February 14, Hripcsak and Randhawa, Conducting Large-Scale Treatment Research in Cancer within the OHDSI Network



The Observational Health Data Sciences and Informatics (OHDSI) network has mapped data from more than 50 databases (that contain information on more than 400 million patients) to the OMOP common data model and it uses an open science approach to conduct distributed research. It has analyzed data from 11 databases (containing information on more than 250 million patient records) to ascertain the sequence of treatments over three years in patients with depression, diabetes or hypertension. This presentation will describe how electronic health records and claims data can be used to ascertain treatments received by cancer patients; present data on the sequence of treatments for cancer patients with depression, diabetes or hypertension, and the accuracy of cancer care documentation; and discuss approaches to improve abstraction of cancer information from electronic health records.

Session details...

BIOS:

George Hripcsak, M.D., M.S., is Vivian Beaumont Allen Professor and Chair of Columbia University's Department of Biomedical Informatics and Director of Medical Informatics Services for NewYork-Presbyterian Hospital. Dr. Hripcsak is a board-certified internist with degrees in chemistry, medicine, and biostatistics. He led the effort to create the Arden Syntax, a language for representing health knowledge that has become a national standard. Dr. Hripcsak's current research focus is on the clinical information stored in electronic health records and on the development of next-generation health record systems. Using nonlinear time series analysis, machine learning, knowledge engineering, and natural language processing, he is developing the methods necessary to support clinical research and patient safety initiatives. As Director of Medical Informatics Services, he oversees a 12,000-user, 4-million-patient clinical information system and data repository. He co-chaired the Meaningful Use Workgroup of the U.S. Department of Health and Human Services' Office of the National Coordinator of Health Information Technology; it defines the criteria by which health care providers collect incentives for using electronic health records. Dr. Hripcsak was elected fellow of the American College of Medical Informatics in 1995 and served on the Board of Directors of the American Medical Informatics Association (AMIA). As chair of the AMIA Standards Committee, he coordinated the medical-informatics community response to the U.S. Department of Health and Human Services for the health-informatics standards rules under the Health Insurance Portability and Accountability Act of 1996. Dr. Hripcsak chaired the U.S. National Library of Medicine's Biomedical Library and Informatics Review Committee, and he is a fellow of the National Academy of Medicine, the American College of Medical Informatics, and the New York Academy of Medicine. He has served on several National Academy of Medicine and National Academy of Sciences committees, and he

Gurvaneet Randhawa, M.D., M.P.H., is a Medical Officer in the Health Systems and Interventions Research Branch (HSIRB). Before joining NCI, he worked at the AHRQ for 13 years where he was a Medical Officer and a Senior Advisor on Clinical Genomics and Personalized Medicine. Prior to joining AHRQ, he completed his Preventive Medicine residency at Johns Hopkins University in 2002, which included a stint at NIAID. He completed an Internal Medicine internship at the University of Pennsylvania in 2000. Prior to that, he trained for nine years in biomedical research at Johns Hopkins and at M.D. Anderson Cancer Center. His research interests at that time were in molecular biology and genomics with a focus on chronic myelogenous leukemia. He obtained his medical degree from Medical College, Amritsar, India.

Dr. Randhawa served in several roles at AHRQ. He started work in the U.S. Preventive Services Task Force (USPSTF) program and soon became the USPSTF program director. He led a reengineering effort to increase program efficiency and productivity, which cleared a multi-year backlog of USPSTF recommendations. More recently, he was the lead author of four ARRA-funded RFAs that created four new programs: Prospective Outcome Systems using Patient-specific Electronic data to Compare Tests and therapies (PROSPECT); scalable distributed research networks; enhanced registries for quality improvement (QI) and comparative effectiveness research (CER); and the Electronic Data Methods (EDM) Forum. These collectively built a national clinical electronic data infrastructure that used prospective, patient-centered outcomes data and connected different clinical databases for CER, which provided a foundation for the PCORI-supported National Patient-Centered Clinical Research Network (PCORnet). The enhanced registries program provided successful models of learning health systems. A major EDM Forum achievement is the launch of a new open-access electronic journal – eGEMs – that has published over 100 papers with over 75,000 downloads in less than three years of existence and is available in PubMed Central. The EDM Forum has created a multi-disciplinary learning community. It supports collaborative methods projects at the intersection of clinical informatics, research, QI and clinical care.

Dr. Randhawa worked with the Developing Evidence to Inform Decisions about Effectiveness (DEcIDE), Centers for Education and Research on Therapeutics (CERTs), and the Evidence-based Practice Centers (EPC) programs. He provided scientific direction to a DEcIDE project to create a new distributed research network in ambulatory care (DARTNet), which evolved into an independent, self-sustaining organization called the DARTNet Institute. DARTNet sustainably implemented screening for depression in primary care. He provided direction to another DEcIDE project to develop a clinical decision support tool for primary care to evaluate patients for BRCA testing, which helps to implement USPSTF recommendations. The tool has been adapted for use by the CDC. He provided program guidance to several EPC projects that evaluated genomic tests for the CDC-sponsored Evaluation of Genomic Applications in Practice and Prevention (EGAPP) working group.

Dr. Randhawa's last role at AHRQ was in the division of health IT, where he helped in the strategic planning for future investments and served as a project officer for health IT grants. He has authored numerous publications, serves as a peer-reviewer for scientific journals, and served in several national committees, including the Secretary's Advisory Committee on Genetics, Health, and Society (SACGHS), steering committee of EGAPP, planning board of a FDA-supported national medical device surveillance system, and steering committee of the PCORnet.

SUMMARY:

Topic: Conducting Large-Scale Treatment Research in Cancer within the OHDSI Network

Speakers: George Hripcsak, M.D., M.S., Columbia University, and Gurvaneet Randhawa, M.D., Ph.D., NCI

Date: Wednesday, February 14, 2018

Time: 11 AM – 12 PM ET

Room: 2W908

You are invited to listen to Drs. Hripcsak and Gurvaneet's presentation in the NCI Shady Grove Building on Medical Center Drive or via WebEx. Drs. Hripcsak and Gurvaneet will present on site at the Shady Grove building.

Presentation: A screencast of the presentation will be available for viewing after the event on the NCI CBIIT Speaker Series YouTube Playlist 🗗

About the NCI CBIIT Speaker Series:

The National Cancer Institute (NCI) Center for Biomedical Informatics and Information Technology (CBIIT) Speaker Series presents talks from innovators in the research and informatics communities. The biweekly presentations allow thought leaders to share their work and discuss trends across a diverse set of domains and interests. The goals of the Speaker Series are: to share leading edge research; to inform the community of new tools, trends, and ideas; to inspire innovation; and to provide a forum from which new collaborations can begin. For additional information, including past speaker series presentations, visit the CBIIT Speaker Series page.

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