

# Medical Care Networks for Dementia Patients

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## Abstract

In 2008, the Ministry of Health, Labour and Welfare of Japan announced “The Emergency Project for the Improvement of Medical Care and Quality of Life for People Suffering from Dementia” to prepare for the ongoing rapid graying society. In response to the project, local prefectural and ordinance-designated city governments nationwide have initiated the development of medical networks for patients with dementia. Fukuoka City has a population of about 1.48 million people including an estimate of more than 20,000 patients with dementia. In this city, a dementia medical center was set up in Kyushu University Hospital, based on Fukuoka City’s original network system in which 109 dementia consultant physicians are in charge of the initial diagnosis, and 39 cooperating hospitals deal with peripheral symptoms and complications of dementia, under coordinated management by the Fukuoka City government and the Fukuoka City Medical Association. Since the launch of this system, about 150 new patients per month have been diagnosed with dementia. It is important that medical care, welfare, and nursing care cooperate in the development and maintenance of a medical network for the dementia patients in the community, and the preparation of a unique network characteristic of the locality is desired. To provide appropriate care in the future to the increasing number of dementia patients, wide-ranging support by the entire society beyond the boundaries of different occupations is essential in addition to the network preparation.

**Key words** Dementia care cooperation, Dementia medical center, Dementia support physician, Dementia’s primary care physician

## Introduction

In July 2008, the Ministry of Health, Labour and Welfare (MHLW) of Japan issued a report on “The Emergency Project for the Improvement of Medical Care and Quality of Life for People Suffering from Dementia.” Advocating the basic policies “promotion of early diagnosis and provision of appropriate medical care” and “spread of appropriate care and provision of support to patients and their families,” the MHLW set up dementia medical centers in 150 places across the country, and initiated a grant-aided project to prepare dementia care networks that provide comprehensive care including medical and nursing cares in cooperation with community general support centers. Because of this project, prefectural and ordinance-designated city governments

in this country were urged to develop and maintain the medical care network for patients with dementia.

Dementia medical centers had been set up at 147 sites across the country by December 2011, including the community-based medical centers mentioned below. This report describes the organizations comprising the dementia medical care network, introduces network example cases from Fukuoka City and Kumamoto Prefecture, and discusses tasks that must be undertaken in the future.

## Composition of the Dementia Care Network

### Dementia medical center

The dementia medical center is designated by

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the prefectural governor or the mayor of the ordinance-designated city under the governmental subsidy. The roles of the center are to provide 1) specialized medical consultation, 2) differential diagnosis and early intervention based on the diagnosis, 3) acute management of complications and peripheral symptoms, 4) training sessions for primary care physicians, etc., 5) dementia coalition conferences, and 6) transmission of information. For this purpose, certain institutional criteria have been formulated.

### Community general support center

The community general support center is responsible for the preparation of a dementia call center, in which persons in charge of the dementia care network are deployed. In addition, the support center serves as a bridge between medical and nursing cares in cooperation with the dementia medical center and nurtures supporters of dementia patients, as will be described later.

### Dementia support physicians

Physicians who have completed the MHLW-prescribed “training course to nurture dementia support physicians” are accredited as dementia support physicians who provide the initial diagnosis and treatment of patients with dementia. In addition, the physicians plan training programs in cooperation with the dementia medical center, the government, etc., and serve as lecturers in dementia-related training programs.

### Dementia’s primary care physicians

Physicians who are not specialized in dementia but have participated in “the training program for primary care physicians to improve their skills of dementia management” are expected to respond appropriately to patients with dementia and provide daily treatment of dementia working with a coalition of specialists.

### Dementia supporters

Persons who have attended a “training seminar for nurturing dementia supporters” designed for promoting a proper understanding of dementia and support for patients with dementia and their families are referred to as dementia supporters. This training seminar, which is open to the general public and companies, is held jointly by the community general support center and the dementia caravan mate who takes the role

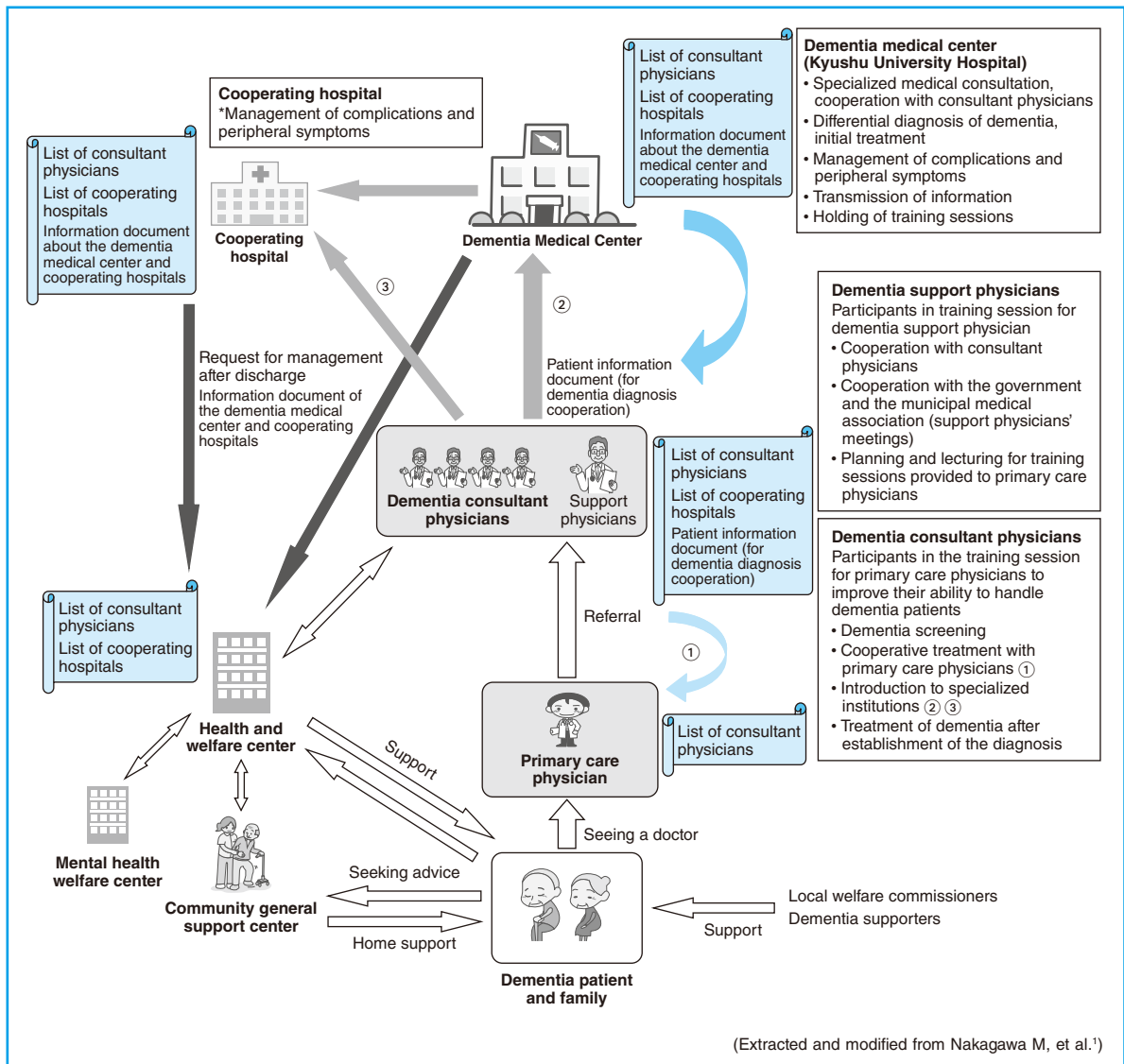
of lecturer for the training seminar.

## Dementia Care Network in Fukuoka City

Fukuoka City, comprised of 7 wards, is an ordinance-designated city having an area of about 341 km<sup>2</sup> and a population of about 1.48 million people. This city has 39 community general support centers, and a dementia medical center was set up in Kyushu University Hospital in Fukuoka City in November 2009. The dementia cooperation project was concurrently entrusted to the Fukuoka City Medical Association. After the implementation of the model project in a ward in February 2010, a dementia care network system was launched citywide in October 2010.

It is estimated that, in Fukuoka City, there are about 250,000 people aged 65 years or older and more than 20,000 patients with dementia. In this city, dementia consultant physicians, i.e. physicians accredited independently by the Fukuoka City government, also work in cooperation with the network to avoid convergence of a large number of dementia patients on a particular dementia medical center (**Fig. 1**).<sup>1</sup> Dementia consultant physicians make the initial diagnosis of patients referred by the primary care physicians, identify patients who require differential diagnosis, and refer them to a dementia medical center. Patients who are diagnosed with dementia during the initial diagnostic process are treated with the cooperation of their primary care physicians. Dementia consultant physicians are recruited openly from among dementia’s primary care physicians, and 109 dementia consultant physicians had been accredited in the city as a whole as of December 2011. Of these dementia consultant physicians, neuropsychiatrists account for 40%, and other specialists for 60%, indicating the extensive participation of physicians other than dementia specialists. The list of dementia consultant physicians is made known to medical association members, and is also open to the public on the website of the Fukuoka City Medical Association. In addition, as representatives of dementia consultant physicians, 1 or 2 support physicians who are deployed per ward play a liaison role for the Fukuoka City Medical Association, medical centers, and the government.

“Cooperating hospitals” represent an essential factor in the medical care network for patients



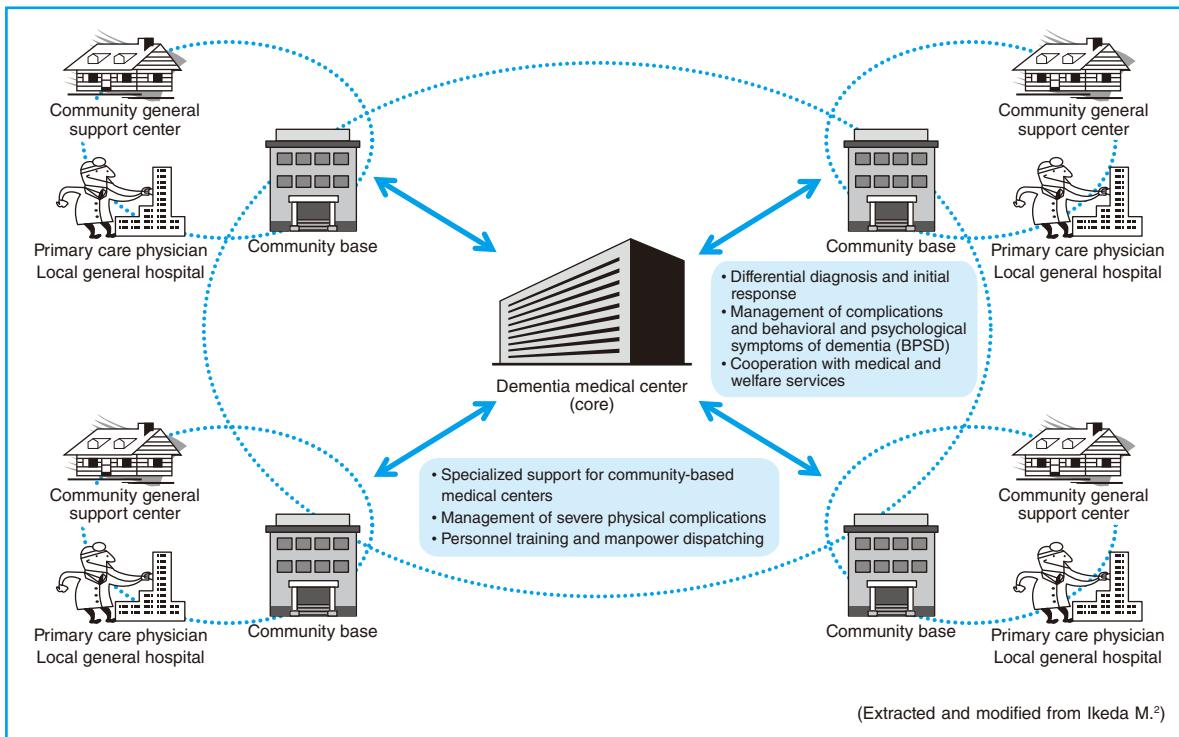
**Fig. 1 Dementia medical network in Fukuoka City**

Dementia consultant physicians (mainly dementia support physicians in each ward) make the initial diagnosis of patients referred by these primary care physicians, select patients requiring differential diagnosis, and refer them to the Dementia Medical Center (Kyushu University Hospital). If patients require hospitalization because of physical complications or peripheral symptoms, they are referred to the Dementia Medical Center or a cooperating hospital.

who require hospitalization, surgery, or other treatments because of peripheral symptoms or physical complications of dementia. The Fukuoka City Medical Association responds to requests from consultant physicians, with cooperation from 20 psychiatric hospitals and 13 general hospitals lacking psychiatric units in the city and 6 hospitals in adjacent cities. If there are difficulties in handling patients discharged from cooperating

hospitals, health and welfare centers in respective wards of the city can be involved in the care of discharged patients. Health and welfare centers cooperate with community general support centers on the basis of patient data obtained from cooperating hospitals to deal with home care and institutionalization of patients.

According to the survey carried out during a 4-month period from April to July in 2011,



**Fig. 2 Two-tier network in Kumamoto Prefecture (Kumamoto model)**

The medical network for dementia patients has a two-tier structure comprised of 9 community-based medical centers and 1 core medical center (Kumamoto University Hospital). The former serve as bases for the differential diagnosis of dementia, initial response based on the diagnosis, acute treatment for physical complications and peripheral symptoms, and cooperation with primary care physicians and community general support centers. The latter controls the overall prefecture and is in charge of personnel training and providing specialized support for community-based medical centers.

dementia was diagnosed or suspected in 604 of 640 patients who visited a consultant physician for the initial diagnosis of dementia, showing that about 150 new patients are diagnosed with dementia on the average per month.

### Two-Tiered Network (Kumamoto Model)

In contrast to the pyramidal network with the dementia medical center being the top of the hierarchy as seen in Fukuoka City, Kumamoto Prefecture has a two-tiered network system composed of a single core medical center and multiple community-based medical centers (Fig. 2).<sup>2</sup>

Kumamoto Prefecture has an area of about 7,400 km<sup>2</sup> and a population of about 1.81 million people. The core dementia medical center is situated at the Kumamoto University Hospital, and there are 9 community-based medical centers within the prefecture. Although foundation of two dementia medical centers in principle was

assumed in this prefecture, the two-tiered network system was devised by Professor Manabu Ikeda at the Kumamoto University to cover the vast size of the prefecture. Among its characteristic features, the core medical center provides specialized guidance and sends specialists to community-based medical centers, as well as supporting case study sessions and workshops in which all 10 centers participate. Community-based medical centers provide regional cooperates concerning dementia cares appropriate to each region, making use of the accumulated experience of the hospital-clinic cooperation in each region. This two-tiered network system is inferred to be extremely useful in a locality having a large area.

At first, the national subsidy was divided between the core medical center and community-based medical centers. However, the MHLW appropriated a grant of approximately 580 million yen (approx. USD 5.9 million as of July

2013) to cover the costs of the fiscal 2010 project, giving consideration to community-based medical centers around the country.<sup>3</sup>

## Future Tasks

### Management of physical complications of dementia

For proper provision of the medical network, the management and handling of physical complications of dementia is an issue of the utmost importance. Because elderly people often have several concurrent diseases it is predicted that there will be a considerable rise in the number of dementia patients with physical complications. It is extremely difficult to treat patients who have peripheral symptoms such as wandering and delusion if they refuse oral medication or other treatments. It is also difficult to perform routine tests and examinations and treatments administered by force may worsen the symptoms of dementia. Therefore, interventions and nursing care suited to dementia patients are crucial.<sup>4,5</sup>

It is desirable that dementia patients be treated jointly by a psychiatrist and a physician with different specialty. However, general hospitals with a department of psychiatry are limited, and psychiatric beds are grossly deficient under the present circumstances. It is presumed that cooperation between psychiatric hospitals and multiple general hospitals or team medical care provided by dementia specialists and general hospitals is necessary for dealing with the increasing number of dementia patients who have physical complications. To this end, there is an urgent need to achieve improvement in the understanding and knowledge of general physicians and to provide education and training for nurses and other medical staff members.

### Management of elderly people living alone

If elderly people living alone have dementia or if both care-receivers and caregivers who are of advanced age have dementia, it may be difficult to bring them under the care of a medical institution even when a community general sup-

port center or a local welfare commissioner recognizes dementia onset. To prevent creating “dementia refugees” with no place for recuperation, it is necessary to establish a system by which dementia patients can be diagnosed and treated by home visiting doctors or through home visiting medical services under cooperation with government, local medical association, and private-practice physician.

### Enlightenment of society

To support dementia patients in society, it is necessary to promulgate accurate knowledge and understanding of dementia to members of the public. It is also important to nurture and educate dementia supporters among the younger generation, particularly people working for companies that have frequent contact with the elderly.

## Conclusion

The characteristic feature of dementia medical networks is that the mainstay of dementia patient management is composed of welfare services (administrative activities) and nursing care as well as medical care. The cases from Fukuoka City and Kumamoto Prefecture represent only two examples among many. It is desirable that a network unique to each region be developed, taking advantage of the characteristic features of the region (size and population density of the region, number and location of and access to specialized hospitals and physicians, etc.). In addition, to provide appropriate care to the increasing number of dementia patients, not only the proper provision of medical networks but also broad-based support from the entire society is essential.

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