

Epilepsy management with limited resources, Indonesian experience

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Indonesian Society Against Epilepsy

Indonesia is the fourth most populous country in the world, with more than 200 millions peoples and 13,000 inhabited islands, but with a per capita income of less than US\$ 700. Health care facilities like in other developing nations are limited. This is due to inadequate fund, health provider and distance from health care centres. There is significant difference between health care facilities in the large cities especially in Java, and the outer regions such as west Papua.

Patient and family awareness

Epilepsy carries a social stigma. It is thus important to educate the general public that epilepsy is largely non-hereditary, is not a mental illness and is not contagious. Due to poverty, ignorance, and limited health care facilities, at most only 10 percent of people with epilepsy seek help from modern medicine. Most of the population does not have health insurance. So our priority is reaching those with treatable epilepsy so that they can lead a normal live, rather than concentrating the resources on those with intractable epilepsies.

Health care workers

There is currently one doctor in 6,000 populations in Indonesia. The ratio of neurologist per population is about one in 367,000. It is one in about 200,000 populations for pediatrician. The government health service begins at the rural health centre, which is in charge of by a general practitioner. The next level is at the district, with hospital and medical specialist. Then the central regional hospital at the provincial level, with neurological and pediatric department. On the other hand, most physicians, including the general practitioners and specialists has their private practices in the afternoons and evenings, and hold a consultant position in the private hospitals. So there is a dual system of government and private health care services. There are about 600 Neurologists in Indonesia, about two thirds of whom practice in the big cities, mostly where there is a medical school. Few of the Neurologists

and Pediatricians have formal training in epileptology and EEG. Presently one neurosurgeon in the country is doing functional epilepsy surgery. Periodic teaching courses have been conducted in the various provincial capitals by members of the Indonesian Society Against Epilepsy.

Diagnostic /management facilities

EEG is present in the main cities; most using basic non-digital apparatus. Video-EEG is available in a few cities only. CT scans and MRI are available in most of the major cities, especially in Java. The cost of conducting an MRI examination is relatively high as compared to the standard of living. Epilepsy clinics are found in many of the major cities, mostly where there are teaching hospitals and medical schools. There is presently no comprehensive epilepsy centre in Indonesia. Functional epilepsy surgery is performed only in Semarang, central Java

Availability of antiepileptic drugs

In the pharmacies in the cities, practically all antiepileptic drugs are available. However, in the rural health centre (*Pusat Kesehatan Masyarakat*), where most poor people seek health care, only limited antiepileptic drugs (phenobarbital, phenytoin, carbamazepine) are available. The medical practitioners generally prescribe the cheapest antiepileptic drugs.

Government policy

At present, epilepsy is under the Director of Mental Health. However, psychiatrists are not trained to manage epilepsy. In the district hospitals and rural health centres, theoretically basic antiepileptic drugs should be available. However, the supply of the drugs is often erratic. Currently there is a shortage of phenobarbital, which is the cheapest antiepileptic drug. This is because of the strict regulation on narcotic drug, where phenobarbital is listed. The regulators did not take into account phenobarbital is still the most affordable and widely used antiepileptic drug.

We are lobbying the authorities to review this.

Indonesian Society against Epilepsy

Presently, the main priorities of the Society are to educate people with epilepsy and their families to seek help, and to train as many physicians as possible to treat epilepsy. There is an epilepsy foundation in Jakarta headed by Mrs Mahar Mardjono. The Society also try to lobby the Government for steady supply and affordable antiepileptic drugs, and to upgrade the EEG and imaging facilities. The Society also gives priority to training of specialists with interest in epilepsy.

In conclusion, due to limited resources in health care personals, diagnostic facilities and problems in the availability of affordable antiepileptic drugs, management of epilepsy in Indonesia still has a long way to go to reach all those in need.