$\frac{\text{Report:}}{\text{MD Anderson Cancer Center Japanese Medical Exchange Program}} \\ \underline{\text{JME Program 2018}}$

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Personal Mission and Vision from the JME Program, 2018

•Mission:

(日本語)

薬剤疫学研究により、がん治療の副作用におけるリスク因子に関するエビデンスの不足 を解消する

(英語)

My mission is to fulfill the lack of evidence regarding the risk factors which may lead to side effects of cancer treatment using the pharmacoepidemiological approach.

●Vision:

(日本語)

がん治療の副作用マネジメントに役立つような研究をすることによって、がん患者が、 治療やその副作用に煩わされることなく、その人らしい人生を送れるような環境を提 供する

(英語)

My vision is to provide an environment in which cancer patients can have their own lives without being bothered by cancer treatment and its side effects, using methods developed through research, that can help to manage the toxicity of cancer treatment.

1. Purpose

Personal Purposes of the Japanese Medical Exchange 2018 (JME2018) Program:

- 1. To understand the multidisciplinary team approach and the role of the clinical pharmacist in MD Anderson Cancer Center (MDACC).
- 2. To understand the concept of patient education implemented in MDACC and determine whether it can be applied to clinical settings in Japan.
- 3. To define my own mission and vision and develop my career plan as a pharmacist.

2. Methods

JME2018 Contents of Training

Training was conducted in MDACC from August 30 to October 6, 2018 on the following topics:

1) Observations/ Shadowing

- Clinical observations with Physicians, Physician Assistants (PA), Advance Practice Registered Nurses (APRN), Clinical Pharmacy Specialists (CPS), Registered Pharmacists (RPh), Registered Nurses (RN), and other professions.
 - Breast Medical Oncology: outpatient clinic (Dr. Ueno, Dr. Lim, Ms. Patel: Pharm.D., APRN, RN)
 - Breast Surgical Oncology: outpatient clinic (Dr. Teshome, PA, RN)
 - Breast Surgical Oncology: surgery observation (Dr. Teshome)
 - Gastrointestinal Oncology: outpatient clinic (Ms. Rogers: CPS)
 - Thoracic Medical Oncology: outpatient clinic (Mr. Rivera: CPS)
 - Stem Cell Transplantation unit inpatient round (Mr. Szewczyk, APRN, CPS, RN)
 - Hematology unit inpatient round (Mr. Shank: Pharm.D., Physician, APRN)
 - Radiation Oncology: outpatient clinic (Dr. Liao, APRN, RN)
 - Radiology Clinic (Dr. Le-Petross)
 - Breast Survivorship Clinic (APRN, RN)
 - Infusion Clinic (APRN, RN)
 - Patient Education (Ms Tanha: Certified Health Education Specialist)
 - WOCN (Wound, Ostomy and Continence nursing) round (RN)
 - NST (Nutrition Support Team) round (Ms. Mowatt-Larssen: CPS)
 - Inpatient Pharmacy (Ms. Wu: RPh)
 - Mays Ambulatory Treatment Clinic (ATC) (Ms. Tran: RPh)
 - Main ATC (RN)
- Observation in MDACC in the Woodlands
 - Breast Surgical Oncology (Dr. Reyna)

- Special observation
 - Houston Hospice
 - Center for Advanced Biomedical Imaging (CABI)
- Participation in Nursing Ethics Round (Ms. Neumann)

2) Lectures

- Lectures/workshop on leadership/career development
 - Difficult Conversations (Communications/Emotional Intelligence) (Dr. Baile)
 - Mentoring (Ms. Cameron)
 - Leadership, Conflict Management (Ms. Yadiny)
- Lectures on Ethics (Dr. Theriault)
- Lectures on Nursing division (Ms. Johnson)
 - Education, professions, research in nursing, Nursing Practice Congress, Primary Team Nursing
 - Safety control/quality control system
- Pharmacy Presentation
- Breast Surgical Oncology Lecture
- Service Excellence Modules
- Lecture on antimicrobial stewardship (Mr. Aitken: CPS)
- Statistics/ Design lecture (Dr. Shen)
- 22th Annual Interdisciplinary Conference on Supportive Care, Hospice and Palliative Care Medicine

3) Development of Mission and Vision

- Meetings with Mentor (Ms. Patel: CPS)
- Meetings with Dr. Ueno
 - Individual Development Plan
 - Curriculum Vitae
 - Career Development
 - Leadership
 - Mentoring, and other topics

4) Presentation of the JME2018 Team A project

3. Results

3.1. The multidisciplinary team approach in medical care in MDACC

One of the main purposes of this program was to study the multidisciplinary team approach implemented in MDACC. As I mentioned in the methods above, I have studied the multidisciplinary team approach through observation in outpatient clinics, inpatient rounds, NST or WOCN rounds, and other departments or divisions. At MDACC, duties performed by a physician alone in Japan are performed by the multidisciplinary team, consisting of a physician, an NP or PA, and a CPS. Their tasks partially overlap; these professionals share the work depending on their specialties. This style makes medical care more efficient and safer.

3.1.1. The role of pharmacy staff in MDACC

Division of Pharmacy in MDACC consists of three professions: Operational Pharmacists, Clinical Pharmacy Specialists (CPS), and Pharmacy Technicians. The work related to pharmacy or pharmaceutical care has been divided and differs according to their professions. For example, pharmacy technicians are in charge of preparation of oral medication, making chemo- and non chemo-drugs in the clean room, and supply medications to the pyxis system set up in the ward. Operational pharmacists can verify prescriptions, make a final check of mixed chemo- or non chemo-drugs in the central or satellite pharmacy, and check the medication history in the ward. Clinical Pharmacy Specialists belong to the multidisciplinary medical team based on their specialty. They can check the drug-drug interaction, do therapeutic drug monitoring (TDM), adjust the dose in hepatic or renal failure, give the discharge counseling in the inpatient unit, provide patients education, suggest the supportive care medication of chemotherapy, and sign chemotherapy orders.

In Japan, pharmacists have to do almost all the duties mentioned above, regardless of their specialty. Dividing the work depending on the specialty or profession as in MDACC will allow each professional to focus on their work or specialized duties, which will help to provide high-quality cancer care. Because the number of pharmacy specialists is smaller than operational pharmacists generally, it would be needed to develop the system which enables the multidisciplinary team to use the maximum knowledge and skills which pharmacy specialists have efficiently in clinical settings as in MDACC. On the other hands, in order to implement this system in clinical settings in Japan, it is needless to say that it is necessary to have enough human resources and to build the consensus to introduce pharmacy technicians to pharmaceutical services. In order to gain a shared understanding of pharmacy specialists' improving their expertise and play an important role in the multidisciplinary team, I think that pharmacy specialists should actively participate in cancer treatment with their maximum use of their skills and knowledge.

3.1.2. The unique multidisciplinary team approach in MDACC

During the JME2018 Program, I observed the Breast Medical Oncology Clinic, the Breast Surgical Oncology Clinic, the GI Clinic, the Thoracic Medical Oncology Clinic, and the Radiation Oncology Clinic.

In Japan, physicians, sometimes nurses and pharmacists, are usually fixed in one examination room, and patients visit the room and take an interview or examination. While in MDACC or some other hospitals in the United States, patients are individually waiting for the medical staff in one of many examination rooms where an examination chair and computer with electric medical chart system are set up. A physician, an NP or PA, an RN, and a CPS visit the room and give an interview or an examination. This multidisciplinary team approach is based on the unique conference style. In MDACC, all the team staff are stationed in same work room and it makes easier discuss something about patients who visit the clinic at that day. It seems to be inefficient way that all the team staff should stay in the same room at the same time. But, they can get and share the latest patient information and discuss a treatment plan in the multidisciplinary team without delay. This style can help them to work with using their specialty in an effective way.

3.1.3. The role of the CPS in the outpatient clinic

In MDACC, clinical pharmacy specialists authorized by a supervising physician are delegated to write or sign certain medication orders under the protocol. The CPS who is in charge of the breast medical oncology clinic said that she did not have an opportunity to write a medication order so much because the member of the team in the same room could have a discussion frequently and make medication suggestions to the physicians easily. In the breast medical oncology clinic, CPSs are often in charge of making one of dual signature required in ordering chemotherapy after confirming patients' lab data, medication or treatment history, and drug-drug interaction, etc.

During the observation in the clinic, CPSs suggested to the attending physicians that the dose should be adjusted depending on patients' hepatic or renal function, and explored research paper and showed evidences of second line treatment for patient who had treatment failure. CPSs visited a patient as needed when the physician had changed the treatment or medications or when a patient had a medical issue about the side effect of the treatment. They gave a medication instruction to a patient with leaflets with confirming patient understanding. CPSs also received many questions from patients or their family about their treatment or side effects and made answers appropriately. I have an impression that what CPSs do in MDACC is same as what clinical pharmacists do at the outpatient clinic in Japan. What we should do for Japanese pharmacists' building up the strong position in the multidisciplinary team

is to create and share evidences that shows pharmacist contribution to cancer care, and to develop pharmacists' presence in the multidisciplinary team.

3.1.4. The role of the CPS in the inpatient unit

Same as in the outpatient clinic, the multidisciplinary team consisted of physicians, NP or PA, and CPS decides the treatment plan and gives a treatment in the inpatient unit. I observed the Hematology (Lymphoma/ Malignant Myeloma) unit and did shadowing the CPS. Because the CPS as a member of the multidisciplinary team took in charge of many patients, he went the rounds while moving ward to ward from 9 am until noon. Duties of CPSs in the inpatient unit are almost same as in the outpatient clinic. In addition to duties performed in outpatient, CPSs in inpatient make a prescription order, do the TDM, and give the discharge counseling. They can also collaborate on checking patient medication history with CPSs in the outpatient clinic. Outpatient CPSs check patient medication history or medical issues and send them via email to inpatient CPSs. It would be helpful for both of them to share the patient information and to provide seamless pharmaceutical care from outpatient to inpatient.

3.2. Patient Education in MDACC

I was very impressed to see that patients in MDACC learn well about their disease, medications, and treatment. Not only patients but also their family and friends took notes of the medical staff explanation in detail and asked a lot of questions aggressively. Even though there will be a selection bias that they are patients who can choose MDACC as a place for treatment from all over the United States or all over the world and have high health awareness, as written in Dr. Ueno's book, it seemed that patients have autonomy and decide their own treatment plan by themselves without leaving it all to the medical staff. Patients and their caregivers seemed to be satisfied after receiving explanation from the medical staff and asking many questions. I think the difference of patients' attitude towards their treatment between in Japan and in the United States is influenced by the school education, medical insurance system, and the national characters. When I participated in the Tea Party sponsored by the Inflammatory Breast Cancer (IBC) patient advocacy group, I asked one of the IBC survivors why patients in the United States knew about their disease so much. She told me that she thought it was her own business and it was natural for her to understand and manage her condition by herself. She also said that she searched about her cancer on the Internet before her first visit to medical examination.

In addition, there are three Learning Center (Patient Education Library) in MDACC and they provide leaflets, books, CDs, DVDs, computers connected to the Internet, and online materials. Patients and caregivers can use them anytime they want. The Certified Health Education Specialists (CHES) and librarians are stationed there and

help patients and caregivers to search information they need. The CHES said that some patients and caregivers search original research papers. I was certain that patients in MDACC received the cancer treatment with using these resources so much to get correct information.

3.3. Personal Mission and Vision Development/ Leadership

In the JME2018 program, we had an opportunity to consider future goals and careers through lectures and workshops on leadership and career development, lectures on medical ethics, and meetings with our mentor and Dr. Ueno. In the lecture, we could learn about topics such as difficult conversations, mentoring, leadership, and conflict management. It was a very valuable experience for us because there are hardly any chances to receive such as this type of training in Japan.

3.3.1. Personal Mission and Vision, and Career Development

Dr. Ueno told us the meaning of having a mentor in our life, how to communicate with a mentor, and how to communicate with a mentee when we will have a mentee in the future. My mentor (Ms. Neelam K. Patel, Clinical Pharmacy Specialist) also gave me valuable professional and personal suggestions through the discussion based on her own experiences and career development in the specialized field of clinical pharmacy. In this training, I have developed the following Mission and Vision.

Mission:

My mission is to fulfill the lack of evidence about risk factors for side effect of the cancer treatment by pharmacoepidemiologic research activities.

Vision:

My vision is providing an environment in which cancer patients can carry on their own lives without being bothered by cancer treatment and its side effects by research activities that can help to manage the toxicity of cancer treatment.

We have been given a lot of valuable topics in the meeting with Dr. Ueno. One of the impressive points in the Dr. Ueno's lecture was that someone who had many chances on business had a clear view of the world and had a life based on their own mission and vision. It is certain that the amount of work which one person can be done is limited. Because we all have only 24 hour a day and we cannot change it, it is important for me to know what I give priority to regarding to my work and life. During the JME2018 program, I noticed that I had not have appealed what is specialty or uniqueness of me on my work. It was very good opportunity for me to think about my strength, my priority, and the core value which is the most important for me sincerely.

3.3.2. Leadership

Ms. Jadiny told us that it was important for team members to know each other when we would like to develop a high-performance team. For example, to share what are core values and something a little private will help to develop the deep relationship in the team. She also told that the fundamental of team building was to create psychological safety, which was the environment enabled us feel safety to talk and act without hesitation to achieve high productivity. I thought we needed this psychological safety in the meeting or conference in Japan more because some Japanese still tended to hesitate to speak in the conference with being afraid of social pressure.

3.4. Presentation of the JME2018 Team A Project

The JME2018 members were divided into two teams (Team A and Team B) and each team chose the subject based on the findings from the training in MDACC. I was a member of Team A and we decided to focus on the Patient Education, because all the member of Team A was very impressed to see that patients in MDACC had learned about their disease, treatment, and medication intensely. We developed the project that we could implement into our clinical settings when we went back to Japan. In our project, we decided to have the mission "To develop an integrated educational program for leaning about the illness and treatment for the older (above 75 years of age) patients who need oral anticancer medication, which helps to maintain their QOL." and the vision "To spread the patient education program throughout Japan, especially for oral anticancer medication for older patients and caregivers." We worked on the projects based on individual specialties and presented how to provide good patient education program for patients, caregivers, and medical staff. It was a very valuable experience that we could discuss about how we could make improvements in the Japanese medical environment based on the experiences in MDACC.

4. Future Prospects

4.1. Patient Education in Japan

In Japan, the concept of the Patient Education has not been spread enough. Some of patients in Japan do not know well what medications they take, or what treatment they receive. I imagine that it is because there is still the paternalism in Japanese culture especially at the medical situation. To know what medications patients have taken and the purpose for the medication or treatment will help them to receive their treatment independently and safely. Because cancer patients in Japan often have some comorbidity and receive many medications from several hospitals or clinics, it will be more important for them to know their medication or treatment history to avoid duplication of medications. I would like to learn more about the

Patient Education overseas, and introduce them into Japanese medical situation.

4.2. Personal Mission and Vision

I think that the part which I can contribute in the Team Oncology to is the management of side effects of cancer treatment. My vision is to provide an environment in which cancer patients can carry on their own lives without being bothered by cancer treatment and its side effects. For making my vision come true, what I should do is to see cancer patients in the clinical settings and follow them up carefully. I think it is duty for me as an oncology pharmacist. In addition, considering what I can do for reducing or preventing side effects of cancer treatment, I think it is effective way to find risk factors of side effects by pharmacoepidemiologic approach with using big data. Fortunately, I have found the mentor specialized in the pharmacoepidemiology at the graduate school, moreover, it is my advantage to have a specialty. I would like to do my best in research and clinical to find evidences what I can create with the knowledge of oncology, good clinical sense, and the epidemiological point of view.

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