Topic

Considering the Feasibility of Introducing Nurse Practitioners into Japanese Thoracic Services

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The need to change Japan's current health care system has recently motivated discussions about the introduction of nurse practitioners (NPs). This system might not be familiar to Japanese physicians; however, their roles have been valued greatly in Canada, which introduced programs for NPs in 1960s. We would like to introduce amazing roles that are performed by an NP in one Canadian thoracic surgery ward, and to refer to the feasibility of NPs providing clinical services for thoracic surgery in Japan.

Key words: nurse practitioner, thoracic surgery, shortage of doctors

What are NPs?

According to the definition designated by the Canadian Nurses Association in 2006, NPs are registered nurses (RNs) with advanced educational preparation (usually a Master of Science degree in Nursing) and experience who possess and demonstrate the competencies to autonomously diagnose, order, and interpret diagnostic tests, prescribe pharmaceuticals, and perform specific procedures within their legislated scope of practice.

Background of NPs

There are two main reasons for the introduction of NPs. The first is to tackle the shortages of physicians, especially to improve the access to primary care physicians. The second is to reduce medical costs while maintaining high quality of care. More than 40 years have passed since the first NP program was established at the University of Colorado (Boulder, Colorado) in 1965 and a second at Dalhousie University (Halifax, Nova Scotia) in 1967. However, making the roles of NPs more practical and more well known in public as well as in the medical society has been difficult. Most NP programs, in fact, disappeared in the 1980s because of oversupply of physicians, not enough remuneration mechanisms, absence of provincial legislation, little public awareness, and weak support from other health professionals. Now, however, the role of NPs has become well recognized and well appreciated in Canada.

About Our Thoracic NP Program

Our thoracic unit covers all patients with surgical indications for general thoracic procedures throughout all Nova Scotia provinces and surrounding areas (including Prince Edward Island), which have a total population of about 1,080,000. The number of operations performed annually by this unit is 800–900. Capacity of the thoracic ward is 27 beds, which are covered by 4 staff surgeons, 1 NP, 31 RNs (6 for daytime shifts and 5 for nighttime shifts), one fellow, senior or junior residents, and medical students. On weekdays, we start a morning round at 6:30 with junior staff personnel (residents, a fellow, or medical students), a charge RN, and the NP to decide about plans for inpatients before the first one is taken to the operating room at 7:30. While operations are going on, other staff surgeons see patients at the ambulatory care unit (outpatient clinic). Junior personnel who do not scrub for operations

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are required to help at their clinics. During the absence of junior staff members at the thoracic ward, our NP is in charge of the ward works. The NP's responsibilities consist mainly of pre- and postoperative patient care, (including the ordering of drugs and the administration of tests), procedural activities (such as chest tube removals and pleurodesis), consultations with patients and their families, direct consultations with responsible divisions and physicians, and supervision of junior personnel and RNs, all of which are normally done by physicians in Japan.

Structural Differences and the Possibility of Iintroducing NPs into Japanese Thoracic Surgery Wards

Before bringing up the feasibility of NPs in Japan, we wish to mention the structural differences of thoracic surgery between Japan and Canada.

One notable major difference is the number of operations performed at each hospital. In Canada, a larger number of thoracic operations are performed by fewer thoracic surgeons at one facility. This idea has been originated from the concept that the more operations surgeons perform, the better the overall result, including surgical competency and outcomes of the operations.[1,2] On the other hand, an attempt has been made to clarify the positive relation between hospital surgical volume and clinical outcomes, but that concept has not been appreciated as well in Japan as it has in Canada.[3]

Therefore it is well understood that some duties formerly carried out by physicians are increasingly being performed by NPs to maintain the high functionality with fewer physicians in Canada, reflecting a good example of job reallocation.

Because I actually work with an NP in the thoracic surgery ward, I sincerely feel that her roles are definitely essential for the high functionality of the surgery performed there. I am also very happy about the management and procedural roles she performs. After scheduled operations are finished, she usually gives appropriate pass-ons to us. Surgeons are less likely to be annoyed by calls from the thoracic ward during operations. She teaches residents and medical students how to interpret clinical situations in thoracic surgery, including instructions on how to make explanations to patients.

However, this system works effectively in particular situations. It means that it functions well, as it does in the Canadian system, and that many more operations should be done by fewer surgeons. In Japan, this NP's roles are undertaken mainly by residents/physicians. Some reports about NPs in cardiac care units elsewhere show that the rates of postoperative complications went down after NPs took over certain responsibilities from residents.[4–6] Moreover, they suggest that patient satisfaction with medical care was higher than when they were being seen by residents.

Conclusions

The introduction of NPs into Japanese thoracic surgery might not be as well appreciated as in Canada because of structural differences. However, if the society of Japanese chest surgery physicians and administrators tries to centralize thoracic patients into larger-volume facilities and to decrease the number of board-certified thoracic surgeons for better functionality and higher standards, we would view the introduction of NPs in a new light.

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