Chapter 84
Information Security Standards in Healthcare Activities

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ABSTRACT

Information is mandatory in healthcare activities and in all that are related to it. In this same sense, people that deal with those information requires attention because patient´s information could be exposed. The use of directions stated by information security standards might allow a proactive attitude in the face of the diversity of threats that as the potential to explore the vulnerabilities of organizational assets. This article intends to recognize information threats and vulnerabilities that could be explored, using information security international standards to support the activities needed to assume information safeguard. Another intention is the establishment of a basis of references in information security to define a level of risk classification to build a referential to the potential that a given threat has to exploit the vulnerabilities of informational assets, preventing damages to personal and organizational property, and also activity continuity, assuming information as the main resource.

INTRODUCTION

Nowadays, information, one of the great challenges of societies, implies profound changes in the vast majority of institutions, not only in its functioning but also in people.

The quantity and diversity of information that is currently available and easily accessible by the emergence of an information society brings new and hard challenges. This type of society deals essentially with information and need people with appropriate skills and competencies to deal with it, using all available resources to assure that information is adequately used and, consequently, protected.

Facing the current context of social and economic globalization, in which a society based on the use of information emerges, it is important to use appropriate technologies and systems to serve institutions. This information systems and information and communication technologies (ICT) support can and should be used to conduct institutional development based on information.

As can be noted, information has seen growth in its importance within the institutions, being essential ensuring its widespread use. In this sense, the institutions, given the challenges and implications that arise from the modernization necessary to their development, require that its employees, experts or not, have the right skills for the use of information systems and ICT to support information needs.

Thus, security of information systems and ICTs is only a part of information security in an organization. Of course, the security of information systems and ICTs is important in the organizational context, mainly because information systems and ICTs are pertinent to support information acquisition, supporting, storing and sharing according to organization needs.

Nevertheless, taking simply information systems and ICT into consideration, information safeguard covers only a part of the whole problem, what implies that the approach to the security of organizational assets must be focused on whole organization, which means that security measures should attend to it.

In this sense, the people awareness and training about security are subjects that must be taken into account. This is so relevant as the potential impact of information on information systems and ICT usage, and also in the activities related to information about patient's health.

Because patient's data must remain confidential, organizations shall adopt information security policies to provide the appropriate protection. Those policies could use directives provided by information security international standards as ISO/IEC 27x family, in order to establish procedures and rules that correspond to organizational business needs.

With this paper, through the assumption that information is an important organizational asset, and that is of particular importance in the healthcare sector, is intended to make the appropriate recommendations for the establishment of a framework to support the establishment and implementation of information security policies that provide the adequate protection of information.

In this circumstance, also, by the nature of the asset information, consider the role of people who deal with this information and provide them with the necessary awareness of this problem, as well as with the education and training suited to each concrete context.

We must also, in addition to the identification and valuation of such assets, identify threats and vulnerabilities that can affect the assets, in order to assess the risk and, consequently, to its management.

Still intend to characterize what is meant by information security and their supports, getting to know the legal and regulatory framework to ensure compliance of security measures, with international information security standards, such as ISO/IEC 27x family, to support the main activities related to these objectives.

BACKGROUND

In a sector where main activities are conducted by people, as healthcare, the foremost resource relates to information about patient's life. In this sense, information needs to be adequately protected against misuse and disclosure of any kind.

Few years ago, health patient's data were essentially supported by paper, and the major problems was their handling and storage, this contributes to several difficulties in its usage. Nowadays, despite people are more awarded about information systems and ICT usage implications, data and information remain without appropriate attention related to their security.

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