



Improving care of patients infected with hepatitis B virus (HBV) infection in Senegal

Context

Chronic HBV infection affects approximately 10% of the general population in West Africa, which makes it one of the most important public health problems in the region. More than one half of all cases of liver cirrhosis and cancers are estimated to be caused by this infection. However, general awareness and health infrastructures directed towards care of HBV-infected populations remain poor. While HBV therapy is still out of reach for most HBV-infected individuals in the region, progress towards universal access to these drugs is underway. Tenofovir disoproxil fumarate (TDF), an antiviral drug recommended and widely used in first-line treatment for HIV infection in Senegal, is also highly active against HBV infection and is now accessible as a generic drug at fairly low cost.

Considering the new recommendations by the World Health Organization to screen the general population for HBV infection in all high-prevalence countries, there is a need to improve HBV testing, linkage to care, evaluation of treatment eligibility and monitoring. Many important stakeholders have expressed the urgent need for a comprehensive strategy for HBV care in Senegal, but diagnostic capacity as well as resources for treatment expansion are currently limited.

Project description

We aim at developing an institutional partnership between Bern University Hospital and Dakar University Hospital to improve care of patients infected with hepatitis B virus (HBV) infection. Based on current standard of care for HBV-infected individuals in Bern, we will adapt diagnostic tools and help improve treatment monitoring of similar patients in Dakar. Building on previous experiences in Switzerland and Senegal, we will also help two clinical centres in Senegal (Hepatology unit at Hôpital Principal and Infectious Diseases Unit at Hôpital Fann) to develop an electronic data collection system to facilitate clinical work, improve clinical monitoring and develop research capacities, especially for young hepatology and infectious diseases fellows.

This Esther start-up fund will be used to organize a 2-day workshop in Dakar, Senegal, during the first half of 2017 to prepare the proposed long-lasting collaboration between the two institutions. The main partners for this collaboration will be present, including key staff from the following institutions (in total approx. 50 persons):

- Department of Infectious Diseases at Fann University Teaching Hospital in Dakar, Senegal
- Department of Gastroenterology and Hepatology at Hôpital Principal de Dakar, Senegal
- Department of Infectious Diseases, University Hospital Bern, Switzerland
- Institut de Santé Publique, Epidémiologie et Développement, Université Bordeaux, France
- Programme national de lutte contre les hépatites au Sénégal
- University virology laboratories
- Ministry of Health of Senegal
- Patient organizations



During this meeting, all main issues regarding the planning of the partnership will be discussed, including:

- Infrastructure: new clinical monitoring tools such as ultrasonography, transient elastography (Fibroscan), access to serological and virological analyses
- Organizational framework: set-up of a project committee including important stakeholders, health authorities, clinicians and researchers
- Access to treatment
- Electronic data collection system and research capacities
- Application for additional funding mechanisms

Partnership

Dr. G. Wandeler, an attending physician at the Department of Infectious Diseases at University Hospital Bern, was based at University Hospital Dakar during 4 years (2012-2016), where he provided clinical, academic and research support to the Department of Infectious Diseases at Fann Hospital. With support from the Swiss National Science Foundation (Ambizione Prosper Grant) and the National Institutes of Health (IeDEA network), he helped develop a research and training platform on HIV and viral hepatitis infections in West Africa. In 2014, Prof. Seydi (chief of department of infectious diseases at Fann University Hospital), Prof. Fall (chief of gastroenterology unit at University Hospital Principal), Dr. Jaquet and Prof. Dabis (both at University of Bordeaux) as well as Dr. Wandeler were granted a 1-year initiation contract by the ANRS (France) to describe practices towards HBV infection in Senegal, including physician's knowledge about the infection as well as the available screening, diagnostic and treatment capacities in the country. The mapping of health care facilities and laboratories which had available infrastructure and qualified personnel for the management of HBV infection was an important step towards understanding the potential gaps in this field in Senegal. This project was the beginning of a strong clinical, operational and research collaboration between the partners mentioned above.



The two University Teaching Hospitals in which the project is intended to start in Dakar, Senegal: Hôpital Fann (left) and Hôpital Principal (right).



This partnership aims at improving many aspects of viral hepatitis management in Senegal: screening and linkage to care of diagnosed patients, pre-treatment assessment of liver diseases, access to treatment, clinical monitoring, and evaluation of outcomes. This partnership will also be dedicated to finding additional funding mechanisms to support the planned work and the long-standing experience of the team in the field of clinical infectious diseases and public health will greatly increase the chances of success of this project. Knowledge transfer, advocacy and improvement of the infrastructure for the optimal management of HBV infection will be key elements of this partnership.

Timeframe

The workshop in Dakar is planned for March 2017. A report including all main topics discussed and strategic decisions taken will be drafted in April, including a version in French intended for Senegalese participants and the Ministry of Health in Senegal. A full proposal will be submitted in the next Esther call for proposals.

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