"Quality and innovation of electronic health record systems: Ideas and experiences from Japan and Germany"

Introduction: Japanese German cooperation in medical informatics dates back to the 1980es and has been nurtured ever since by various groups of researchers. In 2013, the Japanese Association of Medical Informatics (JAMI) and the German Association for Medical Informatics, Biometry and Epidemiology (GMDS) signed a Memorandum of Understanding to encourage academic cooperation through common activities and exchange. In the wake of this agreement, the first official joint workshop of JAMI and GMDS took place in 2014 at Kloster Banz Germany. Focussing on Electronic Health Record Systems (EHRS), the DFG funded Japanese-German Workshop on Electronic Health Record Systems JGEHRS 2014 brought together more than 20 researchers to compare EHRS developments at national, regional and local level. JGEHRS resulted in a framework of quality requirements for EHRS [1]. Due to the success of JGEHRS 2014, an update of the current developments was given at JGEHRS 2016 in Munich Germany, which took place within the joint conference HEC2016 that embraced amongst others the Medical Informatics Europe conference MIE2016 and GMDS2016.
The University of Applied Sciences Osnabrück has entertained a regular academic exchange with Japanese Universities including the University Hospital Tokyo and Hamamatsu University [2] for many years. In light of these events and developments, JGEHRS 2018 takes place at GMDS2018 in Osnabrück and offers a new update of advanced EHR projects.

References


Scientific Program Committee:

- Prof. Dr. Reinhold Haux, Technical University Braunschweig
- Prof. Dr. Ursula Hübner, University of Applied Sciences Osnabrück (GMDS2018 chair)
- Franziska Jahn, Leipzig University
- Prof. Dr. Yasushi Matsumura, University of Osaka
- Prof. Dr. Martin Staemmler, University of Applied Sciences Stralsund
- Dr. Jan Liebe, University of Applied Sciences Osnabrück
- Prof. Dr. Alfred Winter, Leipzig University (JGEHRS2018 chair)
Programme

Monday, September 3, Room SL0002, 14:45 – 18:00

Speakers, except Keynote-speaker Y. Matsumura, will have 10 minutes for their talk. Another 5 minutes are planned for discussion.

15:00 – 16:20 Part I

14:45 – 15:00 Alfred Winter Introduction and the Quality Requirements framework of EHRS (QRF-EHRS)
15:00 – 15:30 Yasushi Matsumura Current Status of EHR and Data Collection from Multiple Care Delivery Organizations in Japan
15:30 – 15:45 Martin Staemmler Assessing German EHR concepts and implementations using the Japanese-German EHRS Quality Requirements
15:45 – 16:00 Birger Haarbrandt Open Platform Architectures: a Prerequisite to Enable Efficient Reuse of EHR data?

16:00 – 16:15 Break

16:15 – 18:00 Part II

16:15 – 16:30 Tomohiro Kuroda Future Direction of Medical Records due to Introduction of IoT into Hospital
16:30 – 16:45 Jan-David Liebe Measuring Clinical Information Logistics in Healthcare Organisations: An Overview
16:45 – 17:00 Kengo Miyo Organizing a Multi-Institutional Information Platform for Protection against Cyber-Attack on Healthcare
17:00 – 17:15 Oliver Heinze Mobile Apps for EHR serving as key element for patient engagement and digitization in healthcare
17:15 – 17:30 Shinsuke Fujita The Comparison between EHR and PHR in Implementation and Management
17:30 – 17:45 Christian Haux, Max Seitz, Petra Knaup Medical Informatics to support interdisciplinary care between dentistry and general medicine

17:45 – 18:15 All Conclusion

The discussion will embrace questions on electronic health record systems (EHRS) in transinstitutional settings and shall reflect first experiences with the framework of quality requirements for EHRS [1]. It will especially focus on particular Japanese or German experiences, insights and solutions on quality and innovation of EHRS and on comparisons of respective national aspects.
Evening (about 19:00): informal meeting and further discussions
The speakers and SPC members will meet at the reception in the historic Town Hall of the city of Osnabrück. Later (about 20:30), there is a table reservation in a restaurant nearby the Town Hall.
Japanese Invited Speakers

Current Status of EHR and Data Collection from Multiple Care Delivery Organizations in Japan

Yasushi Matsumura

Osaka University Graduate School of Medicine, Medical Informatics

In Japan, the electronic medical record is spreading at 76% in large hospitals but 34% in total, is still in the process of being popularized. To share patient information among care delivery organizations, various models led by the private sector appear. They are in the stage of trial and error and not unified into one model. Various challenges are also being done on data collection from electronic medical records of multiple care delivery organizations aimed at secondary utilization.
The Comparison between EHR and PHR in Implementation and Management

Shinsuke Fujita

Chiba University, Center of Preventive Medical Science, Clinical Design and Medicine

The hybrid system of EHR and PHR has many advantages. Users of EHR are all professionals and those of PHR are citizens. We need special attention how to provide medical information, such as laboratory test results and diagnoses in PHR. To get the agreement of attending PHR (opt-in), we have to add a new twist.
Organizing a Multi-Institutional Information Platform for Protection against Cyber-Attack on Healthcare

Kengo Miyo PhD.
Chief Medical Informatics Officer, National Center for Global Health and Medicine.

The way of cyber-attacks has been changed past few years. An illegal outflow of critical information by targeted cyber-attacks and theft of money by ransomware are increasing. These attacks can hardly be detected by conventional security system. Therefore, we started to organize a multi-institutional information platform for protection against cyber-attack. Sharing information against possible attacks and advice on security issues are provided through this platform.
Future Direction of Medical Records due to Introduction of IoT into Hospital

Tomohiro Kuroda

Kyoto University, Graduate School of Medicine, Medical Informatics
Kyoto University, Graduate School of Informatics, Medical Informatics
Kyoto University Hospital, Division of Medical IT and Admin. Plan.

IoT is the method to make computers collect information directly from physical environment without low performance data capture, named human beings. Introduction of IoT may change a hospital as a cyber-physical system which provides ubiquitous service for clinicians. The medical record of such hospital cannot be the same as current one. We discuss possible future direction of medical record through the case of Kyoto University Hospital.