverse events reported from 2008 to 2020 were analysed. Descriptive statistical analyses were used to establish the correlations based on the data from the reports, and then we searched for the basic causes with an Ishikawa diagram. We evaluated them with a risk matrix. Based on focus group discussions, we collected possible solutions and selected the most important ones by prioritizing. Finally, summary tables were created from the results of the working groups.

Results

TABLE 1: The nine main causes regarding patient safety that could be identified from the reported events

Main groups of causes	Possible general causes
Following rules	Employees deviate from the rule; they don't agree with it; they don't feel it is important to follow it; they do not know it; the conditions are not met (missing, inappropriate equipment, material); lack of time; interference; lack and insufficiency of control and feedback.
Regulation	There is no regulation; not understandable; not up to date; cannot be executed; is not known to those involved; it contains actions contrary to other regulators.
Shortcomings of the activities carried out	Lack of regulation; the designation of those responsible is missing or not clear; lack of knowledge; inexperience; untrained or unprepared; lacking human resources.
Lack of learning from events	Hiding errors and adverse events that occur; fear of punishment; lack of knowledge to explore the causes leading to the events; there are no honest discussions analysing errors, which can result in a focus on treating the root causes.
Communication and documentation	The information does not reach the person it concerns; the collection and transfer of the necessary information is delayed, distorted or absent; the documentation of information is incomplete or absent; the transfer of information is unstructured, incomplete, inaccurate, lost; the designation of those responsible is missing or not clear; regulatory and rule-following problems.
Education	It does not cover all necessary topics; does not have a uniform approach and content; does not reach everyone involved; the quality and frequency of education is not adequate; the lack of educational aids; the inadequacy of the educational curriculum and skills; insufficiency of patient education.
Human resources	Lack of motivation; the lack of setting an example; overwork, stress; lack of evaluation, feedback; staff shortage; underkilled workers; fluctuation; lack of teamwork.
The usage of devices	Few, missing, faulty tools; incorrect application practice, lack of knowledge, confusion; there is no or not the right tool available.
Infrastructure problems	Problems with the design of the ward and bathroom; lack of use of markings and signs, or they are incorrect or dangerous.

The proposed solutions: actions regarding the creation and everyday usage of regulations; organising and conducting educations; procurement based on needs; improving communications; learning from mistakes and adverse events; using motivation tools.

Discussion

The cause structure of the occurring adverse events has a similar pattern. Therefore the most important causes to be handled can be determined based on the collection and analysis of information about the events. Analyses at the national level can be a starting point for identifying local characteristics and development directions. The safety of patient care can be improved not only in the topics included in the research, but also in general, by eliminating and treating the operational weaknesses revealed based on the research.

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