Science for Dialysis3
DATA SCIENCE contributions to a personalized dialysis treatment: challenges and opportunities.

Friday 20th Sept 2019 · Hospital Universitari de Bellvitge

SESSION DESCRIPTION

#BellvitgeDialysisAI

Precision Medicine aims to provide the right treatment for the right patients at the right time and is deeply connected to Data Science and Machine Learning. Dialysis patients are highly dependent on technology to live and their treatment generates a huge volume of data. The key idea is to ensure that these data will guide medical decisions based on individual patient characteristics (including biomarkers) rather than on averages over a whole population, which is critical because randomized controlled trials usually exclude kidney diseases patients. Furthermore, there is increasing interest for obtaining data about effectiveness of available treatments in current patients care based on Pragmatic Clinical Trials focused on correlation between treatments and outcomes. Thus, a "Data Science" has emerged to improve data collection, storage, cleaning, processing and interpretation from large volume of information. This year, the Science for Dialysis meeting will be devoted to analyze challenges and opportunities of Big Data analysis to facilitate Precision Medicine, and describe new approaches and technologies. We have divided the meeting into 3 parts: data generation, data analysis, and experience with pragmatic clinical trials. We intend to use the computer language R during the workshop, so we suggest installing the program in your laptop https://cran.r-project.org and also reading the R manuals https://www.rstudio.com/products/rstudio/download/ ; http://www.cookbook-r.com

OBJECTIVE

Gain knowledge about the ARGOS project in eHealth, a common model for the standardization of clinical practice and its utility for the care of dialysis patients. We will discover windows of opportunity from open sources software and use R program in a workshop. Finally, we will learn how Pragmatic Randomized Controlled Trials offer data that may be critical to decision-making in real-world.

Accreditation requested to:
Catalan and Spanish Nephrology Association
Catalan Council for the Continuing Medical Education (CME)

CHAIRS

Miguel Hueso (Dialysis Unit. Nephrology Department. Hospital Universitari Bellvitge. L'Hospitalet de Llobregat), Alfredo Vellido (Intelligent Data Science and Artificial Intelligence (IDEAI) Research Center. Universitat Politècnica de Catalunya (UPC Barcelona Tech).

TARGET AUDIENCE

Nephrologists and other physicians, physics, computing scientists, bioengineers, researchers, nurses, graduate students, renal patients and anyone interested in the topic.

INSCRIPTION

Free, but previous inscription to:
rperez@bellvitgehospital.cat is necessary.

PLACE

Sala d'actes Gran de l'Hospital Universitari de Bellvitge.
C/. Feixa Llarga s/n
08907 L'Hospitalet de Llobregat.

SUPPORTED

Palex

PROGRAM

9:00 h. Opening

Sebastián Videla (svidela@bellvitgehospital.cat)
Farmacología Clínica. Unidad de Apoyo a la Investigación.
Hospital Universitari Bellvitge-IDIBELL.

Josep M Cruzado (jmcruzado@bellvitgehospital.cat)
Servicio de Nefrología.
Hospital Universitari Bellvitge.

INTRODUCTION

9:15 h. Science Data for Dialysis

Miguel Hueso (mhueso@idibell.cat)
Servicio de Nefrología. Unidad de Hemodiálisis.
Hospital Universitari Bellvitge-IDIBELL.

DATA GENERATION

9:30 h. ARGOS Project in eHealth: A path towards the standardization of clinical practice and how to analyze this Big Data

LLuis de Haro (ldeharo@gencat.cat)
Director de los Sistemas de Información Hospitalarios.
Institut Català de la Salut (ICS).

10:00 h. eHealth and remote health models for dialysis Units: The nephrologist's point of view

Jordi Calabia (jcalabia.girona.ics@gencat.cat)
Servicio de Nefrología. Hospital Dr. Josep Trueta, Girona.

10:30 h Coffee Break

DATA ANALYSIS

11:00 h. Open Source Software in the Medical Domain: A window of opportunity

Alfredo Vellido (avellido@cs.upc.edu)
UPC BarcelonaTech, IDEAI Research Center.

11:30 h. Hands-on programming with R: The R Project for Statistical Computing

Cristian Tebé (ctebe@idibell.cat)
Unitat de Estadística. Departamento de Investigación Clínica.
Hospital Universitari Bellvitge-IDIBELL.

PRAGMATIC CLINICAL TRIALS

13:30 h. Low-risk pragmatic trials with medicines: current and long-term opportunities

Rafael Dal-Ré (rafael.dalre@quironsalud.es)
Unidad de Epidemiología. Instituto de Investigación Sanitaria
Hospital Universitario Fundación Jiménez Díaz. UAM.

14:30 h. General remarks

Generalitat de Catalunya
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