Advanced Computer Methods for Patient Safety

Workshop 7, MIE2009

Monday, August 31, 15-18

Abstract

This MIE[1] workshop, organized by the EU FP7 project DebugIT[2], and supported by the EFMI WG on NLP[3], is dedicated to Advanced Computer Methods for Patient Safety. Challenges and experiences on this topic will be addressed from different perspectives including the following projects, organizations and networks.

- The FP6/7 projects DebugIT, ALERT[4], PSIP[5], IPSE[6]
- European Centre for Disease Control[7] (ECDC)
- European Society for Quality in Healthcare[8] (ESQH)

Preventing antibiotic resistance of bacteria is today recognized as a public health priority and thus represents one of the major challenges for the healthcare system. The objective and approach of DebugIT is development of decision support for management of infectious diseases through data mining for knowledge discovery in heterogeneous clinical databases at five partner sites.

IPSE (Improving Patient Safety in Europe) aims to resolve persisting differences in the variability of preventive practices and outcomes with respect to nosocomial infection and antibiotic resistance in Europe.

The ALERT (Early detection of adverse drug events by integrative mining of clinical records and biomedical knowledge) project is working on support for a better and faster detection of adverse drug reactions (ADRs). ALERT will analyze data from electronic healthcare records (EHRs) of over 30 million patients from five countries using a variety of computational techniques.

The objective of the PSIP project (Patient Safety through Intelligent Procedures in Medication) is to facilitate the systematic production of epidemiological knowledge on ADE and to ameliorate the entire medication cycle in a hospital environment.

The objective of the SIMPATIE project in association with European Society for Quality in Healthcare, was to use Europe-wide networks of organizations, experts, professionals and other stakeholders to establish a common European set of vocabulary, indicators, internal and external instruments for improvement of safety in health care.

The European Centre of Disease Prevention and Control (ECDC) was established in 2005. It is an EU agency with the aim to strengthen Europe's defense against infectious diseases. A recent activity being tracking of novel influenza virus A(H1N1) spreading.

Topics

The following topics will be addressed during the workshop:

- experience from sharing clinical data (architecture, standards, ethical approval etc.)
- experience from adverse event detection and reporting

[1] www.mie2009.org
[2] www.debugit.eu
[3] www.helmholtz-muenchen.de/ibmi/efmi/index.php?Itemid=223&id=172&option=com_content&task=view
[4] www.ehealthnews.eu/content/view/1033/27/
[5] www.ehealthnews.eu/content/view/1143/108/
[6] http://ipse.univ-lyon1.fr/
[7] http://ecdc.europa.eu/
[8] www.esqh.net

- disease outbreak detection
- data visualization (population level, antibiotics resistance profile)
- experiences from the use of the International Classification for Patient Safety and patient safety indicators
- data/text mining and multimodal analysis
- infectious diseases guidelines implementation
- temporal data mining for trends and novelty detection
- post-genomics instruments for infectious diseases

Program

Workshop 7 (Track H), Monday 15.00 – 18.00, August 31

Welcome and introduction
Objectives, results and challenges of DebugIT
Dirk Colaert, Christian Lovis
Prevention of nosocomial infection and antibiotic resistance in Europe - results from IPSE
Håkan Hanberger
Early detection of adverse drug events – results from the ALERT project
Paul Avillach
Systematic production of epidemiological knowledge on adverse drug events (PSIP)
Régis Beuscart
Development and use of patient safety indicators (SIMPATIE, ESQH)
Solvejg Kristensen
Tracking of disease outbreaks with recent example from the “swine and bird flue influenza” (ECDC)
Carl Suetens
Panel discussion on challenges and opportunities for increased patient safety through mining in clinical data.

Workshop organizers / Contact persons

FP7 Project DebugIT (FP7-ICT-2007 no 217139, www.debugit.eu)
Hans Ahlfeldt, Linköping University, Sweden, hans.ahlfeldt@imt.liu.se
Håkan Hanberger, Linköping University, Sweden, hakan.hanberger@imk.liu.se
Patrick Ruch, University of Hospitals of Geneva, Switzerland, christian.lovis@hcuge.ch
Christian Lovis, University Hospital of Geneva, Switzerland, patrick.ruch@hesge.ch

E-mail addresses:
Patrick Ruch <patrick.ruch@hesge.ch>
Christian Lovis <christian.lovis@hcuge.ch>
Dipak Kalra <d.kalra@chime.ucl.ac.uk>
Dirk Colaert <dirk.colaert@agfa.com>
Håkan Hanberger <hakan.hanberger@imk.liu.se>
Sten Walther <sten.walther@telia.com>
Johan van der Lei <j.vanderlei@erasmusmc.nl>
Carlos Diaz <CMDiaz@imim.es>
Solvejg Kristensen <solvejg.kristensen@stab.rm.dk>
Paul Bartels <paul.bartels@stab.rm.dk>
Carl Suetens <Carl.Suetens@ecdc.europa.eu>
Paul Avillach <avillach@mac.com>
Hans Åhlfeldt <hans.ahlfeldt@imt.liu.se>