Use of Policy Deployment to Encourage Personnel Involvement: Study Case in a Mexican Healthcare Institution

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Abstract
Since 2002, the World Health Organization (WHO) recognizes the need to promote the patient safety as a principle in all health systems. The patient safety is considered as the combination of organizational structures, processes and results that reduce and prevent the probability to suffer a not desired event during the health assistance. In Mexico, the regular practice among the hospitals to ensure patient security is based on the six international goals for patient safety (IGPS). The research was conducted in a healthcare institution located in Puebla, México. It consisted in avoiding the 100% of adverse and sentinels risks annually. In order to achieve this purpose, all the personnel were trained in policy deployment. Then a workshop was conducted to establish the roles and their individual targets. Besides, an audit schedule was developed considering all the areas and shifts. The program is recently adopted and the initial results show improvement areas.
Keywords: Patient Safety, Policy Deployment, Personnel Involvement, Hoshin Kanri

1. INTRODUCTION

The word error is associated with individual misgivings. In some technical fields, it refers to the failure of systems [1]. One theory considers that human errors can be evaluated in terms of two approaches: person and systems. The person approach focuses on individual errors. If someone commits a mistake, he would be responsible of it and he deserves disciplinary measures. On the other hand, the systems approach establishes that humans are prone to err and that human errors are ineludible [2].

The most common errors in healthcare centers are related to inappropriate catheterization, poor cooperative behavior and communication among healthcare providers, medication errors, failures in patient identification and wrong site surgery [3].

It is a duty for hospitals to provide quality in the application of medical procedures as well as safety [4]. Since 2002, the World Health Organization (WHO) recognizes the need to promote the patient safety as a principle in all health systems. In addition, WHO encourages all their member nations to focus and consolidate systems that improve this issue. The patient safety is considered as the combination of organizational structures, processes and results that reduce and prevent the probability to suffer a not desired event during the health assistance.

In Mexico, the Health Sectorial Program 2013-2018 establishes six objectives associated to the National Goals. The first one aims to protection strengthening, health promotion and disease prevention [5]. Every healthcare institution should develop its policies and arrangements for its establishment. This strategic planning has to be informed to all employees and continuous monitored to guarantee the expected outcomes.

Besides, a Mexican health standard considers four critical systems. Those are medication management, control and prevention of infections, personnel competencies and education, and management and safety in the facilities [6]. This model also considers the six international goals for patient safety (IGPS) as a key factor.

Therefore, the regular practice among the hospitals to ensure patient security is the IGPS. Those goals are: 1) Identify patients correctly, 2) Improve effective communication, 3) Improve the safety of high-alert medications, 4) Ensure correct-site, correct-procedure, correct-patient surgery, 5) Reduce the risk of health care-associated infections, and 6) Reduce the risk of patient harm resulting from falls [7, 8].

Meanwhile, planning is an approach to develop a scheme for doing, making, or arranging. One type of planning is the operational one. It establishes the tactical points of how the business has to be running in a short time horizon.

In the 1960s, Japan devised Hoshin Kanri as a methodology for setting strategic direction. Hoshin Kanri is also known as Hoshin Planning or Policy Deployment [9]. In the West, several authors have also referred to Hoshin Kanri

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by different names such as Management by policy, Policy deployment, Planning for results, Policy control, and Target and means deployment.

The creation of a vision is associated to a dream regularly linked with the customer and the environment in which the organization works. The success of both matters resides in the belief that the companies' capacity can meet the challenges and individuals perseverance in pursuing its goals [10].

Policy deployment encourages individuals and frontline employees to set individual objectives, targets, strategies and measures that make them contribute to organization's vital few.

For the alignment, the methodology involves a process of engaging people at different levels and from different departments. This considers participatory dialogue on how to turn the identified priorities into objectives and means. Alignment begins at the highest level in the company and it is disseminated across all its management levels. These initiatives are carries out by either integration into daily work or developing programs or new projects. Finally, there must be reviews at different frequencies depending of the size and complexity of the organization. These audits consider current performance against the outcome indicators or goals planned [11].

There are seven steps to implant the policy deployment process. The steps are:
1) Establish organization vision,
2) Develop a to 3 to 5 year plan,
3) Develop annual objective,
4) Deployment/roll down to departments including the development of plans including targets and means,
5) Implementation,
6) Make regular progress reviews, and
7) Execute an annual review [12].

Figure 1, describes policy deployment process as lived by the departments of any organization. The cooperation of middle management (level 1 and 2) and the negotiation among the implementation teams plays a key role to achieve the targets formulated at the previous level.
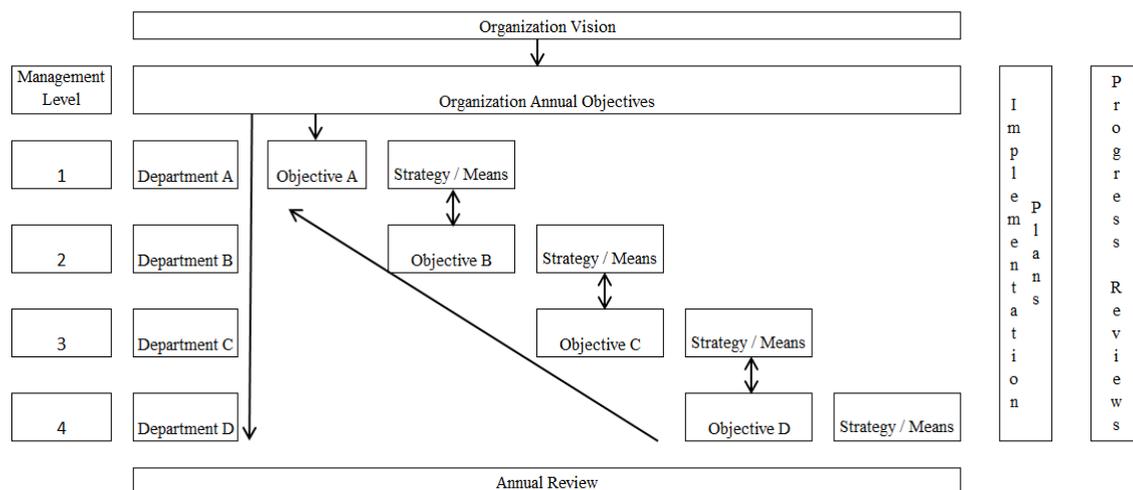

Figure 2 Departmental deployment process

This methodology does not encourage business improvement, but instead focuses on project organization that moves towards its strategic direction. Several research studies report deployment policy used in manufacturing and service processes. However, research published on healthcare institutions using this kind of knowledge is limited [13].

2. RESEARCH IN A MEXICAN HEALTHCARE INSTITUTION

Policy deployment principles was used to develop a framework for objectives, goals, initiatives and monitoring metrics in a Mexican private healthcare institution located in the State of Puebla, Mexico. This institution has a hierarchical organization. It has three main areas: finances, medical, and quality, see figure 2.

2.1 Annual objective development

The head office in Mexico City establishes the following vision: "Become a healthcare institution with national recognition that provides each patient with exceptional care and service". The CEO at Puebla facility planned avoiding 100% of adverse and sentinels risks annually.

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In order to get this, a consultancy agency was hired to train personnel on policy deployment and six international goals for patient safety.
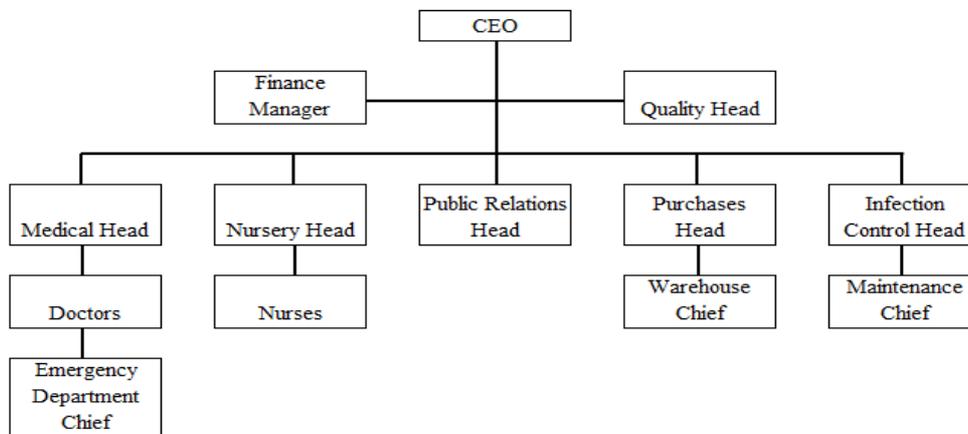

Figure 2 Healthcare institution organization chart

2.2 Plan Deployment

The deployment of the objective occurred through cascading. The department heads were responsible for the development of the methodology, and the creation of the working teams, see Table 1.

Table 1: IGPS and personal involved relationship

International goal for patient safety (IGPS)	Personnel involved
Identify patients correctly	Quality, Public relations, Doctors, Nurses
Improve effective communication	Quality, Doctors, Nurses
Improve the safety of high-alert medications	Nurse Head, Nurses, Warehouse
Ensure correct-site, correct-procedure, correct-patient surgery	Quality, Medical head, Doctors, Nurses
Reduce the risk of health care-associated infections	Infection control head, Purchases head, Nurses
Reduce the risk of patient harm resulting from falls	Quality, Nursery head, Doctors, Emergency head, Nurses

The main rule consisted that the objectives set by an upper management level have to be adopted by the next level of authority and so on. All personnel had the right to express any opinion about the objectives.

Each department created a draft about the commitments and activities they were assuming. At this time, no feedback was allowed. Then, a committee integrated by the department's heads approved the content. In case of recommendations, a new session was held.

For the IGPS No. 1: standardize the identification process; the team focused on communication mainly in the personnel who deals directly with patients, creation of an identification patient protocol, and training, see figure 3. The essential part of this topic consists in the development of a patient's protocol identification. The doctors and nurses will use two data (name and date of birth) for patient's identification. This information also remains in patient's bracelet and they have to verify it.

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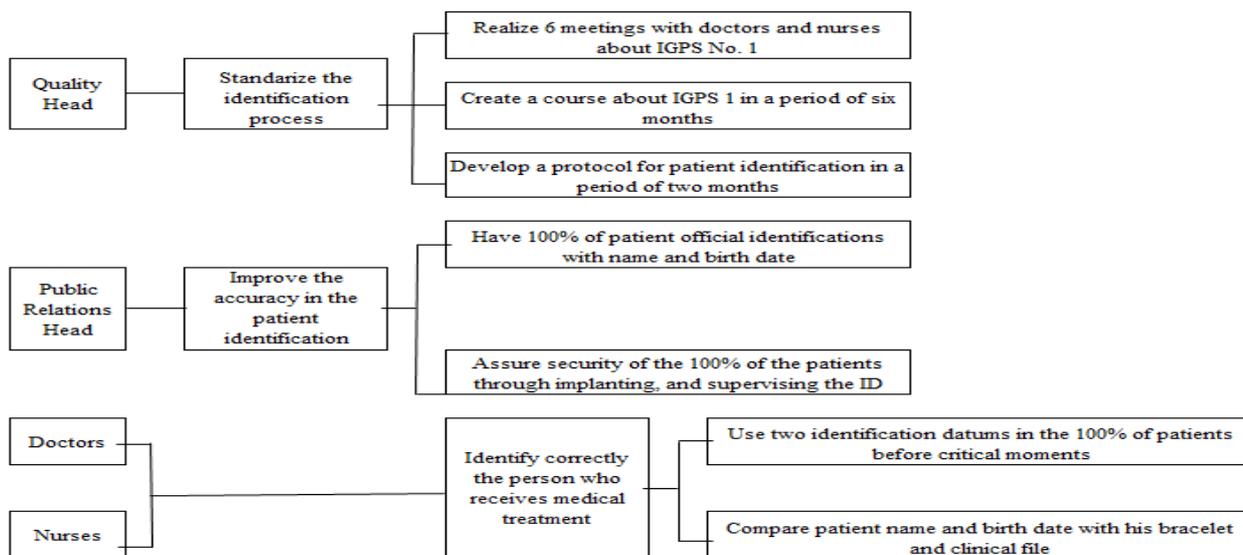**Volume 6, Issue 4, April 2017**   **ISSN 2319 - 4847**

Figure 3 IGPS No. 1 policy deployment

In terms of IGPS No. 2: improve effective communication; the quality and medical area took the leadership, see figure 4. The main point considered is the control of oral orders between doctors and nurses about patient's care.

The quality head will work on a communication protocol and will organize monthly a meeting with doctors and nurse to check the progress. The doctors compromise the reading of the orders to the nurses. Besides, nurses will use the listening-writing-reading-confirming protocol. There would be a written register of this action including the signature of one witness.
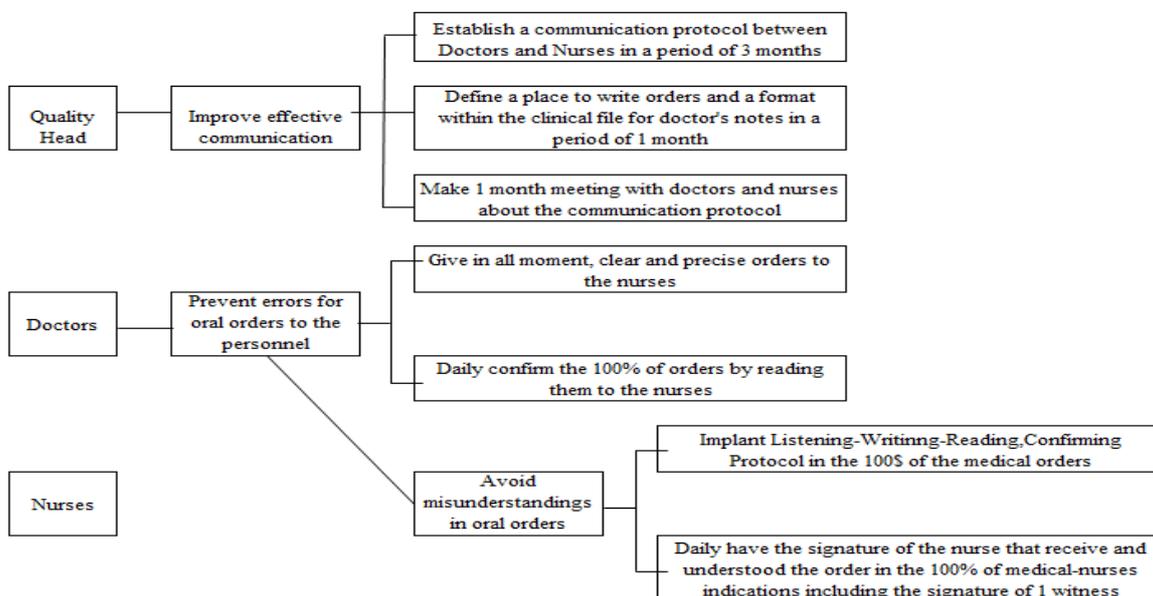
Figure 4 IGPS No. 2 policy deployment

The CEO as well as the administrative area, in this case purchase department, participated in the IGPS No. 3: improve the safety of high-alert medications. They considered the creation of a labeling process as the main objective and the role played by the warehouse area in the implementation of it. In other hand, the nurses are responsible of the prevention of wrong distribution in the high-alert medications and the updating of patient's clinical profile. An outstanding point is the relation of IGPS No. 1 for the success of this matter, see figure 5.

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Figure 5 IGPS No. 3 policy deployment

To ensure correct-site, correct-procedure, and correct patient surgery (IGPS No. 4), the three areas worked together to formulate the need of a universal surgery protocol.
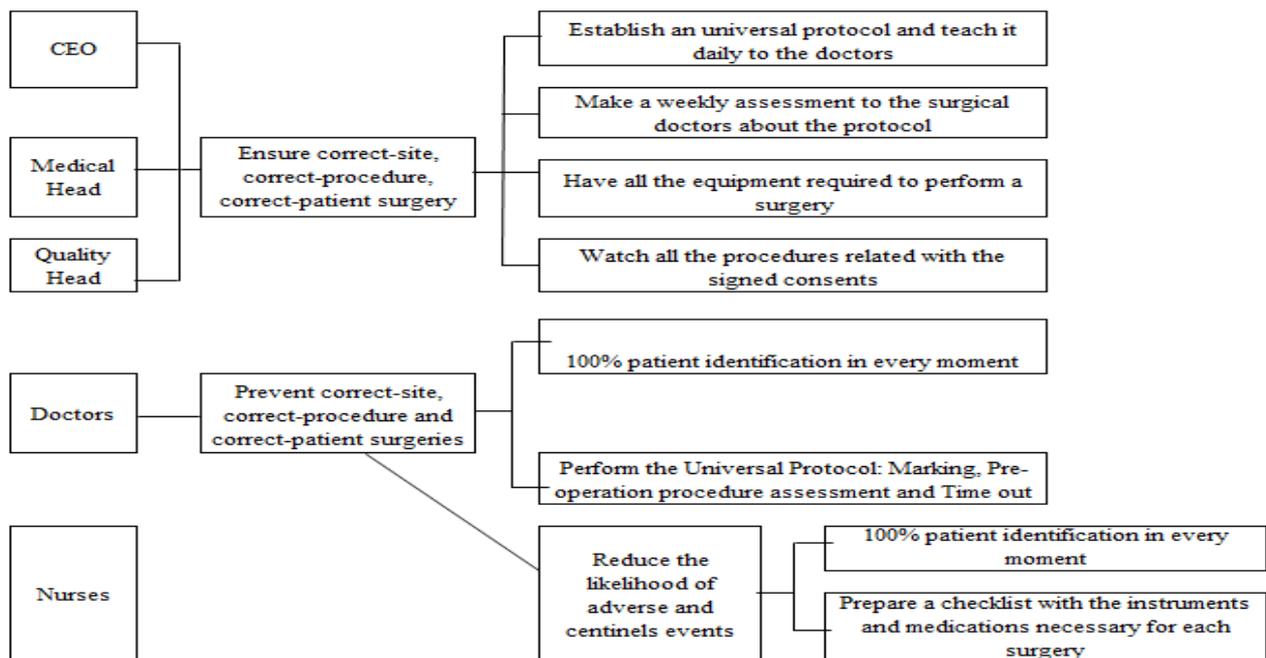
Figure 6 IGPS No. 4 policy deployment

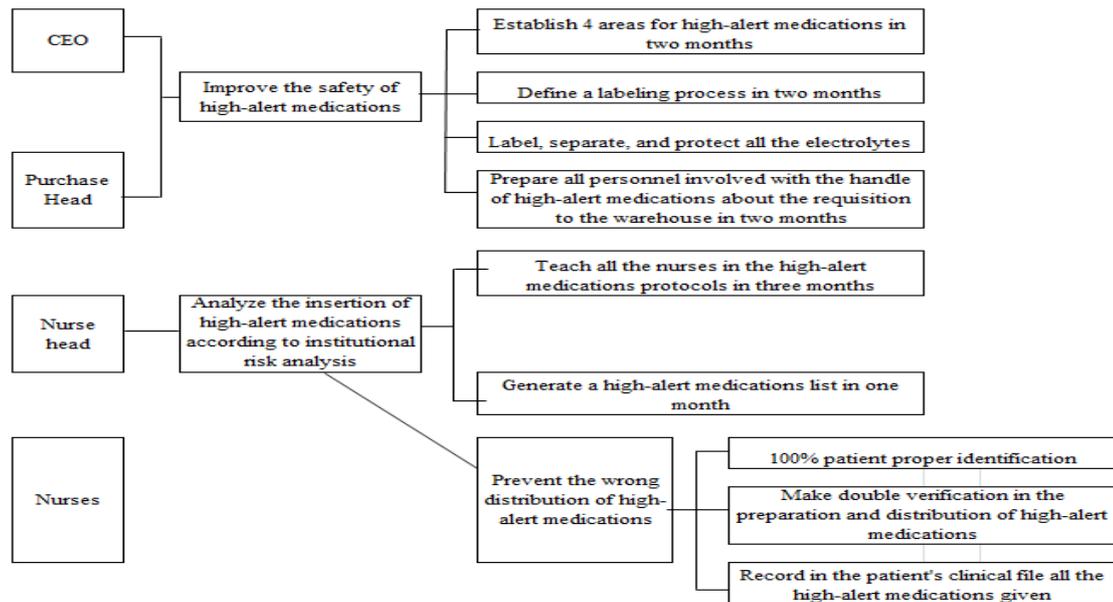The medical area emphasized the availability of all the surgery equipment. The doctors and nurses must assure the patient identification in every moment (IGPS no. 1). Finally, the nurses have to prepare a checklist of the equipment and medications required in a surgery, see figure 6.

It is mandatory to install a hand hygiene program to reduce the risk of health care-associated infections (IGPS No. 5). The quality and infection control areas collaborated to create, train, and assess the implementation of this initiative. In addition, both sections agree to monitor water quality and keep it pure.

The purchase department is responsible for the supply of the raw materials such as soap, disinfectant, and wipes for the hands hygiene program.

Last, the nurses commit themselves to daily live the quoted program and train all the healthcare institution personnel. The whole deployment details and the interaction among the areas are seen in figure 7.
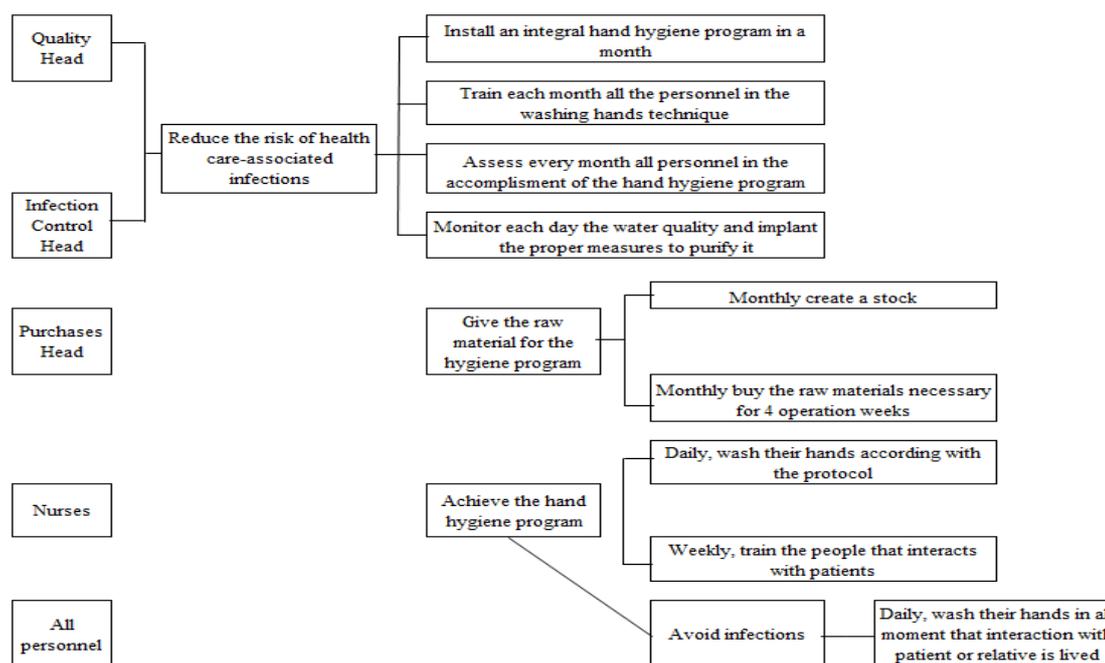
Figure 7 IGPS No. 5 policy deployment

Last, the quality and nursery heads agree to attain the World Health Organization (WHO) regulations related to safe environment for patients in order to reduce the risk of patient harm resulting from falls (IGPS No 6). A meeting each three months will notice the progress. Another measure to reach WHO instructions will consist in the daily assessment of the patients current conditions. In the operational area, the nurse will use orange bracelets to identify all vulnerable patients. There is a regular procedure to threat "orange" patients and is practiced by all personnel, see figure 8.
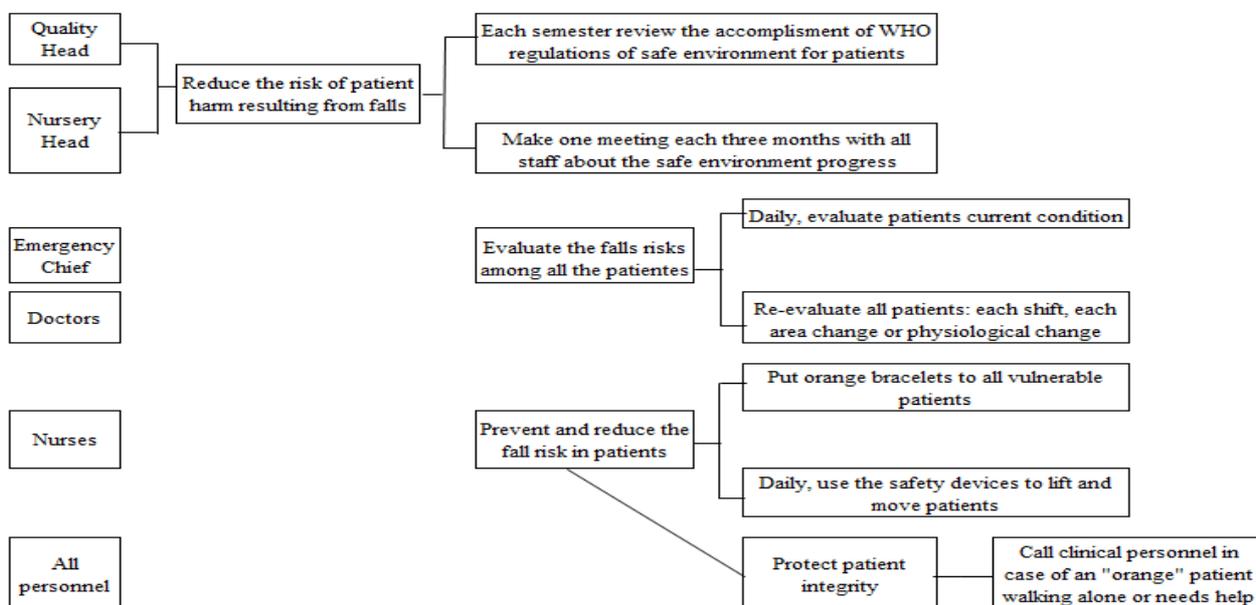
Figure 8 IGPS No. 6 policy deployment

2.3 Implementation

When the drafts got approval, a one-month trial period began. During this time, the department heads worked on the audit program and checking lists for each area. The first audit period consisted in weekly verification of task performance by internal auditors. As an example, figure 9 shows a hand hygiene checklist.

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| Area	Date	Name	Hand Hygiene Step					Hand Hygiene Technique									
			1	2	3	4	5	1	2	3	4	5	6	7	8	9	10

_____   _____   _____   _____
      Auditor   Nurse Head   Medical Head   Quality Head

Figure 9 Hand hygiene checklist

2.4 Progress reviews

The reviews consisted in checking the performance for each IGPS. Each auditor reports his findings to the review committee and progress charts are due for the CEO. An initial target of 90% of accomplishment was set to measure those findings. Figure 10 shows the current situation.

These results display that IGPS No. 3 has the best performance while IGPS No 5 and 6 have the lowest one.

Institutional Accomplishment (%) by IGPS

Reduce the risk of patient harm resulting from falls	84.00
Reduce the risk of health care-associated infections	84.83
Ensure correct-site, correct-procedure, correct-patient surgery	96.50
Improve the safety of high-alert medications	98.50
Improve effective communication	86.88
Identify patients correctly	88.58

Figure 10 Institutional accomplishment chart

3. CONCLUSIONS

The policy deployment has allowed the technical exchange between sanitary and non-sanitary personnel, patients and their families. Therefore, the communication plays a main role in the success of this experience.

The staff indicates that often it is hard to get the objectives done because of the excessive workload even though the training is of great aid in their jobs. The auditing team indicates that regular practice will improve their criteria in the assessment.

Finally, the highest authorities are enthusiastic in the implementation of this methodology and they expect in the short time the creation of the corresponding action plans in order to get the expected performance levels.

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