

# Patient Safety Walkaround: a communication tool for the reallocation of health service resources

## An Italian experience of safety healthcare implementation

Davide Ferorelli, MD<sup>a,\*</sup>, Fiorenza Zotti<sup>a</sup>, Silvio Tafuri, MD, PhD<sup>b</sup>, Angela Pezzolla, MD<sup>c</sup>, Alessandro Dell'Erba, MD, PhD<sup>a</sup>

### Abstract

The study aims to evaluate the use of Patient Safety Walkaround (SWR) execution model in an Italian Hospital, through the adoption of parametric indices, survey tools, and process indicators.

In the 1st meeting an interview was conducted to verify the knowledge of concepts of clinical risk management (process indicators). One month after, the questions provided by Frankel (survey tool) were administered.

Each month after, an SWR has been carried trying to assist the healthcare professionals and collecting suggestions and solutions.

Results have been classified according to Vincent model and analyzed to define an action plan. The amount of risk was quantified by the risk priority index (RPI).

An organizational deficit concerns the management of the operating theatre.

A state of intolerance was noticed of queuing patients for outpatient visits. The lack of scheduling of the operating rooms is often the cause of sudden displacements. A consequence is the conflict between patients and caregivers. Other causes of the increase of waiting times are the presence in the ward of a single trolley for medications and the presence of a single room for admission and preadmission of patients.

Patients victims of allergic reactions have attributed such reactions to the presence of other patients in the process of acceptance and collection of medical history.

All health professionals have reported the problem of a high number of relatives of the patients in the wards.

Our study indicated the consistency of SWR as instrument to improve the quality of the care.

**Abbreviations:** RPI = risk priority index, SWR = Safety Walkaround.

**Keywords:** clinical risk management, health care worker training, patient Safety Walkaround

## 1. Introduction

Safety Walkaround (SWR) has proven to be an effective tool for developing both safety culture and for contributing to the identification of adverse events risks as well as in the adoption of strategies to improve an organization at all levels.

Although this methodology has been of fairly recent application in Italy, it could be considered as part of an already well established professional tradition of some directors to habitually

“do the rounds” in the operating units in order to personally evaluate problems. Several authors and planning documents have shown their interest in seeing this method systematically introduced both in hospitals and in territorial services.<sup>[1]</sup>

SWR is a roadmap that is implemented by visiting the operating units and by walking along the corridors and rooms of such facilities together with the operators.

The contribution of all the actors involved is essential, in the hope that they contribute to the identification of risks and the measures to be taken to reduce or eliminate them. Both during the rounds, and in the subsequent stages of the discussion on the data collected as well as during the implementation of actions, a mutual confrontation is imperative as it would bring all parties to an all-round education, to develop a sense of belonging to the institution and to propagate a culture of responsibility, namely to develop the awareness that patient safety is and must be the result of shared commitment at all levels.<sup>[2]</sup>

In SWR, it is crucial to guarantee that transparency and sharing may only be achieved in an environment of trust and no blame. Only under these conditions the movement for patient safety seeks to develop a culture in which each individual is able to assess their environment as to the risks and be encouraged and rewarded when introducing the necessary changes.<sup>[3]</sup>

SWR is therefore a powerful tool that, in the immediacy, allows the identification of risks and the strategies for limiting them, determining the education of all the people involved and the development of the institutional culture of patient safety.

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<sup>a</sup> Interdisciplinary Department of Medicine, Section of Legal Medicine,

<sup>b</sup> Department of Biomedical Science and Human Oncology, <sup>c</sup> Department of Emergency and Organ Transplantation, University of Bari, Bari, Italy.

\* Correspondence to Davide Ferorelli, Interdisciplinary Department of Medicine, Section of Legal Medicine, Università degli Studi di Bari Aldo Moro, Bari, Italy (e-mail: davideferorelli@gmail.com).

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Following the application of the model proposed by Frankel in 2000 and drawing on the experiences already to be found in literature, especially regarding the elements of contextualization of such model, the study aims to test the SWR execution model in an Italian Hospital. Meanwhile through the adoption of parametric indices, survey tools, and process indicators the aim is to give scientific validity to the SWR tool. It all goes to structure the direction taken in recent years which focuses on the awareness of the need to get patients and their families<sup>[4]</sup> and administration involved<sup>[5]</sup> in the implementation of integrated experiences of safety systems for the citizens health.

Frankel postulated that the information obtained during the SWR, if analyzed properly, could create a virtuous cycle of information-analysis-action-feedback, introducing important changes as to patient safety.

Its goals in his view were to: raise awareness of clinicians on security issues; prioritize safety as for administration; educate staff on the concepts of safety, such as nonpunitive communication; and obtain information from the staff about safety issues. Frankel explained how to proceed when applying the method, providing a list of questions to use and introducing some indicators to measure the effectiveness of the tool: survey responses on safety culture from staff and managers (process indicator); number of failures reported to the voluntary reporting system (outcome indicator); number of safety changes introduced by managers; and percentage of changes in all the data in the monitoring system.

Different organizations have developed their own SWR strategy in relation to their specific intrinsic organizational culture. As for the “Design and Communication” at the Tayside Trust in Scotland, several weeks before the round an information sheet is sent to the department, to be circulated among all the staff and patients, explaining the aims and the methods of the execution of the round itself. The visit is announced at least a week earlier.<sup>[6]</sup>

At the Brigham and Women’s Hospital in Boston, 24 hours before the 1st round the task force coordinator is contacted, and he/she is asked to discuss the questions which will be later addressed informally, with the team.

In choosing the “Members of the group making the rounds”, within the Tayside Trust, the members of groups are represented by at least 1 component of the strategic administration and 1 patients’ representative, as well as by the personnel of the department and an information registration clerk who collects the data.<sup>[6]</sup>

At Kaiser Permanent San Diego Service Area, the group consists of 2 management executives, a responsible for patient safety and one for registering data; across the operative units everyone is asked to participate and to strictly pertain to clinical risk issues.<sup>[7]</sup>

At the Brigham and Women’s Hospital a strategic administration member is part of the group, with a safety officer and a senior officer of the quality/safety department, a pharmacist, and a research assistant.<sup>[3]</sup>

Even “Frequency and duration of the SWR” will vary depending on the operating context, but a very important aspect of the SWR is the “Data collection.”

At Hamilton Health Sciences the database fields include the date of the SWR, the problems emerged, the number of units in which this problem is reported, the topic and the related specifications, the severity of the impact on the patient safety, the probability of occurrence, the impact on resources, corrective actions, the date of the report of the situation, the status of the

problem resolution, the estimated time of commitment for improvement, and the obstacles to correct the problem.<sup>[8]</sup>

At Tayside the name of those who participate is not recorded, to avoid any hesitation in expressing opinions or issues,<sup>[6]</sup> and at Kaiser Permanente the data are recorded, entered into a database, analyzed, and addressed using Vincent categories.<sup>[9]</sup>

As part of a growing culture of safety and risk prevention, an analytical design of the SWR roadmap would be useful and appropriate, organizing it with a rigorous and systematic method involving the preparation, the rounds in the operative units, the data collection and the data processing, analysis and prioritization, the identification of improvement strategies, and their implementation, as well as their verification. Indicators should also be identified and used to verify the results obtained and to evaluate the impact of this tool in organizing the health system, all this in the light of the basic assumptions, that are the satisfaction of operators and a greater patient safety. So, the goal is to validate prospectively the services performed on the basis of routine data, then apply them to the health care professionals.<sup>[10]</sup>

## 2. Methods

In January 2014, the 1st pilot experience of application of the SWR was held at the Videolaparoscopic Surgery Unit of the General Hospital of the Public Health Corporation of Bari (about 1000 beds), which involved the participation of all the stakeholders (medical directors, doctors in training, nurses, and assistants). The meeting lasted about 30 minutes and was held in a common area of the department, during which the roadmap of the SWR was shown and the entire department staff was made aware of the concepts of risk identification and adverse events as well as the adoption of any containment and prevention measures. Meanwhile an interview was conducted, in the form of an informal conversation verifying the knowledge of health professionals of the concepts of: sentinel event; adverse event; error in medicine; existence of signaling systems; and the existence of actual or potential hazards which can lead to adverse events for patients (Near Miss). [Process indicators: 5Es].

One month after the 1st round took place, which lasted 20 minutes and had all the ones interested involved.

The staff turnover was instrumental and a new informal assessment of knowledge of 5Es was made. It was possible to verify by interviewing operators again, both the training activities carried out during the 1st meeting and the trend of process knowledge indicator (5E) as evidence of the interaction and dialogue between the various operators of an operational unit on the safety rounds.

In the 2nd round, which lasted 30 minutes and was held after 15 days from the 1st one, in addition to a rapid informal verification of the 5Es, the questions provided by Frankel (survey tool: DF) were administered on paper.

Having recorded the answers, a follow-up meeting was scheduled after a month. In this timeframe, the operators were recommended to comment possibly in groups about what was learned and what was discussed to establish a virtuous circle of knowledge on clinical risk.

Starting the end of March and on a monthly basis more SWR were carried out until October, trying to assist the health care professionals during the performance of various activities of the department and collecting suggestions from time to time on the elements of critical issues and possible solutions. The different possible interventions of correction were hypothesized to be considered as work results (WR).

This was made possible by the timely creation of an electronic database in which the answers were reported and classified. Subsequently a categorization according to Vincent model was carried out to associate each criticality with a concrete proposal for improvement.

When defining the action plan the criticalities which emerged were ordered according to risk priority, identifying improvement actions for criticalities defined as priority. The amount of risk was quantified by the risk priority index (RPI), calculated as frequency (number of interviews in which the criticality was reported) by its seriousness (measured by the HFMEA scale).

During the SWR conducted at the U.O. Surgery Video-laparoscopy 18 health professionals in all, divided into small groups, were reached both with Frankel questionnaire or supported during their normal daily tasks. These operators were layered as follows: the director of the operative unit; 3 manager doctors; 3 graduate students; 1 intern at the department; 6 nurses; 2 health auxiliaries; and 2 administrative directors.

The study did not involved patients or biological samples; then, ethical approval was not applicable.

### 3. Results

Following the RPI, a major organizational deficit concerns the management of the operating theatre. What emerged was the lack of scheduling, of the operating room, as well as the inability to use an operating theatre dedicated exclusively to emergencies, making an additional operating theatre potentially usable solely for planned interventions.

So much so that often the operators reported that this problem has repeatedly caused a prolongation of patients hospital stay with all the risks, first of which the risk of infections.<sup>[11]</sup>

A monthly schedule of planned activities to be carried out in the operating theatre, as suggested by the same health personnel, would appear an easily viable solution and with no economic impact for the company. This solution would also surely be appreciated by the health professionals involved in that during the administration of the questionnaires, such solution was spontaneously mentioned.

During the Walkarounds, a state of intolerance was noticed, legitimized by the waiting time, of queuing patients for outpatient visits. By querying the medical staff about the reason of such timing, once again it was shown that a lack of scheduling of the operating rooms is often the genesis and cause of sudden displacements of the medical and nursing staff from the surgery to the operating area.

A direct consequence is the increase in waiting time by patients and consequently the emergence of conflicts between patients and caregivers. This conflict is also once again confirmed in the survey tool used, Frankel questionnaire especially among the answers to the question which investigated the mechanisms by which the "hospital" company system had created problems to the operators of the system and the conflict in hospitals cannot and must not go unmentioned, if not for the tragic consequences which unfortunately derive from it.<sup>[12]</sup>

Another seemingly banal cause to increased waiting times, with the resulting patient health care givers conflicts, is the presence in the ward of a single trolley for medications. This tool is used both for the medications of inpatients, and for patients who return for the various necessary outpatient after surgery follow-ups. A single trolley could also and above all be a dangerous vehicle of pathogens.

Main results of the analysis are summarized in worksheet 1. Worksheet 1. Main results of the SW.

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Operating room management
....Organization of the staff in the clinics
Prolonged waiting times for medical examinations
Lack of medical tray
Use of the same medical tray for different procedures
Lack of medical staff
Use of the same room for preadmission procedures and discharge of the patients
Lack of privacy in collecting patients medical history
Lack of waiting room for patients coming from the ER
Too many patient's relatives in the ward

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There has been evidence of this for over 3 centuries, and if in the "Report of the Hospital of Santa Maria Nuova in Florence," drawn in 1742, it was already understood that there are well known forensic implications in the field of hospital infections that may easily take place by means of an indirect transmission mechanism via a contaminated vehicle that acts as an intermediary, such as a medications trolley.<sup>[13]</sup>

Another structural deficit is the presence of a single room for admission where both preadmission and acceptance of patients interested in outpatient controls are carried out. In addition to the previously discussed risk of infectious transmission, a scientifically interesting correlation has emerged among lack of privacy and data collection for medical history.

Among the near miss gathered in the questionnaires there are both cases of intolerance, and of allergic reactions due to the therapeutic administrations carried out in the department.

The doctors in specialist training and nurses have shown that, in some cases, patients victims of such reactions attributed to the presence of other parties in the process of acceptance and collection of medical history, the environmental limit which apparently caused a state of nontotal serenity and a sense of invasion of privacy which, in turn, generated hasty answers and nonexhaustive when collecting medical history data.

It therefore seems indispensable a division of the admission room with the creation of 2 environments, one used to access preadmission and the other for the controls and outpatient medications.

A similar problem was found regarding the acceptance of patients from the emergency room. Such patients, when delivered by appropriate safeguards in the ward, are seated, waiting for the preparation of their hospital room, in the hallway.

This attitude, although a well-established practice in Italian hospitals, may still have to undergo some useful changes always with the ultimate goal of the paths of SWR, in other words the patient's health. In the choice of where to place the patient, we must always take into consideration the potential for the transmission of infectious agents,<sup>[14]</sup> also healthcare organizations must now demonstrate a commitment to prevent the transmission of infectious agents which must include the control of infections among the objectives of the programs for patient safety.<sup>[15,16]</sup>

Once again this issue emerged both among the possible improvements to be made to avoid a possible adverse effect and, above all, it was broadly confirmed by several laps.

At least provisionally, the installation of room dividers in the corridors could solve this problem in terms of privacy and prevention of hospital infections.

All health professionals have found and reported the problem of an excessive high number of relatives of the patients in the

wards. Here you must, as it often happens, find balance between the pros and the cons related to the presence of relatives in the ward. Identifying a potential common sources of an outbreak, through surveillance cultures and epidemiological studies can be useful in the implementation of specific control measures, also the respect of a series of infection control methods, with appropriate administrative support directions, it is necessary to contain an outbreak.<sup>[17]</sup>

The problem of overcrowding in the wards is notorious, due to the spread of infections between patients and not only. A Californian study involving nearly a million patients has dramatically demonstrated that the high crowding periods are associated, among other things, to an increased in-hospital mortality. Virtually in certain days overcrowding results in an increased 5% chance of dying in the hospital.<sup>[18]</sup> The flip side of the coin is of course represented by the valuable contribution that the relatives bring daily. Especially elderly patients are often accompanied by a member of the family that besides having an important role in the patient's life, he/she has perfect knowledge of the patient's health status and current drug therapy.<sup>[19]</sup> The seemingly simple solution to the problem is represented by a faithful compliance with the visiting hours, by a proper attribution of the path to follow and to a correct and rapid formation, perhaps by means paper documentation, addressed to the families of patients.

#### 4. Discussion

On January 2014, a process of SWR in U.O. of Surgery Videolaparoscopy of the Policlinico of Bari began. This course was conceived as a technical risk assessment aimed at identifying and measuring risk. As provided in literature, we proceeded through interviews structured in small groups to the healthcare professionals involved, prior training in clinical risk issues and patient safety. The aims of the project are represented by the identification of situations of risk and vulnerability of the system, as well as the identification of actions that, if implemented, could improve patient safety, constantly aiming at spreading safety culture and ongoing dialogue between healthcare providers.

After contacting the director, 10 SWRs were carried out nearly on a monthly basis during which there was the understanding of the key concepts by health professionals in the field of clinical risk (process indicator). Also during the "rounds" Frankel questions were submitted to the operators (survey instrument) with the aim to establish a meaningful virtuous circle of information analysis action notional and practical feedback. To give scientific validity to the whole process, the collected information was entered into an electronic database and categorized using the Vincent model, associating to each criticality some concrete proposals for improvement (work result) and to establish priorities for action the RPI was adopted.

After a quick calculation of the feasibility of viable solutions, there was a return of information to the operational Unit Director involved and to all the healthcare providers, followed by a return of information to the Healthcare Department administration.

A further information flow to follow could be monitoring the number of errors reported in the voluntary reporting system and of the adverse events reporting in general (outcome indicator).

Also this study is evidence that the use of standardized instruments arising from the clinical governance and clinical risk doctrine encourage the adoption of a strategy of prevention and control that changes the habits of the personal, with positive results in terms of reduction of inadequate procedures.<sup>[20]</sup>

In our experience, some limitations of the SWR emerged, for example, several healthcare workers considered a loss of time spending some hours in the work time in this analysis and consequently were not inclined to collaborate with the roadmap. Moreover, personnel could not be helpful because the lack of "no blame culture" in Italian National Health System.

#### 5. Conclusions

Among the deficits and the high RPI reports, we find those of the operating room management (14 reports), which is definitely improvable and much better planned through a monthly scheduling of elective interventions.

Such wrong management, among other things, also reflects on a nonoptimal organization of the personnel in the outpatient areas dedicated to postsurgery follow-up visits and postsurgery medications. Correcting and scheduling the operating sessions, staff could better organize themselves autonomously, reducing waiting times of patients queuing for outpatient postsurgery checkups and medications. An indirect outcome of this process would be an ongoing reduction in conflicts among medical staff, medics, and patients.

The risk and the possibility of potential adverse events due to the presence of a single medication trolley (5 reports) were highlighted. By requesting an additional trolley, so as to dedicate one exclusively to outpatient operations and the other to medications to be administered in the hospital wards would reduce, once again, the waiting time related to the time required for the retrieval and the transportation of such trolley and above all reduce the risk of spreading hospital infections through it.

The division and separation of the admission room into 2 distinct environments (5 reports), one dedicated to the access of patients' preadmission and the other used for the follow-up checks and postoutpatient medications, should prevent the risk of infectious transmission among patients and improve the situation of privacy when collecting the data from medical history resulting in a more complete collection due to such additional protection for the patient and by doing so lowering the risk of encountering adverse events.

An environmental separation in the hall in which patients are temporarily stationed during the waiting time involved in the preparation of their hospital rooms would solve the same problem for patients, logically more vulnerable coming from the emergency room. Finally, strict visiting times for patients' family members (10 reports), proper directing of the relatives onto the paths to follow, with doors and paths dedicated exclusively to them and a correct and rapid formation, may be by means of paperwork for them, would solve the problem of dangerous department overcrowding, with all the implications related to it in terms of infections, mortality, and conflicts, while preserving the usefulness of the presence of relatives for what concerns the information and the planning of home therapy.

The model proposed in this study, in addition to having almost no economic impact for the healthcare organization, can at the same time both guarantee basic education, in terms of clinical risk and patient safety, to all professionals present in a ward, and to achieve quick results, shared and tangible in line with the noble purposes of the safety culture in clinical risk, all by implementing the no blame culture of our healthcare organization.

#### 6. Patient Safety Walkaruonds

Work position:

Do you remember some recent event that caused a longer hospitalization for one re more of patients in your ward?

In your ward, did near miss recently happen that could be related with patients damage?

In your ward, were one or more patients damaged by healthcare-related incidents?

According your opinion, please indicate what environmental elements could damage the patients in the future.

Can we plan some intervention to prevent a future adverse event?

Please indicate if the framework or its services have created some problems,

Please indicate by which intervention the Medical Direction could promote a safer work for patients.

Which intervention could make more effective the Walk Rounds?

Please indicate by which intervention the Medical Direction could promote no-blame culture in the incident reporting.

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