



IN THE FIELD

Johan A. Aarli, MD, President of the World Federation of Neurology (WFN): Addressing Unmet Neurology Needs Worldwide

BY ELIZABETH STUMP

Since 2006, Johan A. Aarli, MD, has served as president of the World Federation of Neurology (WFN), a non-governmental organization founded in 1957 to improve human health internationally by advancing the prevention and treatment of neurological disorders. His main priority has been to promote neurology in developing countries, particularly in Africa; sub-Saharan Africa is the poorest region in the world and is facing the most dramatic health crisis.



DR. JOHAN A. AARLI: "In Africa, thousands of people still die from treatable diseases. AIDS/HIV is a global problem, but sub-Saharan Africa has a high prevalence of the disease. Eighty percent of patients with epilepsy live in the developing world, where 80 percent of them receive no treatment at all."

Dr. Aarli graduated from the University of Bergen in Norway in 1961, and then served as professor and chairman of the department of neurology at the University Hospital in Bergen. Additionally, he was the dean of the faculty of medicine at the University of Bergen (1985-1988) and has been the director of the Neuroclinic at the Haukeland University Hospital since 2003. His chief field of research is neuroimmunology, especially myasthenia gravis, and he has published over 314 scientific papers and three books.

Over the years Dr. Aarli has taught in academic settings around the globe and been a member of numerous medical organizations, including the AAN, the British Association of Neurologists, and the French Neurological Association. He served as the first vice president of the

WFN (2001-2005), the Secretary-General of the European Federation of Neurological Societies (2002-2005), and since 1995 has chaired the World Health Organization Liaison and Public Relations Committee of the WFN. Dr. Aarli was also knighted by King Harald V of Norway to Knight, First Class, of Saint Olav's Order in 1996.

Dr. Aarli spoke with Neurology Today about fostering education and neurological care worldwide.

WHAT ARE THE WFN'S PRIORITY ISSUES?

One major issue in international neurology is the role of neurologists in acute stroke treatment. It is a dominating cause of death and serious disability, and without urgent action, deaths from stroke will increase over the next decade by 12 percent globally — and by 20 percent in resource-poor countries. The WFN will intensify its work against stroke through education programs and by promoting treatment and research. The WFN wants to establish an annual World Stroke Day and collaborate with neuroscience organizations and public health services to reduce the global burden of stroke.

The WFN strongly supports the Global Campaign against Epilepsy, initiated by the International League Against Epilepsy and the WHO (World Health Organization) in 1997, as well as the WHO Global Campaign to Reduce the Burden of Headache Worldwide. The Global Campaign against epilepsy, called "Out of the Shadows," works to increase public and professional awareness of epilepsy as a universal, treatable brain disorder; promote public and professional education about epilepsy; and identify the needs of people with epilepsy.

Together with the Parkinson Project, we hope that video-based technique will improve the diagnostics of movement disorders in developing countries. The video-based Parkinson project is new and was discussed at a meeting we had in Africa, where the Canadian Parkinson Disease group presented a new idea of improving the diagnosis of movement disorders in developing countries using video techniques.

PLEASE DESCRIBE SOME OF THE WFN EDUCATION PROGRAMS.

The WFN Education Committee, chaired

by Dr. Theodore Munsat, has developed several successful programs, including a CME Program, conducted with 36 national neurological societies using a group discussion of *Continuum*, generously donated by the AAN. The group discussions on *Continuum* take place among neurologists in the CME program. Each CME group has a coordinator who is responsible for the distribution of the *Continuum* and for the thorough discussions on the topics presented.

Seminars in Clinical Neurology, a collection of monographs on important neurology topics published periodically by the WFN, is distributed to countries where there is an unfulfilled need for neurological educational material. The WFN also initiated a series of books (published by Demos, Inc., and edited by Jerome Engel, MD) for neurology health caregivers practicing in low-resource environments, available in hard copy or online.

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Other programs include a neurology residency training program in Honduras, now in its tenth year and recognized as one of the best departments in Central America; the WFN Book Exchange Program that matches people wishing to donate books and CDs to people in developing countries who want to receive them; and organizing teaching courses in neurology in Africa. EFNS and the WFN will organize the first course of this type in Senegal in June 2008.

TELL US ABOUT THE NEUROLOGY CRISIS IN AFRICA AND THE WFN'S WORK TO PROMOTE PREVENTION AND TREATMENT?

The main issue relates to poverty and the lack of medical infrastructure, especially in some African countries like Ethiopia, for example, that has eight neurologists and 80 million inhabitants. In far-flung rural areas where care is usually provided

In the Field features interviews with leaders of neurology or related organizations.

by primary care physicians or health care workers, enhancing the neurological education of these professionals may be the best way to care for those with neurological disorders.

In some sub-Saharan African countries where a neurology service exists (especially the Francophone countries like Senegal, Cameroon, and Cote d'Ivoire), "neuro-caravans" bring teams of neurologists from capital cities to the regions lacking neurology care for two days to train health personnel in the care of patients with epilepsy and other neurologic conditions.

In Africa, thousands of people still die from treatable diseases. AIDS/HIV is a

global problem, but sub-Saharan Africa has a high prevalence of the disease. Eighty percent of patients with epilepsy live in the developing world, where 80 percent of them receive no treatment at all.

No antiepileptic drugs are available through the primary health-care system in 6.2 percent of responding countries in Africa and anti-Parkinson drugs are available in only 12.5 percent. Many of the antiepileptic drugs that are available for patients with both AIDS and epilepsy are cheap drugs that inhibit the effect of the antiviral drugs.

In addition, misconception, stigma, and discrimination are serious obstacles to adequate treatment. We have taken this problem up with the WHO and the International League against Epilepsy.

WHY IS THE FOCUS ON AFRICA?

The WFN focuses upon Africa because

Africa now confronts the world's most dramatic public health crisis. At the WFN Strategy meeting, held during the 2006 AAN meeting in San Diego, there was general agreement on a policy to work out a roadmap for developing neurology in Africa, which we are now preparing.

HOW HAS THE POLITICAL INSTABILITY IN THE REGION (IN PARTICULAR, WITH BORDER NATIONS LIKE ZIMBABWE AND CONGO) AFFECTED THE DELIVERY OF HEALTH CARE MATERIALS AND TRAINING IN THE REGION?

The political instability has interfered with all aspects of health care, but an even worse blow for neurology was the unexpected death of the only neurologist in Zimbabwe, Dr. Jens Mielke, who lost his life in an air crash a month ago.

HOW DOES THE WFN ENCOURAGE WESTERN NEUROLOGISTS TO BECOME MORE ACTIVE IN THIRD WORLD NATIONS?

It is very important to promote exchange programs with African neurologists. Ryuji Kaji, MD, PhD, professor and chairman of the department of neurology at the

Tokushima University Graduate School of Medicine in Tokushima, Japan, has provided an excellent four-year fellowship for young African neurology trainees in Tokushima, and the WFN is organizing department-to-department programs modeled after the successful EFNS program for East Europe. EFNS is organizing teaching courses of neurology in various East European countries. The department-to-department program gives young neurologists possibilities to visit and train at neurological departments in Western Europe.

The WFN sponsors Junior Traveling Fellowships, especially designed for young neurologists from developing countries, which are important in supporting young neurologists in their career.

The WFN also offers visiting professorships in Zambia, initiated by Dr. Gretchen Birbeck of Michigan State University. This program sends neurologists to the Chainama College of Health Sciences for several weeks and aims to improve the current quality of medical education and medical care in Zambia, and now also in Malawi.

WHAT ARE SOME OF YOUR GOALS FOR THE WFN?

We need to make neurology a top priority for national medical organizations.

The major international political organization that can influence health planning and health economics is the World Health Organization (WHO). The WFN must work together with the WHO to improve human health worldwide by promoting better prevention and care of neurological disease. During my period in the WFN, we collaboratively published two books, the *Neurology Atlas* (1994) and *Neurological Disorders: Public Health Challenges* (2007).

In 2007, the Chinese Neurological Society became a member of the WFN. The Taiwan Neurological Society remains, as before, a member with the same rights as other member societies. With China on board, the WFN covers

most of the world's population. The number of member societies has increased from 90 in 2003 to 104 in 2008, and the highest number of neurologists are in the USA, Russia, Poland, India, and Brazil.

I have been working to make the WFN more visible. The World Congresses of Neurology, which have been quarterly, will from now on become biennial, and the venues will be rotated geographically. Also, the WFN Newsletter, *World Neurology*, will begin to include not only internal reports, but also developments in clinical neurology. •

For more information on the WFN, please visit: www.wfneurology.org.

SEND US YOUR CHALLENGING CASES FOR CASE IN POINT

Have you encountered or observed a challenging or out-of-the-ordinary clinical case that required some extra detective work on your part? If so, we'd like to hear more about it for our feature, *Case in Point*. We're looking for a brief description of the clinical problem and the steps taken to solve the challenge; photos and illustrations are welcome. Send your cases for consideration for publication – in 300 words or less – including complete contact information to John Corboy, MD, john.corboy@uchsc.edu.