

DIALYSIS, RENAL TRANSPLANTATION, CLINICAL ENGINEERING, AND DIET THERAPY FOR DIABETES MELLITUS AND CHRONIC KIDNEY DISEASE

2018

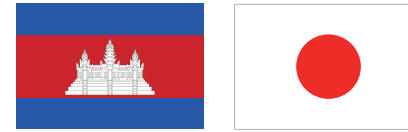
JAC-DSC

Japanese Assistance Council of establishing
Dialysis Specialists system in Cambodia



JAC-DSC

~ intensive seminar ~
August 24 ~ 25, 2018
Phnom Penh, Cambodia



DIALYSIS, RENAL TRANSPLANTATION, CLINICAL ENGINEERING, AND DIET THERAPY FOR DIABETES MELLITUS AND CHRONIC KIDNEY DISEASE

~ **intensive seminar** ~

August 24 ~ 25, 2018

Phnom Penh, Cambodia

Japanese Assistance Council of Establishing Dialysis Specialists
System in Cambodia (JAC-DSC)

International University (IU), Phnom Penh, Cambodia

Supported by

International Society of Nephrology (ISN)

Cambodian Association of Nephrology (CAN)

NGO Ubiquitous Blood Purification International (NGO UBPI)

Japanese Society for Technology of Blood Purification (JSTB)

President of the Japanese Assistance Council of Establishing Dialysis Specialist System in Cambodia (JAC-DSC)

Hideki Kawanishi, M.D., Ph.D.

Vice President, Kidney Center and Surgery, Tsuchiya General Hospital, Hiroshima, Japan
 Clinical Professor, Faculty of Medicine, Hiroshima University, Hiroshima, Japan
 President-elect, International Society of Blood Purification (ISBP) / Congress President of ISBP 2016
 President, Japanese Society for Hemodiafiltration
 Council Member, Japanese Society for Peritoneal Dialysis
 Council Member, Japanese Society for Dialysis Access
 Council Member, Japanese Society for Blood Purification in Critical Care
 President, NGO Ubiquitous Blood Purification International (NGO UBPI), Yokohama, Japan
 Guest Professor, International University, Phnom Penh, Cambodia



Dear Participants.

Congratulation for “the intensive seminar of Dialysis, Renal Transplantation, Clinical Engineering, and Diet Therapy for Diabetes Mellitus and Chronic Kidney Disease in Cambodia 2018”. This seminar will be informed the important message for ESRD/CKD field in Cambodia and South East Asian countries.

The number of patients being treated for ESRD globally was estimated to be 3,200,000 at the end of 2013 and, with a 6% growth rate, continues to increase at a significantly higher rate than the world population. In particular, the remarkable increasing rate was shown in Asian countries. However, the access to treatment is still limited in many developing countries and a number of patients with terminal renal failure do not receive treatment. In order to save these patients, it is necessary to enhance the dialysis system, the educated staff and association of each countries. Japanese Assistance Council of Establishing Dialysis Specialist System in Cambodia (JAC-DSC) was organized the several education programs from 2015. Moreover, the Cambodia Association of Nephrology was stated at 2016 and approval by International Society of Nephrology (ISN). This is a great opportunity recognized worldwide for the Cambodian Nephrology Society. I hope that everyone will grow in the renal area with this educational program. We will expect to be built the cooperation between JAC-DSC and Cambodian Nephrology Team and younger generation.

Adviser of the JAC-DSC

Akihiro Yamashita, Ph.D.



Professor and Head, Department of Chemical Science and Technology, Faculty of Bioscience and Applied Chemistry, Hosei University, Tokyo, Japan
 Vice President and Executive Director, NGO UBPI, Yokohama, Japan

Vice President of the Cambodian Association of Nephrology (CAN)

Chan Sovandy, M.D.



Vice President, CAN, Cambodia
 Adviser, Cambodia-Japan Friendship Blood Purification Center, International University, Phnom Penh, Cambodia
 Chief, Emergency room Kossamak Hospital, Phnom Penh, Cambodia
 Director, Sovandy Clinic, Phnom Penh, Cambodia

Vice President of the JAC-DSC

Toru Hyodo, M.D., Ph.D.



Director, Eijin Clinic and Kurata Hospital Dialysis Center, Hiratsuka, Japan
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 Chairman, Committee on International Affairs, Japanese Society for Technology of Blood Purification, Tokyo, Japan
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 Guest Professor, International University, Phnom Penh, Cambodia

Assistant Professor at the Health Science Institute of RCAF

Svay Kamol, M.D.



Assistant Professor and Lecturer at Health Science Institute of RCAF, Cambodia

Secretary General of the JAC-DSC

Haruki Wakai, M.D.



President, Reiseikai Medical Corporation, Tokyo, Japan
 Director, Shinagawa Garden Clinic, Tokyo, Japan
 Assistant Director, Gotanda Garden Clinic, Tokyo, Japan
 Council Member and Secretary, Japanese Society for Home Hemodialysis
 Auditor Secretary, Japanese Society for Renal Nutrition
 Director and Vice Secretary General, NGO UBPI, Yokohama, Japan
 Guest Professor, International University, Phnom Penh, Cambodia

Dialysis Specialist at Cambodia-Japan Friendship Blood Purification Center of Sen Sok International University Hospital

Yim Sovannbophea, M.D.



General Physician and Dialysis Specialist, Cambodia-Japan Freindship Blood purification center of sen sok international university hospital, Cambodia

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Chief Clinical Engineer, Reiseikai Medical Corporation, Tokyo, Japan
Medical Technologist

Satoshi Ebihara, R.N., C.E., B.A.



Chief Registered Nurse, Reiseikai Medical Corporation, Tokyo, Japan
Clinical Engineer, Bachelor of Arts

Ako Hanaoka, C.E.



Clinical Engineer, Osaka City University Hospital, Osaka, Japan
Certified Dialysis Technician

Minoru Ito, M.D., Ph.D.



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Guest Professor, International University, Phnom Penh, Cambodia

Motoko Kato, C.E.



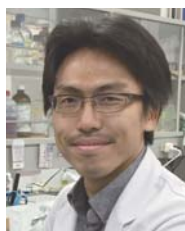
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Associate of Arts and Sciences

Ryoichi Sakiyama, Ph.D.



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Ayumi Takizawa, C.E.



Tokyo Women's Medical University, Department of Clinical Engineering

Atsushi Ueda M.D., Ph.D.



Associate Professor, University of Tsukuba Hospital, Hitachi Social Cooperation Education Research Center, Ibaraki, Japan
Manager, Nephrology, Hitachi General Hospital, Ibaraki, Japan
Manager, Kidney & Lifestyle-related Disease Center, Hitachi General Hospital, Ibaraki Japan

The intensive seminar of Dialysis, Renal Transplantation, Clinical Engineering, and Diet Therapy for Diabetes Mellitus and Chronic Kidney Disease in Cambodia 2018
Preliminary Program

Venue: International University, No. 35-41, Street 582, Boeung Kak II, Khan Toulkok,
Phnom Penh, Cambodia
Master of Ceremonies: Phisith Vouch, M.P.A.

Day-1: August 24, Fri., 2018

Opening Ceremony

- 8:00- 8:30 Participants Gathering and Registration
- 8:30- 8:40 Distinguished Guests Arrival
- 8:40- 8:50 National Anthems
- 8:50- 9:00 Welcome Speech by Prof. Sabo Ojano, M.D., Ph.D., President of International University (IU)
- 9:00- 9:10 Remarks by IU Guest Prof. Toru Hyodo, M.D., Ph.D. Vice President of Japanese Assistance Council of Establishing Dialysis Specialist System in Cambodia (JAC-DSC)
- 9:10- 9:30 Interest Speech by Mr. Yohei Nakajima, The Second Secretary at Embassy of Japan in Cambodia
- 9:30- 9:50 Opening Speech by Representative H.E. Ouk Rabun, Minister of Rural Development, Royal Government of Cambodia
- 9:50-10:00 Group Photos and Ending

Seminar (Day-1)

General Chairpersons of the day-1: Kenichi Kokubo, Ph.D. and Svay Kamol, M.D.

Session 1

Chairpersons: Svay Kamol, M.D. and Akihiro Yamashita, Ph.D.

- 10:30-11:15 【01】 Management of Chronic Kidney Disease (CKD) by Atsushi Ueda, M.D., Ph.D.
- 11:15-11:40 【02】 The Current Status and Future Challenges of ERS in Cambodia by Thim Pichthida, M.D.
- 11:40-12:00 【03】 Basics of Hemodialysis and Hemodiafiltration by Kenichi Kokubo, Ph.D.
- 12:00-12:20 【04】 The Practical Working Flow in Dialysis Room by Natsumi Abe, C.E., M.T.

12:20-13:20 Lunch

Session 2

Chairpersons: Thim Pichthida, M.D. and Shunji Nishide, M.D.

- 13:20-13:40 【05】 Blood Pressure Control and Water and Sodium Restriction in Dialysis Patients by Motoko Kato, C.E.
- 13:40-14:10 【06】 Renal Anemia by Minoru Ito, M.D., Ph.D.
- 14:10-14:30 【07】 CKD-MBD in Dialysis Patients by Haruki Wakai, M.D.
- 14:30-14:50 【08】 Cerebral Vascular Disease by Toshihide Naganuma, M.D., Ph.D.
- 14:50-15:10 【09】 Infection of Dialysis Patients by Toshihide Naganuma, M.D., Ph.D.

15:10-15:20 Break

Session 3

Chairpersons: Phon Elin, M.D. and Atsushi Ueda, M.D., Ph.D.

- 15:20-15:40 【10】 Vascular Access by Toshihide Naganuma, M.D., Ph.D.
- 15:40-16:00 【11】 Medical Check for Vascular Access by Ako Hanaoka, C.E.
- 16:00-16:20 【12】 Peripheral Artery Disease of Dialysis Patients by Toshihide Naganuma, M.D., Ph.D.
- 16:20-16:50 【13】 Nutrition in CKD Patients by Minoru Ito, M.D., Ph.D.

16:50-17:00 Break

Session 4

Chairpersons: Chan Sovandy, M.D. and Minoru Ito, M.D., Ph.D.

- 17:00-17:20 【14】 Pre-Dialysis Diabetic CKD Diet Therapy by Toru Hyodo, M.D., Ph.D.
- 17:20-17:50 【15】 Basic Carbohydrate Counting for CKD Diabetic Patients by Phon Elin, M.D.
- 17:50-18:10 【16】 Diet Therapy for Dialysis Patients by Toru Hyodo, M.D., Ph.D.

Day-2: August 25, Sat., 2018

Seminar (Day-2)

General Chairpersons of Day-2: Toru Hyodo, M.D., Ph.D., Haruki Wakai, M.D. and Yim Sovannbophea, M.D.

Session 5

Chairpersons: Chin Samnang, M.D. and Kenichi Kokubo, Ph.D.

- 8:30- 8:50 【17】 Quality Management of Dialysis Fluid by Ayumi Takizawa, C.E.
- 8:50- 9:40 【18】 Membranes and Kinetics of Dialysis Therapy by Akihiro Yamashita, Ph.D.
- 9:40-10:20 【19】 Clearance (HD, HDF), Internal Filtration of HD by Ryoichi Sakiyama, Ph.D.

10:20-10:30 Break

Session 6

Chairpersons: Svay Kamol, M.D. and Toru Hyodo, M.D., Ph.D.

- 10:30-10:55 【20】 Acute Kidney Insufficiency by Hideki Kawanishi, M.D., Ph.D.
- 10:55-11:20 【21】 Kidney Transplantation as Renal Replacement Therapy by Shunji Nishide, M.D.
- 11:20-11:45 【22】 Peritoneal Dialysis as Renal Replacement Therapy by Hideki Kawanishi, M.D., Ph.D.
- 11:45-12:10 【23】 Home Hemodialysis by Haruki Wakai, M.D.

12:10-13:10 Lunch

Session 7

Chairpersons: Yim Sovannbophea, M.D. and Haruki Wakai, M.D.

- 13:10-13:30 【24】 Health Insurance Systems in Japan and Other Countries by Nanako Sakamoto A.A.
- 13:30-14:00 【25】 Kidney Disease Screening Program in Japan by Satoshi Ebihara R.N., C.E., B.A.
- 14:00-14:30 【26】 Introduction of Dialysis Products from Japan by Kaname Sadahiro, Manager of Nipro Ltd.
- 14:30-15:00 【27】 Dialysis History by Hideki Kawanishi M.D., Ph.D.

15:00-15:10 Break

Examination

Organizer: Kenichi Kokubo, Ph.D. and Haruki Wakai, M.D.

15:10-16:10 Comprehensive Examination

16:10-16:40 Break

Closing Ceremony

- 16:40-16:50 Awarding Ceremony
- 16:50-17:00 Closing Remarks by Chan Sovandy M.D., Vice President of Cambodian Association of Nephrology (CAN), Akihiro Yamashita, Ph.D., Adviser of JAC-DSC and IU Guest Prof. Hideki Kawanishi, M.D., Ph.D., President of JAC-DSC
- 17:00-17:15 Presentation of the Certification of Attendance

[01] Management of Chronic Kidney Disease (CKD)

Atsushi Ueda, M.D., Ph.D.

In this session, we will explain the chronic kidney disease (CKD) from the following viewpoints.

What causes CKD? Symptoms of CKD. Complications of CKD. Stages of CKD

How can we prevent CKD? How is CKD treated?

Based on the fact that the number of CKD patients is increasing due to the increase in lifestyle-related disease patients recently, the relevance between CKD and its factors will be explained. Finally, we introduce the efforts of our medical team to prevent the progress of CKD.

[02] The Current Status and Future Challenges of ESRD in Cambodia

Thim Pichthida, M.D.

Each year between 2.3 and 7.1 million mainly in low and middle income countries need renal replacement therapy. In Cambodia, the burden of end stage renal disease (ESRD) and hemodialysis have been increasing yet there is no national registry currently. Cambodia has its own obstacles to promote a better hemodialysis. In this session, the history, present condition, and issues of hemodialysis will be discussed.

[03] Basics of Hemodialysis and Hemodiafiltration

Kenichi Kokubo, Ph.D.

Hemodialysis (HD) is a therapy which replace some kidney functions by the use of advanced membrane separation technique in an extracorporeal system to remove metabolic wastes such as urea, creatinine, uric acid and excess fluid in the body and to control ion balance and pH of the blood. Hemodiafiltration (HDF) is also a therapy which replace some kidney functions and characterized by enhanced solute removal of larger molecules by convection (filtration) compared to HD. In this lecture, I would like to explain the basics of HD and HDF including their principles, techniques and procedures.

[04] The Practical Working Flow in Dialysis Room

Natsumi Abe, C.E., M.T.

Dialysis therapy requires the cooperation of many medical professionals. Nurses and clinical engineers perform most of the daily practical work. In this lecture, the practical working flow at a standard dialysis room in Japan will be explained through the use of video footage. This virtual experience will allow you to familiarize yourself with dialysis treatment.

[05] Blood Pressure Control and Water and Sodium Restriction in Dialysis Patients

Motoko Kato, C.E.

Dialysis patients cannot excrete urine if the residual renal function is completely diminished. Therefore, the amount of drinking water is equal to all weight gain. Since the weight gain is a factor related to life prognosis, it must be properly managed. For this reason, we must know the relationship between the weight gain and salt intake. The salt intake between the inter-dialysis can be calculated by using the following formula based on the serum salt concentration in HD patients (approximately 140 mEq/L): The increase in the body weight (Kg) x 140 x molecular weight of salt (58.5)/1,000 = The increase in the body weight (Kg) x approximately 8 g. In other words, the formula means the consumption of salt at approximately 8 g per 1.0 kg weight gain (water retention of 1.0 L). Please introduce this formula to patients and utilize it.

[06] Renal Anemia

Minoru Ito, M.D., Ph.D.

Anemia is a common feature of CKD associated with reduced quality of life and increased cardiovascular disease, hospitalizations, cognitive impairment, and mortality. Predominant causes of anemia in CKD are erythropoietin deficiency and iron deficiency. The recombinant human erythropoietin and other erythropoiesis-stimulating agents greatly benefited patients by improving their symptoms. In this lecture, we will discuss the mechanism and management of anemia in CKD.

[07] CKD-MBD in Dialysis Patients

Haruki Wakai, M.D.

Mineral and bone disorder is a major complication in patients with CKD, particularly those undergoing dialysis, and is a problem that has yet to be conquered. In this lecture, the role of parathyroid hormone, phosphorus, and calcium in CKD and international guidelines for the treatment of CKD-MBD will be introduced.

[08] Cerebral Vascular Disease

Toshihide Naganuma, M.D., Ph.D.

Growing evidence suggests that CKD is a significant risk factor for stroke, subclinical cerebrovascular abnormalities, and decreased physical and cognitive function independent of known cardiovascular risk factors. Moreover, the prevalence of cerebrovascular disease is higher in patients with more advanced stages of CKD. Cerebrovascular disease is reported to be one of the major causes of death in dialysis patients. Furthermore, the incidence of stroke is higher in dialysis patients than in the normal population. In this lecture, cerebrovascular disease in dialysis patients will be explained.

[09] Infection of Dialysis Patients

Toshihide Naganuma, M.D., Ph.D.

In general, dialysis is known to impair immune function and increase the susceptibility to infection. Dialysis has also been reported to reduce cell-mediated and humoral immunity. Uremic substances, malnutrition, acidosis, and renal anemia have been identified as potential contributing factors to immunosuppression. According to a nationwide statistical survey by the Japanese Society for Dialysis Therapy (as of December 31, 2013), infectious disease is the second-leading cause of death in dialysis patients (20.8%). Thus, infection is a serious concern in management of dialysis patients. In this lecture, the characteristics and management of infectious diseases in dialysis patients will be explained.

[10] Vascular Access

Toshihide Naganuma, M.D., Ph.D.

Vascular access (VA) is an essential component of dialysis treatment. VA procedures are becoming increasingly more difficult because of the increased number of long-term dialysis patients, elderly dialysis patients, and diabetic patients in Japan. The use of not only internal shunts (arteriovenous fistulas) but also grafts (arteriovenous grafts) and catheters is increasing. Knowledge of VA is important for doctors, nurses, and clinical engineers. In this lecture, I will discuss VA procedures, management, complications, and prognoses. I have prepared a gallery of clinical case photos to enhance your understanding.

[11] Medical Check for Vascular Access

Ako Hanaoka, C.E.

Vascular access (VA) is used in every treatment and is an essential component in dialysis therapy. Daily management by the patient and the medical staff is important because the function of VA changes depending on the state of puncture and hemostasis at the previous treatment. In this lecture, VA management including basic knowledge of VA puncture, monitoring and surveillance of VA detection of stenosis and VA recirculation will be explained.

[12] Peripheral Artery Disease of Dialysis Patients

Toshihide Naganuma, M.D., Ph.D.

Diabetes is a well-known risk factor for peripheral arterial disease (PAD) of the legs. CKD has also been reported to be an independent risk factor for PAD of the legs. It is known that PAD incidence is high among dialysis patients with stage 5D CKD and is associated with very poor prognosis. In the Dialysis Outcomes and Practice Patterns study (DOPPS), the worldwide and Japanese prevalence rates of PAD in dialysis patients are reported to be 25.3% and 11.5%, respectively. In this lecture, PAD treatment will be explained from a perspective of blood purification therapy including LDL apheresis.

[13] Nutrition in CKD Patients

Minoru Ito, M.D., Ph.D.

Nutritional problems in CKD patients are complicated, and its causes are multifactorial. Malnutrition, Inflammation, and Atherosclerosis affect the nutrition of CKD patients strongly. In this lecture, we will focus on the special features of the nutrition of CKD and discuss the management of malnutrition for the patients.

[14] Pre-Dialysis Diabetic CKD Diet Therapy

Toru Hyodo, M.D., Ph.D.

Diabetes is the main cause of dialysis induction in many countries. In many developed countries, diabetes and CKD are managed individually by an endocrinologist and nephrologist, respectively. However, dialysis specialists must act as both endocrinologist and nephrologist when treating diabetic CKD patients. Thus, dialysis treatment in such patients has been difficult. Blood sugar control is very important in diabetic dialysis patients; however, an effective diet therapy has not been proved. Recently, carbohydrate counting has been shown to be a powerful method to control blood sugar in diabetic dialysis patients. In this lecture, the carbohydrate counting will be described as the diet therapy for CKD diabetic patients.

[15] Basic Carbohydrate Counting for CKD Diabetic Patients

Phon Elin, M.D.

Diabetes is the main cause leading CKD and dialysis induction in many countries as well as in Cambodia. Blood sugar control is important in diabetes patient, as it helps to prevent the complication which is CKD and leading to dialysis. Basic carbohydrate counting is the basic meal planning option for managing blood glucose levels. Recently, carbohydrate counting has been shown to be a powerful method to control blood sugar in diabetic dialysis patients. In this lecture, the basic carbohydrate counting will be described as the diet therapy for CKD diabetic patients.

[16] Diet Therapy for Dialysis Patients

Toru Hyodo, M.D., Ph.D.

The purpose of diet therapy is to avoid malnutrition and prevent the progression of various hemodialysis related complications. The basics of the dialysis diet are as follows:

1. Control of salt and water intake
2. Appropriate energy intake
3. Control of potassium intake
4. Appropriate protein intake
5. Control of phosphorus intake

It is most important for dialysis patients to restrict salt. This lecture will focus on ways to control water intake, ensure adequate energy and potassium intake in dialysis patients. Increased concentration of potassium in the blood can strain on the heart. This lecture will cover foods high in potassium and cooking methods to reduce potassium content with specific examples. In addition, I will lecture how to intake protein and phosphorus. Hyperphosphatemia is a risk factor for cardiovascular disease and is associated with the development of secondary hyperparathyroidism and ectopic calcification. Potassium and Phosphorus is a nutrient contained in many foods. It is important for CKD patients to monitor their daily dietary phosphorus intake. Dietary habit in Japan is different from that in Cambodia. Together let's think about what foods and dishes in Cambodia have high and low contents of potassium and phosphorus.

[17] Quality Management of Dialysis Fluid

Ayumi Takizawa, C.E.

Quality assurance of dialysis fluid purification is a vital component of dialysis treatment. Toll-like receptor mediated cytokine production can result from bacterial endotoxin contamination of dialysis fluid during dialysis treatment. Both scheduled and random water quality testing need to be performed in conjunction with equipment maintenance. The cleanliness of water used for dialysis is confirmed by measuring endotoxin and viable bacteria count. This lecture will cover quality assurance methods and problems faced during the dialysis fluid production process.

[18] Membranes and Kinetics of Dialysis Therapy

Akihiro Yamashita, Ph.D.

The most important device of the dialysis therapy is a dialyzer, among which membrane is the crucial part of the device. Since there are many kinds of dialysis membrane, we should first learn their physicochemical properties including solute removal performance as well as biocompatibility. Since dialysis dose is usually represented by KT/V , we should learn how we compute the value and how we utilize the value for prescription, although it is not a universal index to evaluate the treatment.

[19] Clearance (HD, HDF), internal filtration of HD

Ryoichi Sakiyama, Ph.D.

The clearance is introduced as an index representing the function of the living kidney and is used as a performance evaluation of the artificial kidney. The clearance is affected by various conditions when the clearance measured. Internal filtration is filtration caused by pressure loss in the dialyzer in hemodialysis. Purification of the dialysate is very important since the dialysate flows into the living body side by internal filtration.

[20] Acute Kidney Insufficiency

Hideki Kawanishi, M.D., Ph.D.

Acute kidney injury (AKI) is an abrupt loss of kidney function that develops within 7 days. Generally it occurs because of damage to the kidney tissue caused by decreased kidney blood flow from any cause, exposure to substances harmful to the kidney, an inflammatory process in the kidney, or an obstruction of the urinary tract. In this lecture, we will discuss the mechanism and management of AKI.

[21] Kidney Transplantation as Renal Replacement Therapy

Shunji Nishide, M.D.

In Cambodia, the obesity population has doubled in the past 10 years and it is reported that by 2020 it is necessary to treat high blood pressure or diabetes in 30% over 40 years old. The number of patients with renal failure is expected to increase. So, establishment of renal replacement therapy in Cambodia is an important issue.

Renal replacement therapy includes hemodialysis, peritoneal dialysis, and kidney transplantation. Kidney transplantation improves the cumulative survival of end-stage renal disease patients and improves quality of life compared with dialysis.

In this lecture, I will discuss about comparison between kidney transplantation and dialysis, surgical procedure of kidney transplantation, immunosuppression, and outcome.

[22] Peritoneal Dialysis as Renal Replacement Therapy

Hideki Kawanishi, M.D., Ph.D.

Peritoneal dialysis has been applied as a self-care and home-based procedure for patients with ESRD and has contributed to restoring and maintaining patients' social and family lives. In this lecture, peritoneal dialysis theory, devices, systems, and use in the clinical setting will be discussed.

[23] Home Hemodialysis

Haruki Wakai, M.D.

HHD is a treatment option that allows patients to perform hemodialysis at home under the supervision of physicians. A hemodialysis machine is installed in the home, and the patient performs hemodialysis by manually assembling the circuit, performing shunt puncture, monitoring his/her condition during dialysis, and retransfusion. HHD has various benefits. It allows dialysis to be performed at home at any time, and the biggest benefit is that it is possible to dialyze a large volume of blood, which is known to yield a good prognosis. Dialysis should be performed gradually over time. It can loosen food restriction, improve nutrition, and help physical conditioning. Since it can be performed at home at any time, it allows a large volume of blood to be dialyzed more easily. Outpatient dialysis is provided up to fourteen times a month in principle, while HHD can be performed every day or every other day. When the number of dialysis days is increased, adequate dialysis can be provided "more frequently", which helps in stabilizing the physical condition of the patient. In this lecture, we introduce general matters of HHD, examples of present HHD and examples of HHD introduction in foreign countries.

[24] Health Insurance Systems in Japan and Other Countries

Nanako Sakamoto A.A.

Dialysis treatment is an expensive treatment, and the cost of providing dialysis treatment to many patients is a global issue.

This lecture will introduce the health insurance system of Japan and other countries, and examine the financial issues associated with dialysis treatment.

[25] Kidney Disease Screening Program in Japan

Satoshi Ebihara R.N., C.E., B.A.

An epidemic of chronic kidney disease (CKD) is a worldwide health problem. It not only progress to the ESRD but also is a major risk factor for cardiovascular disease (CVD). Eventually, the incidence of ESRD and CVD reached high in both developed and developing countries.

In addition, many countries are burdened by their own endemic renal conditions; IgA nephropathy (IgAN) in Asia; hepatitis B-related nephropathy in Asia and Africa; and HIV-associated nephropathy in Africa, Asia, Europe, and the United States. Implementing and establishing a kidney disease screening program is important to prevent CKD and particularly to detect in the early stage of CKD.

[26] Introduction of Dialysis Products from Japan

Kaname Sadahiro, Manager of Nipro Ltd.

(Please see the advertisement for NIPRO Ltd. on page 14.)

[27] Dialysis History

Hideki Kawanishi M.D., Ph.D.

Modern dialysis therapy started in the 1960s. Since then, several new developments in dialysis machines and systems have occurred and have made dialysis a life-saving treatment for patients with CKD.

Introduction of devices related to dialysis

Kaname Sadahiro
Tomohiro Ryu

Nipro Corporation

Session 1: Nipro Corporation Company Profile, Dialysis Machine, and Needle Removal Detector

In the first session, we will provide an overview of the Nipro Corporation company profile and the company's dialysis machine and needle removal detectors. Using video and PowerPoint presentations, we will show how our dialysis machine allows for precise water removal and the new functions available on our latest machine. In addition, you will be allowed hands-on access to compare older and newer needle removal detectors during the "Touch and Use" section of the session.

Session 2, Dialyzer, Needle, and Buttonhole Kit

In the second session, we will introduce Nipro dialyzers and needles. In the "Touch and Use" section of the session, you will have hands-on access to Nipro needles including their clamps, safety mechanisms, and check valves. Moreover, we will show you the Nipro Buttonhole Kit and Dull Arteriovenous Fistula Needle.



NIPRO

NIPRO Always Stands Closely
Beside Your Life

 Welcome and accept a new challenge
Work more towards truly "Believed" **NIPRO** by more people

Medical supplies for the world population 

 **NIPRO**

KISSEI PHARMACEUTICAL CO., LTD.

Nutritional Business Center (Development and sales of therapeutic foods)

As the average age of the population constantly increases, patients who require in-house healthcare management also goes up and up. Their health conditions are various and sometimes, serious. Obviously, though, appropriate nutrition is essential to keep their health condition, it was difficult to fulfill conflicting requirements among nutrition balance, texture, taste and safety.

Kissei Healthcare Division can offer your complete satisfaction for the all demands of the any health conditions. Our products cleared the all difficulties with excellent cuisine preparation for therapeutic purposes. We ensure full therapeutic performance to support your health condition.



Protein-reduced Rice "Yumegohan1/25"

KISSEI PHARMACEUTICAL CO.,LTD
Nutritional Business Center

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URL: <https://www.kissei.co.jp/health/>

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18/F Canadia Tower, No.315, Ang Doung St, Corner Monivong Blvd, Phnom Penh, Cambodia
<http://www.reiseikai-media.org/index-e.html>

 **Reiseikai Media**
(Cambodia) Co.,Ltd.



Schedule August 24 ~ 25, 2018

Place International University (IU): Building 89-91-93 & 95, St.1011-1984, Sangkat Phnom Penh Thmey, Khan Sen Sok, Phnom Penh, Cambodia
Tel: (855) 23 881-623, H/P: 099 899 069, 016 203 040 Email: info@iu.edu.kh Website: www.iu.edu.kh

Privilege for participants

- JAC-DSC will issue a certificate of seminar completion to participants with an attendance rate of 70% or higher who achieve the specified score or higher on the final test.



- An English textbook on dialysis etc. will be given to participants with an attendance rate of 70% or higher who rank among the top 7 based on the final test score.
- Three particularly excellent participants who satisfy all of the following criteria will be invited to attend a training course (7 to 10 days) in Japan.
 1. A participant with an attendance rate of 70% or higher and an excellent final test score.
 2. A participant who is highly motivated and qualified to become a dialysis healthcare professional.
 3. A participant with a certain level or higher English skills.
 4. A participant who is courteous and follows the rules.
 5. A participant who is in good health and without infectious disease.
 6. A participant who wishes to participate in the training in Japan and can obtain family consent.
 7. A participant who can obtain a passport.
 8. A participant who is less than 40 years old.
 9. A participant who have never been to Japan by support of Japanese organization (JAC-DSC, JSTB, JSDT, etc.).

* Selection will be made by the JAC-DSC. Objections to the selection results will not be allowed.

* The training will take place in near Tokyo or Osaka, Japan, in February 2019. The participants will receive practical training at several medical institutions and universities. They can join a tour of Tokyo or Osaka as an extra-curricular activity.

* The JAC-DSC, JSTB, cooperative organizations, cooperative medical institutes, or cooperative companies will pay for the following training expenses: airfare, hotel, travel insurance, transfer fee, Cambodia International Airport tax, and reference materials.

How to apply

Please make contact with “International University, Cambodia” directly or e-mail your information to info@ubpi.org

Please write, your name, age, female/male, e-mail address, phone number, occupation, institute and department that you belong to (university, school, hospital, clinic, corporation, etc.), in your e-mail.

Your e-mail will be forwarded to both of JAC-DSC staff and IU staff automatically.

*Participants need to pay “10 USD” to cover venue preparation costs.

