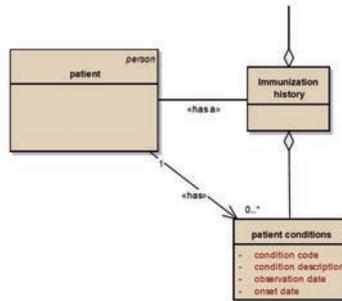




HL7 EUROPE NEWS



HL7 European Office
Square de Meeùs 38/40
1000 Brussels
Belgium
E-mail: EUoffice@HL7.org
Website: www.HL7.eu

NEWSLETTER

02



Legal Notice

Ownership and content

HL7 International Foundation
(European Office of HL7)
Square de Meeûs 38/40
1000 Brussels
Belgium
E-mail: EUoffice@HL7.org
Website: www.HL7.eu



Concept, design and realisation

Heitmann Consulting and Services | Max-Ernst-Str. 11 | 50354 Hürth, Germany
E-Mail: hl7@kheitmann.de

Photography

Fotolia.com © Gina Sanders, lakeemotion, a_korn, Kurhan

Copyright

Copyright © 2012 Health Level Seven International
3300 Washtenaw Avenue, Suite 227
Ann Arbor, MI 48104
USA
E-mail: HQ@HL7.org
Website: www.HL7.org
All rights reserved!

Contents

HL7 Launches Exciting Clinician Initiative	4
We welcome the Caregiver Community	5
Open days 2012 – The architecture of eHealth	7
A step towards an European eHealth space	8
HL7 Clinical Genomics Activities	10
13 th International HL7 Interoperability Conference	12
Joint HL7-GS1 workshop at MIE 2012	14
HL7 International Foundation in Europe: Goals and Objectives	16
HL7 Bosnia and Herzegovina	17
SemanticHealthNet	18
Austria – Germany – Switzerland: Cross border Cooperation for the Development of Standards and Profiles for eHealth Projects	20
ISHEP conference: Interoperability and Standards in Healthcare – European Practice	25
HL7 UK: University Outreach Programme	26
Spotlight in HL7 Romania	27
Calendar of Events	28
HL7 Affiliates in Europe	29

by Don Mon

HL7 Launches Exciting Clinician Initiative



Relevance, change, growth, and unity — those are the top priority principles for HL7 in the next two years. As I mentioned in my Chair's Report at the January Working Group Meeting in San Antonio, TX, USA, HL7 must work towards increasing our relevance to the healthcare industry in all of HL7's realms. To that end, HL7 has launched an exciting initiative that seeks to increase clinician participation in HL7 activities, and set up both a program and an environment that will make their experience satisfying and worthwhile.

This clinician initiative is comprised of two main components:

- (1) a new pilot Caregiver membership category, and
- (2) other HL7 programs that, while open to both members and non-members, have particular relevance to clinicians.

New Caregiver Membership Category

The soon to be offered Caregiver membership category is intended to attract, leverage, and serve the needs of the Caregiver community. This category will be open to physicians, nurses, pharmacists, and other licensed professionals who are directly engaged in providing care to patients and who work for non-commercial organizations (i.e., hospitals and clinics, as opposed to software suppliers). Recognizing the tremendous value that Caregivers can bring to the standards development process, this type of membership offers Caregivers a direct channel to tell HL7:

- (1) what functions they'd like to see in EHR, clinical, and administrative systems,
- (2) what clinical, business, workflow, and usability requirements they think electronic systems should have,
- (3) what data needs to be collected and what data standards will actually facilitate their work rather than add to their data collection burden, and so on.

In return, Caregiver members will benefit in the following ways:

- *Better standards, better products for them to use.* Their voice will improve the quality and practicality of HL7 standards and the products that use them.
- *Networking and unity* with other caregivers who share their passion, and building their network to include technical professionals who are involved in standards development.
- *Knowledge, intelligence and insight* about how standards and standards-based products and health information exchange can support their practice and improve quality.

At the September Working Group Meeting in Baltimore, MD, USA, there will be a forum early in the week for all first time attendee Caregivers to meet with HL7 leadership. An orientation to HL7 will be provided followed by an open discussion about how best to leverage Caregivers in the standards development process, and what HL7 can do to address their needs. Some clinicians may wish to stay at a high, non-technical level. HL7 can accommodate them by creating a Work Group or a process (to be determined) that engages them at that level. Others may

want to engage in one or more of the technical committees. If so, they can be easily assimilated into the Work Group(s) of their choice, and participate in that WG for the rest of the week.

To make the HL7 experience a satisfying one, we would like to come up with better ways in which a new Caregiver (and other first time attendees) can ease into the standards development process. If you have some ideas about how to help Caregivers assimilate easily into HL7, please forward your ideas to Karen van Hentenryck (karenvan@HL7.org).

This membership category will be released upon Board approval. Expect an announcement soon, along with the URL for the Caregiver membership category webpage. More importantly, spread the word to clinicians in your realms and encourage them to join HL7.

Limited Access to Licensed HL7 Intellectual Property at No Cost

As you may have seen from HL7's press release during the Health Information Management and Systems Society (HIMSS) Annual Conference in February, HL7 is making its Domain Analysis Models (DAMs) and Functional Profiles (FPs) available at no cost. DAMs and FPs are the artifacts that contain clinical and business requirements or that specify the functionality of EHR systems for a variety of clinical settings. Thus, these are exactly the right level of artifacts for clinicians to consume and contribute to, whether they join HL7 as Caregivers or not. So, please help spread the word to the clinicians you work with, and let them know how these artifacts can be a rich resource for them, as well as something they can further develop over their next scheduled releases. DAMs and FPs can be accessed at:

<https://www.hl7.org/store/index.cfm?item=DAMFP>

Look forward to seeing you at the May Working Group Meeting in Vancouver, BC, Canada!

Don Mon

Chair, HL7 International

We welcome the Caregiver Community

For over two decades, HL 7 has been the byword for the interoperability of health information. It has been estimated that nearly 60 billion V2 messages are exchanged worldwide every year. And yet, Health Level 7 has been a rarely spoken name among healthcare providers... until now.

With an innovative approach to caregivers, HL7 plans to expand its reach beyond the traditional stakeholders in the healthcare IT community. HL7 wants to be the voice of the clinicians who deliver the care. Our initial approach will be to reach out to the physicians, nurses, pharmacists and therapists who directly serve the needs of the patient.

As a pilot, HL7 has defined the new Caregiver category of membership. At a significantly reduced rate, these individuals will have first-hand exposure to the technology and the standards that drive their clinical summaries, laboratory re-

by Charles Jaffe



sults, prescriptions and public health data. They will be able to participate in classroom activities and workshops, interacting with those who design the systems and who author their standards.

... with an innovative approach to caregivers, HL7 plans to expand its reach beyond the traditional stakeholders in the healthcare IT community...

Perhaps as critically important to HL7, these caregivers will share their unique knowledge of clinical workflow, business requirements, clinical decision support, and access to images and lab data. We will learn from them about usability requirements, graphical interface needs, and care delivery, all of which will enable more efficient and productive development of technical solutions.

Initially, there will be a unique Caregiver web presence, accessible from the HL7 home page, providing content and educational materials. In addition, we have partnered with two vendors and several professional societies to foster better understanding of electronic health records, electronic prescribing systems, and lab reporting technologies, supported by Caregiver input and evaluation. In addition, plans are underway for the development of portals to educational tools and even to the highly successful distance learning programs.

In both the nursing and physician communities, with an increasing worldwide audience this concept is quickly gaining traction. These professionals are also eager to contribute to the accelerated implementation of systems and application of best practices. As quality reporting grows in importance, many caregivers have expressed an interest in the systems and methodologies upon which their evaluations (and perhaps compensation) are based.

Other growing areas of HL7 will impact these Caregivers directly. For example, complaints about alert fatigue, often created by clinical decision support systems, is a prominent problem recognized by many of the professionals in the care continuum. In addition, with the growth of rapidly evolving diagnostic paradigms, such as genetics and genomics, the expansion of care predicated upon evidence-based medicine comes closer to reality. With even greater enthusiasm, these HL7 Caregiver members are expressing a strong interest in the new and yet to be defined Mobile Health Workgroup.

We expect our first face-to-face meeting of the Caregiver members to take place in the September Workgroup meeting in Baltimore. We have already heard of the growing interest amongst professionals from Europe, Latin America and Asia. It will certainly be a teachable moment for the HL7 leadership and educators, when confronted with this new audience of students. We also should be prepared to learn from them, as they provide insight into the needs and expectations of this unique community.

*Charles Jaffe, MD, PhD
CEO, Health Level 7 International*

The architecture of eHealth

HL7 Italy will organize in June (7-8) the HL7 Italy Open Days in Rome. The subtitle of this 2012 edition is “The Architecture of eHealth”. The event is co-hosted by HL7 Italy and Invitalia.

The mission of the next edition is centered in overcoming the vision of HL7 only as a messaging standards and consider it as an architecture for interoperability that resolves several business problems of healthcare.

Our message is that a messaging standard per-se is not enough without a real architectural approach. If organizations use HL7 messaging/document standards we are surely happy (as HL7 peoples), but without an architecture (business, services and systems, implementations) the organizations simply do not catch their objectives.

The 2012 edition of OpenDays explores the use of HL7 standards starting from the architecture viewpoint. Services, Interoperability Framework and Functional Model frequently are perceived as marginal practices, but today this “marginal practices” move to the center of our concern. The focus, traditionally, is devoted to high level strategy aspects that jump into technical aspects of interoperability: this is no more viable in our world.

In Italy, recently, the new Monti’s government has started to create a new legislative framework for eHealth that aims to “homogenize the access to the information related to the health state of citizens within the national territory”. This kind of objective should take in account the design from multiple viewpoint. Organizational and technical aspects must be defined and fully integrated. HL7 messaging and CDA 2 are surely a cornerstone but, simply, a cornerstone is not a building and, besides, a cornerstone cannot help us, alone, to design a building.

As users and designers of technology, we should leave the prejudice that interoperability can be considered as a traditional application development and mainly as a technical question. We think that HL7 Services (HSSP), Interoperability Framework (SAIF) and Functional Models (EHR-S) build a pervasive approach that changes our vision of eHealth that “... needs to be owned by the business and not IT”.

OpenDays this year outlines a survey of this evolution with practical examples given to us by international and national speakers as Ken Rubin (SOA WG co-chair, USA), Harold Solbrig (Mayo Clinic, USA), Jörg Caumanns (Fraunhofer Institute, Germany), Ana Esterlich (Phast, France) and some Italian projects linked with this bias. A special attention will be given to the understanding of terminology services, as a key element in a real service aware architecture.

The OpenDays 2012 will be co-hosted by HL7 Italy (www.hl7italia.it) and INVITALIA - Government Agency for Inward Investment Promotion and Enterprise Development (www.invitalia.it)

Welcome to the Open Days!

Stefano Lotti
HL7 Italy Chair



HL7 Italy OpenDays 2012
7-8 June The Architecture of eHealth
Auditorium Invitalia - Rome - via Calabria 46

A step towards an European eHealth space

epSOS (Smart Open Services for European Patients) (www.epSOS.eu) is a Large Scale Pilot EU Project involving 23 different European countries (20 EU member states and 3 non-EU member states). epSOS attempts to offer seamless healthcare to European citizens for Patient Summary and e-Prescriptions. Key goals are to improve the quality and safety of healthcare for citizens when travelling to another European country. This project, started on July 2008, is now in its phase 2 and it will end on December 2013.

epSOS project defines:

- a legal framework for an European eHealth space.
- an architecture for assuring a safe medical data cross-country exchange;
- technical specification and a pilot implementation of the National Contact Points (NCP), the gateway that connect national infrastructures to the epSOS network
- specification for the documents exchanged in the epSOS network based on HL7 v3 and CDA 2 standards
- the management of the organizational, legal and technical aspects needed for realizing such a Large Scale Pilot: conformance gates, testing (Projectathons, Pre-Pilot-Tests) and go live management of the European infrastructure.

A huge effort has been accomplished by all the countries involved for overcoming the several legal, semantic, technical, security, organizational issues that the project had to face. Countries involved in the 1st go-live wave (Austria, Italy, France, Spain, Denmark, Greece, Sweden, Slovakia, Czech Republic) passed the Pilot Conformance Gate criteria – covering dissemination, evaluation, training and technical milestones – and are going to release in production and start the evaluation phase.

The epSOS phase 2 enlarges the scope of epSOS phase 1: extending the defined services in new business scenarios (return of information to the country the patient comes from; medication overview; 112 and patient access scenarios); covering the epSOS pilot with more participating nations and raising epSOS phase 2 to a more maturity of the operated pilot services.

Many lessons concerning the cross-borders semantic interoperability and services, on specifications, on legal and organizational aspects, was learned in epSOS, including:

- the necessary service oriented architecture of epSOS requires well established service specifications and standards with a clear separation of concerns between services and implementations. This separation of concerns among National infrastructures, epSOS specific components and epSOS interfaces has been achieved but should be strongly enforced.

■ even though HL7 standards as well as CDA 2 have proven to be a cornerstone for their flexibility and adaptability, some semantic lacks have been experienced – for example – due to the unavailability of coded and structured data within national infrastructures, as well as some issues in mapping local concepts on a common terminology. Due to the absence of an European Medicines nomenclature, some limitations on medicines description capability have been experienced as well. Moreover, in rendering the not known, or the not available information to the end users, even if technically correct, some business problems came out, because sometime they were not clearly understood by Health Professionals.

Hence, we learned that we need to evolve the approach on specification design. A project like epSOS cannot be developed as a traditional application development project. Interoperability project requires a framework to avoid the traditional mixing of business and technical specifications and the specifications themselves must be effectively maintainable and evolvable. Each traditional deliverable often provide a single view on a multi-dimensional systems design. An interoperability framework was therefore taken in account in epSOS extension, planning a general de-composition and re-composition of the existing deliverables content into a clear multi-layered structure. The epSOS choice is to adopt HL7 SAIF and especially the ECCF (Enterprise Conformance and Compliance Framework) Specification Stacks.

In conclusion, epSOS demonstrated that an European eHealth space is fully feasible involving participating Nations while preserving their characters. A really valuable – and hard to get - result has been thus reached, having arrived at a technical, organizational and legal set-up of a real working pilot cross-countries Health Information Exchange Environment through the participation of 10 nations. Nevertheless even more important objectives have been achieved by this project in:

- (1) creating a European expertise network on cross-countries eHealth, where business and technical experts from different countries worked shoulder-to-shoulder cooperating with other projects and SDOs
- (2) recognizing the relevance of an European enterprise/interoperability architecture
- (3) finally, collecting a unique cross-countries semantic interoperability wealth of experience, based on an existing proof of concept implementation, that may be shared for building up a future real working European eHealth Environment.

The first step of an European eHealth space is simply real.

Giorgio Cangioli, PhD
HL7 Italy CT, International Council representative on the HL7 TSC

Stefano Lotti
HL7 Italy Chair

HL7 Clinical Genomics Activities



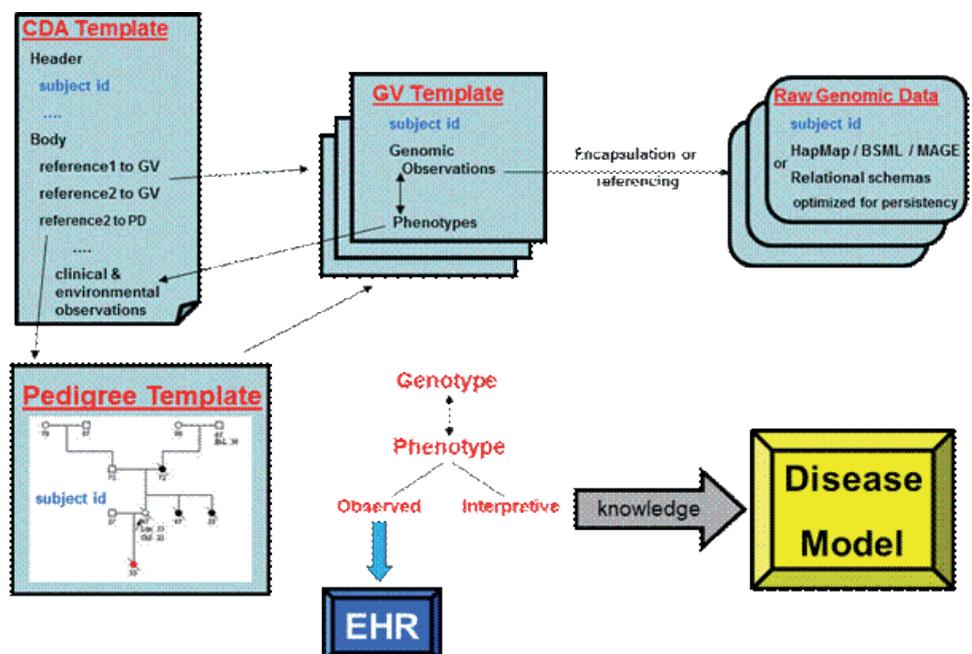
The HL7 Clinical Genomics Work Group creates data standards that enable the exchange of personal genomic data between interested parties, including bio-medical research, pharmaceutical companies, genetic testing laboratories, health-care providers and any stakeholder of personalized medicine. The HL7 Clinical Genomics standards enable the encapsulation of raw genomic data in its native formats, alongside the meaningful association of key elements of the raw genomic data with phenotypic information (e.g., relevant clinical information). The standards are available in different resolutions and flavors: HL7 v3 information models capable of raw data encapsulation; HL7 v2 messaging for genetic testing results piloted in clinical environments; Clinical document templates for genetic testing reports based on the HL7 Clinical Document Architecture (CDA) standard; and finally – the HL7 v3 Pedigree standard for conveying full-blown family health history, properly structured for meaningful use (e.g., risk assessment algorithms).

The Clinical Genomics Work Group has a number of activities which are described in more detail in the HL7 International newsletter. These activities span clinical and research environments and deal with common genetic variations testing as well as cutting edge technologies such as gene expression assays and whole-genome sequencing. In addition, the group is active in standardization of unique use cases such as tissue typing for bone marrow transplantation.

In Europe, several pilots have been conducted and two of them are described below.

Hypergenes

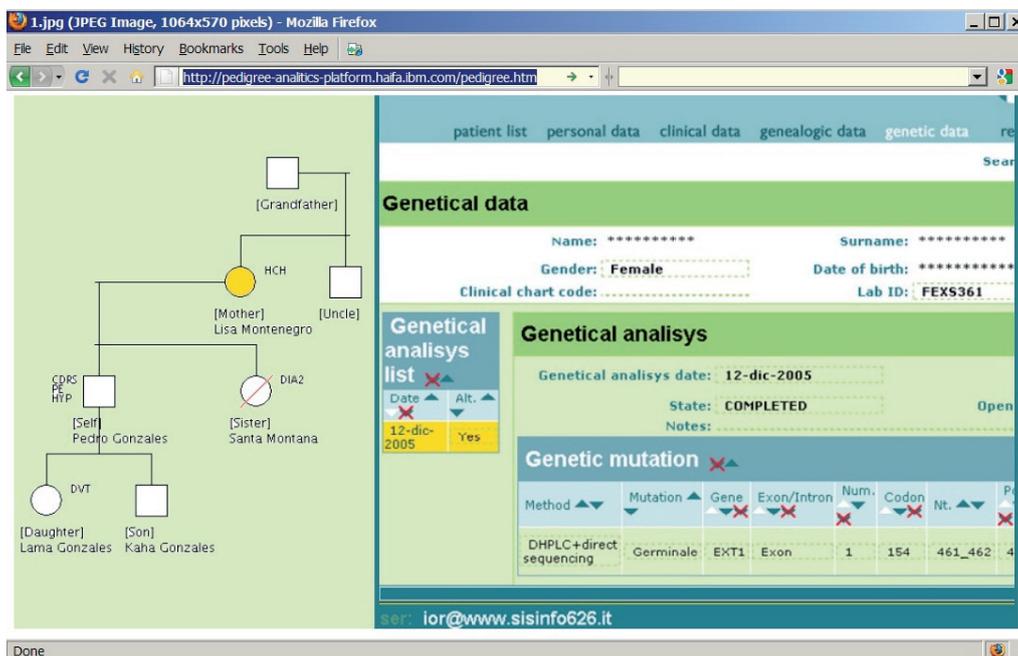
The EC FP7 Hypergenes IP project aimed at building a method to dissect complex genetic traits using essential hypertension as a disease model. Essential hypertension is one of the major risk factors for cardiovascular diseases. Over 12k subjects (both hypertensive and normotensive) went through 1M SNP genotyping in order to conduct a genome-wide association study exploring rich set of clinical and genomic data sets. As part of Hypergenes, a Biomedical Information Infrastructure has been developed based on HL7 standards, mainly the Clinical Docu-



ment Architecture, and the Clinical Genomics specifications (i.e., the Genetic Variation and the Pedigree specs). The standards were used for the data integration from about thirty different cohorts, and for making research results readily available to physicians at the points of care. In particular, the clinical data set was standardized by a CDA template developed especially for essential hypertension, linking to family history data using the Pedigree spec. The SNPs found positively associated with essential hypertension were represented using the Genetic Variation specification.

BioMIMs

Rizzoli Orthopaedic Institute, the leading Italian institute of orthopedics and traumatology, treats patients from all over Europe with rare hereditary Orthopaedic diseases that run in the family. Together with Rizzoli, IBM Research Lab in Haifa developed the BioMarker Imaging Management Solution (BioMIMs) that



integrate clinical, genomic and imaging data. Imaging biomarkers hold tremendous potential for accelerating the development of pharmaceuticals and therapeutic devices, as well as for improving the quality of patient care. Moreover, the rich and complex use cases provided by Rizzoli, fully exploit BioMIMs capabilities to manage phenotypic, genomic, and imaging data in a standard way. The BioMIMs platform supports sophisticated analytics and queries, with special emphasis on pedigree visualization, given the hereditary nature of the diseases affecting Rizzoli's patients.

The BioMIMs design is centered on the family health history, allowing clinicians to treat the entire family by browsing the pedigree and focus on family members that need care. BioMIMs manages imaging biomarkers based on healthcare standards, in particular the HL7 Clinical Genomics Pedigree standard and its underlying core genomic models.

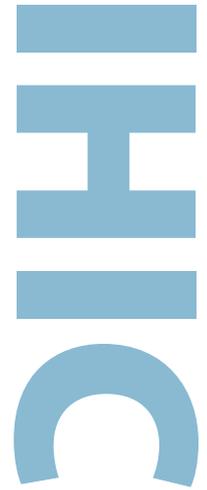
Amnon Shabo (Shvo)

Co-chair of Clinical Genomics and RIMBAA Work Groups



Infrastructure for Interoperability –
Science for real world applications

13th International HL7 Interoperability Conference



Call for papers

HL7 Europe is proud to announce the 13th International HL7 Interoperability Conference (IHIC) held 27th-28th September 2012 in Vienna, Austria.

The IHIC is a forum for scientists and implementers to present and discuss concepts, models and implementations for innovative interoperable e-Health solutions. The conference also aims to play the role of an interface between science, research and real world.



We invite scientists and implementers to submit papers to be presented in the conference and be published in the conference proceedings. All papers will be reviewed by at least two reviewers. Selected papers will be published in the special issue “Standards and Solutions for eHealth Interoperability” of the “European Journal of Biomedical Informatics”. The best paper of a young author (< 35 y) will be awarded with the “Joachim W. Dudeck Award”.

Website: <http://ihic2012.hl7.at>

Contact email: ihic2012@hl7.at

Topics

Papers should contribute to the following topics:

- Concepts and frameworks for Smart Interoperability Infrastructure Services
- Models for intelligent use of Electronic Health Records
- Joint HL7 & IHE Implementations at regional and national level
- “Show me your CDA” – CDA implementations at all levels

Submission and format

Manuscripts should not exceed 5000 words and should be prepared according to the instructions for authors under

<http://www.ejbi.eu/editorial/instructions.html>

Papers are to be submitted electronically under

<http://ihic2012.online-registry.net>

until June 8, 2012 (final deadline).

Important Dates

- Call For papers: April 1, 2012
- Deadline for submissions: June 8, 2012
- Evaluation and notification: July 27, 2012
- Camera-papers ready due: September 1, 2012
- IHIC: September 27th – 28th, 2012

IHIC 2012 Program Executive Committee

Stefan Sabutsch (Chair), Bernd Blobel, Catherine Chronaki, Kai Heitmann, Alexander Mense, Peter Seifert

About European Journal for Biomedical Informatics (EJBI)

European Journal for Biomedical Informatics (EJBI) is an official journal of the European Federation for Medical Informatics (EFMI). It is an online, peer-reviewed journal reacting on the great European need to share information in the multilingual and multicultural European area. EJBI publishes papers in English and in other official European languages simultaneously. This opens new possibilities for faster transfer of scientific research pieces of knowledge of many European countries to a large international community of biomedical researchers, physicians, other health personnel and citizens. Moreover, the journal enables to make results of scientific-research work and practical experiences of foreign specialists accessible to wider health public in a more comprehensible way in each European country.

About the special issue "Standards and Solutions for eHealth Interoperability"

According to the internationally accepted definition, eHealth is not limited to healthcare, i.e. regulated care provider organizations, but includes also social services, wellbeing, lifestyle, and independent living enabled by AAL technologies. Using different standards or even proprietary specifications in Europe is an obstacle to the free dissemination of eHealth services and their cross-border deployment. The upcoming special issue for 2012 can provide further materials for interoperability of European health information systems and thus to accelerate the development of a European eHealth area.

The editors of the special issue are Bernd Blobel (Head, German eHealth Competence Center, University Hospital Regensburg, Germany; Chair, CEN/ISSS eHealth Standardisation Focus Group) and Robert Stegwee (Capgemini Consulting; Professor of eHealth at University of Twente; Chair of CEN TC 251 on Health Informatics).

Joachim W. Dudeck Award

Since 2011, HL7 International annually bestows the Joachim W. Dudeck Award. The Award is worth 1,000 US\$ and is awarded by the HL7 International Council on the occasion of the International HL7 Interoperability Conference.

The Award distinguishes extraordinary achievements in developing and/or implementing HL7-based interoperability solutions as well as promoting the use of HL7 and its harmonization with other specifications performed by young HL7 community members.

The Award has been launched in memory and honor of the outstanding physician, scientist, lecturer and standards developer Joachim W. Dudeck (Giessen, Germany). Joachim Dudeck was the founder and long term Chair of HL7 Germany, the first Affiliate Director at the HL7 Board of Directors and author or contributor of many specifications around HL7 and XML in Health Informatics.

A jury – the Joachim W. Dudeck Award Committee – consisting of 6 acknowledged scientists and standardization experts headed by the acting HL7 Germany Chair decides on the bestowment of this Award to one author of a submission to the International HL7 Interoperability Conference who is younger than 35 years.

The paper must be written in English.

Quality of Life
through
Quality of Information

XXIV Conference of the
European Federation for Medical Informatics

MIE
2012
PISA - ITALY
26 - 29 AUGUST
www.mie2012.it

Information Exchange Standards meet
Supply Chain Standard

Joint HL7-GS1 workshop at MIE 2012 Pisa, IT, 28-30 August 2012



Building on the experience gathered in previous joint workshops, including STC2010 in Iceland, STC2011 in Slovenia and MIE2011 in Norway, HL7 International and GS1 join forces. For MIE 2012, Italy a synergy workshop to demonstrate achievements in addressing core challenges of quality and safety in health information exchange and interoperability adds to previous efforts. The expected outcome of this workshop is to increase clarity of challenges to adopt interoperability standards efficient information exchange that contribute quality information to support well-being of elderly people requiring integrated care.

Taking the scenario of an elderly lady living alone, the workshop will focus on adoption of standards to facilitate information exchange between the supply chain world to the clinically oriented healthcare world discussing relevance of interoperability standards for healthcare information exchange and the supply chain business processes. Plug-n-play interoperability is a major aspect and challenge to quality for health information exchange that challenge interworking of standards from different worlds. Starting in 1987, the mission of HL7 is to provide standards for interoperability that improve care delivery, optimize workflow, reduce ambiguity and enhance knowledge transfer among all healthcare stakeholders, exhibiting timeliness, scientific rigor and technical expertise without compromising transparency, accountability, or practicality. The vision of GS1 is a world where things and related information move efficiently and securely for traceability that benefits businesses and helps improve people's lives, every day and everywhere.

The concept of this workshop started from as long list of questions associated with collaborative sharing of meaningful information in a scenario of an elderly woman requiring health and social care services that cross the world of healthcare and that of the supply chain. This taps into the value proposition of synergies between HL7 and GS1. Some of the relevant questions were:

- What is the most important information needed to support integrated care, e.g. emergency care, public health, emergency, and social care? For example, how can GS1 and HL7 standards be leveraged to document and retrieve medication in a way that upholds quality and safety?

- What are the GS1 and HL7 standards that support integrated care and what is the state of their adoption and interrelation? For example, how to leverage GS1 and HL7 standards to support core processes related to transfer of care?
- How can the quality of information exchange be secured? What about privacy, protection and maintained confidentiality?

Starting from the story of a health-challenged elderly woman that highlights how health information exchange are a requisite to meet her care need introduced by Anne Moen, short presentations by Christian Hay, Catherine Chronaki, and Charles Jaffe will address sharing of information bridging the clinical and supply chain worlds:

- **Supply Chain World:** By concentrating on the information exchange along Mrs Erkel health journey from home to hospital, the presentation will highlight selected elements from both GS1 and HL7 which document the sequence of encounters. Unique identifiers according the GS1 system of standards will be used along the envisioned journey or trajectory of care, selected encounters being used as examples of supply chain achievements. The shift from GS1 messaging to HL7 messaging will further be drawn with the purpose to illustrate continuity of information from automatic identification data capture to data processing, some guidance will be provided to understand benefits of unique identification in the clinical environment.
- **Patient Summaries for health and social-care:** Starting from the patient scenario, the potentialities of patient summaries in bridging the worlds of emergency, health and social care will be presented, building on best practices. Current limitations will be highlighted and the role of interoperability standards in amending them will be introduced as part of the solution.
- **Quality of Information Exchange:** Misinformation is worse than no information at all. Starting from the patient scenario, HL7 standards that uphold quality and safety at different stages of information exchange will be presented.

Inspired by the presentations the discussion aims to gain insight about the added value of GS1 and HL7 joint efforts, the challenges and steps ahead. The moderated discussion will be targeted to what is possible to implement, barriers as well as benefits of implementations, privacy and security challenges, quality and safety, etc. In this way, challenges for innovative interplay of current and future standards will be identified to strengthen collaboration and commitment to wide adoption. The workshop will be moderated by Bernd Blobel and Ulrike Kreysa.

Come join us in Pisa!

Christian Hay, Anne Moen, Catherine Chronaki, Bernd Bobel, Ulrike Kreysa, and Charles Jaffe

Links:

<http://www.hl7.org>
<http://www.gs1.org>
<http://www.mie2012.it>



Goals and Objectives HL7 International Foundation in Europe



This article has been prepared by Philip Scott and discussed in the HL7 International Foundation in Europe Task Force and is presented to the HL7 Community in Europe to invite comments and discussion.

DRAFT FOR DISCUSSION



Outline Aims and Objectives

The purpose of this statement of aims and objectives is to give focus to the HL7 International Foundation in Europe and lay the basis for a business plan.

Aims

In line with HL7 International's Strategic Initiatives, the HL7 International Foundation in Europe established in Brussels aims to attain recognition for HL7 as the lead developer and harmonizer of European technical and functional health informatics standards.

Scope

The remit of the HL7 International Foundation in Europe is HL7-related activities at a geographically pan-European or politically European Union (EU) level.

Objectives

To coordinate HL7 intellectual contributions to European level policy, cross-government projects, funded R&D programmes and industrial and academic health informatics events.

To research European funding opportunities and coordinate European Commission funded projects or other pan-European sources for HL7 and its affiliates.

To identify key European stakeholder groups, with value propositions and action plans for engaging each group.

To define and agree how to evaluate HL7 adoption and implementation trends across Europe.

To streamline information sharing between HL7 European affiliates, providing common visibility of national and regional projects that actually or potentially use HL7.

To support and advise national level and European level organizational planning for WGMs hosted by HL7 European affiliates.

Outline business plan actions:

- EU funding research
- European stakeholder analysis
- Adoption and implementation metrics
- Affiliate project information sharing

Inviting Comments and Participation

Comments on this document are invited to be sent to euoffice@HL7.org. Comments will be discussed when the Task Force convenes at the May HL7 Working Group Meeting in Vancouver, BC (Wednesday, May 16, from 3:30 – 5:00 pm in guest room 2754) and the aims and objectives will be finalized this summer. The process and timeline for further development of a concrete business plan for the following years will be decided at the May 2012 WGM.

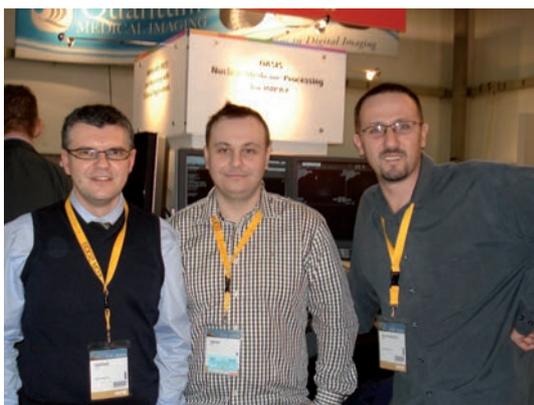
We invite your participation and attendance!

Philip Scott and HL7 International Foundation in Europe Task Force

HL7 Bosnia and Herzegovina

First of all, to all the people who took part in process of BiH becoming an HL7 member country:

Thank you for all your good work, enthusiasm and support!



The process started with the first PACS/RIS/HIS installations in BiH where we realized the need for pioneer organization, someone to provide procedural guidelines and supervision for intersystem data exchange.

Being present at the birth of BiH medical sector informatization (our first steps date back to 2006., when our HL7 BiH Chair Samir Dedović and colleagues Edin Dautbegović and Adis Mehić got the ball rolling); medIT assumed responsibility and set forth a system of values harmonized with established standards for data exchange worldwide.

During our time at MIA 2009 the team made initial contact with HL7.org, and the establishment of HL7 BiH grew from an interesting idea to registered endeavor in 2011.

Main objective of HL7 BiH in forthcoming months is hosting a number of presentations throughout healthcare providers to promote HL7 standards.



Dedovic Samir
HL7 BiH Chair

Mehic Adis
HL7 BiH Administration

Dautbegovic Edin
HL7 BiH Deputy Chair,



SemanticHealthNet

by Charlie McCay



SemanticHealthNet

SemanticHealthNet will develop a scalable and sustainable pan-European organisational and governance process for the semantic interoperability of clinical and biomedical knowledge, to help ensure that EHR systems are optimised for patient care, public health and clinical research across health-care systems and institutions.

Through a clinically-driven workplan, exemplified in cardiovascular medicine, SemanticHealthNet will capture the needs for evidence-based, patient-centred integrated care and for public health, encapsulating existing European consensus in the management of chronic heart failure and cardiovascular prevention. Experts in EHR architectures, clinical data structures, terminologies and ontology will combine, tailor and pilot their best-of-breed resources in response to the needs articulated by clinicians and public health physicians. [1]

HL7 Europe is a funded partner in this project. There is a clear overlap between this ambition of the SemanticHealthNet project and the scope and objectives of HL7 European office and the European affiliates to develop and promote HL7 approaches to these challenges.

The HL7 engagement with this project has two complimentary objectives:

- Ensuring that the HL7 offerings are made available to the project team and are well represented so that there is not an attempt to reinvent wheels without knowing what is already available from HL7.
- Communicating back to the HL7 affiliates, work groups, and projects questions and lessons learnt within SemanticHealthNet, and most importantly suggestions for improvements to the HL7 products and processes

The project formally started in December 2011 and runs for three years. The backbone of the project is to walk through the process of gathering requirements,

developing semantic artefacts, and delivering implementable specifications. This process will be used to establish the requirements for an effective virtual organisation to deliver such specifications for use in Europe, and to draw out the ways of working that already exist within the Standards Development Organisations.

A major part of the HL7 contribution will be in the technical workpackage that is pulling together representations of the clinical usecase from HL7, 13606, and openEHR, also looking at SNOMED and WHO coding. An initial set of heart failure clinical storyboards was released in late March, and the plan is for each technical partner to produce some artefacts using each their various formalisms, to compare the approaches taken at a meeting in April, and then work will be done to use ontology tools to map between the representations. Internal drafts will be available for review in April, and there will be an iterative process to refine the artefacts and develop recommendations for European adoption.

As the first technical European project that HL7 has directly engaged in through the HL7 International Foundation, there will be a great deal to learn about the most effective way to engage with the HL7 community to maximise the value of the project within HL7, and to the wider European stakeholder community.

The process of engaging with the consortium during the development of the proposal and negotiating the agreements with the European Union was managed through the European Office (the HL7 International Foundation) in consultation with the board. Charles McCay (Charlie@ramseysystems.co.uk) is managing the HL7 technical contributions to the project, with Charles Jaffe (cjaffe@hl7.org) as overall project owner, and Catherine Chronaki (chronaki@gmail.com) dealing with the organisational issues.

For those with a lurking interest in this project a wiki page has been established at [2] that will be used to maintain an HL7 status and pointers to related resources. A Project scope statement will be developed to help establish how the project should engage with the working groups, and there will be a presentation to the International Council at the May Working Group Meeting where engagement with the European affiliates will be discussed. Anyone with an interest in actively contributing to the project is encouraged to contact Charlie McCay

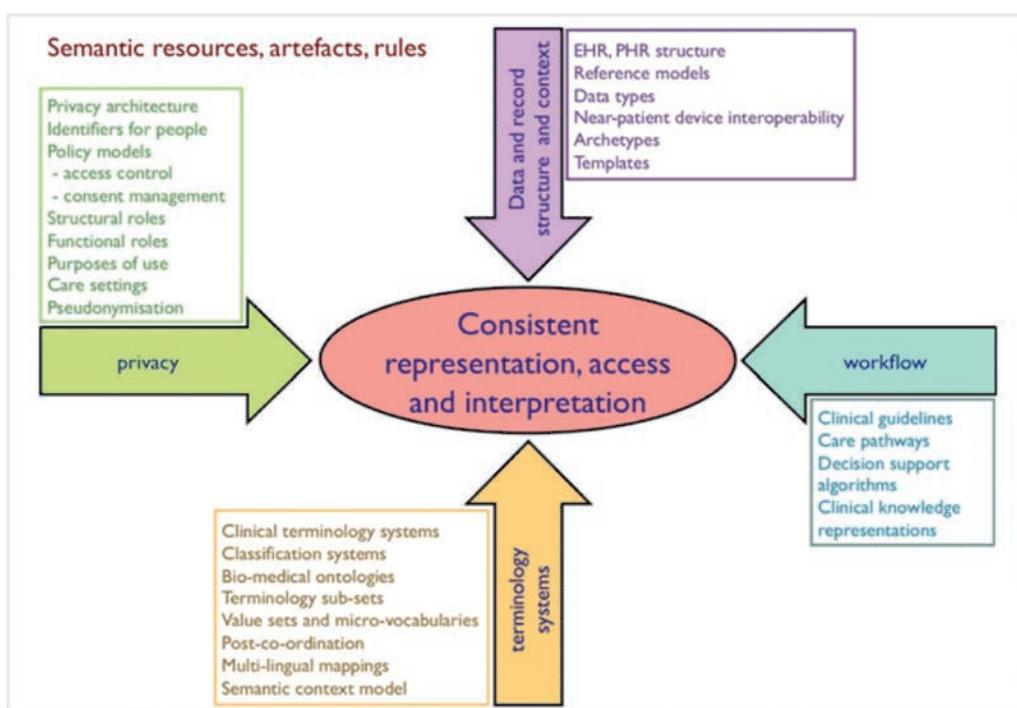
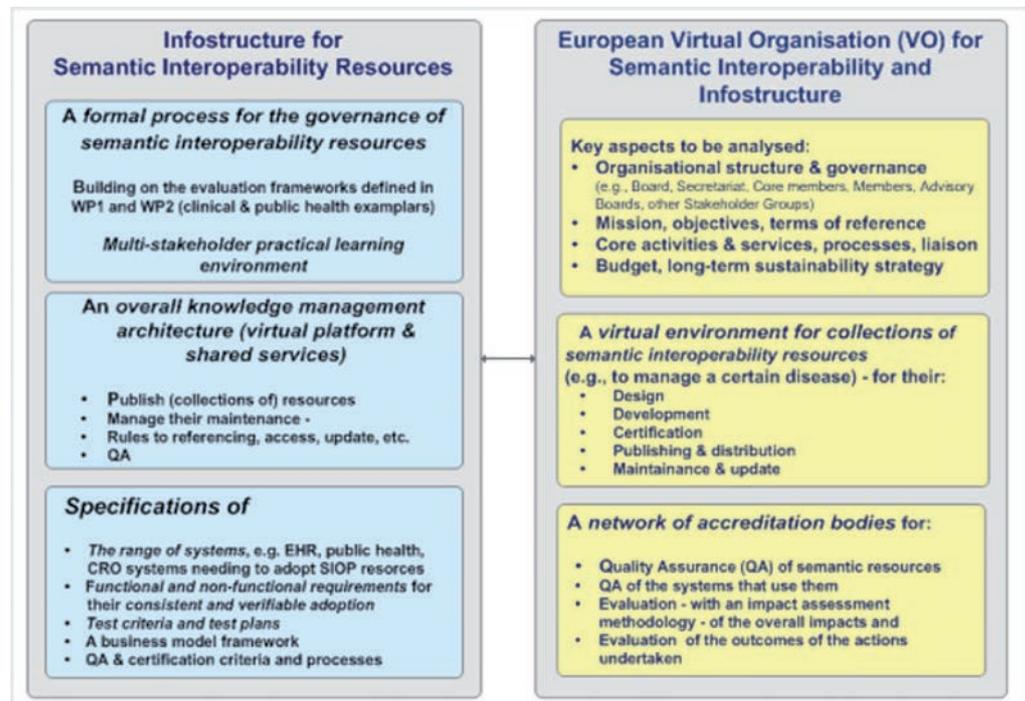


Figure 1: Resources needed to support rich semantic interoperability



This HL7 participation in a European project was done alongside the development of the HL7 International Foundation in Europe, discussed in a separate article in this newsletter. Feedback on the process would be most welcome, and will be discussed during the May Working Group Meeting by the HL7 Foundation Taskforce led by Catherine Chronaki.

Charles McCay
Project's HL7 technical contributions

References

- [1] <http://www.semantichealthnet.eu/>
- [2] <http://wiki.hl7.org/index.php?title=SemanticHealthNet>

by Alexander Mense,
 Stefan Sabutsch and
 Bernd Blobel



Austria – Germany – Switzerland

Cross border Cooperation for the Development of Standards and Profiles for eHealth Projects

Large scale pilot projects like epSOS aim at setting up definitions and infrastructures for cross border communication of healthcare data in Europe. Following the principle of subsidiarity in the European Union and recognizing European Commission's policies for the pan-European health space, for specific diseases and public health, healthcare is a national responsibility and therefore such projects are usually restricted to connect services at national level. Within each EU Member State, different strategies are defined to set up national eHealth infrastructures. But to finally succeed in building a sustainable European network for exchanging healthcare data, the agreement on using the same international standards and harmonizing use case specific profiles of those specifications towards a convergence of

the national systems is inevitably. Reinventing the wheel in each state would slow down this process. Therefore, cross border cooperation for common definitions of components, terminologies, services, etc., is strongly recommended. In this sense, many different activities between Germany, Austria and Switzerland have been started to mutually benefit from existing and emerging developments and solutions and, on the long run, to simplify the setup of cross border health information communication. The HL7 affiliates are playing a major role in that process.

Evolution of HL7 CDA Implementation Guides

Mainly driven by the architectural definitions of IHE (Integrating the Healthcare Enterprise), the HL7 Clinical Document Architecture provides the basis for health data exchange in many countries. The same applies to Austria. In 2007, Austria decided to set up a national electronic health record (ELGA) based on the international frameworks and standards IHE ITI-TF (XDS), HL7 Clinical Document Architecture (CDA R2), DICOM and LOINC. One of the first and major challenges that arose on the horizon was the definition of the contents of the HL7 CDA documents, which finally results in the development of appropriate implementation guides (IG). It was decided to start with the three document classes discharge letters, imaging reports and laboratory reports. In 2008, expert groups comprising of health professionals, technicians and HL7 experts were set up, and the first task was to look for existing implementation guides and to evaluate their possible use according to the Austrian requirements. Nothing was more obvious than to look just across the border, where one year before the first version of the German implementation guide for a discharge letter with two amendments for medication and laboratory reports had been released. This specification, named “VHitG Arztbrief auf Basis der HL7 Clinical Document Architecture Release 2.0 für das deutsche Gesundheitswesen”, developed by the German Association for Health IT in cooperation with HL7 Germany, served as example also in other European countries. Consequently, this implementation guide was also adapted and adopted in 2008 by Switzerland, and it was selected as rather good starting point for further developments in Austria.

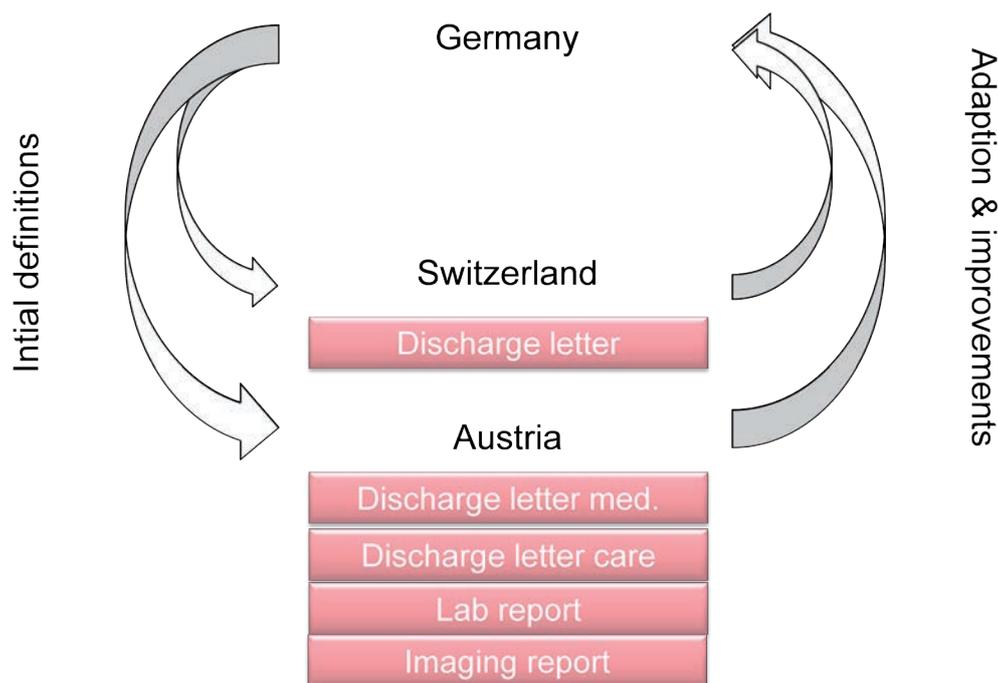


Figure 1: Evolution of the discharge letter implementation guide

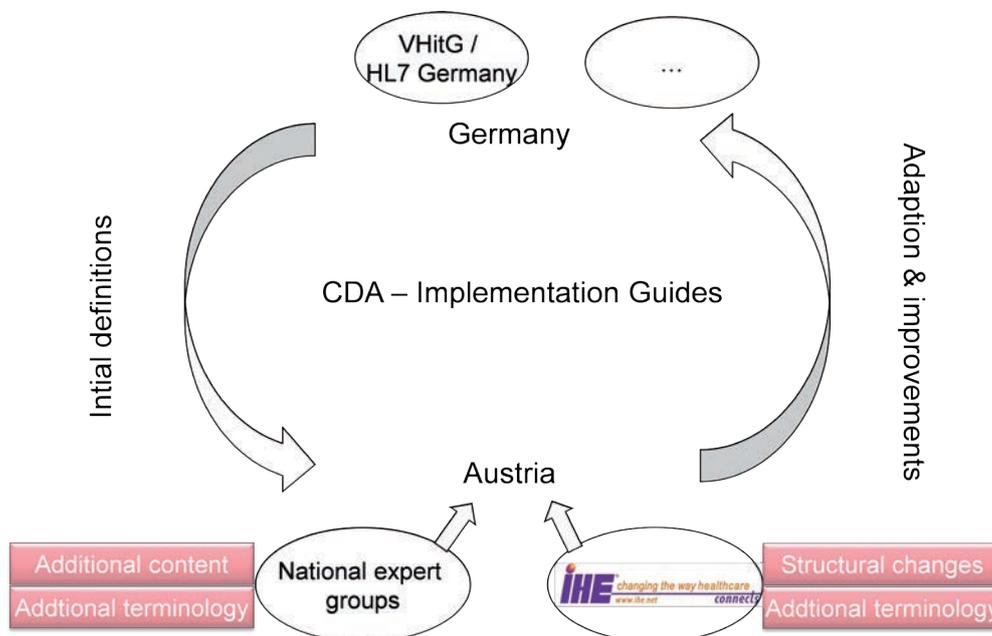
Looking at the German IG in detail, it quickly turned out that the IG and its addenda did not fulfill all the Austrian requirements and needed further development / evolution.

Figure 2: Evolution of implementation guides

Each IG is an improvement compared to the previous
IG are more precise from version to version (less uncertainty/optionality)
Each IG tries to support implementers better
New versions encourage and help to build better IGs

In the following, finally lasting three years process, implementation guides for medical discharge letters for physicians, discharge letters for nursing, imaging reports and laboratory reports were developed and released in 2012. The major changes to the German discharge letter include widening and adapting the medical content based on the result of the experts groups' discussions, harmonization with the definitions of the IHE PCC technical framework, and finally the split into a discharge letter for physicians and a discharge letter for nursing because of the juridical requirements in Austria. The CDA IG for laboratory reports was totally newly created based on the IHE Laboratory Technical Framework Volume 3 (LABTF 3)¹. The imaging report is based on the HL7 Implementation Guide for Imaging Integration².

Figure 3: Improvement of implementation guides



Additionally, 50 valuesets and codelists for semantic interoperability were defined to be used with the implementation guides. Reference stylesheets enable a common display of the documents, and a schematron is available for validation.

The documents including code lists and valuesets definitions, schematron and example documents can be found at

<http://www.elga.gv.at/index.php?id=28>

1 IHE International: IHE Laboratory Technical Framework Volume 3 (LABTF 3) Revision 3.0, Final Text Version, 19.05.2011), http://www.ihe.net/Technical_Framework/index.cfm

2 HL7 Inc. / NEMA: Implementation Guide for CDA Release 2: Imaging Integration, Levels 1, 2, and 3. Basic Imaging Reports in CDA and DICOM Diagnostic Imaging Reports (DIR) – Universal Realm; Release 1.0, 2009, (www.hl7.org/store)

2005	HL7 CDA Release 2
2006	First German CDA R2 Implementation Guide “VHitG Arztbrief auf Basis der HL7 Clinical Document Architecture Release 2.0 für das deutsche Gesundheitswesen” (Discharge Letter)
2008	Switzerland Version: “CDA-CH” based on VHitG Arztbrief
2009	Draft Version of Austrian Discharge Summary (Entlassungsbrief) partly based on VHitG Arztbrief
2011	Switzerland Version: “CDA-CH II”
2012	Final Version of Austrian Discharge Letters (Physician and Nursing) ➔ State of the Art IG

Table 1: timeline of evolution of implementation guides

After several years deploying the aforementioned German CDA IG, the German Interoperability Forum has put an advanced CDA IG on its agenda, thereby re-using the Austrian improvements and experiences thereof to specify and release an German Arztbrief 2012.

Semantic interoperability: joint translation of LOINC

One major challenge of the exchange of medical data is semantic interoperability, which is based on the use of standardized code lists and terminologies. One of the most important code lists is the list of Logical Observation Identifiers Names and Codes (LOINC®) which is maintained and published by the Regenstrief Institute, Inc. LOINC is used for many different purposes (e.g. section codes in CDA documents), but mainly in the laboratory domain. When starting to use the LOINC, two big problems occurred:

- LOINC® is only available in English and has to be translated to other languages
- Currently used local codes have to be mapped to LOINC codes.

Germany started to use the LOINC in 2004 and set up a translation program to German in 2005. The translations have been mainly done by DIMDI, HL7 Germany and the LOINC User Group Germany.

The history of the usage of LOINC in Austria started in 2005. Within a project at the Vienna Hospital Association (KAV) under the lead of Dr. Hübl, all used laboratory parameters were mapped to LOINC, which led to 2500 agreed LOINC mappings and 400 new parameters submitted to the LOINC committee. Parallel to the mapping, a translation process was set up in coordination with Germany.

In 2007, Austria adopted the LOINC for use in the CDA laboratory report for the national EHR project (ELGA).

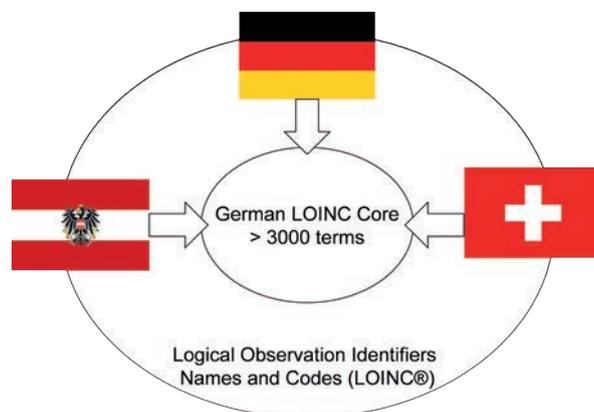


Figure 4: Joint LOINC code translation

Within its CUMUL-project, Switzerland has also been contributing to the LOINC translation. Currently more than 3000 LOINC codes have been translated to German.

OID Network based on ISO TS 13582

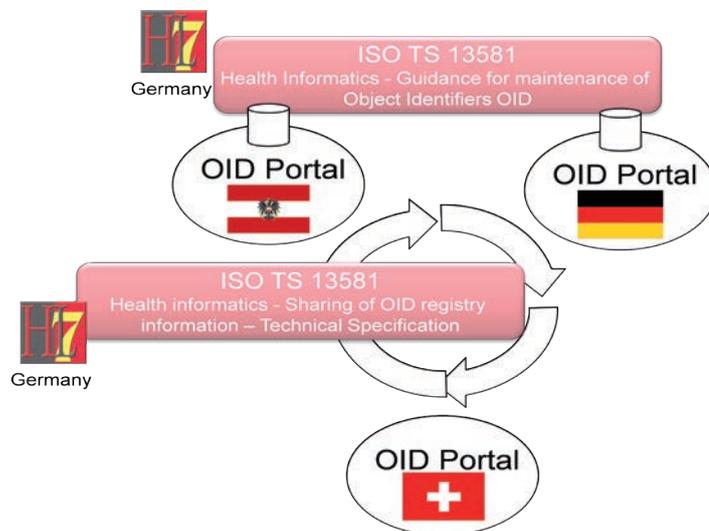
Using CDA documents usually implies the requirement for unique global object identifiers (OID) according to ISO/IEC 9834-1³. The definitions for OID provide a concept for providing and maintaining worldwide unique identifiers. OID are used in most of important medical informatics standards (HL7, DICOM, IHE).

Using OID in eHealth applications and infrastructures requires on one side a registration authority for assigning new numbers to information object and on the other side an infrastructure to maintain and publish OID. This infrastructure is usually implemented in OID registries and repositories accessible over web portals to enable the search for OID definitions. The fact that every OID repository only keeps track and stores OID assigned by itself leads to the problem to find the definition of a OID querying a repository which was has not assigned this specific OID and therefore does not have it in its database.

To enable the search of OID over a network of OID repository, the ISO TS 13582 defines a standard based request and research of OID from interconnected repositories based on a common information model. The name of this specification has changes over the time from ISO TS “Health Informatics – Communication model and XML Interface Specification for OID Registries (ComoXOID)” (NWIP 2008) through ISO TS 13582 “Health informatics – Communication and metadata model and XML-interface specification for OID registries in health-care” (2010) to ISO TS 13582 “Health informatics - Sharing of OID registry information” (2012)⁴.

In 2011, Switzerland and Austria implemented an OID portal based on the ISO TS 13582 which enables a cross repository search of OIDs.

Figure 5: OID cross repository search



Conclusion

Currently, nearly every European Union Member State is in the process of setting up national interoperable eHealth infrastructures which require big efforts. Though, every country faces similar challenges and problems, large scale projects show how difficult it is to define joint solutions for many countries. However,

³ Information technology -- Open Systems Interconnection -- Procedures for the operation of OSI Registration Authorities: General procedures and top arcs of the International Object Identifier tree (2008)

⁴ K. Heitmann, 2012, http://wiki.hl7.de/index.php/ISO_TC_215_-_ISO_TS_13582

the examples described in a smaller scenario clearly demonstrate what is achievable. Not reinventing the wheel but using an evolutionary process to build joint solutions reduces efforts and is the first step for future interoperable cross border eHealth projects.

Alexander Mense, Stefan Sabutsch
HL7 Austria

Bernd Blobel
HL7 Germany

Interoperability and Standards in Healthcare – European Practice Varazdin, HR

City of Varazdin, one of the most beautiful historical sites in Croatia, hosted 2nd ISHEP conference in November 2011. ISHEP stands for Interoperability and Standards in Healthcare – European Practice, and as the name says, it tries to discuss international experience with healthcare ICT projects with respect to interoperability and standards implementations. The conference is co-organized by Slovenian and Croatian Society of Medical Informatics, and HL7 Croatia, and executed under auspices of Croatian and Slovenian Ministries of Health. As with previous years, around 100 experts from Slovenia and Croatia had the opportunity for 2 days to exchange experiences and ideas in field of healthcare ICT integration, where the speakers included representatives from both Ministries, European Commission, industry, etc.

HL7 Inc, in collaboration with HL7 Croatia strongly supported the event as well. On the first day plenary session, we have welcomed Ms. Julia Palomar, who presented experiences from Diraya EHR project in region of Andalucía, Spain, which is considered to have one of the Europe's leading examples of eHealth regional programs. The integration on the patient shared records, prescriptions and lab reports is all done using HL7 paradigm and messaging technologies. On the second day, HL7 facilitated a dedicated workshop regarding HL7 based prescription management, which was run by Mr. Tom de Jong, Co-Chair of the HL7 Pharmacy domain. In a very much interactive session, Tom presented experiences not only from HL7 Pharmacy domain, focusing on most important aspects in prescription, dissemination and drugs administration processes, but also provided



experience with national eHealth implementations in The Netherlands. This WS, out of the three parallel sessions, had the highest attendance, and according to the evaluation questionnaires, it was one of the best trainings regarding HL7 experiences we ever had in Croatia.

by **Miroslav Končar**



To summarize, ISHEP conference has once again proven to have a very specific position in not only Croatia, but also Slovenia and other neighboring countries. HL7 implementation experience is not widely spread in this region, and to have the opportunity to exchange information with top international experts in this domain is highly valued by the community. Both plenary session, which is attended by C level executives from Slovenian and Croatian Ministry of Health, and dedicated workshops on the 2nd day which “drill down” into more details on implementation guidelines and experiences, is something that improves the quality of all integration projects in healthcare domain in this country. Therefore we plan to continue down this road, and work further with stakeholders and interested parties, to make our solutions and HL7 based integrations best quality possible.



Hereby the organizers wish to express their gratitude to HL7 Inc, for their support of the event. A special thanks needs to go to Julia and Tom, who made the whole difference delivering such impressive presentations and sessions.

Miroslav Končar

HL7 Croatia Chair, ISHEP Program Committee Chair

by **Andrew Hinchley**
and **Philip Scott**

HL7 UK

University Outreach Programme

The HL7 UK University Outreach Programme is now in its third year of working with UK universities offering degree courses in healthcare informatics.

The reason to start the initiative was the knowledge that there was very little HL7 material in many of the courses and that here was an opportunity to develop this area and of course also to generally help teach and promote the principles of interoperability in health care systems.

An early principle was established that apart from travel expenses, HL7 UK would make no charge for these contributions to the university teaching courses and that as much as possible the HL7 UK faculty members would be working on a voluntary basis.

The formula provide very successful in the first year and in the second year the programme was extended from the initial 3-4 universities to nearly all universities offering healthcare informatics qualifications. Only one university remains outside the programme and that university is actively evaluating how to best work with HL7 UK. In the UK healthcare informatics is taught as both undergraduate and graduate degree level, with students who may have very different prior experience and knowledge.



A feature of healthcare informatics courses in the UK has been the move to student self-study material. Some courses are very substantially self-study and all courses are looking to use more self-study material. For this reason HL7 UK started work in the second year on self-study materials and this work continues this year with the intention of making available a national on-line student resource on HL7 and related interoperability topics.

All resources have been developed specifically for students and kept quite separate from professional training materials and provision.

To better ensure review and development of the programme, an outreach group has been established consisting of all the faculty members of HL7 UK together with a member who is a full-time academic teaching healthcare informatics.

Although having now reached a more mature stage, the programme does not stand still. Student aptitudes, interests and requirements are continually changing!

Andrew Hinchley and Philip Scott
HL7 United Kingdom

Spotlight in HL7 Romania



In the period 2010-2012, HL7 Romania has organized two online courses, together with HL7 International, for HL7 v2 and v3 CDA. The number of participants at the first course was 27 and at the second 10. The participants were from several countries, not only Romania, including UK, Germany and African countries. Around 70% of the participants succeeded to finish the first course while the second one is still running. Also certification exams were organized in 2010 (all the participants passed it) and are also planned for 2012.

Next to the courses, presence at international events and local events were also part of the technical activities of HL7 Romania.

Recently, two projects, regarding the implementation of e-Prescribing (based on HL7) and e-Card started in Romania.

HL7 Romania will be represented at STC2012 by Mrs. Professor Lacramioara Stoicu-Tivadar.

Professor Florica Moldoveanu
Chair HL7 Romania

Calendar of Events



Working Group Meeting	Vancouver, BC, Canada	13 to 18 May
Open days 2012 – The architecture of eHealth	Rome, Italy	7 to 8 June
Medical Informatic Europe (MIE) 2012	Pisa, Italy	28 to 30 August
26th Annual Plenary & Working Group Meeting	Baltimore, MD, USA	9 to 14 September
International HL7 Interoperability Conference (IHIC) 2012	Vienna, Austria	27 to 28 September
Annual Conference HL7 Switzerland	Olten, Switzerland	18 October
Annual Meeting and National Interoperability Conference HL7 Germany and IHE Germany	Göttingen, Germany	24 to 26 October
National HL7 Standardisation Congress 2012	Utrecht, the Netherlands	6 December

HL7 Training schedule

HL7 UK - HL7 Version 2 Training	London, UK	12 to 13 June
HL7 UK - Interoperability Toolkit (ITK) Training	London, UK	14 to 15 June

HL7 Affiliates in Europe

see also <http://www.hl7.org/Special/committees/international/leadership.cfm>

HL7 Austria http://www.hl7.at Chair: Stefan Sabutsch	HL7 Germany http://www.hl7.de Chair: Kai Heitmann MD	HL7 Romania Chair: Florica Moldoveanu
HL7 Bosnia and Herzegovina Chair: Samir Dedović	HL7 Greece Chair: Alexander Berler	HL7 Russia Chair: Tatyana Zarubina MD PhD
HL7 Croatia Chair: Miroslav Končar	HL7 Italy Chair: Stefano Lotti	HL7 Spain Chair: Carlos Gallego Perez
HL7 Czech Republic http://www.hl7.cz Chair: Libor Seidl	HL7 Luxembourg http://www.hl7.lu Chair: Stefan Benzschawel	HL7 Sweden Chair: Gustav Alvfeldt
HL7 Finland http://www.hl7.fi Chair: Juha Mykkanen PhD	HL7 The Netherlands http://www.hl7.nl Chair: Robert Stegwee MSc, PhD	HL7 Switzerland http://www.hl7.ch Chair: Beat Heggli
HL7 France Chair: Nicolas Canu	HL7 Norway Chair: Espen Møller	HL7 UK http://hl7.org.uk Chair: Philip Scott



About HL7 International

Founded in 1987, Health Level Seven International (www.HL7.org) is the global authority for healthcare Information interoperability and standards with affiliates established in more than 30 countries. HL7 is a non-profit, ANSI accredited standards development organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. HL7's more than 2,300 members represent approximately 500 corporate members, which include more than 90 percent of the information systems vendors serving healthcare. HL7 collaborates with other standards developers and provider, payer, philanthropic and government agencies at the highest levels to ensure the development of comprehensive and reliable standards and successful interoperability efforts.

E-mail: HQ@HL7.org • Website: www.HL7.org

HL7 Europe Listserv

If you want to be up to date regarding HL7 Europe, please subscribe to europe@lists.hl7.org at hl7.org.

02 / MAY 2012

HL7 European Office
Square de Meeûs 38/40
1000 Brussels
Belgium
E-mail: EUoffice@HL7.org
Website: www.HL7.eu

Health Level Seven and HL7
are registered trademarks of
Health Level Seven International