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

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26 **Abstract**

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

44

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

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**52 1. Introduction**

53 A hospital management system consists of all the elements (principles, rules, methods and  
54 decision-making procedures) that ensure the exercise of management functions (Donabedian,  
55 2003; Furtunescu and Mincă, 2010). By means of this system, hospital performance and the  
56 degree of achievement of objectives in terms of financing, out-turn and efficiency (economy  
57 of resources) (Mossialos et al., 2002) are defined. An important part of the hospital  
58 management system is the quality management system used for guidance and quality control.  
59 In accordance with the general principles of international good practices, control is not simply  
60 an action aimed at verification, but rather a key management function that ensures quality  
61 (Badulescu et al., 2015).

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

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

75 2014). Internal managerial control (IMC) is essential for attaining and maintaining the major  
76 goal of the pharmacy – that of conducting day-to-day activities quickly and well, under the  
77 specific conditions of the activity of an emergency hospital. Additionally, from an ecological  
78 perspective purchases and resources at the pharmacy level should always be managed towards  
79 a reduction in waste residues from hospital activity.

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

90

## 91 **2. Materials and methods**

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

99 A standardized evaluation questionnaire, used nationally and provided by the Ministry of  
100 Finance, was used to verify the stage of implementation for the IMC standards. Comprised of  
101 25 standards in the 2012-2014 period, and of 16 standards in 2015-2017, the questions were  
102 grouped under the five following headings: environmental control, performance and risk  
103 management, control activities, information and communication, and evaluation and audit.  
104 Each standard was built around three components: description of the standard, general  
105 requirements and main references. During the studied period, the hospital underwent  
106 important stages influencing IMCS: accreditation (Decision no. 68, 2012; no. 1.148, 2008)  
107 and quality certification (ISO certification, 2015) as well as internal audit of the hospital  
108 pharmacy (Order of the Minister of Public Finance no. 252 of 2004; no. 423, 2004; no. 1702,  
109 2005; Law no. 672, 2002); therefore, these processes were also analyzed.

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

112

### 113 **3. Results**

#### 114 **3.1. The control environment**

115 Thus, the control environment included six standards in 2012-2014 and four standards in  
116 2015-2017 (the two omitted standards were the sensitive functions and delegation) (**Figure 1**).  
117 In 2017, the Contractual Staff's Code of Ethics and Deontology (Crişan and Iacob, 2016) was  
118 revised. Since then, all pharmacy staff have been hired through competitive admission exams,  
119 and the number of personnel has grown steadily. Professional as well as personal skills led to  
120 their nomination as certifiably qualified in the aforementioned activity sectors. Each activity is  
121 conducted under the coordination of the chief pharmacist and other pharmacists. In addition,  
122 each employee takes training courses annually, and their professional performances are  
123 evaluated by their hierarchies.

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

135

### 136 **3.2. Risk Performance and Management**

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

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

146

### 147 **3.3. Information and Communication**

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

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

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

172



### 173 3.4. Control activities

174 The quality control activities included seven standards in 2012-2014 and three standards in  
175 2015-2017 (**Figure 7**).

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

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

194 The Nomenclature of Medicines reflects an optimal relationship between the different groups  
195 of drugs (those defining emergency intervention, new drugs on the Romanian pharmaceutical  
196 market and those contributing to high-level patient diagnoses). The medical director of the  
197 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

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

226

### 227 **3.5. Auditing and Evaluation**

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

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

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

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

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

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

256

#### 257 **4. Discussion**

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

262 The IMCS was set up in the hospital in accordance with the Order of the Ministry of Public  
263 Finance no. 946/2005, updated and republished in the Official Gazette of Romania, Part I,  
264 no.469/5 July 2011, as subsequently amended and supplemented. Starting in 2012, the IMCS  
265 commission was updated by decision of the unit manager; a new president was named and all  
266 the heads of sectors and/or departments were included. For the proper organization and  
267 functioning of the Monitoring Committee, Coordination and Methodological Guidance of the  
268 IMCS Implementation/Development, a Commission Operating Regulation was developed.  
269 Sub-committees were set up to implement the IMCS at the hospital compartment level in  
270 order to empower the staff to identify specific activities, to develop written (formal and  
271 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

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

302 The Oradea pharmacy completed the entire IMCS implementation process within the 2012-  
303 2013 period; therefore, in 2012, four codified procedures could be found at the pharmacy, to  
304 which the risk register and two more coded procedures were added in 2013.

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

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

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

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

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

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

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

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

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

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

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



370 waste disposal in the collection and disposal of waste; 4) identifying the risks and proper  
371 measures required to protect the personnel; 5) informing patients of the possible dangers  
372 generated by the mismanagement of medical/sanitary waste and 6) the final disposal of  
373 pharmaceutical wastes (known as the last stage of a pharmaceutical product) (Bungau et al,  
374 2015a) should be carried out under appropriate conditions, only by authorized operators, so as  
375 to ensure a minimum impact on the environmental health.

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

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

391

## 392 **Conclusion**

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

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

404

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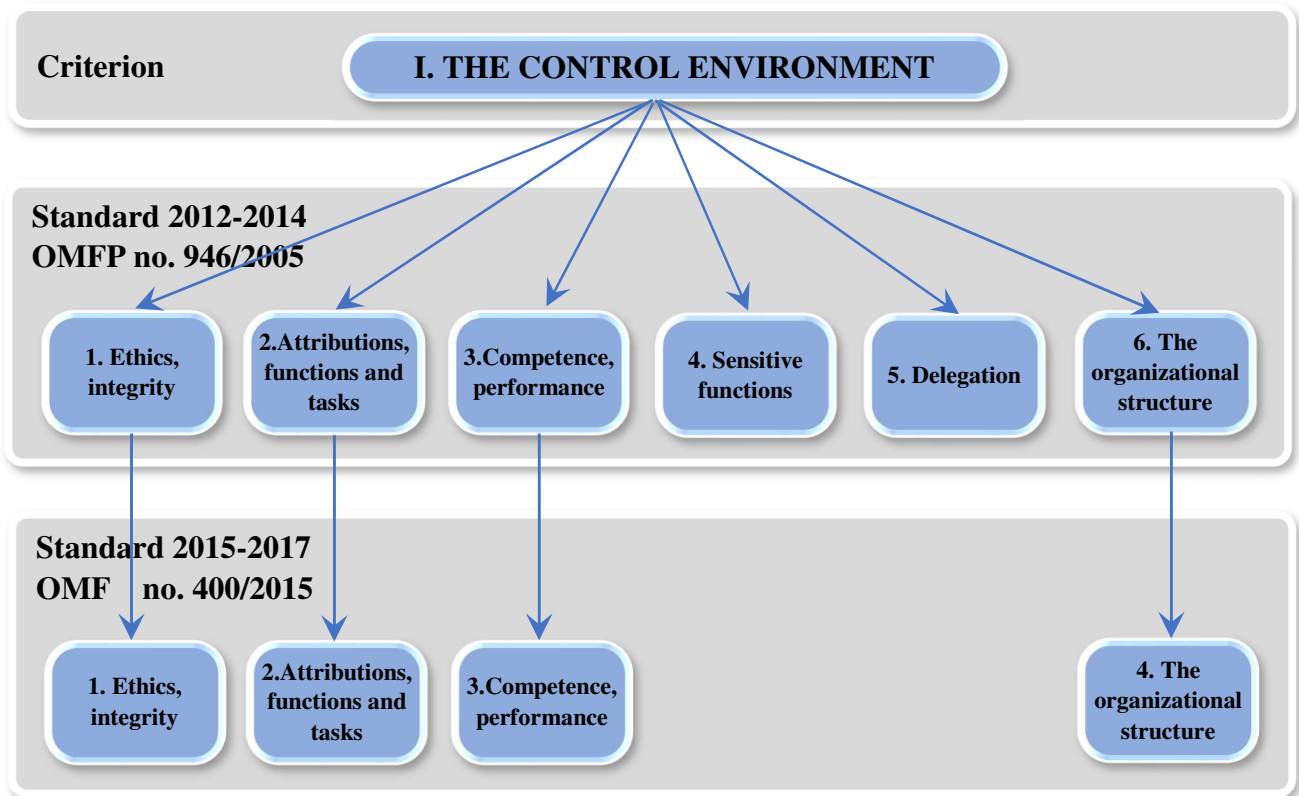


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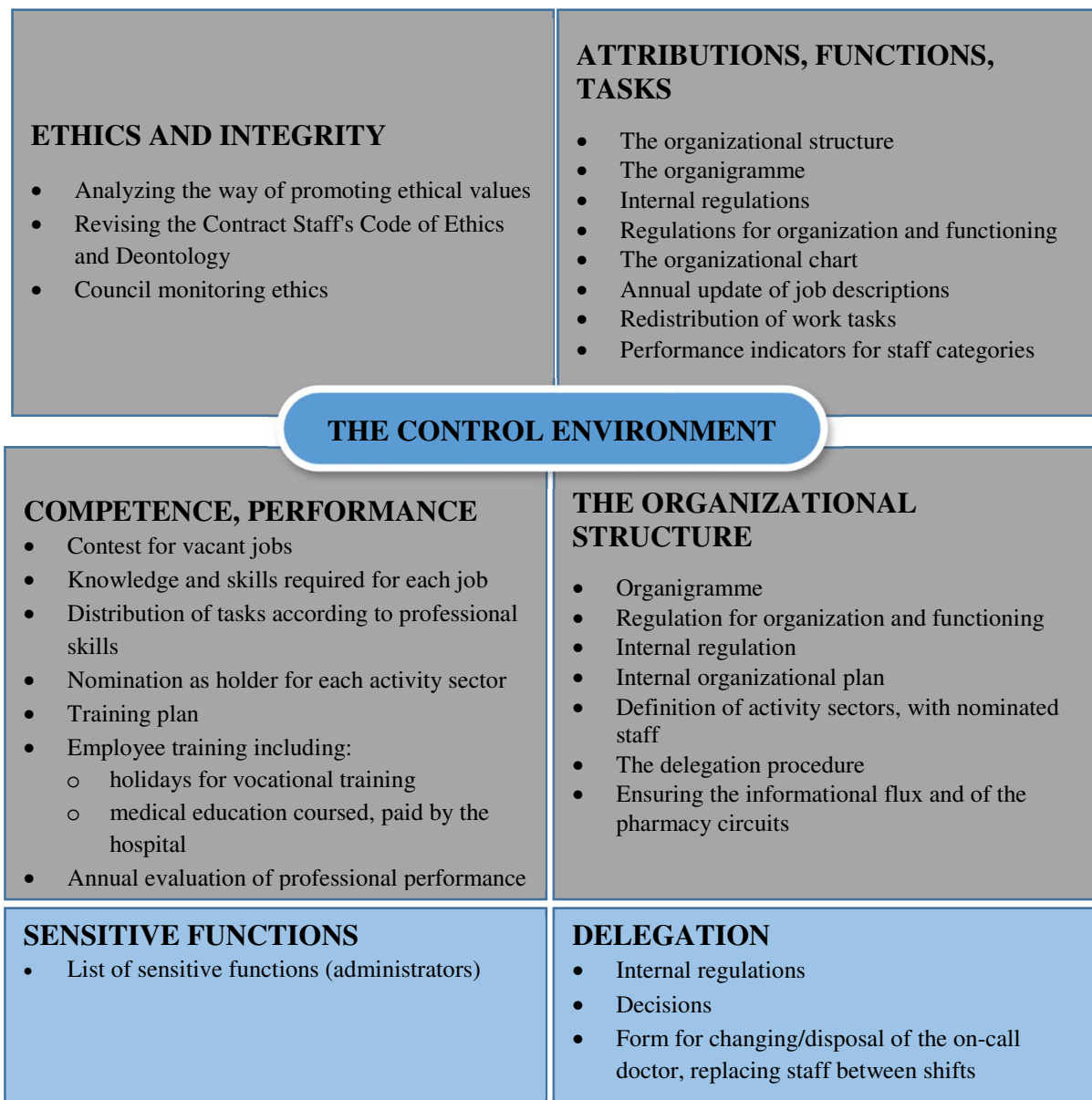


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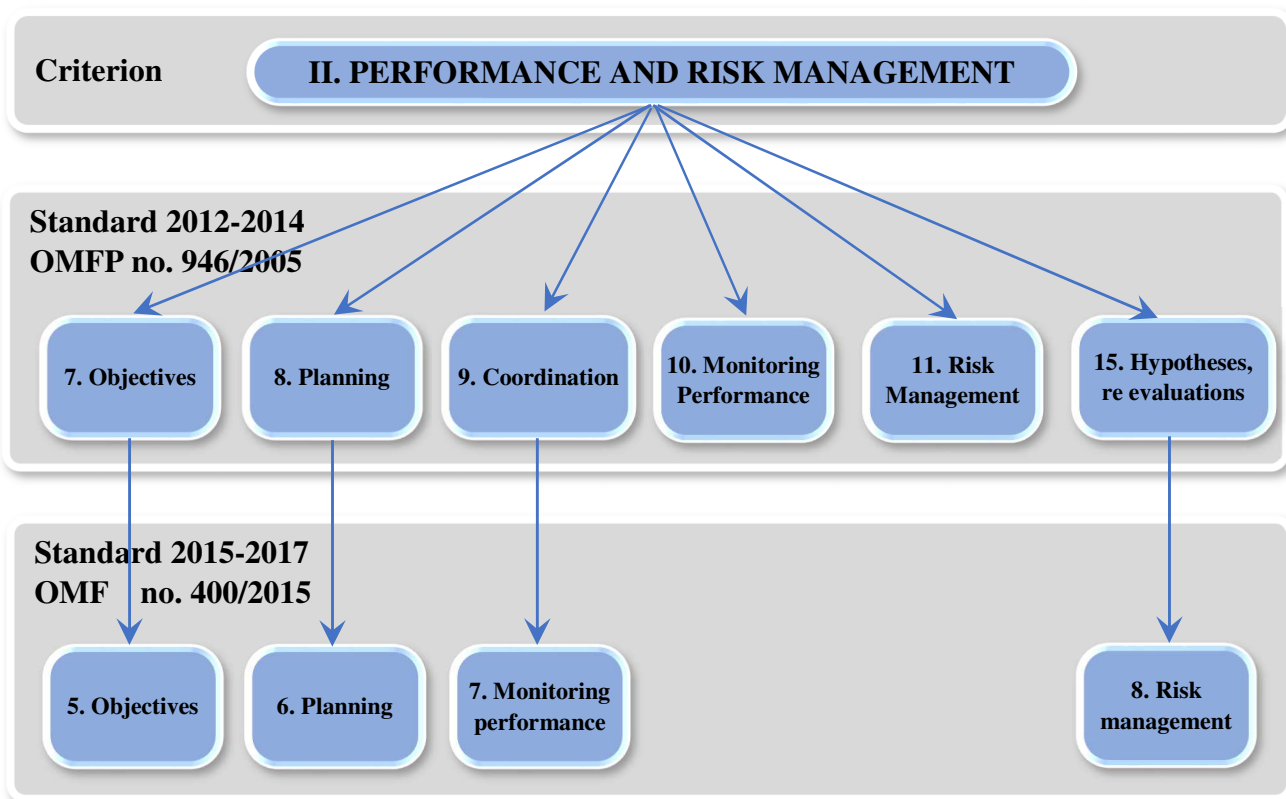


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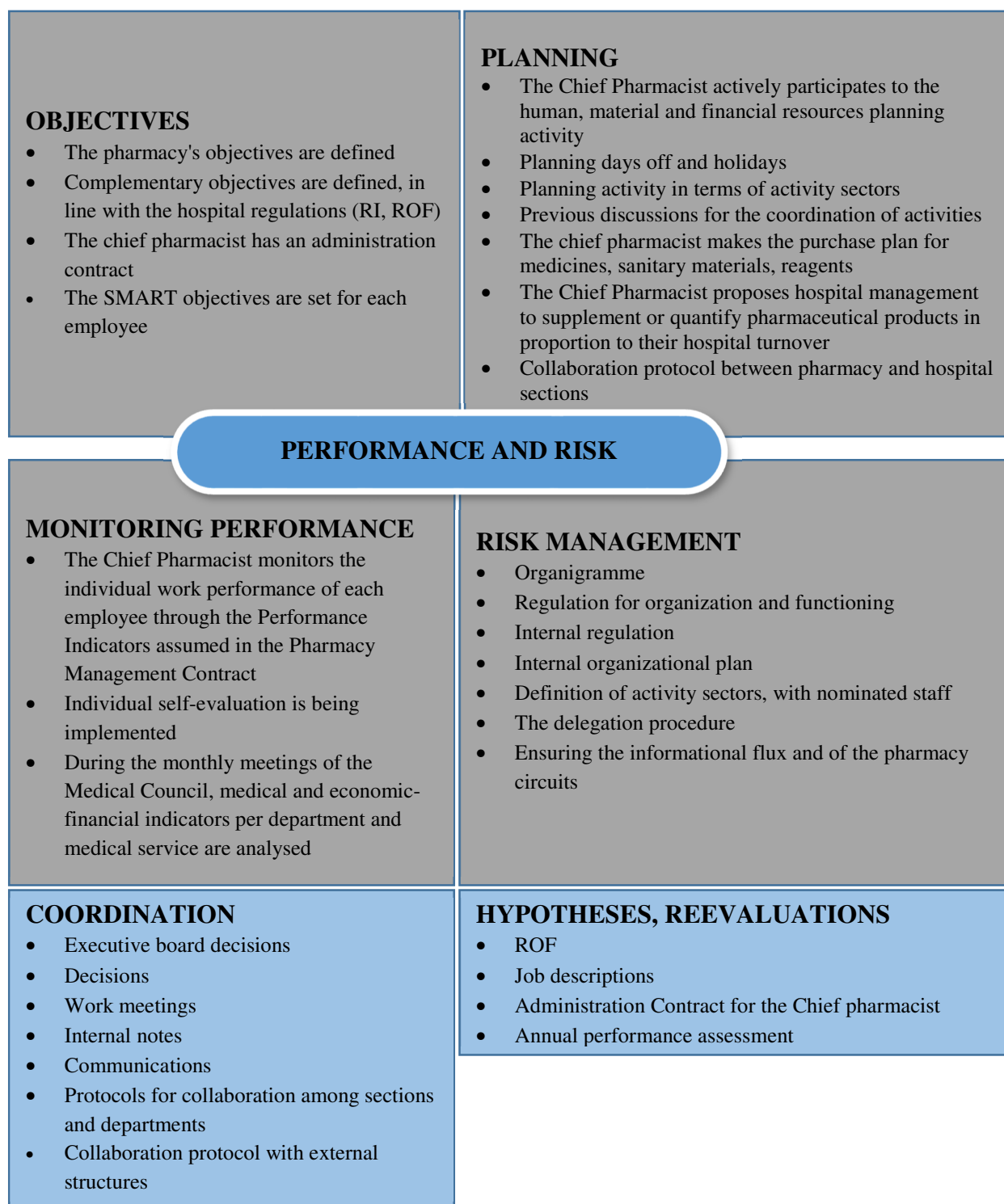


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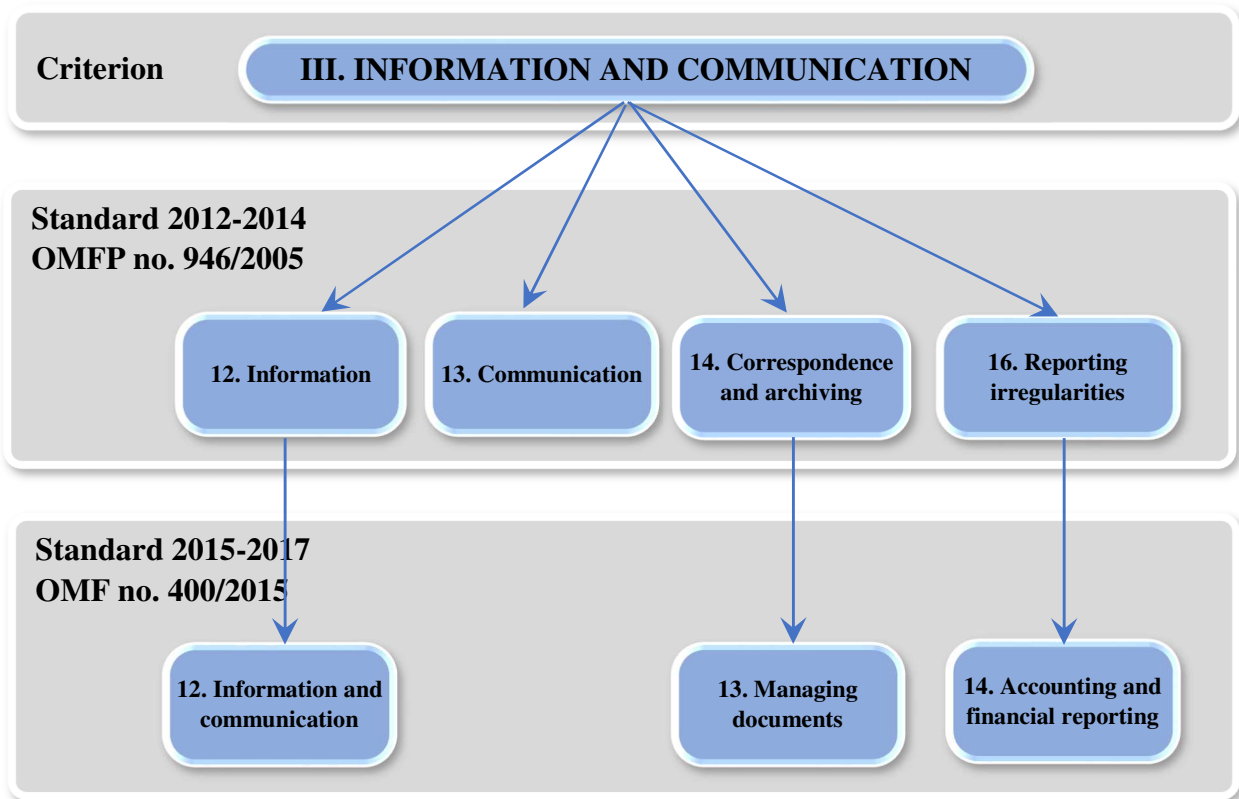


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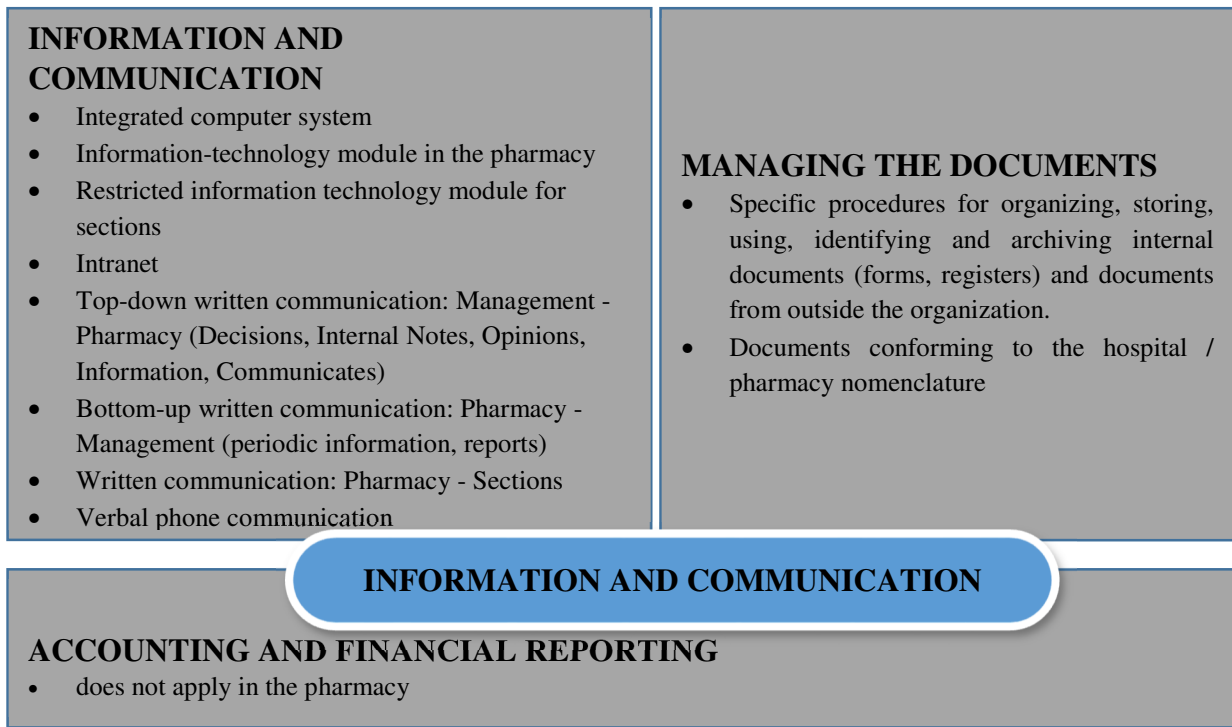


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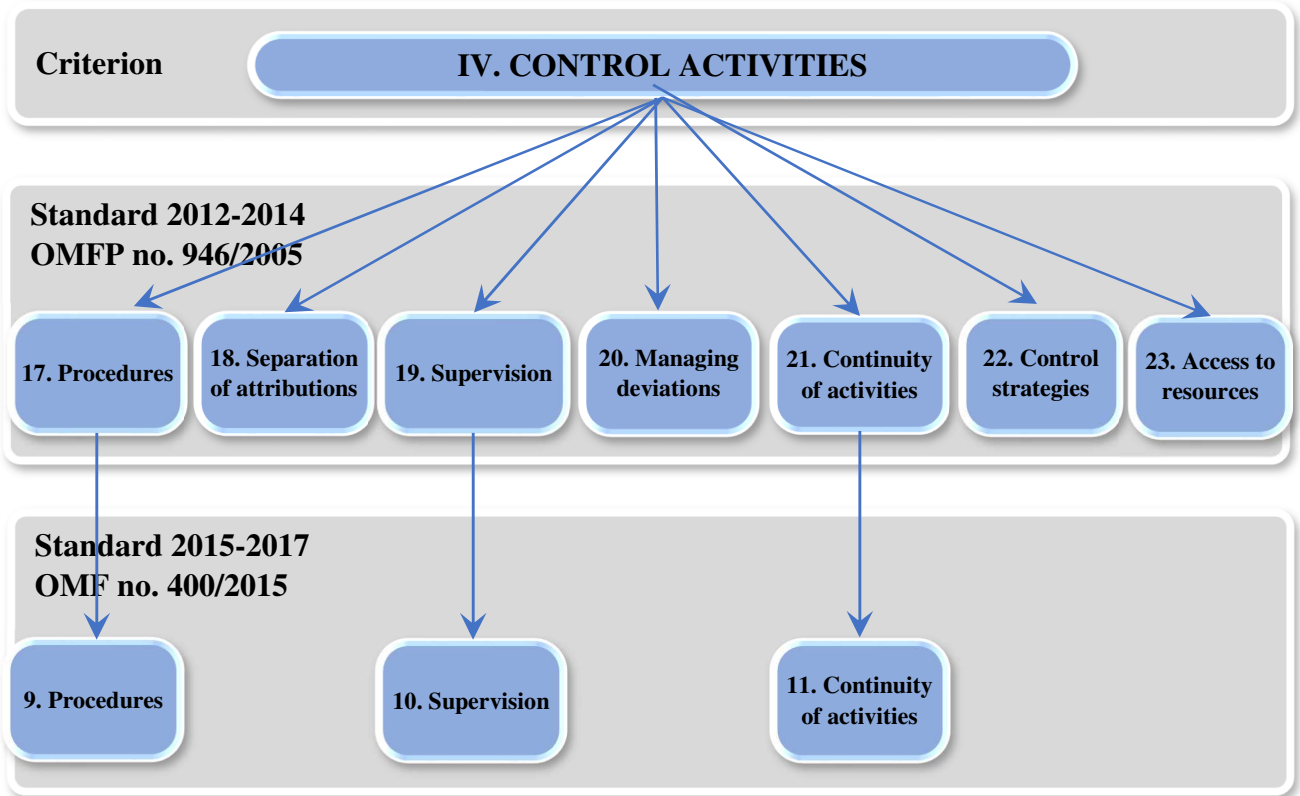


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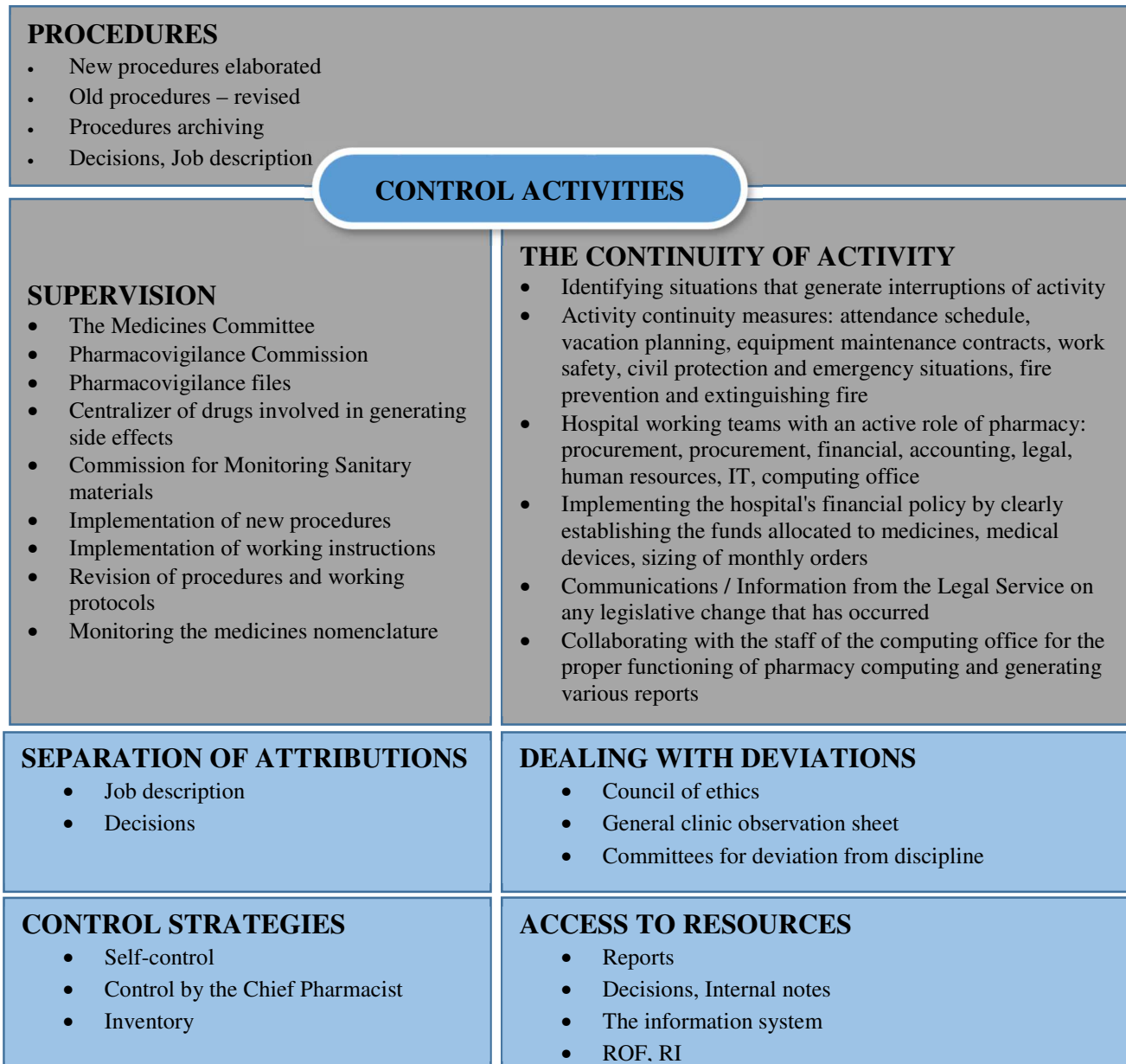


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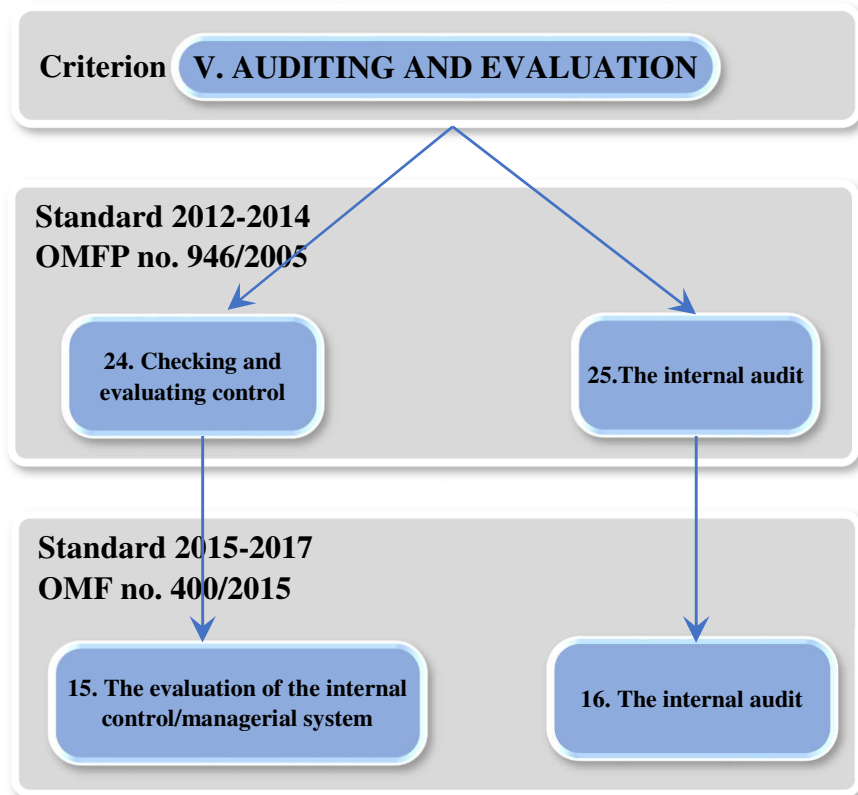


Figure 9.

## **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.

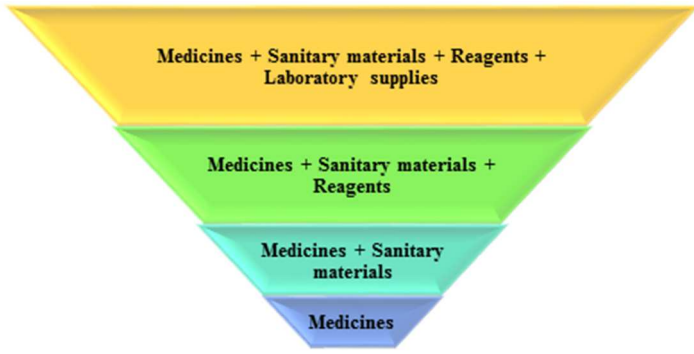


Figure 11

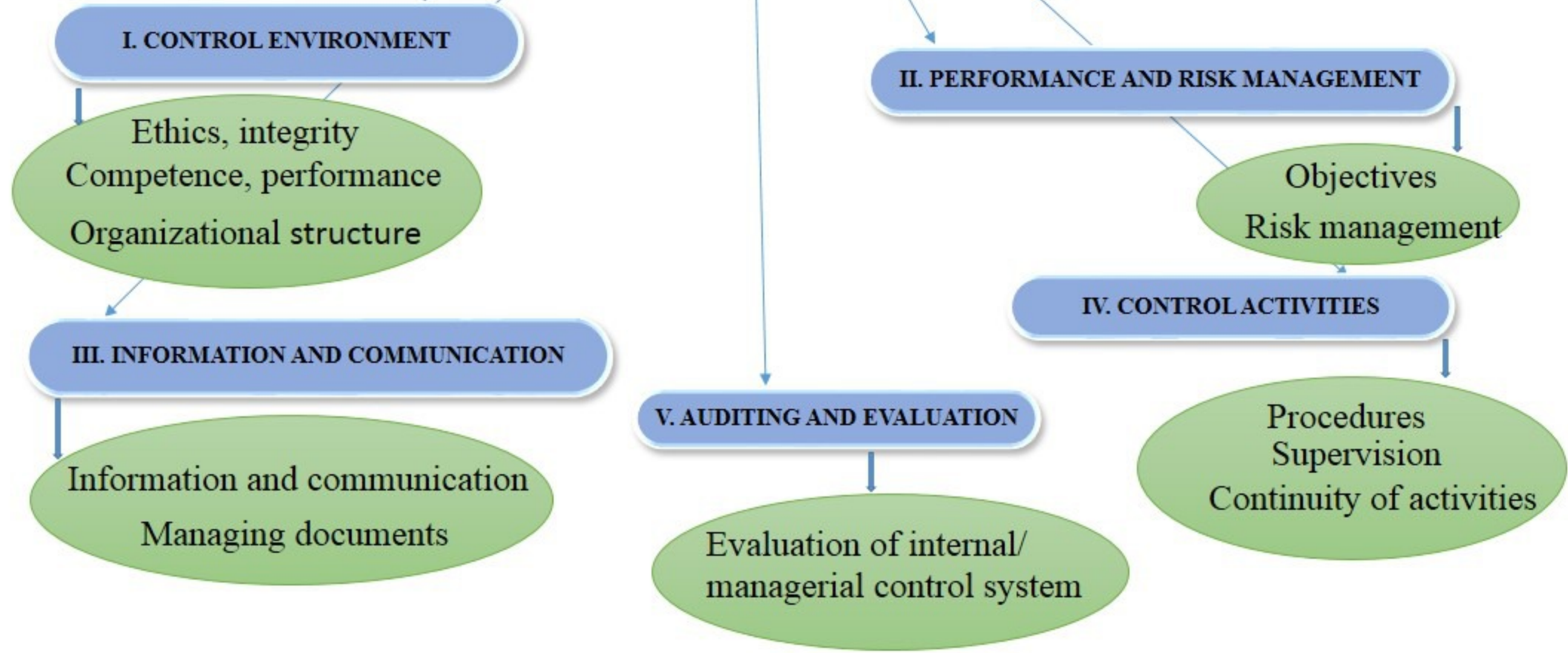
**Table I.** Implementation of SCMI standards in Oradea hospital pharmacy during 2012-2017

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			
<b>I. CONTROL ENVIRONMENT</b>							
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
<b>II. PERFORMANCE AND RISK MANAGEMENT</b>							
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	-			
<b>III. INFORMATION AND COMMUNICATION</b>							
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		
<b>IV. CONTROL ACTIVITIES</b>							
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	-			
<b>V. AUDIT AND EVALUATION</b>							
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** **Implementation** **Hospital Pharmacy**

2012-2017



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