

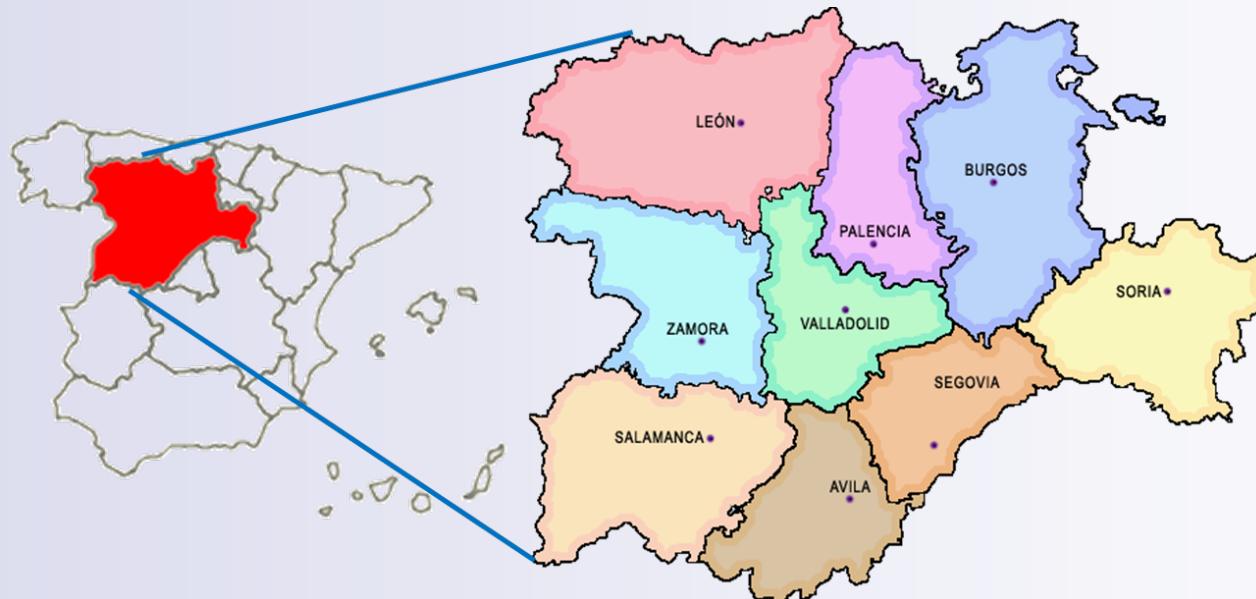
Clinical Terminology Governance

Experience Implementing a Clinical
Terminology Governance structure in a
RHIO

Overview

- Environment
- Clinical Terminology Governance
 - Purpose
 - Approach
 - Outcomes
 - Benefits
 - Lessons Learned
- References

Castilla y León Region



Facts & Figures

Extension: 94.226 Km²

Population: 2.563.521

Population density: 27,2 / Km²

Rural area density: 15 / Km²

Local Governments < 1.000 inhabitants: 88%

Ageing : 22,6 % >64 years old (16,9% Spain)

Life Expectancy : 82,82 years

Region

Healthcare
Facilities

11 Health Areas,
14 Hospitals,
247 Primary Care Centers,
3.652 Local surgeries ,
140 Emergency Mobile Units

- BITAC Clinical terminology company
- Provides strategic consultancy related to semantic interoperability
- Mapping and implementation services
- CAC Tools for automatic mapping of ICD10, LOINC and SNOMED CT in near future

Purpose

- Promoting the use of standards in HISS
- Centralized Terminological resources in RHIO
- Common methodology in procedures related to Clinical Terminology

Approach



Approach

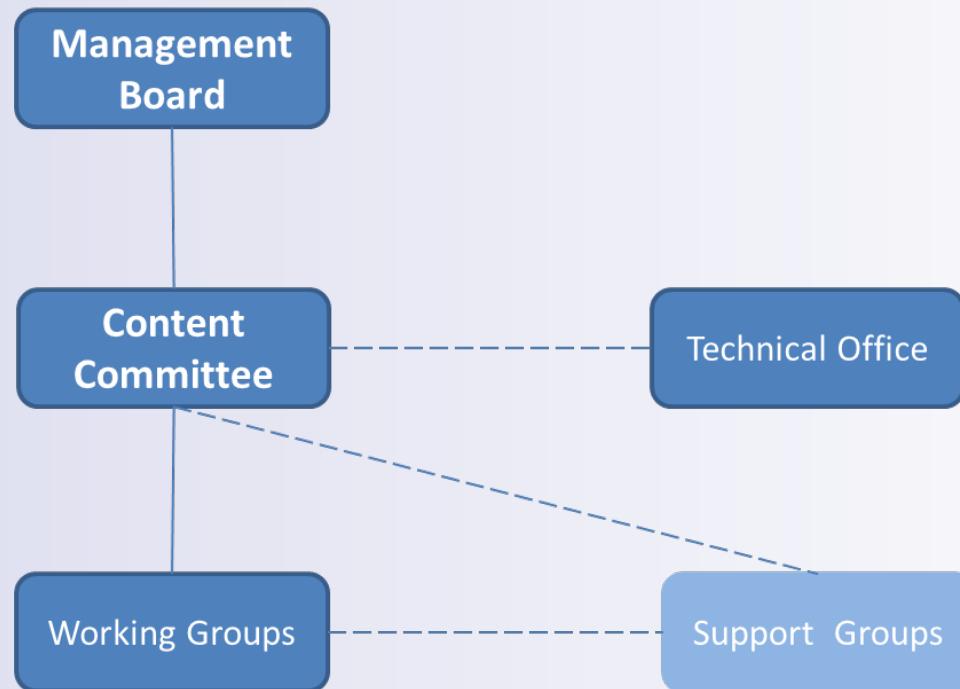
Expected outcomes

- Terminologies in use → Standard-Terminological Map
- Decentralized Terminological resources → Clinical Terminology Server
- Lack of uniformity in procedures → Terminology Map Procedures

Governance

Approach

Governance Model



Approach

Governance Model

Management
Board

- Define strategic lines , implementation plan and roadmap of actions
- Provide security /accessibility to semantic resources
- Marketing and training in the usage of standards
- Engaging all the stakeholders in the process
- Prestablished Communication channel with the NRC

Governance Model

Content Committee

- Identify working scenarios
- Define working guidelines and priorities
- Designation of Clinical Domain Expert committees
- Quality of terminological resources
 - Define methodology
 - Validation of terminological resources

Approach

Governance Model

Working Groups

- Analysis of Requirements
- Technical development and documentation
- Evaluation of contents
- Content validation
- Administrative tasks

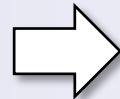
Technical Office

- SNOMED CT Extension management- WF for editing new terms
- Access permission
- Loading of terminologies
- Updates /Synchronization
- Mappings
- Documentation
- Communication with external IT systems

Outcomes

Outcomes

- Terminologies in use



Standard-Terminological Map

State of the art

- Terminology map “now”
- Terminology map “goal”

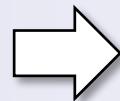
CÓDIGO	DESCRIPCIÓN	Origen	Término/Concepto	Actual	Recomendado	MARCO	Evaluación
1. AERIAS	Alergias	Alérgenos generales	PROFI	CE_X_MC	SNOMED_CT	NOMENCLATOR	
2. ALERTAS	Alertas	Sistemas de soporte de diagnóstico-terapéutico	NOMENCLATOR		SNOMED_CT		A valorar por CE (E)
3. ANATOMIA_PAT	Anatomía Patológica	Sistemas de soporte de diagnóstico-terapéutico	SNOMED_CT		SNOMED_CT		Estructura Corporal
4. ANTRICES_PERI	Antracitas peritoneales	Alérgenos generales	PROFI	CE_X_MC	SNOMED_CT		
5. ANTRICES_TICIN	Antracitas ticina	Alérgenos generales	PROFI		SNOMED_CT		
6. ANTRICES_PROF	Antígenos profesionales	Gestión clínica	CNO		SNOMED_CT		
7. CCE	Categorías clínicas	Gestión clínica	PROFI		SNOMED_CT		
8. CENTROS_AP	Centros Asistencia	Gestión de pacientes	PROFI		KAF[22]	NANDA	
9. DIAGR_INF	Diagnosticos de enfermería	Gestión clínica	PROFI		NANDA		
10. ENFERMERIA	Enfermería	Gestión de pacientes	NPI		SNOMED_CT		Hallazgo
11. HISTORIA_CLIN	Historia clínica	Gestión de pacientes	PROFI		SNOMED_CT		
12. INTERV_INF	Intervenciones de enfermería	Gestión clínica	DESA	IE	IE		
13. LAB_ANC	Laboratorio	Sistemas de soporte de diagnóstico-terapéutico	LOINC	LOINC	LOINC		
14. MEDICAMENTOS	Medicamentos	Terapéuticos	PROFI		SNOMED_CT		
15. MEDIC_NUCLEAR	Medicina Nuclear	Sistemas de soporte de diagnóstico-terapéutico	SEBR	SEBR	SEBR		
16. NIVITUS_ACTA_ME	Motivo del alta hospitalaria	Gestión de pacientes	PROFI	HL7002	CIM3[23]		
17. NIVITUS_ACTA_AP	Motivo del alta (LT)	Gestión clínica	PROFI		PROFI		
18. NIVITUS_INGRESO	Motivo de ingreso	Gestión de pacientes	PROFI		SNOMED_CT		
19. NIVITUS_INGRESO_AP	Motivo de ingreso	Gestión clínica	PROFI	HL7002	SNOMED_CT		A valorar por CE (E)
20. MUNICIPIOS	Municipios	Gestión de pacientes	IE	IE	IE		A valorar por CE (E)
21. PROBLEMAS	Problemas	Gestión clínica	PROFI		SNOMED_CT		
22. PROBLEMAS_INFRACT	Problemas activos/fracturas	Alérgenos generales	CE_X_MC		SNOMED_CT		
23. DIAGNOSTICOS_ME*	Diagnosticos	Gestión clínica	CE_X_MC		SNOMED_CT		Hallazgo
24. PROCEDIMIENTOS_AP	Procedimientos en Atención Sanitaria	Gestión clínica	CE_X_MC	CE_X_MC	SNOMED_CT		
25. PROCEDIMIENTOS_AP	Procedimientos en Atención Primaria	Atención clínica	PROFI		SNOMED_CT		
26. PROSES	Proses	Despersonalizado	PROFI		SNOMED_CT		
27. PROVINCIAS	Provincias	Gestión de pacientes	IE	IE	IE		
28. REGIONES	Regiones	Gestión de pacientes	SEBR	SEBR	SEBR		
29. RESULT_INF	Resultados de enfermería	Sistemas de soporte de diagnóstico-terapéutico	DESA	NOC	IE		
30. SERVICIOS_AP	Relación de los servicios disponibles	Alérgenos generales	PROFI		CFAR[24]		
31. TIPO_DOCU	Típo de documento	Gestión clínica	LOINC		LOINC		
32. TIPO_INFRAEST	Tipo de Infraestructura	Gestión de pacientes	PROFI	HL70007	SNOMED_CT		
33. TIPO_MATERIA	Tipo de Material	Sistemas de soporte de diagnóstico-terapéutico	PROFI		SNOMED_CT		
34. TRATAMIENTO_J_AP	Tratamiento	Sistemas de soporte de diagnóstico-terapéutico	OMS_F		NOMENCLATOR		
35. TRATAMIENTO_J_AP	Tratamiento/terapias	Alérgenos generales	NOMENCLATOR		SNOMED_CT		
36. VISIONES	Visiones	Alérgenos generales	PROFI		SNOMED_CT		

SNOMED CT as reference vocabulary

Outcomes

Outcomes

- Decentralized Terminological Resources



Clinical Terminology Server

Terminology Server Implementation

- Central Repository:
- Integration
- Administration

- Standard Terminologies SNOMED CT
- Other standards (ICD10, LOINC, NANDA, NIC, NOC, ...)
- Local terminologies
- Mappings between local and standard terminologies

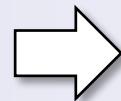
- WEB SERVICES communication
- Synchronization between systems

- Management of terminologies, classifications and local terminologies
- Publication of resources, editing
- Versioning and updates

Outcomes

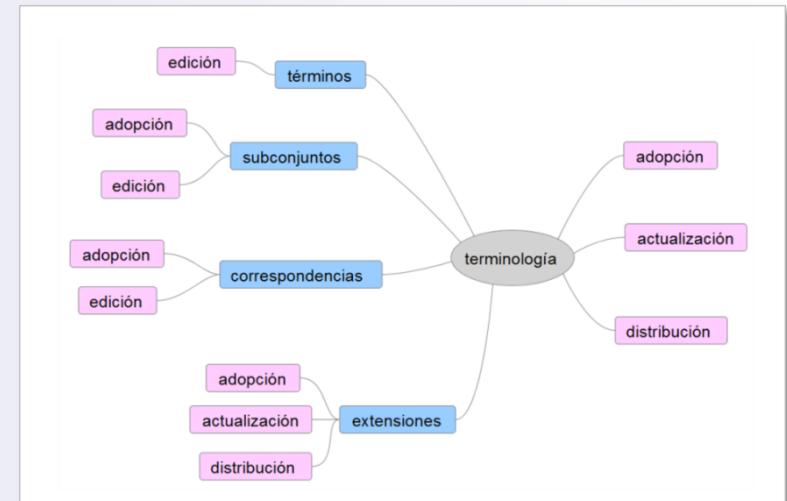
Outcomes

- Lack of uniformity in procedures



Terminology Map Procedures

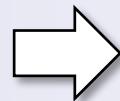
CONTENIDO	PROCESO
Terminologías	Adopción
	Actualización
	Distribución
Términos	Edición
Subconjuntos	Adopción
	Edición
Correspondencias	Adopción
	Edición
Extensiones	Adopción
	Actualización
	Distribución



Outcomes

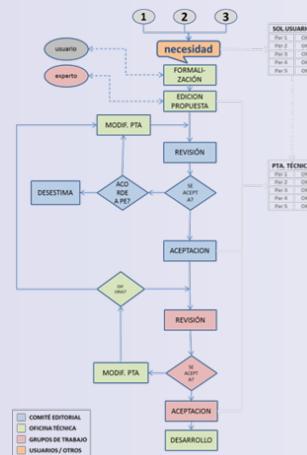
Outcomes

- Lack of uniformity in procedures



Terminology Map Procedures

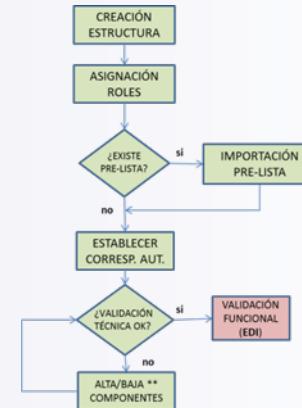
General



Subsets



Maps



Outcomes

Outcomes

■ Editorial Policy Guideline →

Common methodology in procedures related
to Clinical Terminology



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Benefits

- Use of standards → Semantic Interoperability
- Centralized Terminological resources → Integrated, synchronized and updated Terminology Resources
- Common methodology in procedures → Terminology Resources Quality

Reuse and analysis of healthcare information

Lessons learned

- Governance is the key
- Long term vision is essential
- The prize is worth the effort

References



Thank you