

**EXPECTED NEEDS FOR HOSPITAL PHARMACY SERVICES IN
PALLIATIVE CARE**



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Thesis
Entitled

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PALLIATIVE CARE**



Piyarat Pridiyanon

Miss Piyarat Pridiyanon
Candidate

Wichit Paonil

Asst. Prof. Wichit Paonil
Ph.D. (Medical and Health Social Sciences)
Major-Advisor

Petcharat Pongcharoensuk

Assoc. Prof. Petcharat Pongcharoensuk
Ph.D. (Pharmacy Administration)
Co-Advisor

M.R. Jisnuson Svasti

Prof. M.R. Jisnuson Svasti,
Ph.D.
Dean
Faculty of Graduate Studies

Ampol Mitrevej

Prof. Ampol Mitrevej, Ph.D. (Pharmaceutics)
Chair
Master of Science in Pharmacy
Programme in Pharmacy Administration
Faculty of Pharmacy

Thesis
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was submitted to the Faculty of Graduate Studies, Mahidol University
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(Pharmacy Administration)

on
December 6, 2005



.....

Miss Piyarat Pridiyanon
Candidate



.....

Asst. Prof. Wichit Paonil
Ph.D. (Medical and Health Social Sciences)
Chair



.....

Assoc. Prof. Petcharat Pongcharoensuk
Ph.D. (Pharmacy Administration)
Member



.....

Asst. Prof. Phornlert Chatrkaw
M.D., Diploma in Anesthesia
Member



.....

Prof. M.R. Jisnuson Svasti,
Ph.D.
Dean
Faculty of Graduate Studies
Mahidol University



.....

Prof. Ampol Mitrevej, Ph.D. (Pharmaceutics)
Dean
Faculty of Pharmacy
Mahidol University

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Piyarat Pridiyanon

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PALLIATIVE CARE**

PIYARAT PRIDIYANON 4637417 PYPA/M

M.Sc. In PHARMACY (PHARMACY ADMINISTRATION)

THESIS ADVISORS: WICHIT PAONIL, Ph.D. (MEDICAL AND HEALTH
SOCIAL SCIENCES), PETCHARAT PONGCHAROENSUK Ph.D. (PHARMACY
ADMINISTRATION)**ABSTRACT**

The objectives of this study were to (1) examine various patterns and models of palliative care in hospitals; (2) determine the expected needs for hospital pharmacy services of palliative care teams and (3) study perceptions about palliative care held by hospital pharmacists providing pharmacy services to terminally ill patients and the nature of such palliative care services. The study took place at the Songklanagarind Hospital, King Chulalongkorn's Memorial Hospital and the Mahavajiralongkorn Cancer Center. The key informants were physicians, nurses, pharmacists and other healthcare professionals who provided palliative care in those hospitals. Many qualitative techniques were used for data collection such as informal interviews, observations and participant observations.

Each hospital had a different level of development and service provision for palliative care which could be classified into 2 main categories. One was to disseminate concepts, principles and practices of palliative care to healthcare professionals in all wards in order to encourage them to practice palliative care. The other was to develop a palliative care system only in designated specialty wards for terminally ill patients. The study found that there were expected needs of pharmacy services in both direct patient care and other areas, such as drug information. For current pharmacy services also found that, there were pharmacists play role on both levels of care according to their readiness.

The problems and barriers for implementing pharmacy services providing care to terminally ill patients consisted of: misunderstandings about roles and responsibilities of pharmacists, inadequate knowledge of providing pharmacy services to terminally ill patients, limitations of manpower, improper management and administration of professional development for palliative care, and lack of inspiration and interest of pharmacists themselves.

The results of this study indicated the opportunities for implementing better pharmacy services. To meet this challenge, preparing for readiness of the pharmacist should be initiated. Pharmacists need to improve their perceptions and knowledge about palliative care, especially pharmacotherapy in terminal illness. For the pharmacy education system, pharmacy students should be taught about palliative care concepts together with their roles and responsibilities. Furthermore, the additional palliative care training should be arranged regularly.

KEY WORDS: HOSPITAL PHARMACY SERVICES / PHARMACISTS' ROLES/**PALLIATIVE CARE / TERMINALLY ILL PATIENTS /**

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CHAPTER I

INTRODUCTION

4.1 Significance of Study

In recent years, there has been a growing interest in the subject of the care of individual at the end of their lives. The palliative care and hospice movement has gained strength. It is a movement to rediscover the lost meaning of the healthcare professional as a person who cares for another person as the whole person, not just their disease.

From the study about attitude to death and selection of a place to die of 1,977 aging people in Bangkok (Pimpan Silapasuan and Sulee Tongvichean, 1990: 11-21). The results of this study showed that the need of people near the end of life was religion and they wished they could die peacefully. They wanted their health care providers to help them maintain their dignity and independence while relieving symptoms and maximizing comfort, they also needed love and care as well as helping hands from their families

There is one criteria of Hospital Accreditation (HA) in standard of care to patients by providing appropriate services corresponding to physical and psychosocial needs to terminally ill patients and their families. The expected activities such as providing physical, psychosocial need assessment, training staffs, establishing pain control program and helping by giving information and consultation services to patients and their families. (Sithisak Purkpitikul, 2001:127)

Now, palliative care services have been established in various types of organization such as private organization working with HIV patients and last stage HIV patients, medical schools, general and community hospitals.

One of the most active organizations is Songklanagarind Hospital palliative care unit, with a patient care team, composed of physician, registered nurse, pharmacist, rehabilitation personnel, social worker and volunteer. There are some activities such as palliative care grand round, interdisciplinary case conference, palliative care forum, palliative care club, training for healthcare team and volunteers. Moreover, Palliative medicine has been established throughout the course of medical student at the Faculty of Medicines, Prince of Songkla University. However, it is an early stage of collaboration.

For pharmacy services in palliative care team, Songklanagarind Hospital is one hospital which has clinical pharmacists providing pharmaceutical care in palliative care team, but it is remain in early stage. Although pharmacist roles and responsibilities in palliative care was defined clearly in other countries (World Health Organization Expert committee (1990:11), (The National Hospice Organization, 1994:29), it might not fit for Thai culture. For the appropriation of hospital pharmacist roles and responsibilities on palliative care in the context of Thai society, this qualitative research to examine pharmaceutical service requirements of healthcare professionals who providing palliative care to the end of life patients and to explore possible routes for pharmacist to collaborate pharmaceutical services with palliative care team in Thai society.

4.2 Objectives

1. To determine the expected needs for hospital pharmacy services of the palliative care team.
2. To examine various patterns and models of palliative care in hospitals providing palliative care service.
3. To study perceptions about palliative care of hospital pharmacists providing pharmacy services to terminally ill patients and their current situations of pharmacy services.

4.3 Terminology

Palliative care: The comprehensive and interdisciplinary care for patients living with a terminal illness and for their families, focusing primarily on promoting quality of life. Key elements for helping the patient and family live as well as possible in the face of life-threatening illness include ensuring physical comfort, psychosocial and spiritual support, information sharing and establishing a treatment plan reflective of patient values and goals, and provision of coordinated services across sites of care.

Palliative medicine: The study and management of patients with active, progressive, far-advanced disease, for whom the prognosis is limited and the focus of care is the quality of life

Hospices: a program or organization that provides palliative care at a dying person's home or a site other than the hospital.

Terminally ill patients: Patients are considered to be dying when they are sick with a progressive condition that is expected to end in death and for which there is no treatment that can substantially alter the outcome

Key informants: They are healthcare professionals providing palliative care and dealing closely with terminally ill patients focused on physicians and nurses. And another, they are pharmacists working involved with providing palliative care services in selected hospitals.

CHAPTER II

LITERATURE REVIEW

2.1 Concepts and Definitions of Palliative Care

The World Health Organization Expert committee (1990:11) defined palliative care as the active total care of patients whose disease is not responsive to curative treatment. According to the WHO definition, the goal of palliative care must be the best possible quality of life for the patient and his family, so symptom control and attention to the whole patient-in his psychological, social, and spiritual dimensions-have primacy. WHO (1990) further defined palliative care by its characteristic principles as care that

1. Affirms life and regards dying as a normal process.
2. Neither hastens nor postpones death.
3. Provides relief from pain and other distressing symptoms.
4. Offers a support system to help patients live as actively as possible until death.
5. Offers a support system to help the family cope during the patient's illness and in their own bereavement.

The World Health Organization therefore introduced an updated definition in 2002, (Ahmedzai, et al., 2004: 2192-2200) which attempts to address this shift in emphasis.

“Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical psychosocial and spiritual.”

The new World Health Organization definition was welcomed as it highlights the need to start palliative care earlier in the disease process.

Palliative care seeks involvement with patients and families as soon as the diagnosis of a life-threatening illness is confirmed, occasionally even earlier, as commonly conveyed in Fig.1. Indeed, patients may present with symptoms before they have a terminal diagnosis. While undergoing curative or life-prolonging treatments, they regularly experience physical and psychosocial distress related to their underlying condition or its management. Palliative care specialists may be needed to address such distress. Palliative care is not just for the imminently dying, nor should be hospice. (Cleary & Carbone, 1997: 1335-1347)



Figure1: Anticancer Treatment and Palliative Care (From Billings, 2002: 639)

The National Hospice Organization (1994: 29) defines palliative care as “*treatment which enhances comfort and improves the quality of a patient’s life*”. The goals of intervention are pain control, symptom management, quality of life enhancement, and spiritual-emotional comfort for patients and their primary care support. Each patient’s needs are continually assessed and all treatment options are explored and evaluated in the context of the patient’s values and symptoms”. Note that all treatment options, including curative and resuscitation, are available. There are several primary differences between hospice and palliative care.

European School of Oncology’s proposed definitions of palliatives care, The ESO international working group now proposes the following new definitions (together with accompanying explanations), which we believe more accurately and

other developed regions. The first definitions is of palliative care itself and the second and third are refinements which reflect the levels at which palliative care can be delivered.

Palliative care is the person-centered attention to physical symptoms and to psychological, social and existential distress and cultural needs in patients with limited prognosis, in order to optimize the quality of life of patients and their families or friends.

Basic palliative care is the level of palliative care which should be provided by all healthcare professionals, in order to optimize the quality of life of patients and their families or friends.

Specialized palliative care is the standard of palliative care provided at the expert level, by a trained multi-professional team, who must continually update their skill and knowledge, in order to manage persisting and more complex problems and to provide specialized education and practical resources to other non-specialist member of the primary or secondary care teams.

There is a move in Great Britain and other parts of the world to think in terms of 'supportive care' for cancer and other life-limiting diseases. There has just been uncertainty and ambiguity about the meaning and scope of palliative care, so supportive care is accompanied by some confusion.

The guidance from the UK National Institute for Clinical Excellence (2004) proposes that supportive care is the comprehensive care of patients and their families from the time of diagnosis, or even pre-diagnosis, throughout both curative and palliative.

Supportive care refers to symptomatic treatment, often during (curative) therapy, and should not be considered synonymous with palliative care.

End of life care (Ahmedzai & Walsh, 2000: 1-6) is the specific application of palliative care interventions and services in the last hours, days or weeks of life. This may indeed come after medical deterioration, but it may also follow a change in the mental attitude of the patient towards the illness. The passage into end of life care should mean that comfort measures should be of the highest priority, and it may be appropriate to withdraw previously useful life-maintaining measures, such as blood transfusions, parenteral feeding or intravenous hydration.

The field of palliative medicine, as defined by the Nation Health Service of Great Britain (Doyle, Hanks & MacDonald,1993: 3) which recognized it as a subspecialty in 1987, is “the study and management of patients with active, progressive, far-advanced disease, for whom the prognosis is limited and the focus of care is the quality of life”

Following is a current and widely accepted definition of hospice (National Hospice Organization [NHO](1993:2)).

“Hospice provides support and care for persons in the last phases of incurable disease so that they may live as fully and comfortably as possible. Hospice recognizes dying as part of the normal process of living and focuses on maintaining the quality of remaining life. Hospice affirms life and neither hastens nor postpones death. Hospice exists in the hope and belief that through appropriate care, and the promotion of a caring community sensitive to their needs, patients and families may be free to attain a degree of mental and spiritual preparation that is satisfactory to them”.

European School of Oncology provide explanation of hospice (Ahmedzai & Walsh, 2000:1-6) “A hospice is the term used in many countries for a type of specialized palliative care unit, which concentrates on end of life care”. Although it is sometimes used interchangeably with palliative care, the term 'hospice' refers to a program or organization that provides palliative care at a dying person's home or a site other than the hospital. A hospice involves the same team approach that palliative care does but it is generally provided only for those who are dying.

Hospice emphasizes the coordinated approach to care as a means to enhance the combined skills of caregivers. The approach is comprehensive and case managed. Frequency and types of visits are determined by the needs of the patient and family or caregivers. Psychosocial and spiritual support and counseling, to cope with the significant challenges and crises, are reviewed as the illness progresses. Situation of Palliative Care in Western Developed Countries

2.2 Situation of development and implementation of palliative care in western developed countries

In most European and other developed countries, healthcare professionals and also the public are becoming more aware of the options for palliative and supportive care in advanced cancer.

The effect of increasing sophistication on palliative care specialization in many European countries, as well as other parts of the world (Ahmedzai, et al., 2004: 2192-2002), such as Australia, New Zealand and North America. In a few countries, notably Great Britain, Poland and Australia, palliative medicine is now recognized by the training colleges as a distinct specialty or subspecialty of internal medicine. Nevertheless other countries where this degree of official specialization does not yet exist, there are many highly developed services and teams based in primary or secondary care, which are delivering high quality palliative care. Some of these services have originated from hospices, others from oncology or pain teams.

At present, the implementation of palliative care across Europe and many other parts of the world and there are integration this care into the mission and activities of many hospitals which have different models for delivering this type of care which providing various type of services such as consultation service, outpatient clinics, home hospice care, acute care inpatient unit and inpatient hospice unit.

Furthermore, A qualitative study by Singer, Matin and Kelner(1999: 163-168) indicated that patients reflected their anticipation at the end of life state in five domains of quality end of life care: (1) receiving adequate pain relieving medication and symptom management, (2) avoiding inappropriate prolongation of dying (3) achieving a sense of control, (4) relieving burdens and (5) strengthening relationships with loved ones.

1. Pharmacist's Roles and Responsibilities in palliative care in United State of America.

The Pharmacist's Responsibilities in Hospice and Palliative Care (American Society of Health-System Pharmacists, 2002: 1770-1773)

High-quality hospice and palliative care requires both traditional and expanded pharmacist activities, including a variety of clinical, educational, administrative, and support responsibilities:

1.1 Assessing the appropriateness of medication orders and ensuring the timely provision of effective medications for symptom control. Pharmacists maintain patient medication profiles and monitor all prescription and nonprescription medication use for safety and effectiveness. Pharmacists provide patients with essential medications within a time frame that ensures continuous symptom control (especially pain relief) and avoids the need for emergency medical services.

There are interventions made by a liaison clinical pharmacist visiting a busy inpatient palliative care unit (HIV/AIDS Unit) at Royal Prince Alfred Hospital, Sydney, Australia. The impact on patient care of interventions made by a liaison clinical pharmacist visiting a busy inpatient palliative care unit were evaluated using a validated six-point scoring system. Interventions made in 13% of patients could improve patient care, save money or both, but rarely involved the drugs that are commonly used for symptom control in patients with terminal cancer. Advice to rationalize inappropriate drug regimens (53%) was the commonest intervention, followed by warnings about drug interactions (24%) and advice about therapeutic drug monitoring (8%). The interventions were evaluated by the pharmacist, a palliative medicine registrar and two independent doctors, confirming that the pharmacist was valid and accurate in assessing her own work. Although more than 60% of interventions could significantly improve patient care, compliance by medical and nursing staff with advice was only 55%, reflecting possible tensions between palliative and general hospital medicine. This survey emphasizes the role of liaison clinical pharmacists in palliative care, the need for much more critical appraisal of prescribing practices and the utility of ranking pharmacist interventions as a quality assurance and educational tool. In particular, providing palliative care for patients with advanced acquired immunodeficiency syndrome (AIDS) is enhanced when a pharmacist with specialist knowledge of AIDS therapeutics is available. (Lucas, Glare & Sykes, 1997: 209-216)

1.2 Counseling and educating the hospice team about medication therapy. Pharmacists attend hospice team meetings to advise other team members about

medication therapy, including dosage forms, routes of administration, costs, and availability of various drug products. This is done through regularly scheduled educational sessions. And from a study of the provision of a palliative care service in University Hospital of Wales, a teaching hospital, (McQuillar, Finlay, Roberts, Branch, Forbes & Spencer., 1996: 231-239). A survey at a large tertiary referral hospital showed that patients with cancer and HIV disease had poorly controlled symptoms. A palliative care service was introduced, employing a doctor and part-time pharmacist. The doctor was available to see and advise about terminally ill patients. With the pharmacists, an educational programme of meetings, teaching sessions and information leaflets was developed. One year after the introduction of the service a repeat survey all patients with cancer or HIV disease was carried out. Problems on admission were similar in both surveys, but fewer patients' symptom scores deteriorated during their hospital stay. There was a significantly increased use of appropriate opioid analgesics and NSAIDs. Staff were satisfied with the service.

And another study of Palliative pharmaceutical care: a randomized, prospective study of telephone-based prescription and medication counseling services for treating chronic pain. Moreover pharmacists develop and maintain a library of contemporary references about medications, dietary supplements, and alternative and complementary therapies. Pharmacists advise members of the hospice team about the potential for toxicity from them and interactions with dietary supplements and alternative and complementary therapies.(Gammaitoni, 2000, 283-5)

1.3 Ensuring that patients and caregivers understand and follow the directions provided with medications. Pharmacists ensure that all medication labeling is complete and understandable by patients and their caregivers. Hospice pharmacists communicate with patients, either through the team or in person, about the importance of adhering to the prescribed drug regimen. Pharmacists explain the differences among addiction, dependence, and tolerance and dispel patient and caregiver misconceptions about addiction to opiate agonists. Pharmacists ensure the availability of devices and equipment to permit accurate measurement of liquid dosage forms by patients and their caregivers. Pharmacists counsel patients about the role and potential toxicity of alternative and complementary therapies. When needed, hospice

pharmacists visit patients' homes to communicate directly with patients and their caregivers and to make necessary assessments.

1.4 Providing efficient mechanisms for extemporaneous compounding of non-standard dosage forms. Hospice pharmacists communicate with pharmaceutical manufacturers to determine the availability of non-standard dosage forms. Medication compounding needs in hospice care include the preparation of dosage forms to ease administration (e.g., concentrated sublingual solutions, topical medications), flavoring medications to promote compliance, eliminating or adjusting ingredients that patients cannot tolerate, and preparing or changing drug concentrations. Whenever possible, pharmacists compound formulations for which stability and bioavailability data are available.

1.5 Addressing financial concerns. Hospice benefits usually cover medications. However, patients may lack insurance coverage or benefits may not cover medications that are not considered strictly palliative. Pharmacists communicate with pharmaceutical manufacturers to obtain medications through patient assistance programs.

1.6 Ensuring safe and legal disposal of all medications after death. Medications dispensed to patients are "owned" by the patients and, in most states, cannot be used for other patients. Medications remaining in patients' homes fall under a variety of hazard categories. Pharmacists are able to assist families with the removal of the medications from the home in compliance with federal and state drug control and environmental protection laws and regulations.

1.7 Establishing and maintaining effective communication with regulatory and licensing agencies. Because hospice patients often require large quantities of controlled substances, open communication with both state and federal controlled-substance agencies is important. Pharmacists ensure compliance with laws and regulations pertaining to medications

2.3 Situation of Palliative Care in Thailand

In Thai culture where Buddhism is our basic paradigm, many activities and rituals for death and dying are based on Buddhist belief or philosophy. One example of important Buddhist philosophy is preparing for death of Thai people by following

ways : live ethically, study spiritual teaching, Cultivate a spiritual practice and Helping others who are dying (Khadro, 2003: 1-31). And there are some hospices have been established in Thailand such as Baan Peuan Cheewit (Friends For Life), the Thai Buddhist monk, Phra Phongthep Dhammagaruko has established a Temple hospice for the poor or abandoned persons with AIDS in the Northern Thailand city of Chiang Mai (Wichit Paonil, 2003: 147-149).

1. Hospital Accreditation (HA) requirements on services served to terminally ill patients and their families.

Hospital accreditation (HA) has one topic in standard of care to patients by providing appropriate services corresponding to physical psychosocial needs to patients near the end of life and their families. The expected activities such as providing physical, psychosocial need assessment, training staffs, establishing pain control program and helping by information and consultation services for patients and their families.(Sithisak Purkpitikul, 2001: 127)

2. Activities to promote palliative care in Thailand

2.1 The 4th National cancer Conference, International conference which composed of topic of Palliative medicine was lectured by Professor Ian Maddocks, professor of palliative care, Flinder University of south Australia, held on 11-13 November 1997 at The Emeralds Hotel in Bangkok.

2.2 The palliative care conference with the theme "Palliative care: from Principles to Practice in Thailand". The conference is hosted by the Palliative Care Unit of Songklanagarind Hospital, Faculty of Medicine, Prince of Songkla University, from 2nd to 6th February 2004, Hat Yai.

2.3 The meeting establishing for sharing experience and learning the useful topics in caring patients near the end of life among healthcare professional and interesting persons for disseminating concept and practice of palliative care in Thai society. Such as Academic meeting with the theme "Pain and Holistic care" held by coordination of Buddhist network for Buddhism and society with end of life care development committee of King Chulalongkorn's Memorial Hospital

3. Hospitals providing palliative care

The example of Hospitals providing palliative care in Thailand such as Songklanagarind Hospital, Hat Yai, Songkla province, the hospital formed a Palliative

Care Development Committee in 1999 headed by Professor Temsak Phungrassami. The vision and mission of this committee is to promulgate palliative care to all regular wards so that it can be put into practice by their personnel.

Mahavajiralongkorn Cancer Center, Tanyaburi, Pathumthani Province, the first 16-bed hospice with home care service and an outpatient clinic of Thailand. Nurses, oncologists, anesthesiologist/pain specialists, social workers, and Buddhist monks are the key persons who are involved in palliative care.

4. Pharmaceutical intervention needs in palliative and pain management

From the study about about pain in experience and pain management of hospitalized cancer in National Cancer institute (Pornchan Sailamai, 1998: 81), the result of this study indicated that the most common strategy used for pain management by the patients, doctors and nurses was to take pain medication.

Furthermore, many symptoms are commonly encountered in patients with advanced illness: pain, dyspnea, nausea and vomiting, constipation, diarrhea, loss of appetite, weight loss, edema, skin ulcers, insomnia, and fatigue which can be controlled with pharmacological management. (Emanuel, Gunten & Ferris., 1999: M10-1 to M10-11)

5. Pharmacist's activities on palliative care in Thailand

There are some parts of the themes in academic conferences proceeding associate with palliative care such as Pharmacist and pharmaceutical care in cancer patient conference held by coordination of The Association of Hospital Pharmacy (Thailand) and Faculty of Pharmaceutical Science, Khonkaen University in 17-21 January 2005 at The Twin Tower Hotel, Bangkok. These composed of the topics related palliative care such as supportive care in cancer patients: A systematic approach in pain management and palliative care, Interactive case study on pain management in cancer patients lectured by Asst. Prof. Temsak Phungrassami from faculty of medicine and Asst. Prof. Payome Wongpurarak from faculty of Pharmaceutical Science from Prince of Songkla University. Another one is "*Interactive case study on antiemetics and supportive care in cancer patients*" lectured by Dr. Supat Subongkot from faculty of Pharmaceutical Science, Khonkaen University et al.

Advances in Pharmaceutical care and Pharrmacotherapeutics 2 conference held by Faculty of Pharmacy, Mahidol University. These composed of the topics related palliative care such as nausea & vomiting prevention and management from chemotherapy presented by Dr. Supat Subongkot from faculty of Pharmaceutical Science, Khonkaen University

Achieving Patients' Safety through Pharmaceutical care conference held by Hospital pharmacy association (Thailand). These composed of contents about frequency drug related problems of narcotics and opiates and principle of utilization of these drugs with safety

For Pharmaceutical service, there is pharmacist involvement on palliative care teams in Songklanagarind Hospital. The examples of their activities are such as:

5.1 Reviewing all patient medication and laboratory results Associated medication from medical record

5.2 Communication with patients and health care team about medication

5.3 Accessing all drug related problems and reporting them to physician for correcting and preventing.

5.4 Counseling and education about medication therapy including dosage form, route of administration, contraindication, cost, drug interaction, and availability of various products for substitution.

From literature review found that most pharmaceutical services related to palliative care are such as providing pharmaceutical care in pain management, nausea & vomiting prevention and management from chemotherapy in cancer patients, cytotoxic preparation for cancer patients, etc.

CHAPTER III

METHODOLOGY

3.1 Design

Qualitative methods were used in this study to identify the needs of palliative care team on pharmacy services in context of Thai society and the readiness of pharmacists providing pharmacy services on caring dying patient with other palliative care team.

3.2 Sites of Study

This study tries to explore the hospitals which have different palliative care services. The hospitals have to have provided palliative care services, at least for two years, and they allow and offer opportunities to collect data. After preliminary observation and informal contact with staffs of those hospitals, three hospitals are selected as site of study. These include Songklanagarind Hospital, King Chulalongkorn's Memorial Hospital and Mahavajiralongkorn Cancer Center, Tanyaburi.

1. Songklanagarind Hospital, Hat Yai, Songkla province, an 838 bed tertiary care facility, is the only teaching hospital in The South of Thailand located, at Prince of Songkla University, Hat Yai, Songkla. Palliative care at Songklanagarind Hospital arose from the intention of a group of medical staffs in improving care for terminally ill patients. The hospital formed a Palliative Care Development Committee in 1999 led by Professor Temsak Phunggrassami.

The vision and mission of this committee is to disseminate palliative care to all wards, so that it can be put into practice by their personnel. This is the one hospital which a clinical pharmacist involved in palliative care team. This team composed of physician, registered nurse, pharmacist, rehabilitation, social worker and volunteer. There are some activities such as palliative care grand round, palliative care case

conference, palliative care interdepartmental conference, palliative care club, training for healthy care team and volunteer, etc.

2. King Chulalongkorn's Memorial Hospital, Bangkok, a 1400- bed tertiary care facility Hospital, end of life care committee has also been established in the hospital like as Songklanagarind. Interestingly, there is palliative care services for terminally ill children which have interesting model of service differ from others, because they include family of patients as a unit of care. With the recognition of healthcare providers in those children in terminal illness which have their special physical and psychological needs, the end of life care project would be developed in pediatric hemato-oncology ward. This project has been created by associate professor Issarang Nuchprayoon, pediatric hematology oncologist. There are interesting activities such as consultation to family of terminally ill children, psychosocial round, wishing well project which ask for kindness from social community though mass communication to meet wish of terminally ill children.

3. Mahavajiralongkorn Cancer Center, Tanyaburi, Pathumthani Province, a 400- bed Hospital. There is a designated specialty ward for terminal cancer patients providing palliative care for terminal cancer or seriously ill patients suffering from chronic degenerative disease which have limited life expectancies. It is the first 16- bed hospice with home care service and an outpatient clinic of Thailand. Nurses, oncologists, anesthesiologist/pain specialists, social workers, and Buddhist monks are the key personals who are involved in palliative care. Dr. Thanadeach Sinthusek, director of Mahavajiralongkorn Cancer Center has developed hospice ward for the purpose of providing holistic care to terminally ill patients.

3.3 Data Collection and Analysis

This study aimed to examine the expected needs of pharmacy services in palliative care services. To meet this challenge, the researcher conducted a qualitative research by using many qualitative techniques such as informal interview, observation, participant observation to examine the expected needs of pharmacy services of healthcare professionals. And to explore activities and model of palliative care team on caring dying patients in order to identify possible ways to develop pharmacy services to dying patients with other palliative care teams. Including,

studying perceptions about palliative care of hospital pharmacists providing pharmacy services and their current situations of pharmacy services. The key informants would be selected base on following criteria. First, they are healthcare professionals providing palliative care and dealing closely with terminally ill patients focused on physicians and nurses. And the other, they are pharmacists providing pharmacy service involve palliative care in selected hospitals. Before collecting data, an interview and observation guidelines would be constructed covering relevant information on palliative care services, the need of pharmacy services, perceptions and knowledge of pharmacist. These include the following guidelines.

1. Interview guideline

1.1 Health care team providing palliative care

- 1.1.1 Background and history of palliative care service
- 1.1.2 Types and models of palliative care services
- 1.1.3 Supporting from policy or administrator in hospital
- 1.1.4 Palliative care staffs and their responsibilities
- 1.1.5 Network and collaboration with external organizations
- 1.1.6 The use of alternative care
- 1.1.7 Need of pharmacy services in palliative care team
- 1.1.8 Problems or barriers of palliative care service
- 1.1.9 Perception and knowledge in palliative care
- 1.1.10 Communication among palliative care team
- 1.1.11 Communication among team and patients & their families

1.2 Pharmacist

- 1.2.1 Current situation on providing pharmacy services
- 1.2.2 The readiness of pharmacist involvement in palliative care team
- 1.2.3 Perception of palliative care
- 1.2.4 Perception of role and responsibility of pharmacist in palliative care team
- 1.2.5 Resources of pharmacy department : personal, time

2. Observation and participant observation guidelines

2.1 Palliative care service activities

2.2 Communication among healthcare providers

2.3 Communication among healthcare providers and patients or their families

Then the researcher planned to call or to meet the informants directly for introduction. After giving the objectives and some important information about this study, he/she accepted to be the key informants, and interview appointment would be made. From preliminary interview, there were some fields requested the formal letter to ask for permission before collecting data with the administrator of hospital. Most of the contacted informants allowed the researcher to interview and to observe of their activities.

The next, the researcher would start to collect data by recording all information obtained from interviews and observations. During the interview sections, short notes would be taken, and these would be elaborated on details after returning to research base. When respondents would give their permission, a voice recorder would be used to record interviewed data. Nevertheless, a photograph would help to remind me about the details of certain procedures as well as giving them a second chance to see the activities and to determine if I would miss anything that should be looked into further.

Finally, after all needed data were collected completely; each of the contents would be analyzed by descriptive analysis methods.

CHAPTER IV

CASE STUDY OF SONGKLANAKARIND HOSPITAL

4.1 Background & History

The initiative of palliative care in Songklanakarind Hospital has been raised from the palliative care workshop lectured by Mr. Lan Maddocks, director of the International Institute of Hospice Studies, the Flinders University of South Australia, at Songkla Hospital in 1998. In addition, in 1999, he also provided grants for one doctor and one nurse to visit Daw Hospice at Adelaide Country, Australia. After they came back, they translated a booklet of palliative care edited by Mr. Lan Maddocks into Thai as per their commitments. Dr. Temsak phunggrassami, a radiation oncologist who derived this grant and became a pioneer in development palliative care program in the hospital said that

“Result of the workshop in 1999, there was a group of medical staffs interested in palliative care became key members of the team. And we always have regular meeting and contact each others or other forms of consultants in order to initiate palliative care service for terminally ill patients in our hospital.”

In 2000, the palliative care developing committee was established in the hospital headed by Dr. Temsak phunggrassami. This committee consisted of physicians from various divisions, pharmacists, psychologist, social workers, and physical therapists. Dr Temsak accounted for a strategy of forming team, said that

“We persuaded medical staffs who interested in palliative care. In the beginning, we persuaded about one or two representative nurses who interested in palliative care from every wards. The selection criteria were based on whose jobs similar to providing of palliative care. For physicians, we aimed to new generation through education and training system. For volunteers, because their jobs resemble to palliative care services, so we invited them to this committee as members too.”

4.2 Organization Structure and Responsibilities of Palliative Care Developing Committee

The following figure 2 is the organization chart which represents overall divisions and their functions in the palliative care developing committee. Responsibility of palliative care developing committees is following:

1. To study and develop appropriate role model of palliative care for dissemination and public recognition of this concepts and activities.
2. To propose policies and practice guidelines for faculty of medicine to establish palliative care services.
3. To provide supports, consultations, monitoring and assessments of palliative care activities proceeded by healthcare provider.

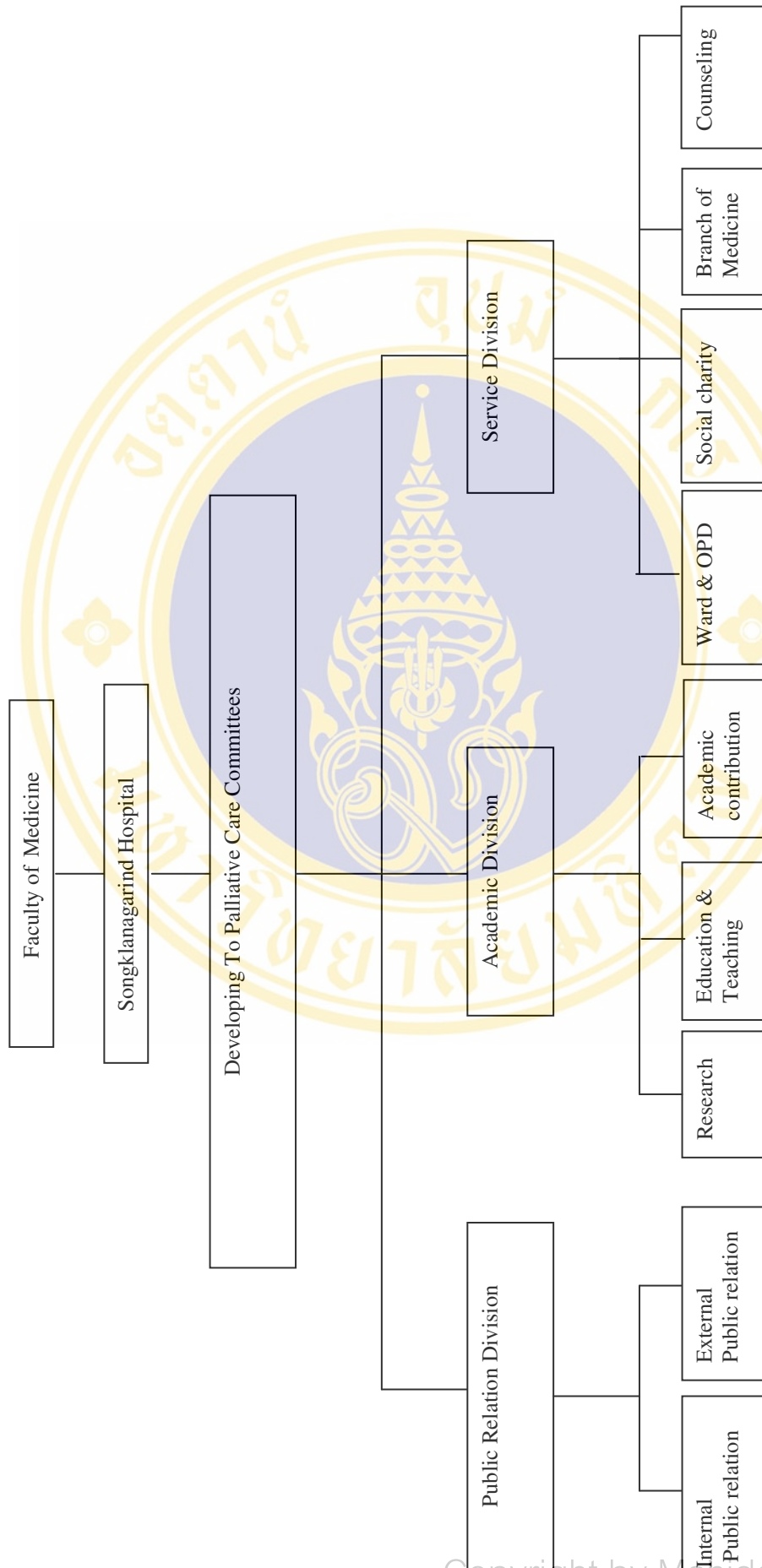


Figure.2: Organization chart of palliative care committees

4.3 Implementation Framework

Implementation of palliative care service based on conceptual framework whereby the services should be provided by healthcare professionals whose normal duties are related to patients with life-limiting disease. So that the dissemination of palliative care would be targeted to all wards in order to put it into normal practice of their personnel. The palliative care committee would act like a supporter and catalyst in initiating and facilitating palliative care activities through palliative care unit, consisted of one palliative care nurse and one clerk, which works as a co-ordination unit, not a service unit.

1. Prototyping of role model

The invention of role model was started by reviewing some patterns of providing palliative care service from text books. Later, apply those patterns appropriately with Thai society, for example, providing spiritual support by healthcare providers who specialize in spiritual healing instead of monk for more convenience. Another task is the pilot project conducted by palliative care committees in order to examine patients need, compose practice guideline of palliative care and evaluate its outcome according to this guideline which can summarized as following:

1.1 Patients had various needs which are not the same as expectation of their healthcare providers, so the providers should ask them about their needs.

1.2 Health care providers could provide palliative care by self study the practice guideline and attend the palliative care knowledge and skill transfers.

1.3 Providing palliative care by multidisciplinary team was the vital procedure to support terminally ill patients and their families' needs including to solve their problems by cooperation among team through conference and meeting.

1.4 Obstacles of this project were found that there were lack of the co-operation among multidisciplinary team and limitation of time of members in healthcare team to have meeting together.

2. Strategic activities in penetrating palliative care

In order to introduce the concept of palliative care to penetrate into all areas of healthcare services to terminally ill patients, establishment of palliative care team in all wards were encouraged through the following activities.

2.1 Palliative care grand round: The activities were established by coordination between branch of medicines' divisions and wards. The clinical cases that pose particular difficulties for the hospital inpatient service is discussed by interdisciplinary team. All members of team share information and work interdependently together to develop care plan.

2.2 Palliative care case conference: The activities are established by coordination between branch of medicine divisions and wards for presenting the case studies of patients that pose interesting or controversial clinical, psychosocial, or ethical issues including incorporating discussion and sharing information and knowledge among team members.

2.3 Palliative care interdepartmental conference: The activities are established by palliative care committees. Personnel of relating departments are invited to attend the conference and discuss on interesting or controversial case studies of patients.

2.4 Palliative care talk: The activities are established by palliative care committees. Interesting issues concerning management such as problems and barriers in pain management and symptom control are raised. Then Healthcare professionals and personnel in related departments discuss about them in order to seek the best solutions together.

4.4 Palliative Care Activities

1. Public relations

Public relations division consists of internal and external sections. The responsibilities of Internal public relations section are to disseminate palliative care activities to personnel in hospital, faculty of medicine and public as well as to encourage them to concern about palliative care activities through a monthly palliative care newsletter, a column of monthly newsletter of faculty of medicine and so on and to coordinate in establishing palliative care website and printed matters for dissemination and so on.

External public relations section is responsible for making known publicly by broadcast through radio, television and local newspaper. Moreover, booklet of palliative care in Thai language was published in order to be a manual of healthcare provider.

Furthermore, the topics lectured by some professors in the establishing of annual academic meeting of palliative care at faculty of medicine were collected and published as a booklet sponsored by Songklanagarind Hospital Foundation in order to bring this knowledge altogether and easily disseminate them to others

Moreover, there is a section of knowledge sharing day in annual academic meeting of palliative care which is an opportunity for learning through discussion. The key participants should be encouraged to share what they have individually learned and developed in palliative care activities. The exchange of experience and knowledge of participants are very important and precious in developing palliative care services.

2. Education and teaching

There is a strategy of introducing palliative care whereby providing basic information for physicians through establishing palliative care topics into the medical education lectures of faculty of medicine for medical student. And also, there are providing basic and advanced information on medical management to practicing physicians through establishing intensive courses of lectures and workshops in palliative care.

For following that strategy, some curriculums for teaching of palliative care to both of undergraduate teaching and postgraduate training have developed and several of learning methods may be utilized, for example, didactic lecture, workshop, group discussion, use of audiovisual material in video discussion, role playing and site visits and others.

3. The academic training

The responsibility of this division is to increase the competency on knowledge and skill of healthcare professionals providing palliative care, members of palliative care committees, volunteers and others who interested in palliative care through proceeding the lectures, trainings, seminars, section of opinion exchanges ,for example

3.1 Lecturing for healthcare providers in the topics related to pain management, spiritual healing on individual religions and communication and Dhamma healing.

3.2 Training for volunteers has been provided prior to the beginning of caring to patients and their families.

3.3 Section for healthcare providers exchange their experiences and brainstorm to solve the problems.

4. Performing of palliative care activities

4.1 Activities related to spiritual support in ward

There are some activities in supporting spiritual needs for terminally ill patients and their families. Ms. Dhammasorn, a register nurse practicing in the gynecological ward and a member of palliative care development committee by act as a coordinator of Yensira building volunteer team, who create these activities for several years said that *“I believe that practicing the religious activities would help the terminally ill patients relive their distress and have peaceful mind”* She also described such religious activities given in caring for terminally ill patients, she said that

“Some activities given to chronic disease and terminally ill patients are meditation, prayer, listens to Dhamma from Buddhist monks and giving donation to Buddhist temples. In the case of patients near the end of life and if they and their families request to meet Buddhist monk, I will invite a monk at their bedside to help them peacefully in their mind in order to they have a peaceful death and response to the spiritual need of terminally ill patients”

Furthermore, Gynecological Ward has allocated area in front of the ward to establish room for practicing their religious activities for both of Buddhist and Muslim patients. Room for Buddhist patients as shown in figure 3



Figure 3: Room for Buddhist patients practice their religious activities

In addition, for Muslim patients, the hospital has allocated two la-mard rooms for them to practice their religious activities too. La-mard room as shown in figure 4



Figure 4: Room for Musalim patients practice their religious activities

4.2 Project for developing patient's quality of life at radiation therapy outpatient unit

Project for developing quality of life to patients derived radiation therapy created by Mrs, Kandawasi Tutadhammakit or Mrs. Fong, a registered nurse practicing in radiation therapy unit and a member of palliative care committees by providing spiritual consultation services, including her teams supported by Dr.

Temsak acts as a consultant provides some activities aim to increase quality of life of patients, for example

4.2.1 Providing health education and initiation relationship among patients by inviting some healthcare professionals in various divisions to educate and answer about healthcare problems. The sample topics are: how to self massage safety, how to practice in your mind when you have sick and others. This activity shown in figure 5



Figure 5: Health educations for patients in project for developing patient's quality of life

4.2.2 Providing some essential medicine, medical equipments and other equipments for patients.

4.2.3 Providing food and drink supplement by giving coupons for meal, 30 baths per day for patients to purchase some food at hospital's canteen as well as to supply some food and beverage for patients bring them back to their rests.

4.2.4 Establishing corner of counseling service for patients and their families conducted by nurse team.

4.2.5 Providing a greeting service for patients and their families attending to radiation therapy unit with sound of Dhamma and light music announced by Ms. Fong

with her empathic mind every morning in order to encourage them to strengthen in their mind.

5. Volunteer and palliative care

5.1 Philosophy of volunteer operation

Job descriptions of Volunteers were created and contributed by Dr. Tada Yibinsoy, Dean of Faculty of medicine in the past. He gave the philosophy of volunteer work, empowered the volunteer staffs and provided several resources of funds. One example of them is grants from Sonklanagarind Hospital Foundation for supporting volunteer's activities. Even though, in this day, he had retired on his work, he still continues to act as a consultant for volunteer teamwork.

Ms. Wallapa Tanakarn, a healthcare professional volunteer who devoted herself to care patients at Yensira building for almost 20 years, she told the philosophy of volunteer operation was given by Dr. Tada, for example:

“Do it if it is your intention, pleasure and fun”

“Volunteer job is freelance. If you feel tired, you can cease to do it”

“Styles of volunteer job are not too big, too scientific and too formal”

5.2 Types and characteristics of volunteers

There are several types of volunteers such as, bed side volunteer acting as a companion or friendly helper to patients who have not caregiver. Most staffs are students, healthcare providers and other career persons. Another one is volunteers of Yensira building which have qualified that all staffs should be healthcare professional because providing care and consultation to terminally ill patients at requires professional skills and knowledge of healthcare providers.

Ms. Kanitta Sriwannayod or Ms. Tom, a member of Yensira building volunteer team, accounted for the characteristics of this job as following

“Volunteers devote their time to care patients and they do not derive financial support return, but they have been contributed in the form of obtaining the opportunities in academic training and others.”

There are several types of volunteers such as, bed side volunteer act as a companion or friendly helper to patients who have not caregiver. Most staffs are students, healthcare providers and other career persons. Another one is the volunteer

of Yensira building which have qualified that all staffs should be healthcare professional because providing care and consultation to terminally ill patients at Yensira building requires professional skills and knowledge of healthcare providers.

5.3 Roles and responsibilities of volunteers

Roles and responsibilities of volunteers are involve establishing a relationship through verbal and non-verbal communications, active listening skills, confidentiality, and comfort measures, reporting and documentation in their activities.

5.4 Activities of volunteers at Yensira building

Due to the limited bed availability at the Songklanagarind hospital, a decision to admit patients to the hospital depends primarily on the severity of patients' illness. Patients who require continuous treatment but their health status are strong enough to be able to look after themselves, they will be advised to stay at Yensira building as outpatients. Yensira building is located in Koke-Now temple, just opposite the hospital, therefore, it is convenient for the patients to see the doctor and receive treatment continually.

Yensira building is a temporary accommodation for patients who wait to be evaluated the symptoms by the doctor, or patients who receive treatments that are not required to stay at the hospital such as radiation therapy, chemotherapy. In addition, family members or other caretakers of patients can also stay at the building. The building has two separated areas – one for Thai Buddhist patients, the other for Thai Muslim patients. The rent is 5 Baths per person per day. Volunteers who provide direct care to patients at the building have scheduled to visit patients 2 times per week.

Volunteers are consisted of physicians, nurses and other hospital's staffs. They provide assistance to patients by giving consultations in the topic of medication and food, caring burning areas from radiation therapy, teaching patients of how to take care themselves after they went back home. If patients have troubles with their disease or health problems, patients' information and observation related to the problems will be reported to the hospital for further actions. Sometimes, a verbal report is used to speed the process. In an emergency case, the volunteers will coordinate with the professionals at emergency unit in transporting patients to emergency room. The activities of volunteers at Yensira building as shown in figure 6



Figure 6: The activities of volunteers at Yensira building

And when the volunteers encounter major problems on their operations, a volunteer coordinator representing all of the volunteers will propose these problems to the hospital administration through the meeting of palliative care committees, which was held every 2 month, in order to brainstorm ideas to find the best solution to solve the problems.

Furthermore, all members of the volunteer team typically meet altogether once a month to initiate some activities or projects, in order to achieve their goals according to the following objectives.

1. To improve capabilities of volunteers. The example of activity is “Friend for Friend” project. This activity has established for volunteers to share their experiences in palliative care altogether and some problems rose for determining and seeking best solution for them.

2. To develop quality of life of patients. For example, Dhamma as spiritual healing, mini-tour project for patients and their caregivers who rest at Yensira building once a month

6. Patient care team of palliative care

Different models in palliative care team have established in some units of hospital under concepts of palliative care performed by interdisciplinary healthcare team which each unit has individual practical model based on their unique contexts.

6.1 Ear-Eye-Nose-Throat- Head and Neck Palliative Care Team

A huge amount of effort has been undertaken to improve care for hospitalized terminally ill individuals. One approach is a setting up of an Ear-Eye-Nose-Throat-Head and Neck Palliative Care Team. This team is an interdisciplinary team which the team identity supersedes individual personal identities. All members of team share information and work together interdependently to develop care plan. Members of the team include physicians both of staffs and residents, psychiatrist, head of palliative care committee, registered nurse representing from OPD and IPD, pharmacists, dietitians, physical therapists, social workers and medical students. Because the team is the vehicle of action, the collaboration among the team members is vital for success. Therefore, the regular meeting has been scheduled at the second and fourth Monday of every month. Activities of the team are the followings:

6.1.1 The doctors and nurses identify patients who need a palliative care and let other members know by writing down the patients' bed number on the board.

6.1.2 Each member will share his/her experience, special knowledge and skill with other team members. This will help to improve the team service to meet patients' needs for physical, psychosocial and spiritual.

6.1.3 Patients' status during the palliative care will be evaluated using evaluation forms with the following topics: patient history, information about patient problem covering on physical, psychosocial and economic dimensions, other relevant information such as pain scale from pain assessment, regimens of medication, and total parenteral nutrition (TPN) profiles.

6.1.4 Discussion on palliative care cases at the conference which is scheduled regularly at the second and fourth Monday of every month.

6.1.5 Palliative care interventions and services will be evaluated every six month. The activities of Ear-Eye-Nose-Throat- Head and Neck palliative care conference was shown in figure 7



Figure 7: Ear-Eye-Nose-Throat- Head and Neck palliative care conference

6.2 Responsibilities of pharmacist in palliative care team

6.2.1 Reviewing all medication therapy of patients and results of associated laboratory tests from medical record.

6.2.2 Building a good relationship with patients in order to help determining patients' health care needs.

6.2.3 Identifying drug related problems by examining patients' medication record and questioning patients about their drug use compliance. Some examples of the questions are: Are you happy about taking the medication? , Do you have any worries about taking it? Patients also have the opportunity to express any concerns they might have about their illness or their medication. The problems found will be reported to the physician teams. Then, the physician teams will find the solution to the problems and try to prevent them from happening in the future.

6.2.4 Providing health care team with drug information related to the side effects, adverse drug reactions, drug interactions, route of drug administrations, price of medications and recommendation about alternative therapies. Activities of clinical pharmacist in patients team as shown in following figure 8 – 10



Figure 8: The pharmacist collects relevant patient information through intranet system.



Figure 9: The pharmacist identifies drug related problems



Figure 10: The pharmacist communicates with patients

7. Consultation service activities

Examples of consultation services are psychological consultation from psychiatrists, spiritual consultation from health care providers who are specialized in spiritual healing.

Mrs. Kandawasi Tuladhammakit or Mrs. Fong is a nurse who devotes her time and energy for more than 20 years on provision of holistic care to terminally ill patients in response to the patients' physical, psychosocial and especially spiritual needs. She shared her experience that the goal of the spiritual therapy is to bring back the patients' mind as soon as possible because it is the foundation of the healing process. Therefore, she has integrated Dhamma into her work. She always educates the patients the essence of their minds. She frequently tells the patients that "*Although you became sick from your illness but you can strengthen in your mind.*" Some examples of patients who have healthy in their mind were referred frequently. Based on scientific studies, she also points out that the stress will has the serious impact on the patients' health. The spiritual support activities as shown in figure 11– 13



Figure 11 Spiritual supports by nurse (1)



Figure 12 Spiritual supports by nurse (2)



Figure 13 Spiritual supports by nurse (3)

Mrs. Fong has been invited frequently to speak at several hospitals and on the radio because of her excellent skills on approaching the terminally ill patients in spiritual way. She always receives many compliments and rewards for her moral activities and continuing dedication.

8. Research on palliative care

The research project is conducted at a palliative care service at a pain clinic and an EENT outpatient department. The purpose of the research is to build a knowledge base on administration and management of palliative care in the hospital. Interviewing methodology is used to gather the patients' views such as their expectation of types and models of palliative care services, problems the patients face when they receive palliative care services, etc

9. Coordinating and supporting of palliative care activities

Coordinating and supporting of palliative care activities directed by palliative care committees through palliative care unit which have Ms. Sunee Niyomdecha or Ms. Yae, a secretary of palliative care development committee, acts as a main coordinator of team.

10. Social charity of hospital

Formally, social workers are responsible for the psychosocial care of patients and their families. However, they also address financial concerns too. For example, the patients who cannot afford the expense of the treatment due to a lack of insurance coverage or benefit may not cover medication can obtain charitable contributions to pay for their expenses through patient assistance programs of hospital.

11. Developing of palliative care practice guideline

Palliative care practice guidelines for home care and for palliative care nurse are being developed by palliative care committees.

12. Monitoring and Evaluating of palliative care activities

There are several monitoring and evaluating processes, for example:

12.1 Self assessment of palliative care activity forms, approved by palliative care committees, are created and distributed to every ward once a year in order to stimulate palliative care activities covering the topics of structures, processes and operations.

12.2 Visiting the wards served by palliative care committees in order to observe and give advices about palliative care services and activities and also get some suggestions and requirements for contributions from healthcare providers.

Although, there are vary of palliative care in hospital but they have introduced in the early stage. It's not covering all areas of services in hospitals.

4.5 Expected Needs of Pharmacy Services

Expectations of hospital pharmacy services from health care professional that have experienced in providing palliative care to terminally ill patients are valuable. Data should be concerned from pharmacists, because it presents current problems they encounter and expected pharmacy services they need. Moreover, pharmacists should obtain this data on the ways to improve and expand the pharmacy services aimed to increase quality of care and quality of life for patients.

1. Provision of medicine.

Traditionally, the provision of medicine in hospital drug list is one responsibility of Pharmacy Department in a hospital. Since, terminally ill patients often require large quantities of control substance, pharmacists have duties in establishing and

maintaining effective communication with regulatory and license agency in order to provide sufficient opioid analgesics for clinicians. Dr Temsak said that

“Provision of medicine sufficiently including appropriate price is one requirement of pharmacy services.” He also said that “The pharmacists have tried to seek all the ways in providing sufficient opioid analgesics; this is the strength performance of our pharmacy department”.

2. Compounding of special formulary of medicine.

Dr. Temsak described one task of pharmacist. He said that “Compounding needed dosage form of medicine including low cost which stability profiles are available.”

The example of this job of pharmacy department in Songklanagarind hospital is compounding morphine syrup with long shelf-life analyzed in stability property by analytical unit at Faculty of Pharmacy. It remains efficacy for 7 months.

3. Counseling and advising patients about drug therapy.

Ms. Sunee Niyomdecha or Ms. Yae, a secretary of palliative care development committee, described her experience on caring patients with lack of adherence problem. She told that

“Although patient derived suffering with pain from his burning wound observed from his extreme pulse rate and blood pressure, but he refused to his prescribed opioid therapy, because he feared side effect from them, consequently, he preferred not to take the prescribed opioid analgesics. In this critical event, pharmacist was invited to counsel to him. She could minimize adherence problems by helping patients with pain had a better understanding of opioid therapy and their side effects. Finally he accepted and followed the direction provided with prescribed therapy. I think patients need to be told and convinced in concerning compliance with prescribed medication regimen by pharmacist.”

Ms. Tom, counselor of Yensira building volunteer, required consultation service from pharmacists. She said that *“We desire pharmacists being available by phone during our work hours in caring patients at Yensira building for consultation when we encounter problems of medication.”*

Ms. Dhammasorn or Ms. Add, a registered nurse practicing in the gynecological ward and a member of palliative care development committee by acts as a coordinator

of Yensira building volunteer team, she asked for discharge counseling services from pharmacists. She said that

“Nowadays, providing information of medical use to patients before they go back home is nurse’s responsibility, I think pharmacists are more appropriate to serve this services, because they can provide their expertise on pharmacotherapy in their practice.”

4. Participation in palliative care committees.

Ms. Sunee Niyomdecha or Ms. Yae, a secretary of palliative care development committee, a secretary of palliative care committees, she said that

“I would like pharmacists to participate as a member of palliative care committee in order to advice the team on matter concerning pharmacy and representatives of pharmacists should have palliative care concept in their perception too.”

Mrs. Fong gave her opinion on expected pharmacy services she required. She stated that

“I would like pharmacists act as a member of palliative care committees include attend palliative care meetings and come back to inform staffs of pharmacy department in order to increase their recognitions in incorporation palliative care activities.”

5. Providing pharmaceutical care

Dr. Temsak gave his opinion about pharmacist responsibilities on the way pharmacists act as a member of multidisciplinary team and provide their expertise on pharmacology, drug compatibility, drug stability, drug interaction and appropriate dosage form to other healthcare team.

Ms. Dhammasorn, a registered nurse practicing in the gynecological ward and a member of palliative care development committee by acts as a coordinator of Yensira building volunteer team, gave her requirement of pharmacy services, she said that *“I would like to see pharmacist involve in palliative care team and provide pain and supporting management consultations.”* She also describe the event of insufficient symptom management from her experience, she told that

“I found the patient have respiratory problems, I would report these event to physician to provide proper symptom management. I was very frustrated

because I thought that the terminally ill patient that was kept comfortable can rest and was not agitated, but the physician hesitated to prescribe medication urgently. I would like pharmacist act as a member of palliative care team because some physicians hesitate in prescribing drug therapy”

Mrs.Tanomchit Faibun or Mrs. Chun, a registered nurse practicing in EENT ward for four years and a member of EENTH&N palliative care team for two years, she said that *“I would like to see pharmacist involvement as a participating member of health care team, because each member of team would give different point of view on caring patients based on expertise of their disciplines.”*

6. Participation with Yensira building volunteers

Ms. Kanitta Sriwannayod or Ms. Tom, a member of Yensira building volunteer team, told to the hospital pharmacy service she required, she said that

“I would like to see volunteer of pharmacists incorporate with volunteer team in caring patients and their families at Yensira building in medical use which on information leaflet of frequently used medication may be provided. It pharmacists are not ready on patients visit. They may provide available phone for consultation”

1.1 Providing drug education

Providing drug education to patients is one required responsibilities of pharmacist is required. Pharmacist can incorporate into the continuing teaching section. For example, the project of developing quality of life of patients who derived radiation therapy and others are continuing teaching sections. Ms. Dhammasorn or Ms. Add, a registered nurse practicing in the gynecological ward and a member of palliative care development committee by acts as a coordinator of Yensira building volunteer team, told that *“I would like pharmacists to establish education section about drug therapy frequently used in gynecology ward and pain medication”*. Mrs.Tanomchit Fibun or Mrs. Chun, a registered nurse practicing in EENT ward for four years and a member of EENTH&N palliative care team for two years, gave an interesting recommendation for the way to derive the topics on teaching meet patient requirements. She said that

“Top ten questions related to drug therapy were called on for answering should be collected” another one is “open-end questions should be created to survey

what's topics of knowledge which health care providers and patients are required."

7. Providing access to online database of drug profiles

Providing the accessing services to drug profiles online database is one service of pharmacist should be provided, Mrs. Tanomchit expressed her requirement to pharmacist services. She states that "I desire pharmacist should arranged drug profile in the form of online database which health care providers can approach conveniently and urgently." And the topics of drug profile, she required compose of drug compatibility and drug stability.

8. Providing drug information

Dr. Jaturong, head of EENTH&N palliative care team, who develop interdisciplinary palliative care team for two years, He said that

"I would like pharmacist to collect the list of analgesic from hospitals nearly located with Sonklanakarind hospital in order to prescribe appropriate drug which can supply from those hospitals located near patient's home. Because patients or their families do not spend their money and long time to purchase medicine at Songklanakarind hospital."

9. Establishing network of pharmacists

Mrs. Fong gave her suggestion on pharmacist activities. She said that

"As a result of morphine syrup, opioid analgesic in liquid dosage form is not available in all provinces such as hospital located in Yala and Narathivas provinces. Patients or their families must spend their time and money to receive them from Songklanakarind hospital. I would like pharmacists should establish Network Corporation in sharing and exchange each other in their knowledge and experience. They should be encouraged to share what they have individually learned and developed, such as compounding morphine syrup."

10. Dispensing prescription with appropriate label including auxiliary label

Ms. Tom described one example of labeling related problem. She said that

"Some information labels are not attached to all prescription containers on the item that prescribed more than one container in order to prevent double taking. It makes patients confuse."

Consequently, pharmacist must ensure that all medication labeling including auxiliary label are complete and understandable by patients and their caregivers.

Moreover, advice of drug administration while dispensing should be provided by pharmacist.

According to above data, pharmacist must seek the ways to ensure that all medication labeling including auxiliary label is complete and understandable by patients and their caregivers. Moreover, advising of drug administrations should be provided by pharmacists in dispensing.

Furthermore, patients with terminal disease often receive several drugs concurrently. And emotional stress of the patients and their families may result in confusion about administrations of medicine; consequently, patients need to be advised in directions of medication administration by pharmacists. Mrs. Fong has suggested that *“Pharmacist should re-emphasize the patients about their directions of medication use to ensure they understand how to take them correctly.”*

4.6 Current Pharmacy Services in Palliative Care

Pharmacists already have some involvement in palliative care activities by the following tasks.

1. Provision of medicine

Ms. Apirak, chief pharmacist of inpatient pharmacy division, she said that

“Establishing and maintaining effective communication with regulatory and licensing agencies is my responsibility. Because terminally ill patients often require large quantities of controlled substance such as opioid analgesics, I comply with laws and regulations pertaining to medications. For example, rate of controlled substance was used will be recorded and collected to extend quota in obtaining right for purchasing them.”

In addition, formulating morphine syrup with long half life (7 month is another job supporting palliative care services. Morphine syrup of pharmacy department of Songklanagarind Hospital as shown in figure 14



Figure 14: Morphine syrup product

2. Providing education to healthcare professionals and medical students

Professor Payome, one pharmacist in EENT H&N palliative care team, described the job providing in service education to healthcare teams and medical students, she said that *“Education to healthcare providers and medical students in palliative team about medication therapy is done through regularly scheduled educational sessions.”*

3. Participating as a member of palliative care team

Mrs. Houn, chief pharmacist of clinical pharmacy service division and one pharmacist in EENT H&N palliative care team, she described about her experience on providing pharmacy services, she said that

“Because of problems of drug administration by naso-grastic tube (NG tube) were found frequently, so pharmacist would be asked for assistant in collecting profile of drug which not be chewed, blended or crushed.”

4.7 Supporting to Palliative Care Activities

There are both of internal and external contributions to palliative care activities. For internal support, hospital administrator’s team plays vital roles on this. They have actively integrated palliative care into one of the hospital’s strategic plans. Furthermore, some budgets from several resources, such as: Hospital Foundation grants; endowments have allocated to support palliative care projects and palliative

care trainings for healthcare providers and volunteers. Furthermore, they also have participated in palliative care committees by act as consultants. Unfortunately, lack of healthcare personals is important obstacle of the hospital, so personnel advocacy is not adequate.

For external support, there are both of financial and personnel supporting from several of resources, for example, financial supports from some charitable associations and organizations, and some donations from patients' families and merciful people.

For personal advocacy, volunteers are the form of personal advocacy such as Yensira Building volunteers, bed-side volunteers.

4.8 Problems and Barriers in Implementing Palliative care

1. Lack of interesting of healthcare providers.

It is imperative in creating palliative care into all areas of services providing to terminally ill patients, there has to be much more engagement by healthcare providers, especially the physicians and those who running palliative care services.

Ms.Yae, a nurse of palliative care unit, said that "one barrier in implementing palliative care activity is lack of interesting of healthcare providers". She also gave her opinion about the strategy in forming palliative care team. She said that "the doctors are key persons who should be a leader of team. They must

2. Misunderstanding about palliative care of health care providers.

There are some misperceptions related to palliative care. For example, some physicians accept that -death is unsuccessful of their operations. Another one is lack of perception related palliative care.

Mrs. Nana, one of clinical pharmacist in EENT H&N palliative care team told that,

"In early phase of operation, I didn't know what I should do. I used to take interventions in complication both of disease and medication in medicine ward. Furthermore, cure is the commitment of healthcare provider, for example, stepping up antibiotic until infection is controlled, providing TPN (Total parenteral nutrition) on patients who have malnutrition status. However, all of these may not be delivered to terminally ill patients".

Mrs. Houg, chief of clinical pharmacists, told that

“I am not clear in role of pharmacist in palliative care because almost of patients are in terminal illness. For patients who received nutrition supplement on TPN, sometimes I found problems in regimen of nutrition supplement, for example, it should be added salt form of nutrients, when I recommend it to physician, he did not change orders because patient status is terminal state nearly dead. For physician, if it dose not critical problems, they do not provide full treatment to cure terminally ill patients.”

Mrs. Nana also said that

“For the cases of patients which physicians and team indicated that patients are in terminal stage of disease and palliative care should be provided. I will recognize that, for these cases, I must not provide full treatment, I do not step up antibiotics to until cure and TPN may not sufficient in these cases. So roles of pharmacist become less”

Mrs. Nana said that

“The cases of patients indicated that palliative care should be provided in care plan, almost medication are plain and drug related problems which found were not complicate, such as insufficient dose of laxative-senekot, It should take 2 tablets, not take only 1 tablet, inappropriate anti-Tuberculosis drug et al. ”

3. Lack of manpower in healthcare providers.

This barriers appears to cover all of areas of hospital and it's a significant obstacle in implementing of palliative care services. For example, because of shortage of healthcare providers, so it's difficult to increase personals in pharmacy department to support in extending new pharmacy services in several areas.

4. Lack of knowledge about pain and palliative care

The key obstacle for effective pain control is opioid phobia among both healthcare professionals and general population. Because of the deficiency knowledge in pain and symptoms management of health care providers.

Another example indicated the cause of deficiency knowledge of pharmacist in palliative care. Professor Payome, a professor who teaching palliative care to pharmacist students at faculty of pharmaceutical science, she said that

“Regarding education of pharmacist students, the topics of palliative care have been incorporated within the topic of drug therapy in cancer lectured by professors from clinical pharmacy division for 2 year ago. In addition, there is

a course of practice at Songklanakarind hospital for the fifth years of 3-4 pharmacist students in clinical subspecialty per year” She also gave a suggestion of knowledge which pharmacist should be learned. She said that “Pharmacists should educate in drug therapy in terminally ill patients, pharmacology of drug frequently used in terminally ill patients”

Although, the concept of palliative care have been propagated through establishing palliative care topic into the continuing medical education, but it's in the early stage and one barrier of teaching medical students is lack of role model providing palliative care

5. Problem in pain management

One example found in this study, Ms.Dhammasorn referred to her experience in caring terminally ill patients. She told that

“In some case of terminally ill patients suffered from their pain, I recognized that their symptoms were not controlled by prescribed. Then, I consulted the physicians about their prognosis, but they did not provide intervention on sufficient symptom relieve.....”

Another is an example of drug-related problem found at Yensira Building. Mrs. Sajja is a 48 year old female patient diagnosed with breast cancer four years ago. She was initially treated with chemotherapy. Two year later, subsequent recurrence was treated by surgery and radiation therapy, and this year bone metastases were discovered due to her leg pain. She was living at Yensira building during course of radiation therapy. She complained her problems of nausea, vomiting and constipation for a week. The following was medication regimens and administrations she derived

Morphine syrup: take 1 teaspoonful every 4 hour as needed, 120 ml

Tramal 50 mg: take 1 tablet 3 times a day after meal at morning, noon and evening, 20 tablets

Paracetamol 500 mg: take 2 tablet every 4-6 hour as need in pain, 20 tablets

Amitriptyline 10 mg: take 1 tablets 2 time a day after meal morning and evening,30 tablets

Multivitamin: take 1 tablet 3 times a day after meal morning noon and evening, 30 tablets

From data derived from patient found that she is noncompliant with Tramal because she faced nausea and vomiting side effect of it and she lacked of understanding of the indication of this medication. Moreover, she was not prescribed laxatives to prevent opioid induced constipation as indicated adjunct medication, consequently, she confronted with constipation side effect of morphine syrup (opioid analgesic).

The last example found in ward as inpatient. Mr. Samrouan, a 63-year-old at male surgery ward. He suffered from his cancer pain. And his medication in pain management was morphine injection 3 mg intravenous as needed for severe pain. The result of pain assessment by visual analog scale method was 8 and medication profile of his injection by morphine presenting the following data.

Date	Time that patient derived morphine injection							
19	04.25 am.	10.00 am.	04.40 pm.	09.40 pm.				
20	01.45 am.	06.00 am.	09.00 am.	01.25 pm.	07.50 pm.			
21	0.50 am.	04.00 am.	08.45 am.	12.40 pm.	04.40 pm.	07.40 pm.	12.00 am.	
22	03.30 am.	06.50 am.	10.30 am.	02.00 pm.	05.00 pm.	08.20 pm.	11.20 pm.	

On above data, it indicated that patient did not respond to drug regimen for his continuous pain. It was inappropriate to give analgesic as needed dose for on going cancer pain, it should give medication on regular schedule or “by the clock”. The patient suffered unnecessarily and the dose of drug needed actually increase. In addition to, as need dose (prn) should be available for breakthrough pain that may occur between the scheduled doses.

6. Lack of organization for professional development

Songklanagarid Hospital is the 800 bed teaching hospital but there are pharmacist only 22 persons. Certainly pharmacists confront enormous load of work due to shortage of manpower. Resulting in this barrier, there are not supporting in full time continuing education for pharmacists.

In addition, because distribution of drug is the largest part of everyday practice so that pharmacist staffs who working in these job were prioritized as key. Consequently, lack of inspiration was accounted by pharmacist staff who providing pharmaceutical care.

CHAPTER V

CASE STUDY OF KING CHULALONGKORN'S MEMORIAL HOSPITAL

5.1 Background and History

In 2001, an informal group of healthcare professional met regularly to discuss problems from providing care to terminally ill patients and their families such as lack of communication between healthcare providers and' patients including their families, because they do not prepare themselves encounter with death and dying, and do not receive sufficient psychosocial and spiritual supports. And they share their experiences in providing care for terminal patients on their expertise. Since, they saw the need for palliative care of the hospital; they persuaded some medical staffs interested in providing end of life care to cooperate in establishing end of life care committee. Finally, end of life care development committee of King Chulalongkorn's Memorial Hospital was formally established in 2002. According to gathering data, personal and staffs will use term "end of life care substitute term of "palliative care"

This committee consists of representatives of healthcare providers from several areas such as physicians from all divisions, such as Medicine, Surgery, Pediatrics, Gynecology, Radiology, Psychiatry Ear-Nose-Throat and Anesthesia, nurses, social worker, physical therapists, et al. One responsibility of the committee is the establishment of the corporation among personnel from several departments in developing end of life activities such as performing manual of end of life care and developing of postgraduate training related to end of life topics for medical staffs, so that all levels of staffs can provide end of life care on area of their expertise to terminally ill patients.

5.2 End of Life Care Development Committee are Following

1. Administrative activities

The meetings among members of end of life development committee were regularly established once a month in order to brainstorm and plan for initiating some activities, thinking strategies about how to improve the service, identifying possible funding sources for developing efforts and others. Each of meetings includes case conference or special lecture for improving knowledge and skill of members of committee. They will rotate the leadership in establishing the meeting on the topics related to palliative care base on their expertise.

2. Service activities

Supporting and promoting in allocating area for end of life, area in peace atmosphere, in every wards for responding spiritual needs of patients and their families.

3. Academic work

The end of life care development project has developed by end of life development committee, which focuses on a holistic care with a multidisciplinary team, has the following objectives:

3.1 Increase awareness of the end of life care to health care professionals.

3.2 Improve abilities of the multidisciplinary team on the end of life care

3.3 Improve collaboration on the end of life care within departments and between hospitals

3.4 Support education, training and research on the end of life care

3.5 Making recommendations and advices on the end of life care.

The activities consisted of developing books, manuals, academic articles related to end of life care. For example, a manual of end of life care as a guideline for health care professionals to provide the proper care in the same direction. The manual is developed by applying the information gathered from various sources such as document, manuals, advices from experts, etc. on the topic of the end of life care around the world.

Moreover, the committee support in establishing end of life care topics into medical education lectures of faculty of medicine, care for critical chronic and terminal illness, for medical student. In addition, the committee also support in providing basic and advanced information on medical management to practicing physicians through establishing the topic of integrated end of life care in academic conference and annual conference.

Furthermore, the committees support each ward in establishing “Informal meeting” activity, a section for healthcare providers exchange their experiences in providing palliative care. Finally, the committees also propose recommendations and advices on the end of life care through document and report of outcome assessment.

4. Establishment of clinical care team

The establishment of the interdisciplinary clinical care team for end of life care includes:

4.1 Pediatric Hemato-oncology ward

Pediatric Hemato-oncology division has set up a project of development of quality of life for chronically ill pediatric patients for several years. Since, the children in terminal illness which have their special physical and psychological needs to be recognized and met, end of life care project would be established. The project provides a holistic care which covers both physical and psychological support with the interdisciplinary team composed of pediatric hemato-oncologist, pediatric psychiatrist, pediatric nurses, social worker and volunteers. Clinical practice guideline for terminally ill pediatric patients has been developed to guide health care professionals to provide a proper care for children with a better quality of life and with children and their parents' needs taken into consideration. Psychosocial round, an activity to response psychosocial needs of patients, has been held twice a month. Furthermore, there is a follow-up call to every patients after they went back home.

4.2 Hematology Oncology Ward

Hematology Oncology division provides an end of life care with the interdisciplinary team composed of physicians, psychiatrist, nurses, pharmacist and social worker. There are many activities regard to the end of life care including interdisciplinary conference twice a month and interdisciplinary ward round once a week.

5. Training

5.1 A training program on collaboration between wards has been organized by Academic division of Nursing Department with an international professor specialized in hospice care as a guest speaker. There is a meeting among heads of the ward on policy and process of end of life care in each ward.

5.2 A lecture on the topic of end of life care organized by Intensive Care Unit of Medicine Division

5.3 Coursework and workshop training on end of life care focused on medical ethic

5.4 Short course on end of Life care organized by Medicine Department

5.5 Annual Conference on Holistic end of Life Care (Case based education)

6. Research

The study of the establishment of the clinical care team is focused on “*Home-based palliative care service team*” which composed of physician, nurse, pharmacist, physical therapist, social worker, volunteer, personnel of health center in community.

The goal of the study is to test that whether the home-based palliative care service team is a suitable model for caring the last-stage patients and also analyze its cost of care.

The procedure of the study includes:

6.1 Identifying terminal cancer patients who admit and were diagnosed at Chulalongkorn hospital

6.2 Assigning case manager both of physician and nurse

6.3 Evaluating psychosocial and medical needs

6.4 Providing counseling and plan for home care.

6.5 Visiting patient’s home by coordination between home care nurse and personnel of health center in community.

6.6 Visiting by volunteers due to support spiritual need of patients

6.7 Providing hotline number of clinician for patient call to counseling

6.8 Allocating designated bed for patients who need to relieve their symptoms.

7. Survey

The self-assessment form for the ward and the questionnaire for the staff, adapted from Songklanagarind Hospital, have been used to survey the end of life care of the hospital. The information gathered from this survey will be used for planning of each ward and to adjust the attitude of the staff to think in the same direction.

8. Knowledge Sharing

The staff has been invited to be a guest speaker under the topic of the palliative care at many hospitals such as Sansitpasong Hospital, Ubonrachathani province.

5.3 Clinical Care Team of End of life Care

1. Pediatric oncology wards

Pediatric oncology wards typically treat infants, children and young adults who suffer from a wide array of malignancies cancers and related disorders. With the recognition in the right of pediatric patients that they may have a happy childhood and enjoy for their own life, so, in pediatric ward, there are some activities and equipments provided for children, for example, painting, literature, and toy. Atmosphere in this ward as shown in figure 15



Figure 15: Atmosphere in pediatric oncology ward

Furthermore, there are some activities for the children to participate and avoid them from anxiety, sad and bore. These include:

1.1 Psychosocial round

Since, the children with cancer which have their special physical and psychological needs to be recognized and met, psychosocial round would be established. This activity provides a holistic care which covers physical, psychological, social and economic issues as shown in figure 16

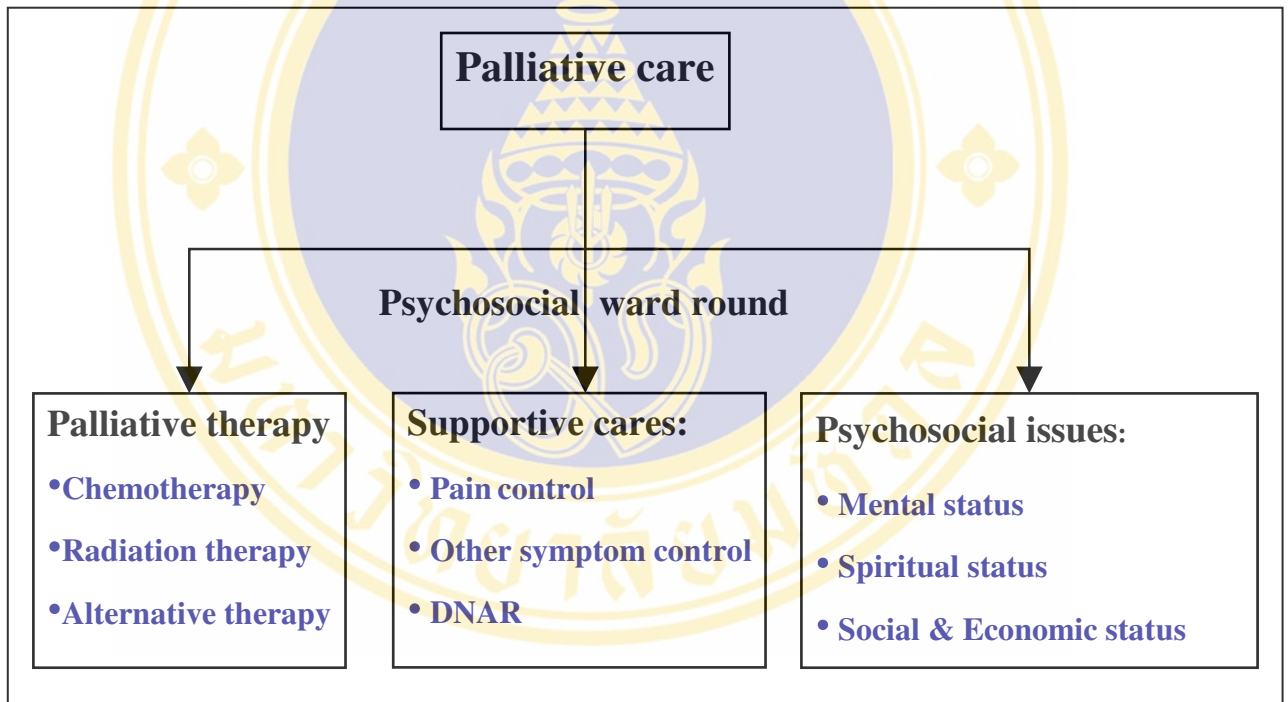


Figure 16: Psychosocial round activity providing holistic care

This activity has been achieved by the interdisciplinary team composed of pediatric hemato-oncologist, pediatric psychiatrist, pediatric nurses, social worker and volunteers. It has been established regularly, twice a month. All team members attend to medical round altogether and discuss in psychosocial need of patients in order to develop care plan.

1.2 Play therapy

Play therapy is an innovative program that can psychologically support for children created and operated by professor of nursing colleague. Play is a way to release psychological stress. For example, the girl who talk to her doll, saying “Don’t worry, this injection will only hurt a little and it will keep you from getting sick” may be using play as a way to release some of the fear that she feels since the doctor or nurse told her she would be getting an injection.

1.3 Art therapy

Children may not be able to express their feelings and needs through words alone, but may be able to relate unexpressed fears, questions or anxieties through art expression. Thus, the use of art therapy throughout to support children during medical treatment has been established because creating art offers the comfort of touch, the freedom of nonverbal expression, reduction of children stress.

1.4 End of life area

Ms.Earmdearn, she told me about the end of life area that is area for peace allocated for terminally ill patients and their families. She said that, in response to social needs of patients, I understand that the dying patients wish to have their family and relatives with them while they are hospitalized when the patients are in private rooms; there is no problem for the families and relatives to stay with them. However, when the patients are in non private room, End of life committee have policy of providing end of life area with space for the families and relatives to stay with the patients.

1.5 End of life care project

Pediatric Division has set up a project of development of quality of life for chronically ill pediatric patients for several years. Since, the children in terminal illness which have their special physical and psychological needs to be recognized and met, end of life care project would be established. The project provides a holistic care which covers both physical and psychological supports with the interdisciplinary team. The leader of this team is Dr. Issarang Nuchprayoon, Pediatric Hemato Oncologist, a clinician who became innovator when he saw the need of palliative care of his patients. He devoted himself to create end of life care project for caring terminally ill pediatric patient. Committed to help patients live and die without

unnecessary suffering, he sought to provide comprehensive care based on respect for pediatric patients' goal, preference and choice. He told to his inspiration in providing end of life care that

“In the past, when patients are in the terminal stage, the clinicians also cease some interventions. But I think, we should continue to care for our patients. We try to seek the appropriate way to achieve it. I found that, when cure is no longer possible, we have a moral and professional obligation to continue to provide end of life care. It is the provision of symptom control when cure is no longer a reasonable expectation”

The purpose of end of life care is improving quality of life of terminally ill patient. These include: For hospitalization and the use of technology such as blood transfusions, intravenous fluids, and suction machines were shunned by many early caregivers as inappropriate and interfering with the patients' natural and comfortable demise.

Although unnecessary interventions are still avoided due to their disruption of patients' lives, but interventions that improve the patient's quality of life are employed regularly.

The focus of hospice is control of physical and psychological symptoms to allow patients to live until they die. Palliative care is not intended to extend life, it focuses on improving the quality of remaining life.

Dr. Issarang also told me about the concept of end of life care; he said that “End of life care is the holistic approach that responds to the individual needs of a patient in terms of physical, psychological, social and spiritual knowledge bases needed”

1.5.1 Activities in End of Life project

1.5.1.1 Consultation for decision making

The physician empower parent and help them to make more informed treatment choice to optimize patient's quality of life, based on an understanding of stage and prognosis of disease, the benefits of treatment balanced fairly against the side effects and other costs as following.

Open communication and appropriate information help parents to prepare for advancing disease. Initially, the physician and nursing staff discuss the prognosis of illness with the families of terminally ill pediatric patient. Then the physician consult to parent that they will still select the purpose of caring to be completely cured

with modern technology or will change children caring of philosophy of caring with his disease by emphasize quality of life for resting period of time. If physicians and parent approve that should be caring to emphasize quality of life, the physician should not hesitate for palliative care that the physician can firmly confident they have methods to control distress symptom of patients.

Topics of Consultation on providing care for terminally ill patients include pain management, dyspnea management, food or nutrition supplement, intravenous access and transfusion, fever and infection, psychosocial aspects, psycho-spiritual aspects, religion and cultural aspects, socio- economical status and place for caring, hospital or home.

1.5.1.2 Development of clinical practice guideline for terminally ill pediatric patients

Clinical practice guideline for terminally ill pediatric patients has been developed by Dr.Issarang in order to guide health care professionals to provide a proper care in the same direction. And children and their parents' needs taken into consideration for children have a better quality of life.

Ms.Earmdearn, chief of nurse of pediatric oncology ward, told to her responsibilities in providing care to patients and their families ,she said that

“The nurses provide support not only for the terminally ill patients but also for the families of them because the family primarily suffers from losing of their loved one.”

Ms.Pornsri Guyyasitt, a registered nurse in pediatric oncology ward accounted for her activities in supporting terminally ill patients and their families, she said that

“ I always ask the patients and their families how they feel about the care and the services that are given, what else could be done to help them feel better, and if anything how could we help the patients feel comfortable while being hospitalized. I have to be a support for the patients and their families regularly. Moreover, as being very close to the terminally ill patients, almost 24 hour a day, I have a role of coordinator among healthcare providers.”

1.5.1.3 Providing consultation by telecommunication

Care should be provided preferably in the patient home. And inpatient providers to be used as necessary for short symptom control or terminal admissions. Almost terminally ill patient would prefer to be cared for at home. Because home is

most natural and comfortable setting for most patients and their caregivers, so the physician will get information of child's illness and indicate consulted detail to parent instance indicate that planned not to rescue life and should give opportunity to contact physician all times.

Since, he concern to the requirement of caregivers. Dr.Issarang provides consultation service to the families of patients. He told that

"I give families of patients the opportunities for consultation from me by mean of telecommunication in any time -24 hour for them. I think... I do not service so much, I only provide some advices and consultations when they need. Just 5 minutes for relieving their worries in crisis circumstance, it seems to be small thing, but outcome is great. I think it does not disturb my time at all"

In addition, there is a follow-up call to patients after they went back home.

1.5.1.4 Wishing well project

Some terminally ill pediatric patients who have wish to do something on the resting of their time, but they cannot do it due to limitation of their families. Wishing well project has been established in order to fill their wish by mean of asking for some assistance from public through mass communication. One example which this project can fill the wish a terminally ill pediatric patient. That is an arrangement and coordinating for traveling of children in terminal illness to Cheingmai province located at The North of Thailand. For the child to meet some pandas at that place according to his wish. This assistance obtained from merciful people through mass communication. This activity also found in Bangkok post newspaper as shown in figure 17



Figure 17: Activity of wishing well project

The following figure 18 shows overview in activities of end of life project

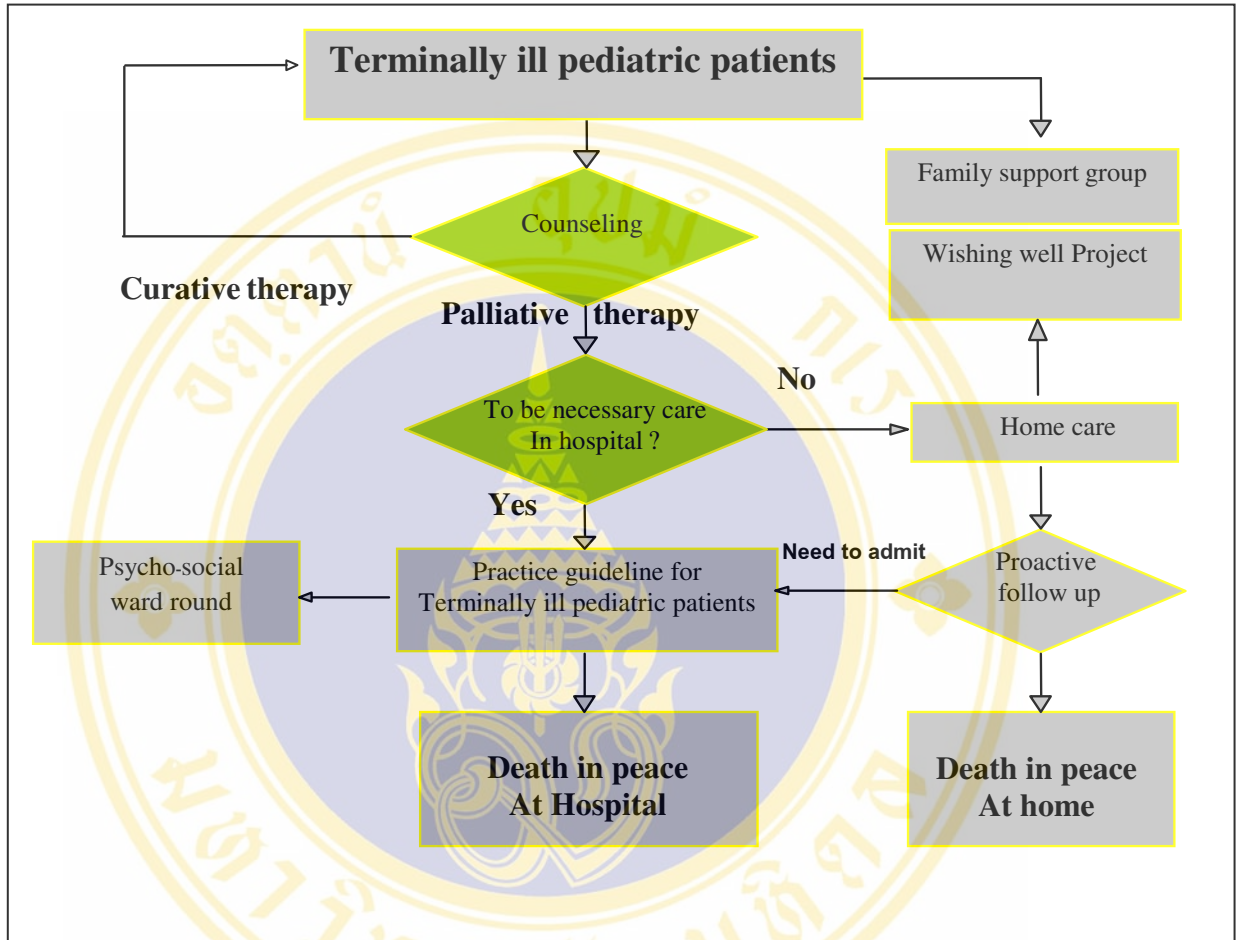


Figure 18: Overview in activities of end of life project

2. Hemato Oncology Ward

The 18-bed Hemato Oncology wards typically treat adults who suffer from cancers and related disorders. With the recognition in the special needs of patients who encounter awful disease and some patients are in terminal illness, there are some activities, regarding to the palliative care, provided for them. These include:

2.1 Interdisciplinary ward round

The Hemato Oncology division provides interdisciplinary ward round once a week. The interdisciplinary team composed of physicians, psychiatrist, nurses, pharmacist and social worker. All members of team participate in inpatient rounds,

share information and work together to develop care plan that responses to the individual needs of patient in term of physical, psychological and social supports.

2.2 Case conference.

Case conference has been regularly scheduled twice a month. This activity achieved by multidisciplinary team including physicians, nurses, pharmacist, social workers and other health care providers.

The case is selected on patient status with many complications and need for change in care plan in order to generate all possible solutions and choose the best one to achieve the problems.

2.3 Group therapy

This activity has been developed for providing health education and initiation relationship among family of patients by inviting some healthcare professionals in various divisions, composed of nurse, pharmacist, dietician, physical therapist and social worker, to educate and answer about healthcare problems base on their expertise. Healthcare professionals will rotate the instructor role in educating in the topics regarding to their interest. For example, herbal medicine and food supplement for cancer patient and others.

2.4 Pharmacy service involvement

Although lack of manpower is a significant barrier of pharmacy department, with her commitment to initiate pharmaceutical care in Hemato-Oncology Ward, Ms.Saranrat a clinical pharmacist overcame this obstacle by using extra period of work time in order to initiate new pharmaceutical care in Hemato-Oncology Ward. She said that

“I used extra period of work time for 6 month in implementing new pharmaceutical care in this ward, until physician team admire in pharmaceutical service , so I have allocated period of work time in evening from chief of pharmacist to provide pharmaceutical care on ward.”

There are some activities of clinical pharmacist involvement as the following

2.4.1 Providing pharmaceutical care by participating in inpatient rounds.

Ms. Saranrat described her clinical pharmacy activities, she said that

“First, I review all medication profiles and result of laboratory test involved in medical record to determine drug related problems. Then I access the points

which cause the problems such as: the changing metabolic state of patients with advanced disease usually necessitate frequent dose adjustments, or whenever addition medication is prescribed, potential interactions and adverse effects in a patient whose metabolic function are already compromised, must be considered. Furthermore, I ask the patients and their families if possible about their compliances and any concerns they might have about their illness or their medication. All of this, I will derive data about drug related problems of patients and I document them in patient profile because the collected information can serve as a basic for continued improvement of drug therapy."

She also described her activities in medical round. She said that

"I attend medical round with physician and other healthcare teams in every Thursday of week. Most duties are responding to request and concern about drug therapy by providing pharmaceutical advices in selection of dose, dosage form, dosing regimen and recommending dosing adjustment in patients with renal or hepatic impairment. Moreover, I will share all information obtained from reviewing medication profile and communication to patient with members of interdisciplinary team."

2.4.2 Participating in case conference

Case conference has been regularly scheduled twice a month. This activity achieved by multidisciplinary team including physicians, nurses, pharmacist, social workers and other health care providers. For this activity, Ms. Saranrat, pharmacist who is a member of team, provides a broad range of pharmacy services, for example contribution information related to various pharmacologic aspects of drug therapy, participating in case management discussion and in decision making processes et al. Needed knowledge for pharmacist

Furthermore, Ms. Saranrat gave her suggestion about essential knowledge of pharmacist who will provide pharmaceutical care to terminally ill patient. She said that *"Pharmacist should expertise in pharmacological properties of drug therapy, herbal medicine, psychiatric drug and psychology"*

Moreover, Ms.Saranrat told me about her technique in obtaining up-to-date information. she said that *"I am actually using the Internet for my work in order to acquire new knowledge and to provide healthcare team with up-to-date quality information."*

2.4.3 Coordinating for provision of medicine

Another pharmacist's responsibility is provision of medicine Ms. Saranrat said that "One of my responsibilities is contacting the pharmacy department to provide the non hospital drug list of medicine prescribed for patient who needed to treat with them in timely manner"

2.4.4 Providing consultation about herbal medicine and food supplement

In Thai society, for terminally ill patients, the medical or conventional treatment did not effectively support their daily living, alternative therapies are often used. Even though those alternatives are not verified scientifically, patients and their families prefer alternative care such as use of herbal medicines, food supplement to support their physical and psychological needs. Ms.Saranrat told to her activities on providing consultation about herbal medicine, she said that

"Because, there are a lot of questions that ask about use of herbal medicine I will search information of them in order to answer their inquiry. I am aware that some kinds of herb have not been scientifically proven to cure disease. In this care, I always ask the families what kinds of herbs that they will be using and if those herbs have side effect that can affect the patients and their treatments. I tell the families that they can integrate the herbal remedies with the medications that patients are receiving while hospitalized."

The use of alternative therapies is another area where pharmacist can initiate their service to terminally ill patients, pharmacist is the most appropriate healthcare professional who provide recommendation and consultation about them due to their expertise in pharmacologic properties of herbal medicine and food supplement.

2.4.5 Providing drug counseling service to medical staffs and patients by giving a chance in accessing service all day all night, 24 hour a day, with mobile phone. For ensuring a prompt response to and their requests and concerns. Ms. Saranrat said that "For mobile phone, I never turn off them, because I don't know what 's time which the doctors or patients call to ask for my service."

2.4.6 Providing drug information service to healthcare providers by searching drug information and answering their questions.

2.4.7 Providing drug education to patients by participating with other healthcare team in teaching and training sections of group therapy.

5.4 Expected Needs of Pharmacy Services

Expectation of hospital pharmacy services are obtained from health care professional that have experienced in providing palliative care to terminally ill patients.

1. Preparing small dose of morphine

Dr. Issarang told to his expectation of pharmacy services, he said that

“Role of pharmacist should be provision of medicine such as pain meditation. Current dosage forms of morphine are available in hospital are in tablet that not be crushed. For pediatric patients, I require small dose of it, I have received a recommendation that if I want small dose of morphine I can break morphine injection to obtain it.”

2. Recommendation for medication in symptomatic treatment

Dr. Issarang said that

“I have not used many items of medicine; most of them are anti-cancer drug and analgesic. I would like pharmacists to recommend use of medication for symptom relieve such as laxative, conventional herbal medicine and other medication in symptomatic treatment because I have limited knowledge of this issue. This is my favorable need”

3. Provision of care in pain management

Dr. Issarang also said that

“For some critical circumstances, such as severe headache, nausea and vomiting, due to limitation of knowledge in symptom relieve, I don't know how to improve them better. If patients have vomiting symptom from chemotherapy, I will prescribe only Ondanseiron ,because I have a few idea on prescribing them. If pharmacist come to advice in selection of drug therapy, it will be better”

4. Providing consultation services

Dr. Issarang also said that *“I would like pharmacist to provide consultation service by giving hot line number served by consistent person of expert pharmacist.”*

5. Coordinating for receiving medicine

From the problem in availability of the same medicine like as Chulalongkorn hospital in other provinces, Dr.Issarang said that

“This is for the case of patient come from rural area that hospital located near their home have not prescribed medicine like Chulalongkorn hospital and I can not send their medicine to their home. Moreover, patient and their families encounter difficulties in coming back to hospital. Therefore, it is needed to order in admission for patients. ”

6. Proving drug counseling

Ms. Pornsri Guyyasitt, one nurse staff of pediatric ward, she had derived grant for continuing of nursing education in a certification program in palliative care at college of nursing of Chulalongkorn hospital. She told her expectation of pharmacist service, she said that

“I would like pharmacist to advice for terminally ill patients about alternative medicine such as herbal medicine.” Moreover she also said that “I would like pharmacist to provide drug counseling for patient who derive chemotherapy by answering and advising them about their questing including topics of their precautions.”

7. Establishing and reviewing of practice guideline

Ms. Pornsri Guyyasitt expresses her expectation of pharmacist services. She said that “I would like pharmacist to establish and to review practice guideline with interdisciplinary team”

5.5 Current Pharmacy Service Involvements in Palliative Care

1. Providing drug counseling service to medical staffs and patients by giving a chance in accessing service all day all night, 24 hour a day, with mobile phone.

2. Providing drug information service to healthcare providers by searching drug information and answering their questions.

3. Providing drug education to healthcare providers. New drugs on approval, stability and compatibility of injectable drug are the example topics she has taught.

4. Providing drug education to patients by participating in teaching and training sections of group therapy.
5. Providing pharmaceutical care by participating in inpatient rounds.
6. Participating in case conference
7. Coordinating for provision of medicine

5.6 Supporting to End of Life Care

There is both of internal and external supporting to end of life care.

1. For internal supporting.

Hospital administrator team have allocated budgets for operation of the project relating to end of life care such as purchasing some toys for pediatric patients, promoting end of life area in every wards and others. Moreover, there are some personals of hospital dedicate their time act as a volunteer in vary activities, for example, providing spiritual support for individual religions belief. Another is play therapy introduced by nurse 's teacher of college of nursing of Chulalongkorn hospital. This activity created for pediatric patients in order to relieve their fear from proceeding in medical treatment. And art therapy created for pediatric patient by allowing them express their feeling, need, fear, questions and anxieties through art expression.

2. For external supporting.

There are some financial and personnel supporting from several of resource, for example assistant of funeral arrangement for some dead patients who can not afford to pay by themselves contributed by patients with bone marrow transplant club. In addition, there are financial supports from some charitable associations and organizations including philanthropic donations from merciful people and others.

5.7 Problems and Barriers in Implementing Palliative Care

1. Lack of manpower

This barriers appears to cover all of areas of hospital and it's main obstacle in implementing of palliative care services. For example, Chulalongkorn hospital is a1500-beds of teaching hospital but manpower of pharmacist is only 50 persons. Due

to shortage of healthcare providers is a significant problem of all area of hospital, so personals of pharmacy department are also insufficiency. This situation is one of important obstacles in extending role of pharmacist in end of life care.

2. Misperception relate to palliative care

From finding in this study, the research found that some pharmacists have perceptions about palliative care incorrectly. Ms.Wanee Idthiwattanakul, chief of one unit in pharmacy department, providing dispensing services for pediatric inpatients who received chemotherapy or Immunocompromise. This pharmacy unit located at the 13th floor of Queen Sirikit Building. She said that

“I have perceived about palliative care from presentation of palliative project from patient care team of pediatric medical department, but I think pharmacists have not role in palliative care. In my opinion, pharmacist should involve at the step that cure is the commitment and treatments are also continue. Because at that point, it can increase good outcome of treatment and reduce toxicity by drug therapy.” She also said that “For end of life care, treatment is discontinued and only supportive care will be introduced, so pharmacists should not be related to end of life care. Role of pharmacists should be in the step of care that medication has effect to prognosis in stage of disease”

CHAPTER VI

MAHAVAJIRALONGKORN CANCER CENTER

6.1 Background and History

Mahavajiralongkorn Cancer Center is under Medical Division in the Ministry of Public Health. It is a branch of National Cancer Center of Thailand which contributed by Kanjanabarami Foundation. This cancer center located at Tanyaburi district, Pathumtani province. There is designated specialty ward for terminal cancer patients providing palliative care for terminal cancer or seriously ill patients suffering from chronic degenerative disease which have limited life expectancies in area of Pathumtani province and neighbor area. This is a 16-bed hospice, in area of 1,041.6 square meters, with home care service. The key personals who are involved in palliative care consists of 1 physician; 5 ward nurses, 1 home care nurse, 1 volunteers of Buddhist monk. Other healthcare professionals, such as oncologists, anesthesiologist, pain specialist, social workers, will be consulted when the complicated cases visited. The hospice ward as shown in figure 19



Figure 19: Hospice ward at Mahavajiralongkorn cancer center

Hospice supports the need of terminally ill patients that often can not be met in acute care setting: the need for patient and family to continue to have control of their lives, the need for symptom management, the need to have unnecessary test and procedure stop. Healthcare providers need to be supportive and responsibilities assist the patient to maintain their needs. Patients and families need assistance to maintain their dignity, their humanity and their ability to cope with the crisis of death with their own lifestyle and with as many aspect of life as possible.

Terminally ill patients and their families enter the inpatient unit for short symptom control or terminal admissions. Healthcare providers establish care plan for 2 weeks in order to control symptom and prepare families for providing continuing care when they go back home. But if the patients are not recovering, they can continue admission in hospice. On the other hand, when distress symptoms of patient can be controlled, almost terminally ill patient would prefer to be cared for at home, because home is most natural and comfortable setting for most patients and their caregivers. Tools of health education for preparing families prompt to provide continuing care when they go back their home as shown in figure 20



Figure 20: Tools of health education to families of patients

Environment and facilities

Since the psychological thrust of the hospice is to create a homelike atmosphere, so that, in hospice ward, providing the patient with access to familiar and pleasant surroundings is recognized. For example, hospice ward provides appropriate private

rooms with greater access to nature and the outside world for patients. It may also include garden, sunroom or outdoor patios allow light and nature to reach the patient and promote a residential atmosphere. Atmosphere around of hospice ward as shown in figure 21



Figure 21: Atmosphere around of hospice ward

In addition, regulations of hospice ward let patients access to their own possession (such as pictures or respectful things) and people they know and love-of simply people they can trust to care for them.

Moreover, hospice provides suitable space for group and individual activities, such as living room for watching to the television, common room for reading or listen to music including aromatherapy, chapel and meditation room for practice in religious activities, and gardens contributed much to the well-being of the families.

Since, many oncology patients lose their appetite as the day progresses, so that favorite food in as personal a manner as the patient wishes, attractively served, can stimulate appetite. Consequently, kitchen is to be found in inpatient unit so that the family or friend may prepare or warm the patient favorite dishes. The facilities of hospice ward shown in figure 22 -25



Figure 22: Private room with living area



Figure 23: Common room for reading and listening



Figure 24: Kitchen room for preparing food to patients



Figure 25: Chapel and meditation room

Unfortunately, although hospice has allocated many proportioned areas for patients and their families, most of them spend the majority of their time in their room and so under use these areas.

6.2 Program of Care in Hospice

In hospice ward, several activities of hospices care have been developed to deliver services which cover physical, psychological and spiritual support for terminally ill patients. Healthcare team composed of physicians, ward nurses, homecare nurse, and volunteers. For example,

1. Providing holistic care

Comfort is a major provision of inpatient hospice care by nurses. Providing comfort involves more than attending to the patient's physical condition, but emotional condition should be concerned. However, to comfort the patient emotionally, caregiver should listen to the patients and offer counseling.

As physical comforting involves pillows, optimal room temperature, diet, movement and medicines, emotional comforting includes the development of an atmosphere of security and trust, quiet, peacefulness, and warmth.

Ms. Patcharin, chief of nurse in hospice ward, she narrative account presented holistic care given to the dying patient was:

“We provide comfort to terminally patients by providing them with physical and hygienic care. We pay attention to do anything to make them feel more physically comfortable such as pain management, nutrition, medication, and other medical treatments regarding patients’ prognosis. I also provide them with peaceful environment. All of above for patient and caregiver develop trust in healthcare team and willingly co-operate. Moreover, I also promote spiritual activities for peace in their mind such as the patient will be suggested to pray two words: Buddha and Tho and think about good thing before they have a bed time for their peaceful mind”

The activities of spiritual support as shown in figure 26



Figure 26: Spiritual support by nurse and volunteer Buddhist monk

2. Friend for Friend activity

Family members of terminally ill patients need emotional support and need to learn how to care effectively for the patient's physical and emotional needs. So that "Friend for Friend" activity has been established. This activity has initiated for promoting relationship among family of patients and giving a chance for them to share their experiences in providing care for patients each other including providing health education and counseling about healthcare problems and supporting their needs.

Ms. Patcharin, chief of nurse in hospice, addressed her support through friend help friend activities in providing palliative care. Her narrative account was stated that:

"I support those families who have terminally patients because it is really hard for them to lose their loved one. I always understand how their feeling of loss, thus, I encourage them to have religious activities that will make themselves better."

3. Providing spiritual support

In addition to the multiple physical symptoms associated with last stage of disease, many patients and their loved ones suffer considerable psychosocial distress. Beyond the common problems of anxiety, depression, insomnia, and the like lay

many other stresses like financial difficulties or disruption of long-term human relationships. So that, there are some activities in supporting spiritual needs for terminally ill patients and their families as following examples.

Since, Buddhist strongly believes that practicing the religions activities helps a dying person have a peaceful death. Ms. patcharin also supported that in terminally ill patients, families of patients primarily request religious activities because that such activities would help the dying have a peaceful death in response to the spiritual need of dying. For instance, inviting a Buddhist monk to pray for the dying patient at the bedside in order to lead them in peaceful mind, inviting some monks for their giving donation, providing some tape of Buddhism's instruction for their peaceful mind in patient's room. Furthermore, hospice program also provide religious service regularly in every Wednesday at the morning.

Luckily, there is a Buddhist monk who acts as a volunteer devotes his time to communicate in the moral topics and pray for leading peace to patient mind. In addition, he addresses the holistic approach in counseling for terminally ill patients.

For Muslims, there is a strong companionship among patients, their families and their communities. Although they have less time, they try to rotate for caring their patients all day all night and practicing their religions activities to help terminally ill patients have peaceful death. According to the Islamic faith, the body must be buried within 24 hours after his legal death. So that, healthcare providers will support cultural belief by helping with death certificate urgently.

4. Providing health education for caregivers

Nurse ward provide health education to patient's families for preparing basic knowledge and skill on caring terminally ill patients when patients come back home, such as, procedure of naso-gastic feeding, procedure of a wound dressing and others.

5. Providing home care service

Providing home visit is another hospice care. In the case, discharge of patient is granted, hospice also provide home visit by home care nurse to ensure continuing care. Homecare nurse is one of hospice team. She visits the patient regularly and consults with the other team members in planning and implementing care as following activities. First, she coordinates with ward nurses to accept problems and patient's needs and obtain the physician orders of patients in each patient's plan of care.

Second, she contacts and introduces herself and her responsibilities to patients and their families in hospice ward. Third, she completes patient and family's data by interviewing and collecting from medical record, then she develops a nursing plan of care that prescribes interventions including schedule of home visit. Fourth, she implements the interventions identified in the plan of care. Fifth, she report about activities including barriers in operation she encounters to hospice team every week. Sixth, after patients died, she also visits the family for solving their bereavements for 6 months.

For homecare nurse, she offers a wide variety of professional health care service (e.g., administration, pharmacy, dietary, social charity, physical therapy, and physicians). The activities include providing personal assistance by giving consultations in the topics of personal hygiene, dressing, food, feeding, and medication including medicine or medical equipment delivery. The frequency and duration of visit depend on patient prognosis. Moreover, personal care, social and spiritual support, social work assistance and referral are also provided by her. The home visit activities including the barriers in operation she encounters will be reported to hospice team every week.

If patients have troubles with their disease or health problems, patients' information and observation related to the problems will be recorded and then reported to hospice team in hospice conference which has been regularly scheduled 2 to 4 weeks for further actions.

Hospice conference has been established for discussing about services, patient needs and any changes in condition. One or more services may be started or discontinued or no change may be required. Records are reviewed to assure that established policies are followed while providing service.

Moreover, she also provide consultation service to patients by giving a chance in accessing service all day all night, 24 hour a day, with mobile phone.

6. Knowledge sharing

The staffs of hospice team are usually invited to share what they have learned and developed in palliative care activities on academic meeting. For example, Dr. Thanadeach Sinthusek, director of Mahavajiralongkorn Cancer Center, has been invited to be a guest speaker under the topic of "A Model of Cancer End of Life

Management” in the theme of “*Preparing for the New Health Care Demand*” in AACPMedical Management Leadership Forum-VI, Bangkok, in August, 2004.

6.3 Expected Needs of Pharmacy Service

1. Providing consultation in pain and symptom management

Since, terminally ill patients usually have some physical and psychological symptoms, e.g., pain, dyspnea, nausea, anorexia, diarrhea, constipation, fatigue, anxiety, and depression. Pharmacists are encouraged to become involved in initiatives to improve pain and symptom management. As Ms. Patcharin said that

“I had experience in the case of patient was confused. First, physician prescribed Diazepam 5 mg but patient’s symptom was not improved. So that Lorazepam would be substituted. Unfortunately, patients also have confusion. I would like pharmacist to provide consultation in pain and symptom management”

2. Participation in inpatient ward round

Pharmacists should participate as care team members for providing safe and effective drug distribution systems as well as sharing clinical responsibility with physicians for achieving desired pharmacotherapeutic outcomes.

Ms. Patcharin gave her requirement of pharmacy services, she said that “I would like pharmacist participating in inpatient rounds with hospice team and contribute information related to various pharmacologic aspects of symptom management”

3. Providing of discharge counseling service

Fear of opioid addiction may lead patients to underutilize prescribed analgesics. Misunderstanding the role of opioid analgesics at times causes patients to believe that their use is reserved for pre-terminal states; hence, drug related problem in noncompliance usually occur. It is an impediment and should be addressed by providing consultation to patients and families. Ms.Patcharin told to her expected need of discharge counseling service by pharmacist. She said that

“I found that, when patients acknowledge that their medication is morphine. They were afraid. So that I would like pharmacist to provide consultation to help patients have a better understanding, and can follow the directions of drug therapy before they come back home.”

4. Participation in case conference

Case conference is established by hospice team. Member of team composed of physician, nurse, home care nurse are invited to attend the conference and discuss on complicated or controversial problems of patients. Dr.Thanadeach told to the expected pharmacy service in participation in case conference. He said that

“I would like pharmacist to participate in case conference to share her special knowledge and skill with other team members in order to seek the best solutions together.”

5. Developing manual of providing consultation of drug use for home care nurse

Incorporating with hospice team to develop guideline for homecare nurse to provide care in the topics of the directions of drug therapy

6. Participating in home visit with team

Home care is another expected need of healthcare provider. Dr. Thanadeach said that

“If possible, pharmacist may accompany the home care nurse on home visit in order to communicate directly with patients and their caregivers and to make necessary assessment such as, reviewing all drug therapy and identifying drug related problem.”

7. Compounding morphine syrup

Dr. Thanadeach told to one expected need of pharmacy service that he need. He said that

“I require Morphine syrup is available for use in reliving breakthrough pain. Now, we use injection form for reliving breakthrough pain which route administration is intramuscular.”

6.4 Current Pharmacy Service Involvement in Palliative Care

1. Provision of medicine

Generally, Pharmacy Department has duty in provision of drug. Since, this hospital is cancer center. Each day, there are many cancer patients come to derived chemotherapy. Preparing chemotherapy for cancer patient is one responsibility of pharmacists. Moreover, pharmacist also compounding antiseptic mouthwash for cancer patients who derived radio-therapy

2. Providing drug counseling service to medical staffs

Since this hospital is cancer center, so that there are many items of analgesic, both of opioid and non-opioid analgesic, in handle of pharmacists. Pharmacists usually provide drug counseling service to medical staffs in recommendation of drug substitutions.

3. Providing drug information

Pharmacists also provide drug information service to healthcare providers by answering their questions from medical staffs.

6.5 Supporting to Hospice / Palliative care

There are both of internal and external contributions to palliative care activities

1. For internal support

The Academic training programs have been contributed in order to increase the competency on knowledge and skill of healthcare professionals providing palliative care.

2. For external support

There are both of financial and personnel supporting from several of resources, for example, financial supports from some charitable associations and organizations, such as YWCA Association, and some donations from patients' families and merciful people.

3. For personal advocacy

Volunteers are the form of personal advocacy such as Buddhist monk volunteers.

6.6 Problems and Barriers to Effective Hospice / Palliative Care

1. Lack of financial support

The key economic issues for patients and practitioners are lack of universal access to care and the severe under funding of end-of-life care by the current care system. Universal coverage programs do not cover home care, so that it difficult for hospice programs to meet all the needs of referred patients.

2. Lack of manpower

Lack of healthcare personals is important obstacle of the hospital. Shortage of healthcare providers is a significant problem of all area of hospital, so personals of pharmacy department are also insufficiency. This situation is one of important obstacles in extending role of pharmacist in palliative care

3. Lack of perception in palliative care

Pharmacists accept that providing care to terminally ill patients is not their jobs. It is work of nurse. Ms Kobkul, chief of Pharmacy Department, said that *“I think palliative care is nurse’s role and here, nurse do this job so good.”*

4. Lack of interested in palliative care

Ms Kobkul, chief of Pharmacy Department, she is not interested in participation providing service relevant to palliative care. She said that

“Nowadays, we confront enormous work load because pharmacy department distribute drug by unit day system. I don’t have enough time to provide care in hospice ward. We aim to develop preparing chemotherapy for cancer patients”

CHAPTER VII

DISCUSSION AND CONCLUSIONS

In the beginning, the implications to the three purposes of this research study are described as followings. The first is to examine the needs of hospital pharmacy services in palliative care team. The second is to study patterns and models of palliative care in hospitals providing palliative care. The last is to study the perceptions and knowledge of hospital pharmacists in providing pharmaceutical services with palliative care interdisciplinary teams.

This chapter presents the discussion of the findings of this research study. The chapter composes of five main topics; (a) several models of development of service system in palliative care in hospitals; (b) expected needs of hospital pharmacy services and current pharmacy service involvement in palliative care; (c) problems and barriers of pharmacist in providing pharmacy services to terminally ill patients ;(d) suggestion to pharmacists ;(e) limitation followed by the conclusion of this study.

7.1 Several Models and Development of Palliative Care

From the study of palliative care services in three hospitals, it is found that there are varied levels in development and management of palliative care which can be classified in two main categories

There are two conceptual frameworks of implementation of palliative care in hospital. One is the services should be provided by healthcare professionals whose normal duties are related to patients with life-limiting disease so that the dissemination of palliative care would be targeted to all regular wards in order to put it into normal practice of their personals. For example, implementation of palliative care service in Songklanagarind hospital and King Chulalongkorn's Memorial

hospital. The other is palliative care should be provided by specialized healthcare team. There is a designated specialty ward, hospice ward, for terminal cancer patients or seriously ill patients suffering from chronic degenerative disease which have limited life expectancies. Moreover, in the case, discharge of patient is granted, hospice also provide home visit by home care nurse to ensure continuing care.

To disseminate palliative care to all regular wards in hospital, the palliative care development committee has been established to operate this task. The palliative care committee members consist of healthcare provider from various divisions such as physicians, nurses, pharmacists, psychologists, social workers, and physical therapists. They would act like a supporter and catalyst in initiating and facilitating palliative care activities.

1. For Songklanagarind hospital

The palliative care development committee consisted of various divisions responsible for different duties such as public relation, research, education and teaching, academic training, performing palliative care activities, consultation service activities, developing of palliative care practice guideline, monitoring and evaluating of palliative care activities and others. The strength of development of palliative care in the hospital composed of many reasons especially the leader of team succeed in persuasion healthcare providers who interested in providing palliative care including volunteers which their jobs resemble to palliative care co-operate in establishing palliative care development committee. Then members of the committee have further developed activities to promote palliative care to terminally ill patients on their abilities. Moreover, palliative care unit has been also established for running and supporting this task too. Furthermore, there are both internal and external contributions to palliative care activities. For internal support, hospital administrator's team plays vital roles on this. They have actively integrated palliative care into one of the hospital's strategic plans. Moreover, some budgets from several resources, such as: Hospital Foundation grants; endowments have allocated to support palliative care projects and palliative care trainings for healthcare providers and volunteers. In addition, they also have participated in palliative care committees by act as consultants. For external support, there are both financial and personnel supporting

from several of resources, for example, financial supports from some charitable associations and organizations, and some donations from patients' families and merciful people. And for personal advocacy, there are some volunteers from both hospital and community co-operate provided to patients. For example, Yen-Si-Ra Building volunteers, bed-side volunteers.

2. For King Chulalongkorn's Memorial hospital

The development of palliative care service system is in an early stage. End of life care committee is also established, but organizational structure and individual functions of members in the committee are not defined. Members of the committee consist of healthcare providers from various divisions such as physicians, nurses, social workers, dieticians and physical therapists. The number of developed activities involved with palliative care is not as many as Songklanagarind hospital. Luckily, there are network co-operations on sharing experiences and knowledgebase of implementing palliative care among healthcare providers in the hospital providing palliative care so that the implementation of palliative care service of King Chulalongkorn's Memorial hospital can develop rapidly by means of learning and earning the experiences and knowledgebase from members of the network. Interestingly, with the recognition of healthcare providers in those children in terminal illness which have their special physical and psychological needs, the end of life care project would be developed before the exciting and innovation of palliative care to the hospital. The project provides a holistic care which covers physical, psychological and social support through some activities for example, providing consultation to parent or families of terminally ill children, psycho-social round, wishing well project and proactive follow up activity. Furthermore, there are both internal and external supports to end of life care development in the hospital. For internal support, hospital administrator teams have allocated budgets for operation of the project related to end of life care. Moreover, there are some personals of hospital dedicating their time as a volunteer in various activities, for example, providing spiritual support for individual religious belief, play therapy created for pediatric patients in order to relieve their fear from proceeding in medical treatment, and art therapy created for pediatric patient by allowing them express their feeling, need, fear, questions and anxieties through art expression et al. For external support, there are some financial and personnel supports

from several of resource, for example assistant of funeral arrangement for some dead patients who can not afford to pay by themselves contributed by patients with bone marrow transplant club. In addition, there are financial supports from some charitable associations and organizations including philanthropic donations from merciful people and others

3. For Mahavajiralongkorn Cancer Center

The model of service differs from others. Terminally ill patients and their families enter the hospice ward for short symptom control or terminal admissions. Healthcare providers establish care plan for two weeks in order to control symptom and prepare families for providing continuing care when they go back home. Moreover, providing home visit is another hospice care to ensure continuing care for the case which discharge of patient is granted. Furthermore, there are both internal and external contributions to palliative care activities. For internal support, the academic training programs have been contributed in order to increase the competency on knowledge and skill of healthcare professionals providing palliative care. For external support, there are both financial and personnel supports from several of resources, for example, financial supports from some charitable associations and organizations, such as YWCA Association, and some donations from patients' families and merciful people. For personal advocacy, volunteers are the form of personal advocacy such as Buddhist monk volunteers.

7.2 Expected Needs of Hospital Pharmacy Services and Current Situation of Pharmacy Service in Palliative Care

From the study, the expected needs of hospital pharmacy service of healthcare providers are both participation in direct patient care and support level. That means pharmacists may participate in the direct patient care by providing pharmaceutical care direct to the terminally ill patients and their families with palliative care team, and the support level by provision of medication, establishing drug information service and others.

For current pharmacy services involved in palliative care from this study also found that, there are pharmacists play role on direct patient care and/or support levels of care according to their abilities and readiness.

7.3 Problems and Barriers of Pharmacist in Providing Pharmacy Services to Terminally Ill Patients

1. Misperception about roles and responsibilities of pharmacist to palliative care

From the study, some pharmacists have perceptions about roles and responsibilities of pharmacist in palliative care incorrectly. It is a significant obstacle in implementing of palliative care services, for example, management of the pharmacy and prioritizing in initiating pharmacy service in area of palliative care were neglected from chief pharmacists. Consequently, lack of support was described by pharmacist staffs.

2. Inadequate knowledge on providing pharmacy service to terminally ill patients.

Pharmacists do not receive systemic education in their roles and responsibilities of providing pharmacy service to the terminally ill patients. Few courses emphasize this during the pharmaceutical undergraduate years and postgraduate training programs and lack of role models with expertise on providing pharmaceutical care to terminally ill patients. As a result, lack of competence among pharmacist staffs to deal with specialized issue and lack of confidence in participating in palliative care team were found in this study.

3. Limitation of manpower in healthcare providers.

Limitation of staff is a barrier appears to almost all of government hospitals. Because of shortage of healthcare providers in hospitals, it is difficult to increase personals in pharmacy department to support in extending new pharmacy services in several areas.

4. Improper management and administration for professional development

Improper management and administration for professional development sometimes are non-existent or very vulnerable to competing pressure from the distribution of drug, which is the largest part of everyday practice of pharmacists.

This is a barrier to the implementation of new health professional initiatives including participation in providing pharmacy service with palliative care team.

5. Lack of inspiration and interest of pharmacists

Results in this study also indicated that some pharmacists have less interest in implementing such as pharmacist of cancer center; she told to the researcher that she aimed to develop preparing chemotherapy.

7.4 Suggestions to Pharmacists

1. Opportunities in implementing pharmacy services to palliative care.

The followings are the opportunities in implementing pharmacy services to palliative care referred from expected needs in hospital pharmacy services of healthcare providers who are informants in this study. There are two levels of pharmacy services, direct patient care and support levels, which pharmacists can participate in providing services to terminally ill patients.

1.1 For support level, pharmacists who are not ready to provide services on direct patient care. They can implement pharmacy services in the support level for palliative care service. For example,

1.1.1 Participating as a member of palliative care developing committees of their hospital to contribute information, education and provide a board scope of service to the various other disciplines on matters concerning pharmacy, for example, incorporating with team to develop and review guideline for use of analgesics in pain and symptom management etc.

1.1.2 Communication with regulatory and licensing agencies in order to extend quota in obtaining right for purchasing control substance sufficiently. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that pharmacists ensure compliance with laws and regulations pertaining to medications. Because hospice patients often require large quantities of controlled-substances, open communication with both state and federal controlled-substance agencies is important.

1.1.3 Ensuring that the controlled substance and narcotic analgesic drug are stored and distributed properly. Pharmacist should ensure that the controlled

substance and narcotic analgesic drugs in used are properly stored and controlled. In addition, the distributions of them are adequately documented.

1.1.4 Compounding the needed dosage form with low cost and good stability properties. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that medication compounding needs in hospice care include the preparation of dosage forms to ease administration ,flavoring medication to promote compliance, eliminating or adjusting ingredients that patients cannot tolerate, and preparing or changing drug concentrations. Whenever possible pharmacists compound formulation for which stability and bioavailability data are available.

1.1.5 Establishing proper and understandable of needed medication labeling and auxiliary labels in order to make patients and their caregivers understand the directions provided with the medication. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that pharmacists ensure that all medication labeling is complete and understandable by patients and their caregivers.

1.1.6 Establishing drug information service to answer the question of healthcare providers and patients about medication by mean of providing detail information of drug on document, or phone. Essentially, ensuring the up-to-date pharmaceutical reference material provided to furnish the pharmaceutical, medical, and nursing staffs to adequate information concerning drugs.

1.1.7 Composing literature of drug therapy for propagating in palliative care newsletter regularly.

1.2 For direct patient care level, pharmacists who are ready to provide services on direct patient care. They can implement pharmacy services for terminally ill patients with palliative care team. For example,

1.2.1 Participating as a member of interdisciplinary palliative care team to provide pharmaceutical care service to patients and their caregivers including healthcare teams, for example

1.2.1.1 Assessing the appropriateness of medication orders and ensuring the timely provision of effective medications for symptom control through maintain patient medication profiles, including monitoring all prescribed and non-prescribed

medication uses for safety and effectiveness, as well as minimizing duplicate and interacting of medicine. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that pharmacists provide patients with essential medications within time frame that ensures continuous symptom control (especially pain relief) and avoids the need for emergency medical services. (Vander Geest S., 2004:899-911.) This data indicated that medication review was the most common clinical duty; approximately 70% of respondents in each country provided specific advice on pharmacotherapy, administration, treatment, adverse effect, and incompatibilities.

1.2.1.2 Assisting the physician and team to choose the right medication, dosage and administration, to estimate the reasonable costs, and to evaluate the availability of various drug products and ancillary therapies by advising them about concerning of the properties of medicine such as warnings, contraindications, side effects, compatibilities and potential toxicities from drug interactions through palliative interdisciplinary team rounds and conferences.

1.2.1.3 Educating the interdisciplinary team about drug therapy in symptom control, drug frequently used in terminal case and the most efficient ways of storage and handing of medicine. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that pharmacists attend hospice team meetings to advice other team members about medication therapy, including dosage forms, routes of administration, costs, and availability of various drug products. This is done through regularly scheduled educational sessions.

1.2.2 Providing consultation to patients about indication, dose and administration including compliance to ensure they understand how to take them correctly. And providing some drug information leaflets to remind patient's memories. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that Hospice pharmacist communicate with patients, either through the team or in person, about the importance of adhering to the prescribed drug regimen.

1.2.3 Establishing appropriate discharge counseling service to help patients have a better understanding and can follow the directions of drug therapy before they go back home.

1.2.4 Dedicating time by acting as volunteer of pharmacists in caring patients resting Yen-Si-Ra building or providing available phone number for consultations from volunteers about drug therapy.

1.2.5 Providing drug education to patients or healthcare professionals about drug therapy in continuing teaching sections established by various units in hospital.

1.2.6 Providing recommendation and consultation related to alternative medicine based on their expertise in pharmacologic properties of herbal medicine and food supplement. This result agrees with a previous study (American Society of Health-System Pharmacists, 2002:1770-1773) in that pharmacists develop and maintain a library of contemporary references about medications, dietary supplements, and alternative and complementary therapies. Pharmacists advise members of the hospice team about the potential for toxicity and interactions with dietary supplements and alternative and complementary therapies.

2. Preparing for readiness of pharmacist

Ministry of public health has promoted a patient bill of right. These include ten components, one of which is dying with dignity. For this reason, the hospital has been paying attention to the right of patients. Moreover, the issues of the right of the patients in decide for their end of life care have been recently addressed and discussed among public. Consequently, pharmacists should realize that the provision of pharmacy services to terminally ill patients should be developed. And they should prepare themselves to promptly provide pharmacy services. The following are some topics on preparing of several parts of pharmacy.

2.1 For pharmacy administration. The director of pharmacy is responsible for authorizing and management, the provision of informality and participation in activities. They should use management skills to assure availability of pharmacy services and pharmaceutical products for patients as following

2.1.1 Seeking some solution to solve the shortage of manpower problem.

Hence, The Chief of pharmacy department or service should be assisted by additional qualified pharmacists and pharmacy supportive personnel equivalent to the scope of service provided. So that they should have some solutions to solve the problem of shortage of manpower such as delegating some job to part-time pharmacists in order to release part of the pharmacist's time from the daily

distribution routine. Resulting that they have enough staffs to make it possible in implementation of new pharmaceutical service.

2.1.2 Supporting to continuing education

Head of pharmacy should recognize that staffs need competence for practicing the new task. Consequently, it is necessary to arrange continuing education system and to support in creation of good learning environment for the staffs for developing expert in different topics in the pharmacy as well as increasing confidence on their expertise in participation in new pharmaceutical services through the following activities. For example, time-planned individual study time, study groups, weekly morning meetings, monthly staff meetings and education evenings and others.

2.1.3 Supporting in collaborating pharmacy service with interdisciplinary team.

Enhancing the pharmacist role in palliative care is importance responsibility of pharmacy administrators. They should establish mission statement by documentation of management's agreement on the purpose of the providing palliative care. They should establish organizational structure for availability of support staffs of pharmacists to collaborate in providing pharmacy service to terminally ill patient with palliative care interdisciplinary team by and they should also recognize good performance and practice and give rewards for those exemplary pharmacists achieve this task. In addition, they should develop documentation system of formal written report of pharmacist activity for communication with physicians, nurses, and other health care providers. And they should develop practice standards which pharmacist productivity must be measured in a way that encourages continued patient-focused care which measurement of good practice is more likely to elicit the patient's families and other healthcare team's appreciation and satisfaction.

2.1.4 Ensuring availability of the necessary space, facilities, and equipments.

Chief pharmacist should ensure that the necessary space, facilities, and equipments are available in the pharmacy service for the preparation of needed dosage form for terminally ill patients according to medication order prescribed.

2.1.5 Collaborating in establishing palliative care development committee of hospital.

In the hospital that palliative care committee has not been established yet, pharmacy administrators should collaborate with other healthcare providers in establishing the palliative care development committee of hospital in order to disseminate palliative care concept into practice in all area of services which providing care to terminally ill patients.

2.2 For pharmacy services

2.2.1 Participating in academic meeting related to palliative care

Pharmacists should participate in some lectures and knowledge sharing sections in academic meeting related to topic of palliative care. This is an opportunity in learning the essential knowledge and experiences which the lecturers have learned and developed in palliative care activities. These are very important and precious in developing palliative care services.

2.2.2 Continuing educating in pain and symptom management

One need of terminally ill patient is the need for symptom management. Pharmacists need to be supportive and responsible to assist the patients to maintain their need. Consequently, a program of good medical and supportive care with appropriate drug therapy is essential.

Major symptoms, in which good pharmacological management is essential, are pain, nausea and vomiting, constipation, diarrhea, anorexia and the anti-cholinergic side effects which are often produced by drugs used to manage other symptoms. Pain is the major symptom that most people are concerned with when on incurable condition is confirmed. Many patients don't actually fear death. They fear dying with pain. Server pain is a problem in only about half of terminal cancer patients.

And managing pain in the hospitalized patient requires both a sound comprehension of clinical pharmacology of analgesics and a clear understanding of the patient's perception of pain. Pharmacists caring for terminally ill patients not only find themselves assisting the patient in dealing with the physical component of pain but also are often confronted by the patient's psychological, spiritual, and social perceptions of pain medication. So that pharmacist should have a comprehensive knowledge of pain and symptom management with emphasis on drug treatment and

understanding of patient's perception in pain in order to participate proactively in multidisciplinary approach to pain and symptom management.

2.2.3 Continuing educating in the use of alternative medicine

Pharmacists should prepare themselves in knowledge about the use of alternative medicine in order to provide consultation to terminally ill patient and their families such as herbal medicine, food supplement and others.

2.2.4 Continuing educating in pharmacotherapy on areas of their involvements

In general, pharmacists were viewed as excellent sources of drug information. Pharmacists should study pharmacotherapy in areas of their involvements more correctly and deeply before giving the information to healthcare providers or patients and their families. Since, telling incorrect or not clear information may obtain in bad results that they do not trust in pharmacists. And this event will make pharmacist lose their confidence and healthcare providers do not in pharmacist service.

2.2.5 Continuing leaning to use information technology in searching drug and diseases information.

Pharmacists should learn to search drug information from databases, websites and others resources via internet technology.

2.2.6 Continuing educating in communication, psychological and symptom control skill

Pharmacists should learn and practice in communication, psychological and symptom control skill in order to access the drug related problems and need of the patients.

2.2.7 Establishing network of pharmacists

Pharmacists should establish Network Corporation in sharing and exchange each other in their knowledge and experience in implementing pharmacy services. For example, professional organizations and patient association

2.3 For pharmacy education

There are major deficiencies in palliative care, including few of palliative care curriculums in schools of pharmacist, of the availability of educational materials, and of clinical experiences in palliative care. In order to establish quality education curricula for pharmacist student and pharmacists, pharmacist instructors should verify

the needed knowledge from pharmacists who have experience in caring terminally ill patients in order to include contents related to provide pharmacy services completely and appropriately.

Education in palliative care is essentially required for those who will be taking care of dying patients. One of the most important physical symptoms found in terminally ill patient is “Pain” yet major barrier to effective. Findings of this study showed that pain control was another significant problem that healthcare providers confronted in providing palliative care. This problem may relate to the management of pain in end stage cancer patients who are the majority of recipients in palliative care. One of the reasons is healthcare providers have inadequate on pain and symptom management. Another one is healthcare provider felt frustrated while giving pain medication such as morphine because they thought the medication could have a side effect of suppressing a patient’s respiration. This dilemma may result in reluctance to provide such medication and unnecessary of suffering usually occur to patients. These results are congruent with the American long-term care study by Ersek, kvaybill and hansberry (1999), indication that education in the content area of pain and symptom management is required in long term care service.

Surprisingly, those findings also support the result from participant’s perceived problems, in which pain control was perceived as one of important problems that healthcare provider considered in caring for terminally ill patients. Therefore, pharmacists need to improve their knowledge and attitudes about pain and palliative care.

There are a few universities in Thailand have currently developed specific palliative care course in pharmaceutical curriculum. Palliative care concepts are integrated into courses related pharmacotherapy for cancer patients. Integration of palliative care content into the curricula at all level of pharmaceutical education is needed in order to improve pharmacist competence in palliative care.

Findings of this study showed that most participants of pharmacists had incorrect perceptions toward role and responsibility of them in palliative care. If pharmacists had more correct perceptions toward them, they would be able to initiative pharmacy services to terminally ill patients. Therefore pharmacist instructor should initiate content area of philosophy and concept of palliative care, role and

responsibilities of pharmacist related to palliative care in pharmacy curricula and provide opportunities for pharmacy students to learn and practice about pharmacotherapy in symptom management of terminally ill patient.

Furthermore, the hospital which providing palliative care service should offers pharmacist students the opportunity to acquire and practice effective communication skill with patients. Pharmacy student can also get involved in clinical research related to pharmacist responsibilities and palliative care.

Seminars and conferences of pharmacy service on palliative care for terminally ill patients are needed because pharmacists in practices would have an opportunity to participate and get credit for attending including improving knowledge in palliative care. Moreover, it is a chance for pharmacists providing palliative care with different experiential background related to palliative care to meet and discuss their clinical practice, problems and barriers including way to deal with them.

Furthermore, a certification program in palliative care should be developed because pharmacists would be certified in caring for terminally ill patients, resulting in a greater understanding of patient's needs and betterment of quality palliative care. Clinical and service innovations are needed in this area.

2.4 For pharmacy research

Research is warranted to extend the presently limited knowledge of roles and responsibilities of pharmacists in palliative care. Because this study was focused on hospital pharmacy services, a replication of the study is needed in other pharmacy services such as community pharmacy in role and responsibilities of pharmacist in palliative care.

According to the uniqueness of care at the end stage, needs of terminally ill patients with specific type of illnesses must be varied. The research should be specifically conducted in particular disease and type of illnesses that cause dying and death such as role and responsibility of patient palliative care issues in cancer, HIV, chronic renal failure, diabetes mellitus, chronic obstructive pulmonary disease, as well as the terminally ill patient in children and old age patients.

3. Personal requirements of pharmacist

Working in a team setting and with patients and families requires a number of personal qualities. This professional task must obviously have the skill needed for this

function. For pharmacists who wish to become an effective member of a palliative care multidisciplinary team, pharmacists should meet the following requirements.

3.1 Posses an appropriate perception about palliative care and his or her role and responsibilities on providing care to patients.

3.2 Expertise in medications frequently used in terminally ill patients including drug side-effect and drug interaction profile. This usually requires that pharmacists be well versed in drug therapy used in palliative care, including the control of physical and psychological symptoms, e.g. control of nausea, anorexia, pain, diarrhea, constipation, fatigue, anxiety, and depression, and assume the role of team member in coordinating the efforts with other caregivers.

3.3 Correct understanding of the patho-physiology of pain and other symptoms.

3.4 Well-informed in herbal medicine, dietary, supplement and other alternative medicine.

3.5 Excellent communication and interpersonal skills such as: ease in communication, good listening skills, flexibility ability to work as a team member with emotional maturity.

3.6 Well versed in regulatory issue on controlled substance.

3.7 Committed to continuing education.

3.8 Pleasure to donate their time to do the job.

3.9 Pleasure to provide pharmacy service with their mind.

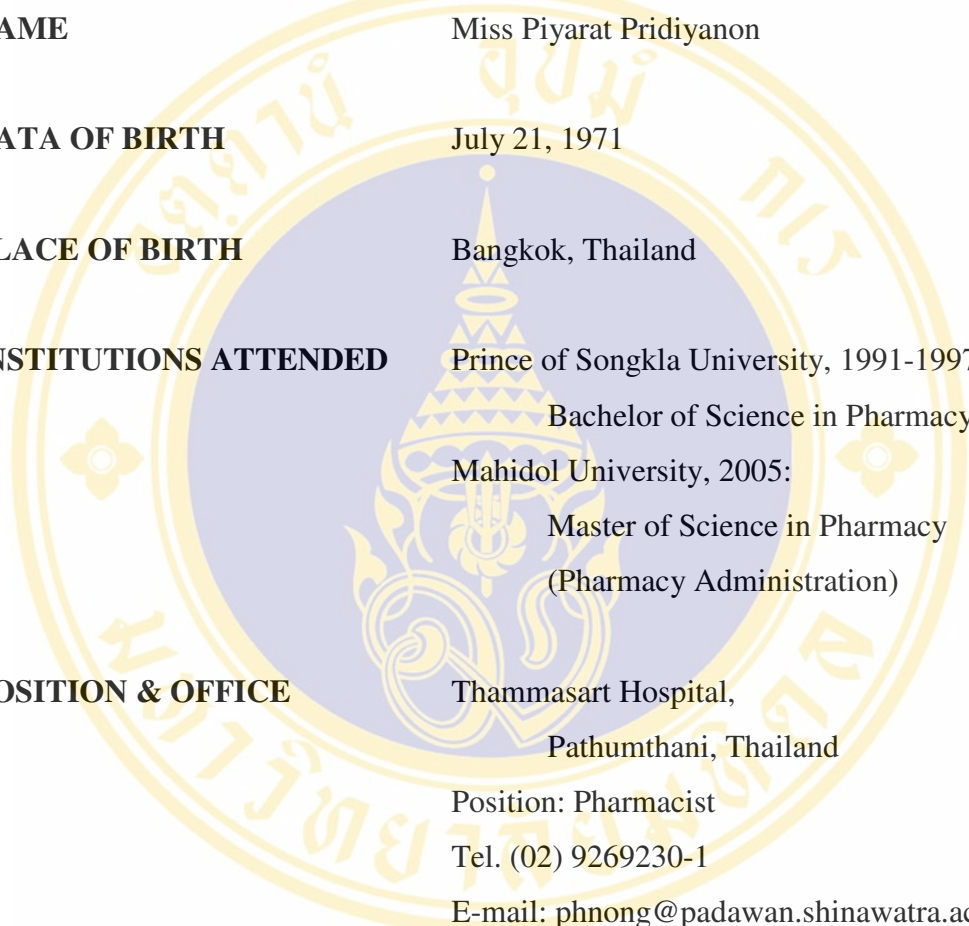
4. Limitation of the study

This study was conducted by qualitative interview in Thai language. Due to limitation of researcher in translation of transcripts from Thai into English, misunderstanding or misinterpreting of meaning might occur during the translation and transformation of data. It was difficult to translate the Thai transcripts into English because sentence structures were ordered differently and skilled translation is required in the processes of data analysis and interpretation of finding. However, in order to minimize this limitation, the researcher had some expert persons in English language to verify and approve the translations.

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BIOGRAPHY

NAME	Miss Piyarat Pridiyanon
DATA OF BIRTH	July 21, 1971
PLACE OF BIRTH	Bangkok, Thailand
INSTITUTIONS ATTENDED	Prince of Songkla University, 1991-1997: Bachelor of Science in Pharmacy Mahidol University, 2005: Master of Science in Pharmacy (Pharmacy Administration)
POSITION & OFFICE	Thammasart Hospital, Pathumthani, Thailand Position: Pharmacist Tel. (02) 9269230-1 E-mail: phnong@padawan.shinawatra.ac.th