Research Collaboration in the DOPPS Program: Optimizing care in advanced CKD and the transition to dialysis

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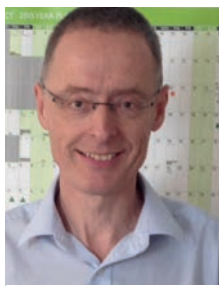

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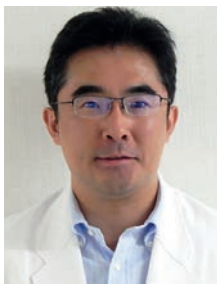

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The Dialysis Outcomes and Practice Patterns Study (DOPPS) began in 1996 as a prospective cohort study of hemodialysis (HD). From the outset, the goal of the study has been to better understand HD facility practices that are strongly associated with outcomes for HD patients and inform best practices in HD care. The DOPPS Program continues to grow and has included the participation of 23 countries, including Australia, Bahrain, Belgium, Brazil, Canada, France, Germany, Italy, Japan, Kuwait, New Zealand, Oman, Qatar, Russia, Saudi Arabia, Spain, Sweden, Thailand, Turkey, United Arab Emirates, United Kingdom, United States, and China (large metropolitan regions of Beijing, Guangzhou, and Shanghai). A key principle in the design of the DOPPS Program is to collect extensive detailed patient-level and facility-level data and employ statistical modeling approaches that strive to minimize treatment by indication bias. The ultimate goal of the DOPPS Program through these efforts is to lead to improvements in care that allow patients to live longer with better quality of life.

Based on DOPPS successes in hemodialysis, additional studies of chronic kidney disease (CKD) and peritoneal dialysis (PD) patients have been launched. These studies share similar goals and design principles as the hemodialysis study. The Chronic Kidney Disease Outcomes and Practice Patterns Study (CKDopps) studies patients with advanced CKD (estimated glomerular filtration rate [eGFR] < 45 ml/min/1.73 m^2) followed at nephrology clinics. The Peritoneal Dialysis Outcomes and Practice Patterns Study (PDOPPS) was designed to identify predictors of PD technique survival.

Since its inception in 1996, the DOPPS Program has published more than 200 papers covering a broad spectrum of HD practices, based upon nationally representative samples of HD facilities and patients in each country. Examples of the breadth of DOPPS research published during the last several months include international papers on hepatitis C infection in patients on HD, dialysate potassium and serum potassium in HD, interdialytic weight gain, and a methods paper on use of observational data in HD research. From the beginning, DOPPS research has had a special focus on patient self-reporting of many different experiences while receiving chronic hemodialysis therapy for kidney failure.

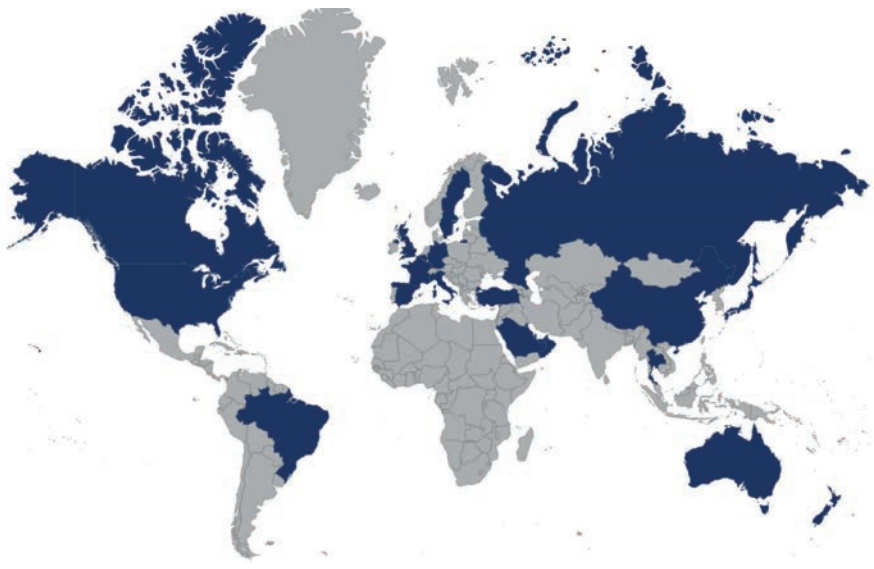
The DOPPS Program is made possible through generous support by a consortium of biopharmaceutical and government sponsors, who provide their support without restrictions on publications. Furthermore, it is the many contributions and devoted efforts of more than 100 investigators, study team members, clinical research associates, hundreds of dialysis unit staff, and more than 80,000 patient participants across 23 countries, who together provide findings from the DOPPS Program to help inform care for advanced CKD and dialysis patients worldwide. The DOPPS Program is honored and very appreciative of the opportunity once again to share these international findings with attendees of the ERA-EDTA Congress in an interactive session that we hope encourages and nurtures opportunities for new research directions.

In the first part of this session, Dr Hugh Rayner will provide an overview of the DOPPS Program and extend an invitation to those wishing to collaborate on future research projects. The DOPPS Program is committed to collaboration with external investigators to maximize the scientific value of the wealth of data made possible by all the participating facilities and patients. Visit www.DOPPS.org to learn more about opportunities for collaboration.

CKDopps: Improving outcomes in advanced CKD and the transition to dialysis

CKD, even in its early stages, is associated with an increased risk of cardiovascular events and progression to end stage renal failure. As we know from the DOPPS, mortality rates reach the highest level after dialysis start, indicating that transition to dialysis is the most vulnerable phase in the treatment of CKD. The goal of the CKDopps is to study variations in advanced CKD practices and to identify nephrologist practices associated with better patient outcomes for moderate and advanced CKD patients.

Dr Helmut Reichel will give an overview of the CKDopps and study findings relating to transition into dialysis. In this ongoing international prospective cohort study, national samples of nephrology clinics in Brazil, France, Germany, Japan, and the United States are enrolled. Descriptive data will demonstrate important variations in practice across countries. Patient characteristics at the time of transition into dialysis will be described in order to address key questions, such as the problem of identifying the optimal timing of dialysis start, and best practices to optimize dialysis access use at this start. Furthermore, differences in practices will be investigated by patient characteristics and preferences.



DOPPS: Impact of clinical practices on early mortality among HD patients

The period soon after the start of dialysis is recognized as a critical time for patients with CKD. Patients are more vulnerable physically and psychologically, and are just beginning to adapt to this lifelong treatment. A study based on the United States cohort of the DOPPS found that this high mortality period after HD initiation extends through the first 120 days of treatment. This study also identified the factors associated with elevated mortality early after the initiation of HD.

Dr Takeshi Hasegawa will discuss these findings and provide further details about subsequent studies examining the prevalence of pre-dialysis nephrologist care, which varied not only by country but also by facility. These variations helped to answer questions about the possible benefit of increased attention to pre-dialysis nephrologist care as a modifiable determinant of early mortality and quality of life among HD patients.

PDOPPS: Predictors of early successful PD use

The PDOPPS is a multinational collaborative study currently involving seven countries (United States, Canada, Japan, Australia, United Kingdom, New Zealand, and Thailand) with the primary aim of better understanding modifiable causes of technique failure. Its workgroups include the clinical application of PD therapy, catheter access and function, infection prevention and management, dialysis prescription and fluid management, patient training and education, and patient support.

Currently 210 facilities are actively participating in the study, with 6630 patients so far consented. It is by far the largest cohort PD study conducted to date. The patient involvement group has specifically explored aspects of modality choice, and quality of life is also reported. A sub-study in the United Kingdom (UK Cath) explores the relative PD outcomes associated with surgical and medical insertion pathways. Genetic influences on peritoneal membrane function are the subject of a further sub-study (BioPD).

Dr Martin Wilkie will discuss early results of the PDOPPS study, including variations in peritonitis rates and infecting organisms, infection-associated hospitalization and catheter removal, and differences in training practices and preventative measures between countries.

Recent results from the EURODOPPS

The EURODOPPS is a collaborative venture between the European Renal Association-European Dialysis and Transplant Association (ERA-EDTA) and Arbor Research Collaborative for Health. The aims of the project are to aid European investigators in analyzing epidemiological data on patients receiving hemodialysis in seven European countries (Germany, Italy, France, United Kingdom, Belgium, Spain, and Sweden) to address scientific and policy-related questions.

In the three years since its conception, the EURODOPPS initiative has provided an opportunity for seven European investigators to analyze the EURODOPPS data, culminating in eight projects from two calls for research proposals. With nearly all research projects from the first call coming to completion, the EURODOPPS celebrated its first publication in Nephrology Dialysis Transplantation at the beginning of 2017.

Dr Ayesha Sajjad, the EURODOPPS study coordinator, will provide an update on the progress of the EURODOPPS and will further highlight interesting results from some ongoing research projects.

Session 0.13
Optimizing care in advanced CKD and the transition to dialysis: Insights from DOPPS Program
Monday, 15.15 – 16.45, Hall 10

YouTube

View the ERA-EDTA 2017 Broadcast on the YouTube playlist here.