

Component	Subcomponent	Description
D3.C1. Repositories and systems for an EHR	C1.1 Repositories and EHR systems	The purpose of the repositories is to consolidate different sources of information which generate the data of a Health Information System, so that it can be equally accessible from different places in the organization, or a different one. It is proposed to identify whether the health organization makes use of electronic clinical document repositories. It is even posited that the process of regional or national interoperability be instrumented by clinical repositories.
D3.C2. Identification	C2.1 Patient identification	It is recommendable to assign and manage a unique identifier for each patient attended within a specific jurisdiction. These identifiers are used to record the who, what and where of the clinical acts in the EHR. The identification records can provide additional information about the patient for addressing issues related to security and access. Likewise, it may be possible to access additional information about the person through these records: place of residence, occupation, among others. The starting point for the evolution of this aspect is usually some kind of local identifier (medical record number, for instance) up to the EMPI (Enterprise Master Patient Index), using a single, universal identifier enabling greater and better interoperability of clinical information.
D3.C3. Interoperability	C3.1 Clinical terminologies and classifications	<p>Within this section, it should be specified whether the organization is oriented to the use of clinical terminologies. A clinical terminology is a structured representation of clinical knowledge, which corresponds to a semantic definition of the different clinical concepts, descriptions, relations and characteristics, all within an ontological framework which is structured at the computational level.</p> <p>These terminologies include the representation of clinical knowledge in different categories (observations, illnesses, medicaments, substances, among others), and can be used in interfaces which implement natural language processing (NLP).</p> <p>Some of the principal international standards are: LOINC; for sections and documents: LOINC - types of document and sections; for pathological anatomy: SNOMED CT - morphologies, problems, localizations; for clinical findings: SNOMED CT, UMLS; for diagnoses, motives for consultation: CIE9, CIE10, CIAP; for procedures: LOINC, CPT; for nursing: NANDA (diagnoses), NIC (interventions), NOC (outcomes); standards for terminology server: HL7 CTS (Common Terminology Server).</p>

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	C3.2 Messaging standards and information exchange	Interoperability in a health organization is necessary given that the existence of different kinds of health information systems is very common. Given the specialist nature of health information, its workflows and functionalities, it is very frequently found that different providers have implemented their own solutions of HIS (Health Information System), LIS (Laboratory Information System), RIS (Radiological Information System) or PACS (Picture Archiving and Communication System), within a single organization. This is why the technical challenge which leads to benefits to patients and organizational efficiency is the integration of these different information systems.
	C3.3 Minimum Basic Data Set (MBDS)	<p>The Minimum Basic Data Set (MBDS) is a selection of clinically relevant variables which are picked up at the end or in specific points of time, previously defined, of a clinical episode (hospitalization, emergency care or primary healthcare visit).</p> <p>Usually the MBDS structure is defined by the system's steward authorities (Health Ministries). Besides the structure, regulation also defines how each variable, clinical or not, is codified. For the clinical variables, usually codification systems for diagnostics and procedures such as CIE-10, CIE-9-MC and so on are put in place.</p>
D3.C4. Control and informed consent	C4.1 Authorization of use of data	This component of the model is related with the processes and functions undertaken by the technology area to capture, store and communicate the different kinds of consents generated by patients or their partners/representatives. There are different situations in which the informed consent of the patient must be borne in mind as part of the authorizations for workflows in a healthcare environment.
D3.C5. Privacy and security	C5.1 Information privacy and security	As health-related information is of a sensitive nature for the actors who intervene in it, it is important to demonstrate that the health organization implements measures to preserve the data securely. Likewise, this section identifies and is interrelated with the regulatory provisions agreed by governing bodies in relation to access to and sharing information.

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	C5.2 Privacy and Security Standards. Cibersecurity	<p>In a health provider organization, it is more and more common for the processes to be bound up with IT devices and tools. Moreover, these components frequently need to be connected together and with the outside world. Given the sensitive nature of the clinical information handled by these components, it is necessary to implement mechanisms which secure against and prevent cybernetic attacks that could compromise the privacy and confidentiality of this information.</p> <p>Managing the security of health information is an essential element and should be proactive; it entails implementing a variety of organizational and technical measures addressed from different angles (legal, regulatory, technological, educational...) to ensure the protection of clinical information.</p>