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Improving Performance of a Pharmacy in a Romanian Hospital through Implementation of an Internal Management Control System

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Abstract

According to general principles of good practice, adopted at the international level, quality control is a key function in management and not just a simple means of verification. In a clinic or hospital pharmacy, the chief pharmacist has the training and authority to take the control measures necessary to develop and implement an Internal Managerial Control System (IMCS). The present article analyzes and describes the case of the County Hospital of Oradea, Romania, and presents how the IMCS was adopted and integrated. Quality assessment in the health services takes place via an accreditation process and quality certification, as well as through an internal audit of the hospital pharmacy. The authors report a retrospective and descriptive study carried out from 2012 to 2017, analyzing how current legislative standards are applied. The IMCS in the hospital pharmacy is a dynamic process of continuous transformation, permanently adapted to hospital requirements, achieved under the direction of the chief pharmacist and involving all pharmacy employees, as well as through good coordination practices applied by hospital management. In this specific case, the IMCS features 11 annually updated compliance standards, classed under the headings of work procedures, risk register, job descriptions and staff training. The pharmacy's good practice model for IMCS development, was adopted by all of the hospital's sectors, services and departments.

Keywords: Internal Management Control System (IMCS); hospital pharmacy; quality; quality management

1. Introduction

A hospital management system consists of all the elements (principles, rules, methods and decision-making procedures) that ensure the exercise of management functions (Donabedian, 2003; Furtunescu and Mincă, 2010). By means of this system, hospital performance and the degree of achievement of objectives in terms of financing, out-turn and efficiency (economy of resources) (Mossialos et al., 2002) are defined. An important part of the hospital management system is the quality management system used for guidance and quality control. In accordance with the general principles of international good practices, control is not simply an action aimed at verification, but rather a key management function that ensures quality (Badulescu et al., 2015).

The exercise of the control function is carried out by persons/structures specialized in control, persons in managerial positions at different levels of management (manager, directors, heads of department, head assistant), ending with the last employee who has the responsibility to fulfil a certain type of control. Management control issues in public hospitals are important, risky and therefore require adequate managerial support (Vera et al., 2014). Considering the particularities of the legal framework for organization and functioning, as well as for internal managerial control standards (Ciuhureanu, 2016; Daina et al., 2018; Floștoiu, 2012; Order of the Minister of Public Finance no. 946/2005; no. 400/2015; Order no. 200/2016), the chief pharmacist is authorized to take the control measures necessary to develop and implement the internal managerial control system (IMCS) in the hospital pharmacy.

In a hospital pharmacy, the quality management system consists of two components: a) how well the requirements of both external (patients, suppliers) and internal (employees) clients are fulfilled, and b) how well the quality of the services provided is ensured (Tăerel et al.,

2014). Internal managerial control (IMC) is essential for attaining and maintaining the major goal of the pharmacy – that of conducting day-to-day activities quickly and well, under the specific conditions of the activity of an emergency hospital. Additionally, from an ecological perspective purchases and resources at the pharmacy level should always be managed towards a reduction in waste residues from hospital activity.

Based on the IMCS, the present study examines how a hospital pharmacy has implemented a quality management system. To evaluate the quality of health services the authors examined the process of hospital pharmacy accreditation and quality certification, and also undertook an internal audit. The audit indicators presented here verify that the standards required by law are met, show how to correctly apply certain improvement proposals that lead to efficient management. For instance, no other studies have been conducted in Romania examining the close interdependence between waste management and pharmacies management services. Obviously, implementation practices are country-specific, and we believe that comparing different quality management types among hospitals in different countries can introduce optimization strategies for sanitary, pharmaceutical, etc. units.

2. Materials and methods

Between 2012 and 2017, a retrospective, descriptive study was carried out in the Pharmacy Service of the County Clinical Emergency Hospital (885 beds) of Oradea, Romania. The study is based on the Ordinance of the Ministry of Public Finance no. 946/2005, updated and republished in the Official Gazette of Romania, Part I, no. 469/5 July 2011, with the subsequent amendments and additions, and Order no. 400/2015 for the approval of the Code of Internal Managerial Control of Public Entities, Appendices 3 and 4.1 (Order of the Ministry of Public Finances nos. 946/2005, 400/2015, and 200/2016).

A standardized evaluation questionnaire, used nationally and provided by the Ministry of Finance, was used to verify the stage of implementation for the IMC standards. Comprised of 25 standards in the 2012-2014 period, and of 16 standards in 2015-2017, the questions were grouped under the five following headings: environmental control, performance and risk management, control activities, information and communication, and evaluation and audit. Each standard was built around three components: description of the standard, general requirements and main references. During the studied period, the hospital underwent important stages influencing IMCS: accreditation (Decision no. 68, 2012; no. 1.148, 2008) and quality certification (ISO certification, 2015) as well as internal audit of the hospital pharmacy (Order of the Minister of Public Finance no. 252 of 2004; no. 423, 2004; no. 1702, 2005; Law no. 672, 2002); therefore, these processes were also analyzed.

The analysis dynamically followed the internal control as well as the way the hospital pharmacy has permanently adapted to legislative changes.

3. Results

3.1. The control environment

Thus, the control environment included six standards in 2012-2014 and four standards in 2015-2017 (the two omitted standards were the sensitive functions and delegation) (**Figure 1**). In 2017, the Contractual Staff's Code of Ethics and Deontology (Crişan and Iacob, 2016) was revised. Since then, all pharmacy staff have been hired through competitive admission exams, and the number of personnel has grown steadily. Professional as well as personal skills led to their nomination as certifiably qualified in the aforementioned activity sectors. Each activity is conducted under the coordination of the chief pharmacist and other pharmacists. In addition, each employee takes training courses annually, and their professional performances are evaluated by their hierarchies.

The pharmacy's internal organization plan was implemented due to the exponential growth in collective work. Areas of managerial activity included: tablets, phials, infusion solutions + reagents + consumables, sanitary materials, Emergency Reception Unit and Mobile Emergency, Reanimation and Download Service, sanitary supplies, computers, formulation, goods reception and ambulatory program (from 2017). Activities included reception, storage, release, document/sector archiving and Entrance Reception Notes (computer sector). Each sector was managed by a team of two persons, except for sanitary supplies, supervised by a team of three in 2017. This organization also involved collaboration between sectors. The pharmacy's entire activity is known to the whole staff, but achieving maximum efficiency is the responsibility of each sector team. The specific activities corresponding to each of the control environment's standards are presented in **Figure 2**.

3.2. Risk Performance and Management

Risk Performance and Management was comprised of six standards in the 2012-2014 period and four standards from 2015 to 2017, as the "Coordination" "Hypotheses" and "Revaluation" standards were discontinued (**Figure 3**).

In accordance with the hospital's objectives, since 2016 the chief pharmacist been under a management contract, which allowed setting of SMART (Lombardi et al., 2018) individual objectives for each employee. The chief pharmacist is actively involved in the planning of human, material and financial resources in the hospital, and draws up activity plans (for purchase of medicines, sanitary materials and reagents) which are sent for approval to the unit management (**Figure 4**).

3.3. Information and Communication

The third criterion analyzed refers to Information and Communication, comprised of four standards in 2012-2014, and three standards in 2015-2017 (**Figure 5**).

Communication of information is also ensured through an integrated information system. The departments have access to a restricted computer module: Pharmacy. Information is available regarding the pharmacy's existing stocks or the shelf life of products; consumption associated with each doctor/section can also be monitored. The hospital's Intranet provides a fast and efficient means of transmitting information throughout the hospital: decisions and communiqués (situations related to needs for medicines, sanitary materials and low-flow or soon-to-expire pharmaceuticals (Bungau et al., 2015a,b; Bungau et al., 2018; Tit et al., 2016), drug nomenclatures, updated sanitary materials, Drug Commission decisions, reports of adverse reactions, measures to reduce incidence of infections associated with hospitalized patients, traceability of the medicinal product/sanitary material in the hospital after leaving the pharmacy, pharmaceutical waste management (Bungau et al., 2015b), return, and working procedures. Communication from the pharmacy towards the departments is subject to prior agreement with the medical director. Printed or hand-written communication contents (written messages from the pharmacy, for example, counselling on adverse drug reactions or drug interactions) (Iancu et al., 2015; Koczorowska-Cerbin et al., 2017), as well as hospital management decisions (materials received by the pharmacy) are archived once the staff has read the contents.

The pharmacy has its own specific procedures for organizing, storing, using, identifying and archiving internal documents (type forms, registers), as well as procedures from outside the institution. Documents are retrieved and sorted by type, according to the hospital/pharmacy nomenclature, being arranged by document type and storage term. All documents are recorded in the Entry-Exit Register (**Figure 6**).

3.4. Control activities

The quality control activities included seven standards in 2012-2014 and three standards in 2015-2017 (**Figure 7**).

The pharmacy management developed new written procedures for the activities to be carried out (thus increasing the number of procedures over the analyzed period) and the staff was duly informed. The pharmacy's already existing procedures determine the specific ways in which activities or processes were carried out (European Medicines Agency, 2015 a, b, 2017; Order no. 75/2010; Täerel et al., 2014). The manner in which a procedure should be written is presented in a specific set of instructions. Each procedure is individually identified by its own code and edition. Any revised procedure re-edited and the old instructions are archived.

With a view to effective implementation, appropriate hierarchical controls are implemented to monitor the activities and operations. The Medicines Committee, the Pharmacovigilance Commission, the Sanitary Materials Monitoring Commission, are the levers with which the pharmacy involves itself in the life of the hospital. The Committee for Medicines uses documents received from the pharmacy to analyze opportunities to modify specific therapeutic protocols (i.e. rethinking the segment used in analgesia by diminishing metamizole and supplementing the need for nefopam, dexketoprofen and paracetamol for infusions), analyzing drug consumption dynamics and correlating the antibiotic nomenclature of the hospital with the acquisition of antibiogram disks. Periodically, the Medicines Committee reviews antibiotic consumption levels, as well as how application dossiers for selected antibiotics should be filled in (Daina et al., 2015).

The Nomenclature of Medicines reflects an optimal relationship between the different groups of drugs (those defining emergency intervention, new drugs on the Romanian pharmaceutical market and those contributing to high-level patient diagnoses). The medical director of the hospital actively collaborates with other hospital personnel for the constant improvement of

198 all activities (modification of existing procedures and implementation of new ones, avoidance
199 of synapses in medicine supplies and sanitary materials, application of work instructions,
200 monitoring of the nomenclatures of medicines and sanitary materials).

201 Decisions delivered in good time by the medical director help to facilitate activities in
202 numerous directions (pharmacy/sectors, pharmacy/purchasing, pharmacy/supply service,
203 pharmacy/financial accounting service). At the pharmacy level, the hospital's
204 pharmacovigilance data sheets are centralized. At the end of each year, the person in charge of
205 centralizing data indicates the list of drugs that generate side effects. The information
206 circulates in two directions, not only from the pharmacy sectors towards pharmacy
207 management, but also from management towards the sectors (releases on this topic are
208 downloaded from the National Medicines Agency's website and regularly brought to the
209 attention of the medical staff).

210 The hospital work teams, which play an active role in the pharmacy, are: the acquisitions
211 service, the supply service, the financial department, the accounting department, the legal
212 department, the human resources department and the IT (computing office) service. These
213 teams work every day. The principle is to avoid a breach in the supply. For this purpose, the
214 chief pharmacist monitors the consumption dynamics, requiring the rapid engagement of
215 colleagues in the supply service whenever required. The above-mentioned sector prioritizes its
216 activities and actions so that supply remains continuous.

217 The legal service promptly furnishes information concerning any legal change that has
218 occurred and needs to be known and applied by the pharmacy.

219 Collaboration with the computing office staff takes place on two levels: first, involvement in
220 the proper functioning of computing techniques in the pharmacy (quick and efficient
221 reactions); and second, involvement in obtaining information to be subsequently used by the
222 pharmacy (e.g. the number of days of hospitalization corresponding to each section for the

calculation of DDD (Defined Daily Doses)/days of hospitalization, consumption of analgesics) (Daina et al., 2017). Activities specific to the control standard are presented in **Figure 8**.

3.5. Auditing and Evaluation

During the period investigated in this study, the auditing and evaluation criterion included 2 standards (**Figure 9**). The job description of the chief pharmacist includes duties and responsibilities related to exercising control over the activities of the subordinate staff (compliance with hygiene standards in the pharmacy, observance of functional circuits, and observance of professional deontology) (Order no. 1502/2016) (**Figure 10**).

The internal audit does not apply to the pharmacy, but audit assignments as well as counselling activities are performed in the pharmacy by the Chief Authorizing Officer (Local Authority) and by the management (Law no. 672/2002; 500/2002; Ordinance no. 119/1999). This audit, through the audit mission of December 2016, had as its objectives the organizing and functioning of pharmacy activities, organizing the quantitative-value record of the medicines and medical materials within the pharmacy and determination and implementation in 2017 of the following recommendations:

- Review of job descriptions and elimination of tasks that overlap for several employees or do not belong to specific employees;
- Setting performance indicators by category of personnel;
- Involving the staff of the pharmacy in the process of implementing the IMCS through the job description and annual evaluation process;
- Monthly verification, by the Heads of Section, through sampling, of the consistency between the amounts of medicinal products that left the pharmacy and those recorded

on the General Clinical Observation Sheet (GCOS) (implemented by codified procedure);

- Monthly verification, by the Heads of Section, through sampling, of the consistency between the quantities of medicinal products registered in the GCOS, those recorded in the electronic records at the patient level, and payment statements (implemented by codified procedure).

Developed over time, the IMCS in the Oradea pharmacy is currently associated with eleven standards that have been complied with, three partially fulfilled (partial compliance) standards, and two standards not applicable to the pharmacy (**Table I**).

4. Discussion

This study provides an overview of the development of internal, managerial quality control in a hospital pharmacy. The IMCS implemented in the Oradea County Emergency Clinical Hospital pharmacy is an ongoing process, constantly adapted to the requirements of the hospital. It is not a singular event, but rather a series of dynamic, permanent actions.

The IMCS was set up in the hospital in accordance with the Order of the Ministry of Public Finance no. 946/2005, updated and republished in the Official Gazette of Romania, Part I, no.469/5 July 2011, as subsequently amended and supplemented. Starting in 2012, the IMCS commission was updated by decision of the unit manager; a new president was named and all the heads of sectors and/or departments were included. For the proper organization and functioning of the Monitoring Committee, Coordination and Methodological Guidance of the IMCS Implementation/Development, a Commission Operating Regulation was developed. Sub-committees were set up to implement the IMCS at the hospital compartment level in order to empower the staff to identify specific activities, to develop written (formal and informal) procedures and to identify and analyze the risks associated with the specific activity.

272 These subcommittees also have the role of permanently pursuing and updating specific work
273 procedures, and developing new written and formal work procedures for specific activities, as
274 well as identifying and monitoring risks to employees.

275 The IMCS development program was updated with the observance of the structure stipulated
276 in art. 2, parts 2 and 3 of the updated OMFP no.946/2005, according to which the objectives,
277 actions, deadlines and responsibilities should be precise. In 2013, each department drafted the
278 list of activities, actions and objectives were defined to meet the SMART requirements
279 package. Performance indicators, associated with all objectives and activities in each service
280 of the hospital, were established and defined. Particular attention was paid to the risk register,
281 the appointment of the risk register by the Heads of service, as well as the establishment and
282 management of the Risk Monitoring Record. In March 2013, the IMCS's
283 Monitoring/Coordination and Implementation/Development Guidance Commission requested
284 that a list of activities, both procedural and non-procedural, be drawn up at each entity level,
285 and that all procedures be codified, verified by the committee chair and approved by the
286 manager. The chief pharmacist plays an important role in implementing the IMCS, but
287 ultimately the responsibility lies with each hospital employee who comes into contact or
288 interacts with the hospital pharmacy. Implicitly, the responsibility and quality of the staff
289 serving the pharmacy is essential.

290 Given the current legislation (Decision nos. 1.148, 2008 and 68, 2012), each hospital must be
291 accredited, accreditation being how it is demonstrated that a medical unit endeavors to
292 provide medical care services to meet patients' expectations, both in terms of results, and in
293 terms of the conditions under which accreditation is granted. The accreditation assessment
294 visit, ensured by the National Authority for Quality of Health Management (ANMCS) in
295 2014, responded to eighteen indicators concerning the pharmacy, of which only one did not
296 apply, the rest being in conformity. Notable among these indicators are: the decision as to the

person responsible for the pharmacy database; analysis, carried out by the pharmacy, of antibiotic use in the hospital; reports to be completed by the pharmaceutical service on monthly consumption and needs of medication, sent monthly to the hospital sectors; regular training of employee personnel who handle toxic substances; and procedures concerning the handling of volatile and dangerous substances.

The Oradea pharmacy completed the entire IMCS implementation process within the 2012-2013 period; therefore, in 2012, four codified procedures could be found at the pharmacy, to which the risk register and two more coded procedures were added in 2013.

The Ministry of Public Finance Order no. 400/2015, for the approval of the Internal Management Code of Public Entities, annexes 3 and 4.1, restricts the self-evaluation questionnaire to sixteen standards, two of which are not applicable to the Oradea hospital pharmacy.

In 2013, the ISO 9001: 2008 Certification "Quality Management Systems" made new improvements to the Quality Management System (QMS) in the hospital and thus to the pharmacy also. During this period, the following were updated: internal hospital regulations, job descriptions; courses were organized to continuously improve the professional performance in the hospital pharmacy. The evolutionary analysis of hospital pharmacy activity over time highlights the increase in complexity, achieved by the diversification of the products being managed (**Figure 11**).

Within the time-span mentioned above, the drug nomenclature diversified, with new ICDs made available to the medical staff. New therapeutic alternatives came to complete the group of antibiotics and analgesics. Medication for the cardiovascular system was supplemented with new representatives annually, and the current parenteral and enteral nutrition meets the requirements of the Intensive Care Unit.

Initially, the pharmacy managed only gauze, cotton or linen roller bandages, adhesive dressings and elastic roller bandages. Gradually it took over the entire range of sanitary materials and medical devices (except for osteosynthesis materials). Their management required a great effort on the part of the team which had to learn to assimilate them quickly, which represents a special professional challenge.

The nomenclature of the sanitary materials and medical devices evolved slowly. The assortments diversified and their qualitative level increased. The medical staff of the hospital is in constant contact with the nominated pharmacy staff managing these goods. Any dissatisfaction or any hidden defect found, is brought to the attention of the pharmacy staff who periodically informs the health director about these issues via the sanitary materials monitoring committee. Information flow is quick and helps to prevent supply shortages as well as to improve the quality of purchased goods. Bringing sanitary materials and medical devices into the pharmacy's everyday activity has definitely contributed to an improvement in the quality of medical services provided to patients.

After assuming management of medical supplies and devices, the pharmacy's activity was completed with management of reagents for the hospital's analysis laboratory. This new challenge led to a more regular supply system that is much appreciated.

The diversification of the hospital pharmacy activity resulted in optimized managerial strategies of medical, sanitary, chemical waste, etc. This would be achieved only if all efforts are combined to make the disposal and storage of medical waste compatible with the legislative package in force (Bungau et al., 2015a).

The hospital pharmacy becomes the main waste producer due to the various assortments along with the continuous increase of the quantities of products necessary for an optimal functioning and observance of all working protocols. Numerous studies have indicated the threats caused by pharmaceutical and sanitary residues (Bungau et al, 2015a b; Bungau et al., 2018; Daina et

al., 2017; Moisa et al., 2018; Tit et al., 2016) which are continuously released into the environment because they cannot be effectively removed by the wastewater treatment plants. In recent years, questions have been raised concerning the environmental risks related to these pollutants (Bouriou et al., 2017). For example, these emerging pollutants affect the hormonal system and, very importantly, contribute to antibiotic resistance (Bungau et al., 2018). Therefore, the wise management of the waste from the mentioned categories, as well as the implementation of a managerial system would weaken the environmental pollution and the prevalence of infections resulting most often from incorrect or deficient manipulation of hazardous wastes.

The involvement of the pharmacy through the Medicines Committee by analyzing the possibilities of modifying and optimizing specific therapeutic protocols along with analyzing drug consumption dynamics and correlating the antibiotic nomenclature of the hospital with the acquisition of antibiogram disks (Moisa et al., 2018), have led to a visible improvement in the management of drug or necessary pharmaceutical / sanitary products procurement. Moreover, a significant improvement was observed as to antibiotic use, on the one hand, and the corresponding management of existing drugs on the other hand. As a consequence no increase in the amount of medicinal waste has been observed following the diversification of the nomenclature and the change in the therapeutic protocols during the studied period.

The Pharmacy Management Team must propose the ways and solutions to reduce the amount of hazardous waste by implementing specific measures: 1) the reduction of waste from the source by purchasing mainly the materials which generate small quantities of waste; separating the resulting waste directly from the generating source by collecting them in specific categories; 2) providing training and continued professional development of staff employed in the pharmacy or hospital who are directly involved in waste management; 3)

waste disposal in the collection and disposal of waste; 4) identifying the risks and proper measures required to protect the personnel; 5) informing patients of the possible dangers generated by the mismanagement of medical/sanitary waste and 6) the final disposal of pharmaceutical wastes (known as the last stage of a pharmaceutical product) (Bungau et al, 2015a) should be carried out under appropriate conditions, only by authorized operators, so as to ensure a minimum impact on the environmental health.

Another advantage to this new organization was the constitution of an active professional team consisting of a physician, a laboratory physician, an epidemiologist and a pharmacist. The result of this cooperation led to a greater coherency between the pharmacy's antibiogram disc nomenclature and that of the hospital's own nomenclature, thus leading to an improvement in the hospital's antibiotic therapy strategy. The examples mentioned (related only to hospital funding) clearly show that the implementation of internal quality management was and remains highly necessary.

Over time, the pharmacy managed to put the IMCS into practice and has currently complied with 11 standards, and partially complied with other three standards, while two standards do not apply to the Oradea hospital pharmacy. This situation was possible due to the implication and involvement of all the employees of the pharmacy, under the direction of the chief pharmacist, but also thanks to the coordination by hospital management of the quality management process. The best practice model demonstrated by the pharmacy in the development of the IMCS, with the involvement of the chief pharmacist, was adopted by all sectors, services and departments in the hospital.

Conclusion

The existence of a specific organizational structure in the Oradea hospital pharmacy, adapted to the hospital's requirements, allows for clear assignments and responsibilities for each

employee, but also for the proper planning of the activity. Systemic and operational procedures, whether newly developed or revised, allow work to be properly conducted in the hospital and in its pharmacy. Collaboration between the pharmacy and hospital departments and services is essential, while at the same time the pharmacy's cooperation concerning human resources, financial, legal, procurement, IT and administrative services is also crucial. Specialized committees working in the hospital actively oversee activities as they are carried out, but they also modify, supplement and take corrective or preventive measures when required. The following aspects continue to be updated annually: work procedures, risk register, job descriptions and staff training.

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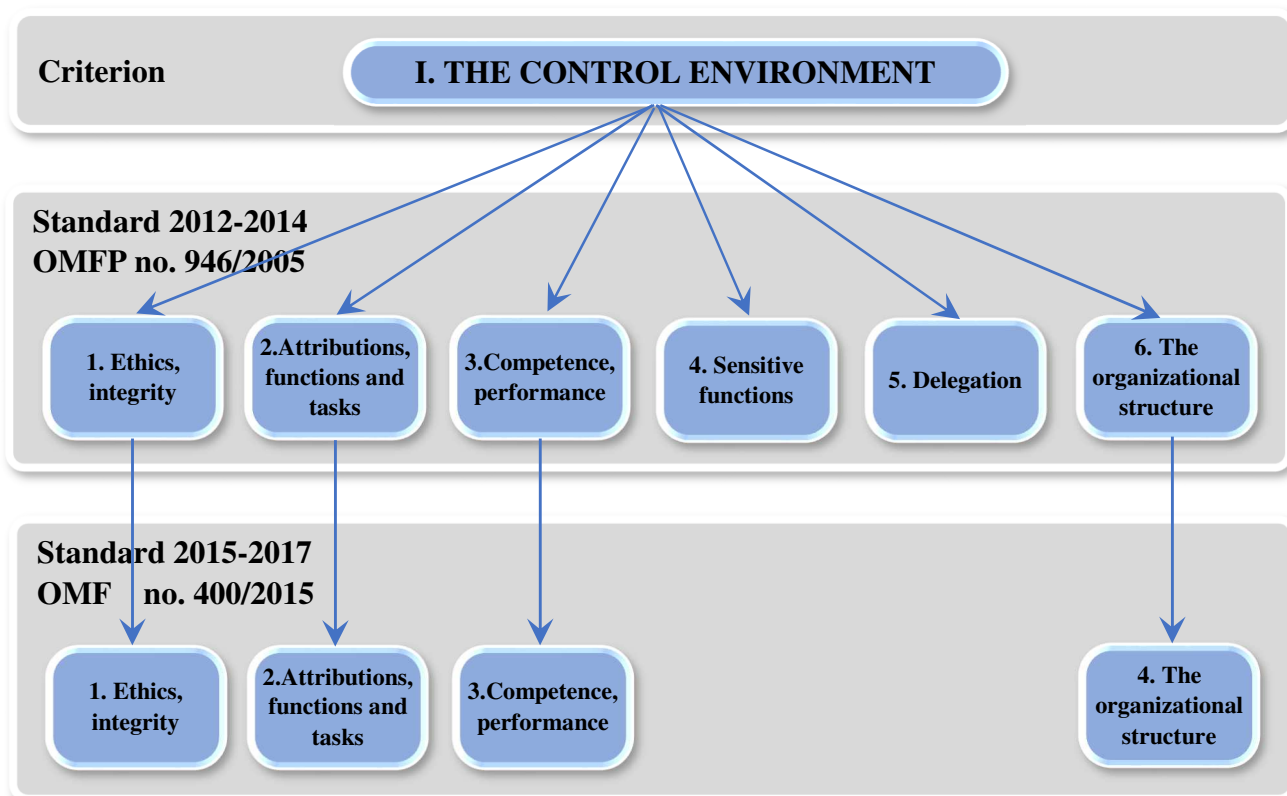


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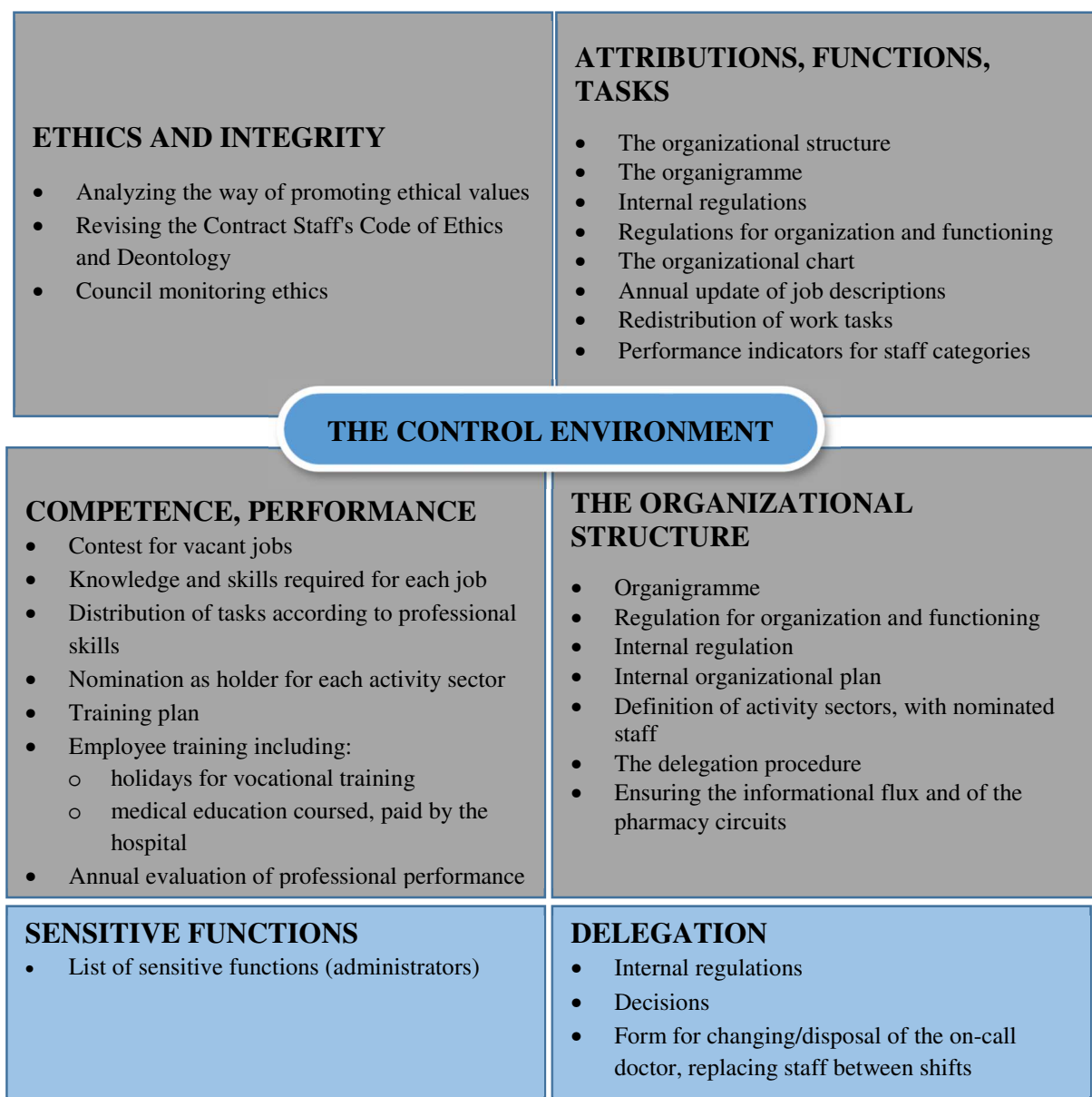


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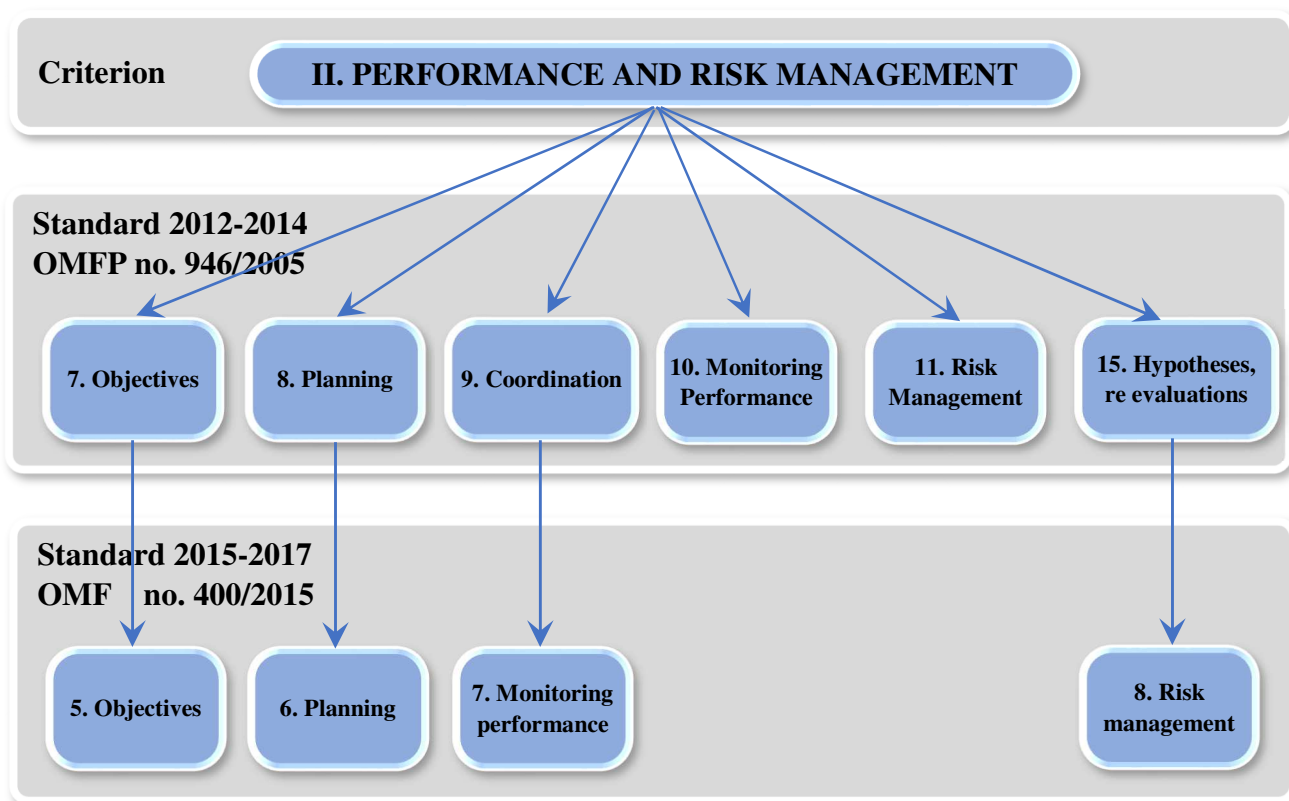


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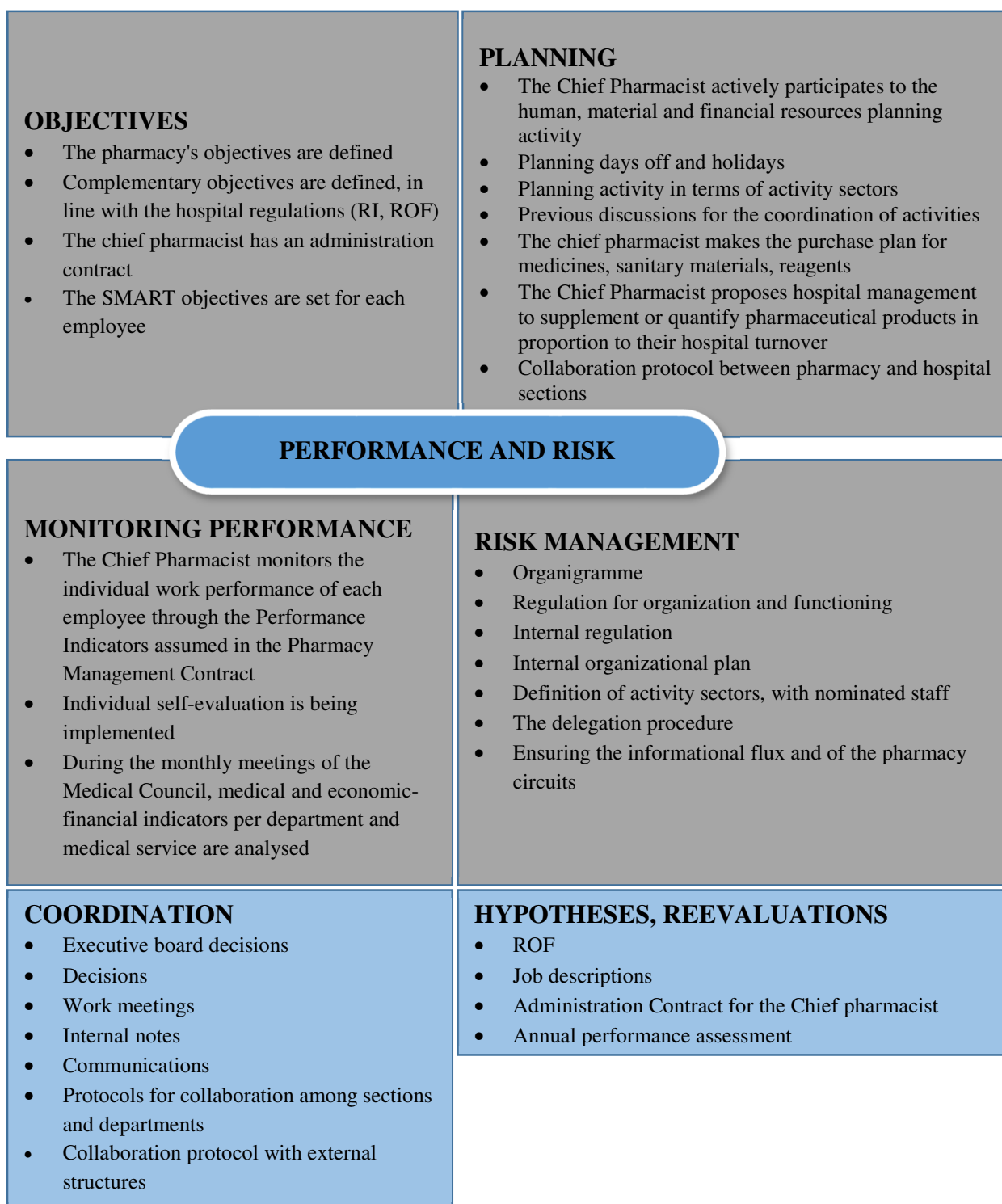


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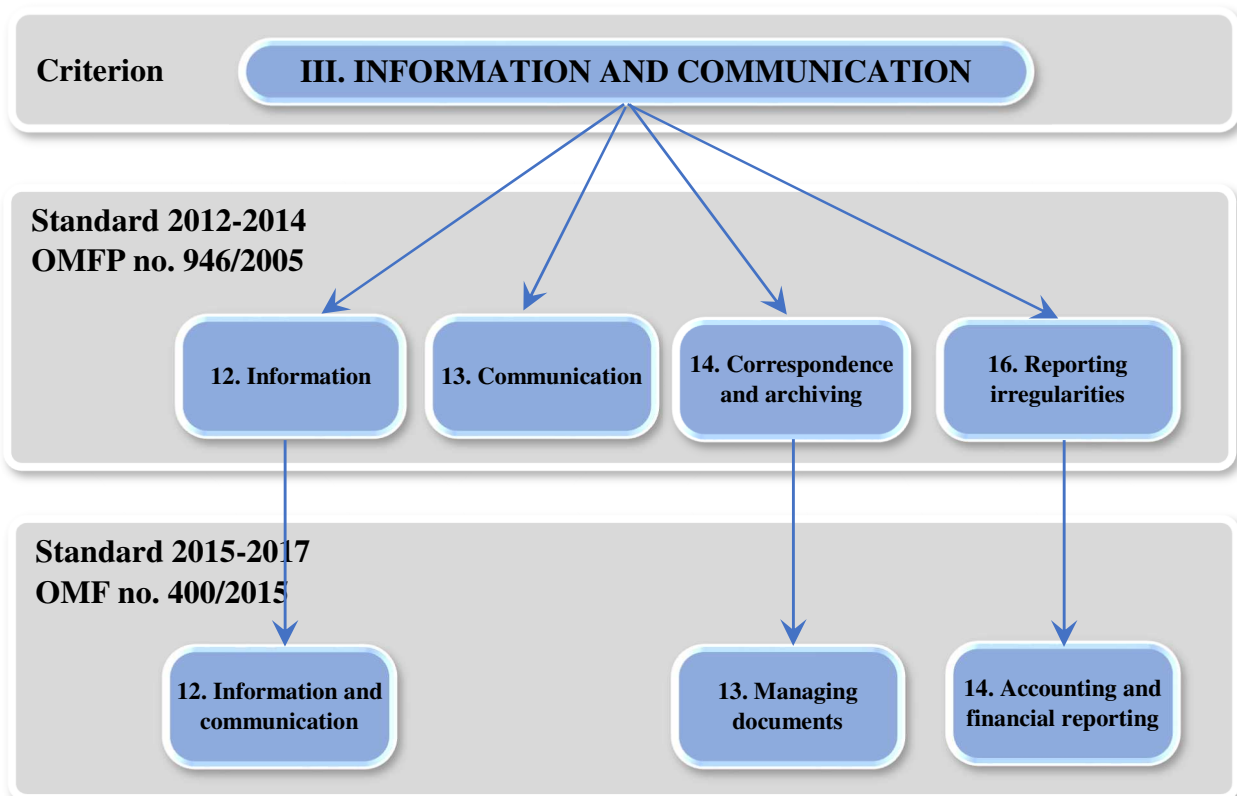


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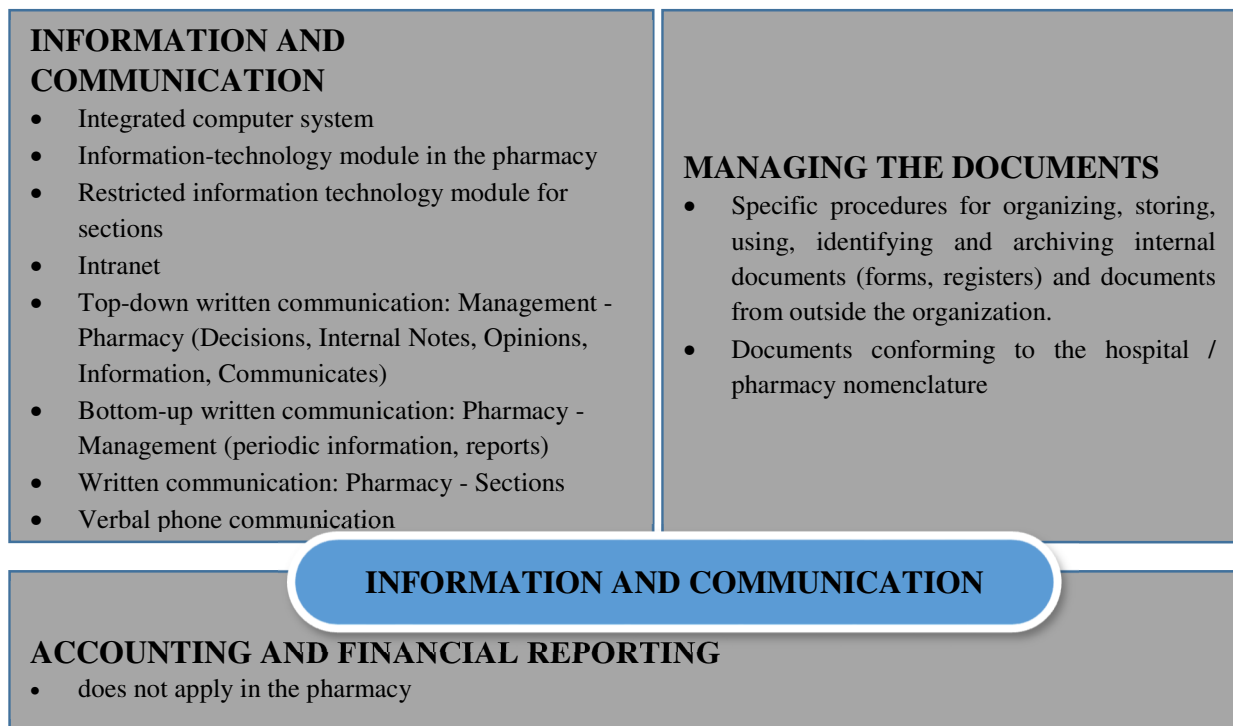


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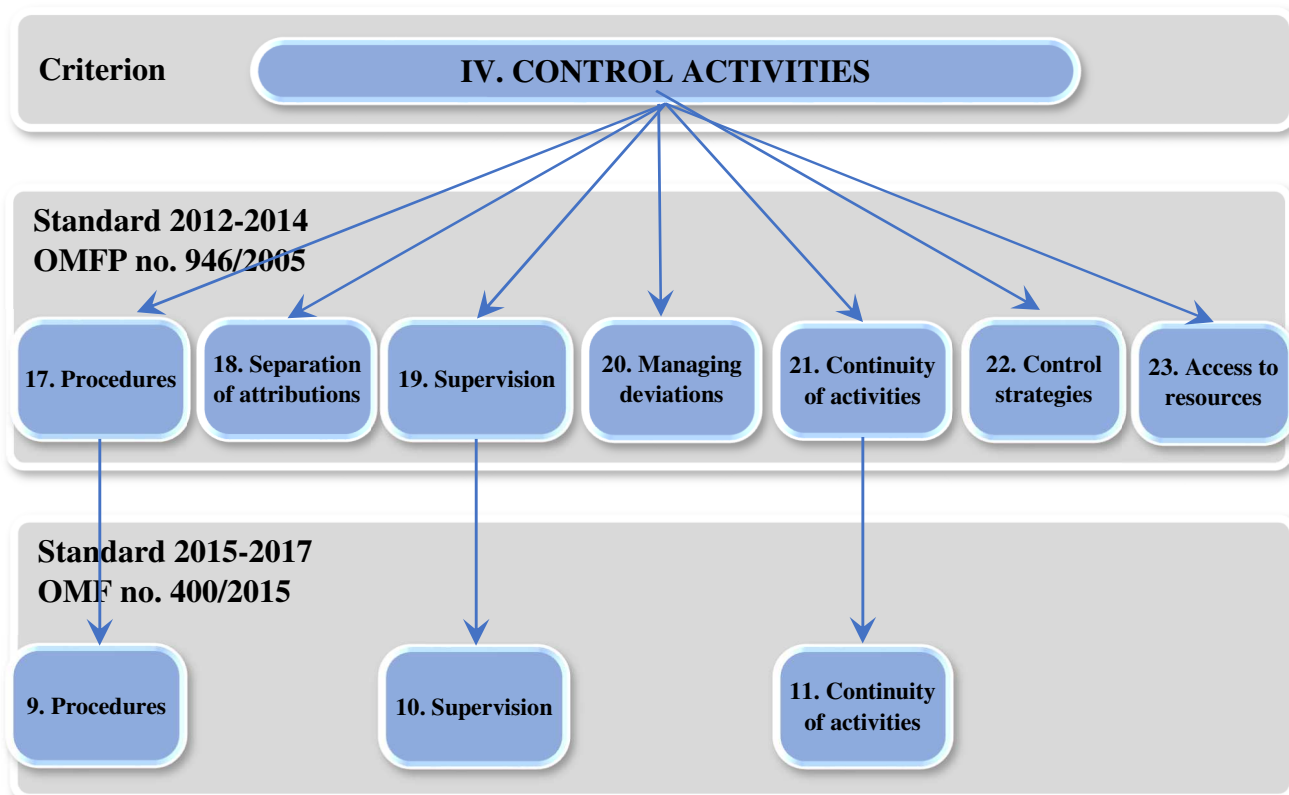


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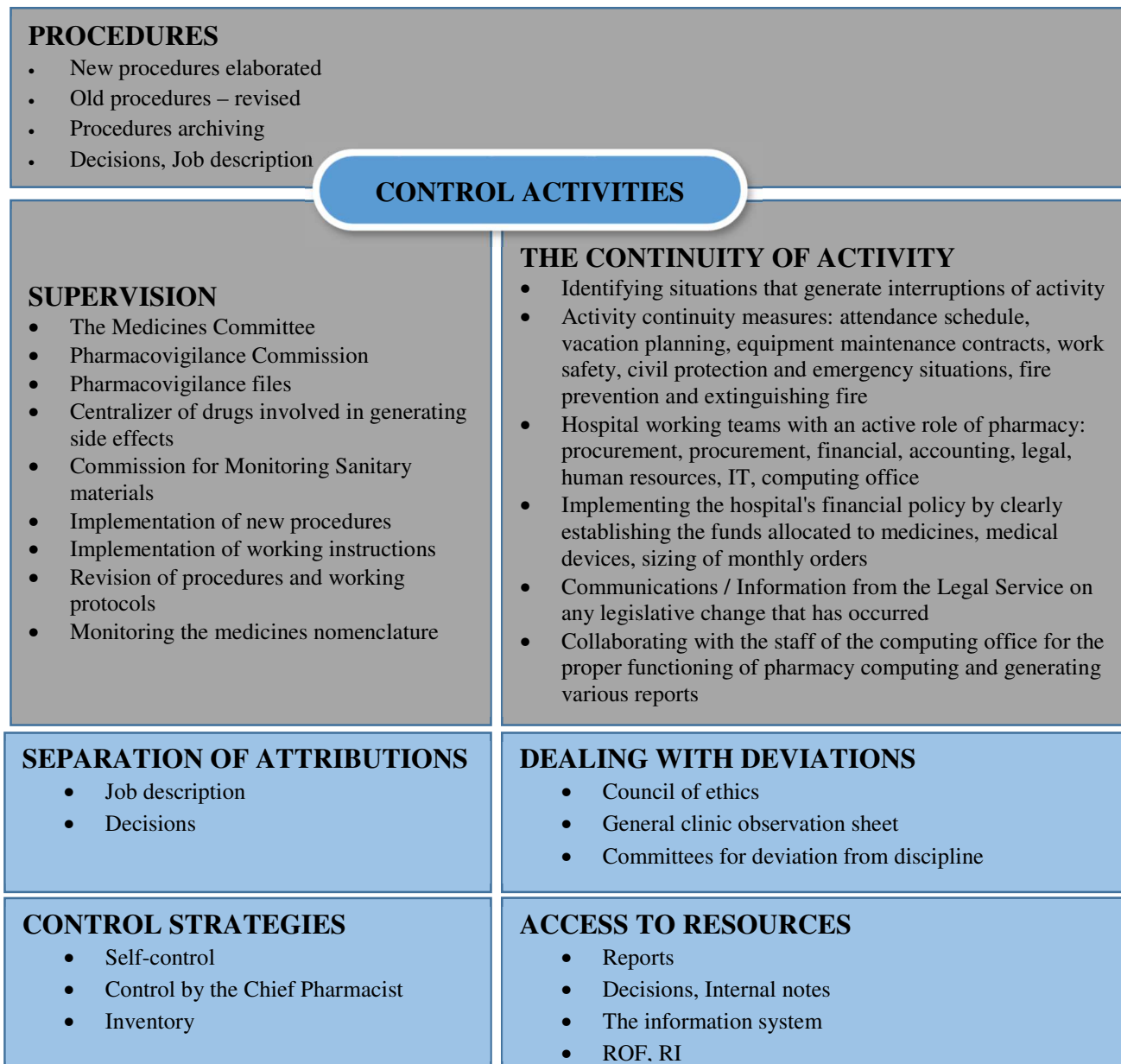


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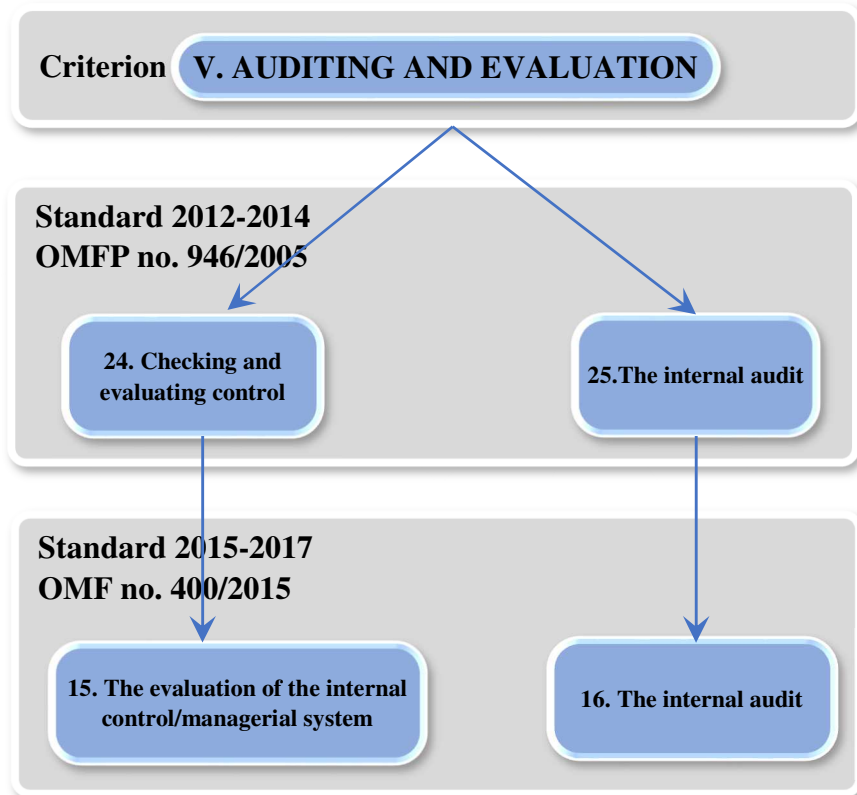


Figure 9.

EVALUATION OF THE INTERNAL/ MANAGERIAL CONTROL SYSTEM

The job description of the Chief Pharmacist includes attributions and responsibilities relating to exercising control on the activities of the subordinated staff

- Questionnaires on employees' satisfaction
- Questionnaire on the staff's satisfaction
- Observance of functional circuits
- Observance of hygiene standards in the hospital
- Observance of ethics codes
- Observance of hospital regulations

THE INTERNAL AUDIT

- Not applicable in pharmacy

AUDITING AND EVALUATION

CONTROL CHECKING AND EVALUATION

- The Chief Pharmacist performs unannounced controls with various goals
- The Chief Pharmacist's job description includes duties and responsibilities related to exercising control over the activities of the subordinate staff
- Employees have job descriptions that include control-related responsibilities at the work-level

Figure 10.

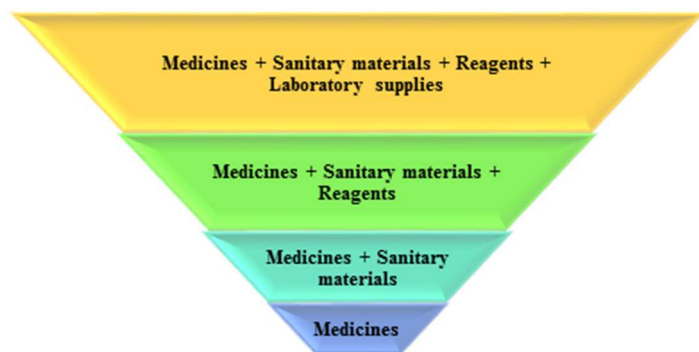
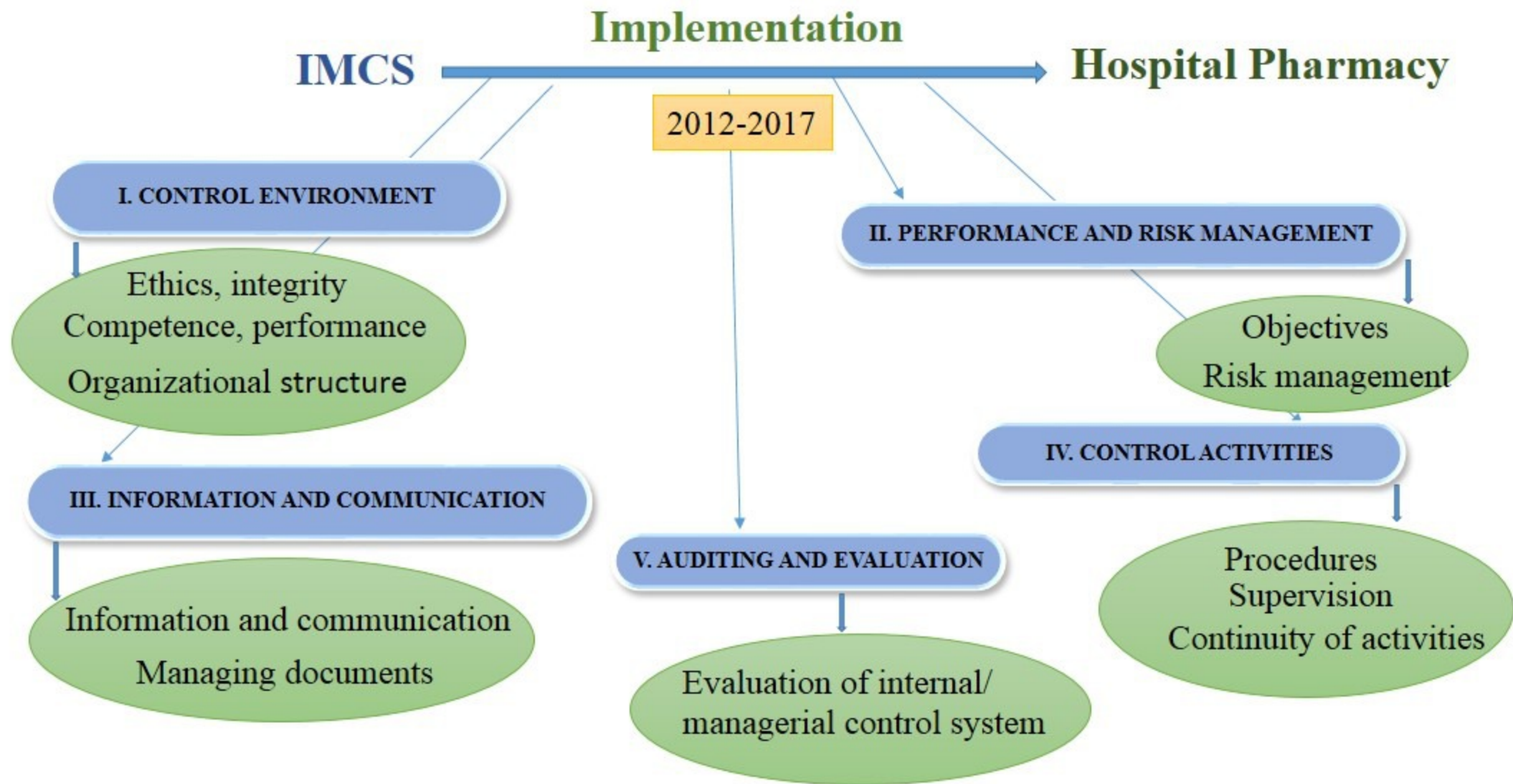


Figure 11

Table I. Implementation of SCMI standards in Oradea hospital pharmacy during 2012-2017

Standard	I/PI/NI			Standard	I/PI/NI		
Year	2012	2013	2014	Year	2015	2016	2017
Order of the Minister of Public Finance no. 946/2005				Order of the Minister of Finance no. 400/2015			
I. CONTROL ENVIRONMENT							
Standard 1. Ethics, integrity	I	I	I	Standard 1. Ethics and integrity	I	I	I
Standard 2. Attributions, functions, tasks	PI	PI	PI	Standard 2. Attributions, functions, tasks	PI	PI	PI
Standard 3. Competence, performance	I	I	I	Standard 3. Competence, performance	I	I	I
Standard 4. Sensitive functions	NA			-			
Standard 5. Delegation	I	I	I	-			
Standard 6. The organizational structure	I	I	I	Standard 4. The organizational structure	I	I	I
II. PERFORMANCE AND RISK MANAGEMENT							
Standard 7. Objectives	I	I	I	Standard 5. Objectives	I	I	I
Standard 8. Planning	PI	PI	PI	Standard 6. Planning	PI	PI	PI
Standard 9. Coordination	I	I	I	-			
Standard 10. Monitoring performance	PI	PI	PI	Standard 7. Monitoring performance	PI	PI	PI
Standard 11. Risk management	I	I	I	Standard 8. Risk management	I	I	I
Standard 15. Hypotheses, re-evaluations	NI	PI	I	-			
III. INFORMATION AND COMMUNICATION							
Standard 12. Information	I	I	I	Standard 12. Information and communication	I	I	I
Standard 13. Communication	I	I	I	-			
Standard 14. Correspondence and archiving	PI	PI	I	Standard 13. Managing documents	I	I	I
Standard 16. Signaling irregularities	PI	PI	PI	Standard 14. Accounting and financial reporting	NA		
IV. CONTROL ACTIVITIES							
Standard 17. Procedures	I	I	I	Standard 9. Procedures	I	I	I
Standard 18. Separating attributions	I	I	I	-			
Standard 19. Supervision	I	I	I	Standard 10. Supervision	I	I	I
Standard 20. Managing deviance	PI	PI	PI	-			
Standard 21. Continuity of activities	PI	PI	PI	Standard 11. Continuity of activities	I	I	I
Standard 22. Control strategies	I	I	I	-			
Standard 23. Access to resources	I	I	I	-			
V. AUDIT AND EVALUATION							
Standard 24. Control checking and evaluation	NI	NI	PI	Standard 15. Evaluation of the internal/managerial control system	PI	I	I
Standard 25. Internal audit	NA			Standard 16. Internal audit	NA		

I: implemented; PI: partially implemented; NI: not implemented; NA: not applicable.



IMCS has 11 annually updated compliance standards as follows: work procedures, risk register, job descriptions, staff training.