

2025 Akita University Faculty of Medicine Syllabus

Category : 臨床医学 IV (CC1)
Course Title : Clinical Oncology -principles & practice-, face to face - がん薬物療法の実際 -
Eligible Students : grade 4 Related Course
Code : 71643002-25

1. Lead Instructor

Hiroyuki Shibata (Professor, Clinical Oncology, 6262)

2. Instructors

Hiroyuki Shibata (Professor, Clinical Oncology, 6262)

Koji Fukuda (Lecturer, Clinical Oncology, 6263)

Daiki Taguchi (Assistant Professor, Clinical Oncology, 6263)

3. Course Description Outline(Course Objectives)

1. Aims and Outlines

In order to understanding the care givers' behavior, ethical issues, preservation of safety of patients, clinical evidence and medical & social systems, it is necessary to experience giving practical cancer chemotherapy to patients and to learn the knowledge and technics to treat them. (1-1,1-2,3-1 ~ 3-7,4-1 ~ 4-8)

1-1. To build your diagnosis from patients' claim, or to trace this step. (4-1 ~ 4-3)

1-2. To understand clinical features of the disease and its etiology. (3-1 ~ 3-4)

1-3. Join the meeting to plan the treatment, and practice as possible. (4-1 ~ 4-3)

1-4. To learn how to solve tumor-agnostic problems. (3-1 ~ 3-3,4-1 ~ 4-7)

1-5. Acquire basic medical examination skills (4-1 ~ 4-7)

1-6. To know combinatorial treatment with other medical staffs (4-7,4-8)

2. Practical Drills to be learned

2-1. To know purpose, indication, contraindication, complication of the basic clinical skills, and practice them under supervision of the trainers. (4-1 ~ 4-7)

2-2. Clinical reasoning: Obtain medical history and conduct physical examination, to build differential diagnosis, based on each symptom or clinical phenotype, considering the incidence and severity. (4-1 ~ 4-7)

2-3. Always keep the basic attitude and ability necessary to medical doctor in mind. (1-1,1-2,2-1 ~ 2-7)

Especially the followings should be learned intensively.

2-3-1. To learn how to obtain informed consent from patients before conducting chemotherapy. (1-1,1-2,2-1 ~ 2-7)

2-3-2. To learn communication skills with advanced cancer patients. (2-1 ~ 2-8,4-1)

2-3-3. To learn how to deliver the bad news by the method of SPIKES. (4-1)

2-3-4. To learn the system of chemotherapy to outpatients (registration of protocols, how to control adverse events) (2-5,2-6,4-4,4-7)

2-3-5. To learn team approach of cancer chemotherapy together with pharmacists and nurses. (4-7)

This class is given by experienced doctors.

4. Textbook/Reference Books

Cancer: Principles & Practice of Oncology, 9th edition (Wolters Kluwer/ Lippincott Williams & Wilkins)

5. Assessment

Based on attendance and mini-test, the level of achievement is evaluated.

Trainees have their own patient, and report their conditions in morning session every day. Oral questions are asked individually. Experience a new outpatient, interview him, and report the findings in the next morning session.

6. Out of Class Study/Message

Start at 8:30 a.m. in each day, gather in front of the nurse station of the 6th floor of the 2nd building of the hospital.

Schedule	Contents of Class
<p>1 Mon [8:30-17:00]</p> <p>Subtitle To experience cancer treatment</p> <p>Instructor H Shibata, K Fukuda, D Taguchi</p>	<p>1) Practice (communication with patients, examination and treatment of them)</p> <ol style="list-style-type: none"> 1. Application of cancer drugs, and the adverse events. 2. Action mechanisms of molecular targeted agents, and the adverse events. <p>2) First examination of cancer patients (notification, interview, collection of the medical history, informed consent)</p> <p>Take care of the following issues;</p> <ol style="list-style-type: none"> 1. To identify each clinical problem, and raise possible approaches to treat. 2. To practice three methods (interview, physical examination, laboratory data) to obtain medical information 3. To consider clinical hypothesis and collect the information, using knowledge of the basic sciences. 4. To conduct diagnostic procedures and treatment simultaneously. 5. Decisions should be made together with patient. 6. To know the importance of consultation with other caregivers. <p>3) Clinical practice to the outpatients (Chemotherapy for outpatients and oncologic emergency)</p> <ol style="list-style-type: none"> 1. Blood cell count, coagulation test, urinalysis, feces test, laboratory examination. 2. Chromosomal analysis and genome analysis. 3. Histopathological examination, cytology, flow-cytometer. <p>To know the purpose and indication of these tests, and to know the way how to adapt results to patients.</p> <p>It is also necessary to know the specific treatments to cancer patients having additional symptoms described below:</p> <ol style="list-style-type: none"> 1. Fever, 2. General fatigue, 3. Anorexia, 4. Dehydration, 5. Skin rash, 6. Cough, sputum, 7. Bloody sputum, hemoptysis, 8. Dyspnea, 9. Pleural effusion, 10. Abdominal pain, 11. Nausea, vomiting, 12. Hematemesis, diarrhea, 13. Constipation, 14. Jaundice, 15. Abdominal fullness, ascites, abdominal tumor, 16. Anemia, 17. Lymph-nodes swelling, 18. Oliguria, anuria, 19. Hematuria, proteinuria, 20. Headache, 21. Paralysis, muscle weakness, 22. Back pain, <p>4) Medical knowledge and skills necessary to treat advanced cancer patients are described below: methods and applications, risks and benefits, and complications should be understood.</p> <ol style="list-style-type: none"> 1. Hyperalimentation: intravenous route, gastrostomy, enema nutrition. 2. Blood products and fractionated plasma products. 3. Rehabilitation. 4. Palliative care 5. Total pain. 6. Physical pain and psychosocial pain 7. Pain assessment, pain killers 8. Opioids 9. Psycho-oncology, family care.

Schedule	Contents of Class
<p>2 Tue [8:30-17:00]</p> <p>Subtitle To experience cancer treatment</p> <p>Instructor H Shibata, K Fukuda, D Taguchi</p>	<p>1) Practice (communication with patients, examination and treatment)</p> <p>2) First examination of cancer patients (notification, interview, collection of the medical history, informed consent)</p> <p>3) Clinical practice to outpatients (Chemotherapy for outpatients and oncologic emergency)</p> <p>Take care of the following issues;</p> <ol style="list-style-type: none"> 1. Appropriate attitude 2. Communication skills 3. To obtain the history of illness systemically (chief complaint, present history, habitual drugs, history of allergy, past illness, family history, habitual behavior, preference, social and job histories, circumstances, history of travelling, etc.) 4. Examine patient physically in the proper position 5. Collect the information and describe it in POMR (Problem Oriented Medical Record), style and report these findings to the trainer. 6. Clinical course should be described in SOAP (subjective, objective, assessment, plan) style. 7. Keep in mind to summarize a clinical course of case in a report and present it in a meeting. 8. Security: keep in mind to protect patient's privacy.
<p>3 Wed [8:30-17:00]</p> <p>Subtitle To experience cancer treatment</p> <p>Instructor H Shibata, K Fukuda, D Taguchi</p>	<p>1) Practice (communication with patients, examination and treatment of them)</p> <p>2) First examination of the cancer patients (notification, interview, collection of the medical history, informed consent)</p> <p>3) Clinical practice to outpatients (Chemotherapy for outpatients and oncologic emergency)</p> <p>Take care of the following issues;</p> <ol style="list-style-type: none"> 1. Respect your patients to obtain their trust. 2. Consider patient's safe and respond the adverse events. 3. Take care of patient's privacy, shame, and pain. 4. Standard precaution of infection 5. Proper fashion and attitude 6. Patient's physical condition suitable for examination 7. Calculation of body surface area, body mass index, and nutritional condition of patient <p>Medical examination skills</p> <ol style="list-style-type: none"> 1. Measuring blood pressure 2. Measuring number of respirations, and finding of respiration disorder. 3. Measuring blood temperature 4. Palpation of lower limb artery, and measuring of blood pressure by palpation. 5. Inspection of figure (shape, nutrition, walking, face, skin, voice, etc.) 6. Inspection of eyes (field of vision, pupil, light reflex, movement, protrusion, conjunctiva, etc.). 7. Examination of surface lymph nodes in head and neck region. 8. Inspection of thorax (+ palpation and percussion) 9. Inspection of abdomen (+ auscultation) 10. Examination of tenderness, peritoneal irritation, muscular guarding 11. Detection of ascites 12. Auscultation of bowel sound, and abdominal bruit
<p>4 Thu [8:30-17:00]</p> <p>Subtitle To experience cancer treatment</p> <p>Instructor H Shibata, K Fukuda, D Taguchi</p>	<p>1) Skills to treat cancer patients</p> <ol style="list-style-type: none"> 1. Sterilization of skin 2. Training of intravenous blood sampling with simulator 3. Standard precautions of hands 4. Recording by 12-lead electrocardiogram 5. Measuring of oxygen saturation by pulse-oximeter

Schedule	Contents of Class
<p>5 Fri [8:30-17:00]</p> <p>Subtitle To experience cancer treatment</p> <p>Instructor H Shibata, K Fukuda, D Taguchi</p>	<p>1) Skills to treat cancer patients</p> <ol style="list-style-type: none"> 1. Training of blood vessel puncture with simulator 2. Assistance of position changes of patient, and help them to transfer with wheel-chair or stretcher. 3. Sterilization of skin 4. Use of ointment 5. Keep of peripheral blood access route 6. Injection (intracutaneous, subcutaneous, intramuscular, intravenous routes) 7. Writing of medical record <p>2) Observe the technics below:</p> <ol style="list-style-type: none"> 1. Introducing of central venous catheter 2. Drainage of body fluid (pleural effusion, ascites)