



UP VOICE

The Official Newsletter of the University of Puthisastra (UP)

CONTINUED PROFESSION DEVELOPMENT

FOCUS ON CONTINUED PROFESSION DEVELOPMENT UP TAKES THE LEAD AS THE ONLY CAMBODIAN ORGANIZATION TO OFFER CPD ACROSS ALL FOUR OF THE MAJOR HEALTH FIELDS

Healthcare has been revolutionized in the last 25 years with improved technology, new drugs, new diagnostics (especially molecular genetics), new advanced treatments especially for cancers, and new screening methodologies such as vaccines. The rapid testing of COVID-19 by RT-PCR and the development of COVID-19 vaccines are entirely dependent on technologies from the last 25 years

However, health education has not kept up with these rapid advances. It is therefore absolutely critical that health professionals keep upto date with modern technology, modern health practices and evidence-based healthcare through ongoing, continued training. That's the only way to give the best possible modern healthcare to patients.

UP therefore recognizes the critical importance of continued professional development (CPD or CME – Continued Medical education) and, as a leading university, is extremely proud to note that UP is the only organization in Cambodia to be accredited to offer CPD across all four of the major health fields:

- 1. Pharmacy
- 2. Medicine
- 3. Dentistry
- 4. Nursing and Midwifery

Each CPD course awards points to participants so that they can prove that they are keeping upto date with modern practice. Not only that, CPD points are a great marketing tool too!

FUTURE CPD UP'S FACULTY OF PHARMACY

UP's Faculty of Pharmacy (FoP), was recognized by the Pharmacy Council of Cambodia (PCC) to provide continuing professional development (CPD) for pharmacists who are currently working in community pharmacies, hospital, and other health care centers in Cambodia. The training provided the appropriate continuing education to develop professional competency in pharmacy practice. Currently, the training mainly took place online via Zoom cloud meeting focusing on various topics to ensure up-to-date professional development. More than 912 Pharmacists have been trained in CPD at UP.

So far, FoP has conducted 14 sessions within 3 rounds of CPD. The first round of training included important topics entitled "Good Pharmacy Practice (GPP), Good Distribution Practice (GDP) and Good Storage Practice (GSP)". GPP requires pharmacists an integral part of the contribution in the promotion of rational, economic prescribing and pharmacy service. Multidisciplinary collaboration among pharmacists is the key factor for successfully improving patient safety as well as GDP which pharmacists should ensure that appropriate facilities, confidentiality, trained personnel, and documentation procedures are in place in the pharmacy for the supply and dispensing of prescribed medicines and other healthcare products. GSP is an important activity in the supply chain management and part of quality assurance that ensures the quality of pharmaceutical products is maintained through adequate control throughout the storage thereof.

The second round of training was "Inventory and Stock Management". This training provides participants with procurement cycle for community pharmacy including create stock or bin card for stock management, set maximal and minimal stocks, and forecast timely supplied of drugs and medical supplies. Participants practiced inventory control using Microsoft Excel to make a list of inventories, create a physical inventory cycle, and write a good inventory report for drugs and medical supplies.

The third round entitled "Evidence-Based Practice" reinforces the requirement to follow evidence-based healthcare. Pharmacists could optimize decision-making by using evidence from well-designed and conducted research. The concept of reliable evidence is essential since the number of electronic information resources is exponentially increasing with increasing number and type of drugs on the market. All evidence can be found in Pubmed, Google Scholar, WHO, Hinari, Web of Science and so on. By the end of each training session, participants received 5 CPD points through an evaluation exam. These CPD points would be used for their licenses and work as pharmacist professionals in Cambodia. The CPD training was successfully ended with the good feedback from the participants within the interesting contents, the qualification of trainers and facilitators who are competently qualified who have many years in professional and teaching experiences in the context of 21st-century teaching methodology with the supports from modern technology.

The fourth round will be hosted during June 2021. This training is entitled "Blood Transfusion" by the trainer who has many years of experiences of blood transfusion in the private and public sectors. This is a very interesting and important topic to provide the participants with important information about the safety of blood transfusion and the methodology of accessing the laboratory testing before giving the blood to the patients.

The fifth round during July 2021 is "Over the counter drug (OTC)". The classification of the medications is divided into two main categories which are prescribed medication by the medical physician and over-the-counter drug which is non-prescribed medication. In the current situation, pharmacists or even patients have to ensure about the types of OTC and the proper use of it. Accordingly, this topic aims to provide the participants with the important information using OTC roperly in dispending to the patients. The sixth and seventh rounds of CPD training will be focused on medical laboratory management and medical waste management. Those trainings are in the planning and under processing between team works and the trainers.

FoP commits to provide many interesting and important topics to ensure the continuing professional development of pharmacists in Cambodia. So far, FoP has conducted 14 sessions within 3 rounds of CPD. 912 pharmacists have joined the training. This was a great success record in FoP as well as UP.

The image shows three promotional posters for CPD training sessions. The top poster is for "Good Pharmacy Practice (GPP), Good Distribution Practice (GDP) and Good Storage Practice (GSP)" with a blue background and Khmer text. The middle poster is for "Inventory and Stock Management" with a yellow and blue background, featuring a photo of a man speaking and a yellow circle with "90 minutes" and "5 CPD points". The bottom poster is for "Evidence-Based Practice" with a blue background and a photo of a man holding a certificate.

CPD IN UP'S FACULTY OF MEDICINE ANTIBIOTIC RESISTANCE AND ANTIBIOTIC STEWARDSHIP

On Saturday 19th June 2021, the Faculty of Medicine will run its first Continuing Medical Education (CME) online session. The topic will be "Antibiotic Resistance and Antibiotic Stewardship" and the speaker will be Dr. Miliya Thyl, Clinical Microbiologist at Angkor Hospital for Children.

This free-of-charge CME session will be an opportunity for doctors and medical students to update their knowledge on antibiotic prescribing and on the importance of trying to limit resistance.

The Faculty of Medicine is organizing CME events regularly during the coming months with the participation of reputable experts from different hospitals and clinics.

សាកលវិទ្យាល័យ ពុទ្ធិសាស្ត្រ
UNIVERSITY OF PUTHISAstra

មហាវិទ្យាល័យវេជ្ជសាស្ត្រ
ការអភិវឌ្ឍន៍វេជ្ជសាស្ត្របន្ត

**ប្រធានបទ: កាតស៊ាំ
ថ្នាំផ្សះ និងការប្រើប្រាស់ថ្នាំផ្សះ**

(Antibiotic resistance and antibiotic stewardship)

Admission :Free
(UP students and outside public)

Date/time: 9:00-10:00AM,
Saturday 19th June 2021

Dr. Miliya Thyl
Clinical Microbiologist
Angkor Hospital for Children

CPD IN UP'S FACULTY OF DENTISTRY - FOR DENTISTS

សាកលវិទ្យាល័យ ពុទ្ធិសាស្ត្រ
UNIVERSITY OF PUTHISAstra

UP ORTHOFEST – WHAT IS NEW IN ORTHODONTICS?

WELCOME TO THE UP ONLINE ORTHODONTICS SERIES

Join us to get your knowledge updated and to get CPD points *
(* application to Dental Council in process)

This series with top international speakers has been developed for Cambodian dentists and orthodontists who wish to enhance their knowledge in a range of current orthodontic topics. Detailed information on each webinar will be sent later along with registration information. You can choose to attend one, some or all the webinars in the series.

The first webinar will be on 30 May with Dr Celestino Nobrega on the topic:
"3D Brackets: the end of traditional prescriptions".

<p>Topic 1: 3D printed brackets: the end of traditional prescriptions Date: 30th May 2021 By: Dr. Celestino Nobrega (USA & Brazil) DDS; DMD; PhD</p>	<p>Topic 2: Evidence based Aligner Orthodontics Date: 6th June 2021 By: Dr. Ajay Kubavat (India) BDS, MDS Orthodontics Sankalchand Patel University India</p>
<p>Topic 3: The new era of orthognathic practice- 3D orthognathic surgery, Robots and Artificial Intelligence Date: 10th June 2021 By: Dr. Jaebong Park (South Korea) DDS, Ph.D. Oral and maxillofacial surgeon</p>	<p>Topic 4.1: Management of Temporomandibular disorders Date: 13th June 2021 By: Dr. Mauricio Gonzalez (Mexico) DDS, MSc in Orthodontics</p>
<p>Topic 4.2: Mandibular Deviation and Idiopathic Scoliosis possible relationship-What dentists and orthodontists should do? Date: 20th June 2021 By: Dr. Daniel and Kimberly Utomo (Indonesia) DDS, Orthodontic Specialists</p>	<p>Topic 5: Optimizing Passive self-ligation mechanics during the pandemic Date: 20th June 2021 By: Dr. Bilal Koleilat (Lebanon) Assistant Professor in Orthodontics, Lebanese University of Beirut</p>
<p>Topic 6: Orthodontic preparation for orthognathic surgery - Keys to success Date: 27th June 2021 By: Dr. Kleber Meireles - (Brazil) Orthodontic Specialist, University of São Paulo</p>	<p>Topic 7: Digital Orthodontics- The advanced smile design appliance and Insignia Date: 4th July 2021 Prof Dr. Prithviraj Jeyaraman MDS, MFDSRCPS Kuala Lumpur, Malaysia</p>

អគារលេខ ៥៥ ផ្លូវលេខ ១៨០ និង១៨៤ សង្កាត់បឹងកាំង ខណ្ឌដូនពេញ រាជធានីភ្នំពេញ
ទូរស័ព្ទ: ០២៣ ២២១ ៦២៤ | www.puthisastra.edu.kh

UP's Faculty of Dentistry was very concerned that almost no CPD was being offered to dentists so they could fulfill their Dental Council Registration requirements. The other dental schools were doing very little, and the annual Cambodian Dental Association and Cambodian Dental Council conferences were on hold.

UP applied to the Dental Council for a Certificate recognizing UP as a CPD provider, and it was granted the certificate on 12 April 2021 for a period of 3 years. Since then Dentistry have launched two CPD programs for dentists.

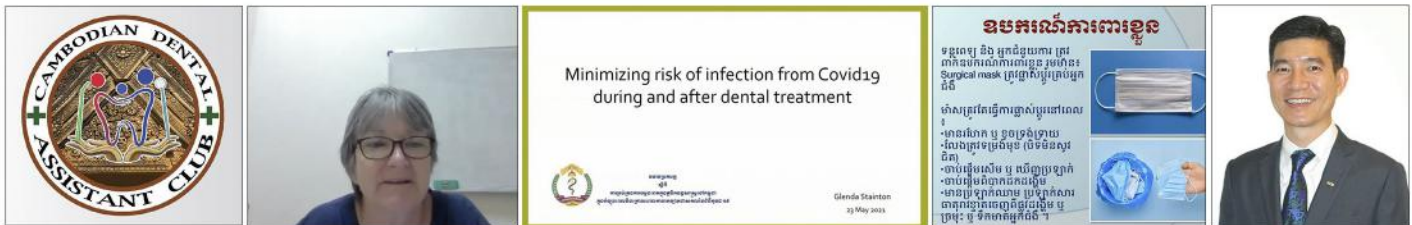
The first is an orthodontic series called "UP Orthofest – What's New in Orthodontics" which began last Sunday. Assistant Professor Anand Marya, Head of Orthodontics at UP, recruited 8 highly respected international speakers for this series from all over the world. For the first lecture, 320 dentists enrolled.

The second series is co-hosted by the International College of Dentists (ICD) in which every month a top regional speaker on a variety of dental topics will give a webinar for dentists around Asia. UP has facilitated the awarding of CPD points to Cambodian dentists who attend these webinars.

Dr Khom Pisal, UP Business Development for Dentistry, is currently working on several other CPD initiatives involving local specialists, some of which will be hands on courses.

AND FOR DENTAL ASSISTANTS AND DENTAL NURSES

The Covid-19 pandemic has had severe implications for the practice of dentistry across the world. Dentists in Cambodia have been well-served with information shared on social media, as well as several webinars focusing on Cross Infection Control in dental clinics. However until recently, no such information and training had been provided to hundreds of dental assistants and dental nurses who are potentially exposed to patients who may have Covid-19 in their dental clinics. This prompted UP to contact the President of the Cambodian Dental Assistant Club, Ms Thouk Psychandrah, to help set up an online webinar on Cross Infection Control during and after the Covid-19 Pandemic. This was held on Sunday 23 May on ZOOM and over 200 dental nurses and dental assistants registered for this free event, including students from the 3 dental nurse schools. Sponsors were UP and the drug company Gofen.



The two speakers at the event were Professor Hong Someth from UHS, who has also taught at UP in the past, and Mrs Glenda Stainton, an experienced NZ dental therapist from the NGO OMF. Included in the panel discussion were Adjunct Associate Professors Hak Sithan and Chher Tepirou from the MOH, and Assistant Prof Soeun Sopharith and Dr Khom Pisal from UP.

UP is pleased to be providing CPD not only to dentists, but also to other dental personnel, in order to improve standards of care and ensure a safe environment for patients.

CPD IN FACULTY OF NURSING - BASIC EKG (ELECTROCARDIOGRAM)

UP's Faculty of Nursing & Midwifery is very proud to report that it has been delivering Continuing Professional Development (CPD) Training for Cambodian Nurses. The Faculty of Nursing and Midwifery received permission from the Board of the Cambodian Council of Nurses to open a training course on professional development under the theme: "EKG (Electrocardiogram)."

Nursing CPD training and education is hosted online by the Faculty, and is presented by:

- Mr. OEUN CHANTHY RN, MBA Chief Operating Officer for Center of Hope, and Senior Lecturer and
- Mr. HEAN CHANDETH RN, BSN, Nursing Education Supervisor for Center of Hope, and Senior Lecturer

By the end of the CPD training, participants will be able to receive 6 "CPD Points" via end of session testing, aimed at confirming the following outcomes:

1. Anatomy & Physiology of the Heart
2. Introduction of EKG
3. How to perform Electro-Cardiogram with nursing process.
4. Routine EKG Interpretation & How to read EKG
5. Action Potential with management and Nursing care

The Faculty of Nursing will also be providing a second round of CPD training, in respect of Basic EKG Training for Cambodian Nurses! This will be hosted online by UP on 5th June 2021. We hope to welcome many participants and invite you all to register on this CPD course as quickly as possible!

Nursing professionals now have the opportunity to develop their career and professional standards without having to stop work, which is a great development. We aim to improve the knowledge of nurses and patients' care outcomes nationwide with this new CPD training program.

ការបណ្តុះបណ្តាលការអភិវឌ្ឍវិជ្ជាជីវៈ បន្តសម្រាប់គិណសុបដ្ឋាករកម្ពុជា

Basic EKG (Electrocardiogram)

- កាលបរិច្ឆេទ: ថ្ងៃទី៥ ខែមិថុនា ឆ្នាំ២០២១
- ទីកន្លែងប្រជុំបន្តអនឡាញប្រើប្រាស់ (Zoom)
- មេឌប័ណ្ណ: ៤:០០ - ១២:០៥ ព្រឹក, ១៣:៣០ - ១៦:៥៥ ល្ងាច
- តម្លៃ: ១០ដុល្លារ, ៦ ដុល្លារ
- CPD registration link: <https://forms.gle/Ch34UWauAWR8d6>
- ប័ណ្ណបញ្ជីប្រចាំឆ្នាំ: lphana@puthisastra.edu.kh

UP ABA account: 001712925 : UP WING PAY: 39992

លេខទូរស័ព្ទ: ០៨៥ ៨០៥ ០៨៥ / ០១២ ៥៨៨ ០៧៦

UP CPD IS EXCELLENT

PARTICIPANT FEEDBACK FROM CPD



The Faculty of Pharmacy of the University have received many wonderful feedbacks from our participants.

Mrs. UNG SIVGKECH, she is a member of Phnom Penh pharmacist council. She has joined a CPD training entitled "Evidence based practice". For her overall view for benefits and outcomes after joining the training she said, "Developing new knowledge, improving skill, helping in workplace, work with experience. Moreover, CPD facilitators was care for participants, friendly, helpful with course".

Another member of Phnom Penh pharmacist council, Ms. TANG SOVANNAROATH, expressed her feelings on the topic that "They are useful and well explained. The online courses are suitable for me since I prefer studying from home. All members of the organization team were responsible and provided me with prompt responses. They were flexible and friendly. They handled it well when I changed the date of studying." and her last expression is about outcome after class is "I received some good tips to practice in pharmacy. In addition, I got the scores."

Ms. NGOR SENGHORN, a member of Kampong Thom pharmacist council, said has join a CPD training entitled "Evidence Base Practice". She said, "CPD is the best short course to improve ourselves in community pharmacy and let's know new technology. Learn never ends.". Moreover, the same respondent stated that "CPD facilitators are kind, good cooperation".

Ms. TOCH LEAKHENA, a member of Mondulkiri pharmacist council, raised up her voices about CPC topic that "I've been study two courses already, first course is about pharmacy management which provide me how to prepare stock. I can say that drug stock is the main point of pharmacy, that all pharmacy owners should learn and keep update on it. The second course is "Evident based practice", as we all know that everything in the world is keep updating and especially the science career. Sure, we all get the news every day, but do you know where the believable source is? Well, this course will provide you all about this. Last but not least, I'd like to thank UP University that create all these incredible courses, I learn a lot and it also help my business to run more smooth. Thanks.". Additionally, her opinion regarding CPD teamwork "They are so lovely, friendly and well organized. All question has been replying in a shortly time."..."It help my business run smoother and well prepare on stock. And another course helps me to fine the believable news so that I can keep update my knowledge everything."

Ms. TANG GACHSHEANG is a member of Tbong Khmum pharmacist council. She brought up her feeling referred to CPD topic and team of organization that "good" and what she received from those trainings are "Develop knowledge and recovery new knowledge".

Mrs. DY RAMY, a member of Kampong Thom pharmacist. In the opinion of the topic she said, "Good presentation". "Improve knowledge and action"... "CPD facilitators were very fast response".

Ms. SET RACHNA, a member of Siem Reap pharmacist council. She shared her interests on the CPD topic that "It was a good topic" and "Well prepared, helpful and supportive". Furthermore, she said that "I have known more with easy to understand case studies and articles."



Ms. PHUONG SITHETH, a member of Phnom Penh pharmacist council. She said that “CPD can help you know about rule, experience, and career of pharmacist now.” regarding to her experienced with CPD teamwork, she expressed feeling that “Be commit, Friendly and Patient.” Her last perception is that “When I studied of CPD can help me to know a good topic, more learn and learn some knowledge that relate with pharmacist, new experience cause study by zoom and know or noted all question that everybody asks related with our science.”.

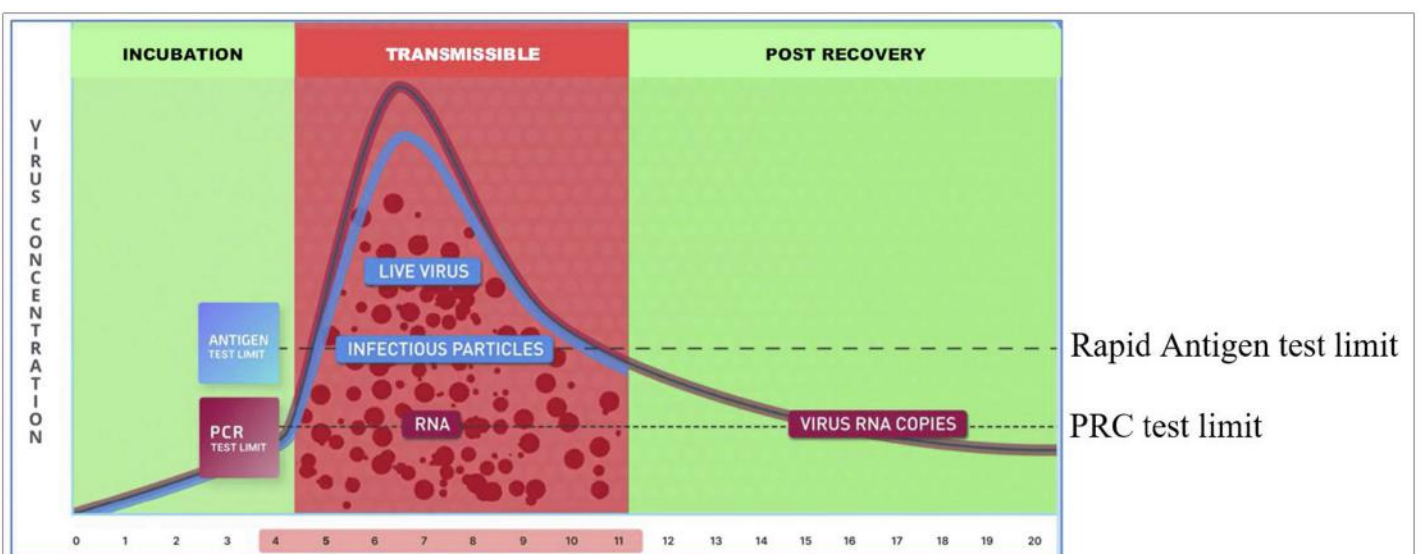
Ms. LY NIN, a member of Siem Reap pharmacist council. She said “This program is good for all pharmacists to get new knowledge.” and she ranked the organizational team as “Excellent”. On the other hand, she also clarified about the benefits of getting the training course that “Develop the knowledge and update information”.

Ms. HEAB CHEANGKIMNA, a member of Phnom Penh pharmacist council. She expressed her long interest of the topic that “All topics are very interesting to learn even though we finish school we still need more knowledge or review some part of the medical subjects. Plus, I found it so powerful because it’s related to my job now which I can gain more information related to my pharmacy.”...“This course is good to learn because it saves a lot of times and money. Moreover, teacher and workers help finding lots of interesting topics and explain more details to us. They work so hard in order to make us more understanding and easily learning”...“I got many advantages such as inventory my pharmacy, prepare my new standard. It helps me to see my old friends and other members.”

Ms. CHHOU SOPHEARA, a member of Phnom Penh pharmacist council. Her interesting topic is “Inventory Management”. She addressed, “CPD facilitators were extremely good, they are excellent work performance.”...“Actually, It’s a great way to fill the gaps in my knowledge. I more understood about the inventory.”.

According to the feedback of participants all are positive responses of CPD training including organizational team as well. Conclusively, it is a positive image that the Faculty of Pharmacy, UP has provided this useful training to Cambodian pharmacists. However, we are going to host more interesting and important topics for pharmacy profession and build stronger connection between trainers, participants and CPD team work.

UNDERSTANDING RT-PCR AND RAPID ANTIGEN TESTING FOR COVID-19



Days from virus exceeding limit of RT-PCR test positivity (Source: INNOVA)

Dr. Chhim Sarath, Deputy Dean for Research of the Faculty of Medicine, provides an update on the current understanding of the RT-PCR and Rapid Antigen Testing for COVID-19. To understand these tests, we must first of all understand the lifecycle of the virus within an infected individual.

The above chart plots the virus kinetics of COVID-19; the graph represents the virus concentration in an infected individual. According to INNOVA, the virus life cycle has three periods:

- The first is the incubation period, which is usually the first 4 days after a person's acquisition of the virus, when the viral load is too low for detection. During this time, the individual is not considered contagious.
- The second period is the transmission period, which occurs when the viral load is high. This period lasts between around day 5 to day 11. During this period, the individual is contagious.
- The third period is the post-recovery period, that starts after day 11, when the virus is no longer transmissible.

However, viral RNA can remain in the body for up to 15 days after this period. That's why the RT-PCR test may still be positive.

Difference between RT-PCR and Antigen Tests

As the chart shows, in the post-recovery period, the virus is still present in the body, but the individual may not be "infectious". This means that contagiousness of an individual depends on the viral load; an infected individual is usually infectious for only 5-7 days, when the viral load is high (red area in the chart).

The Rapid Antigen test detects the spike viral proteins specific to COVID-19 during the high viral load period, the peak of the infection when the concentration of these proteins is very high. Hence, the person is infectious during this period. Rapid Antigen tests are designed to determine whether or not a person is infectious and can transmit the disease. However Rapid Antigen tests are not as sensitive as the RT-PCR test.

However, a percentage of infected individuals show false negative results and can spread the virus to others. These false negatives can be a major problem. Although Rapid Antigen tests report high accuracy when producing positive results, they can be only 50-90% accurate when negative tests are produced – so a person tests negative even though they are actually positive – allowing the person to unknowingly and unwittingly spread virus to others.





In contrast, the RT-PCR test detects the viral RNA and has high sensitivity. It is able to detect the viral RNA even long after a person passes the transmissible period. This means that the RT-PCR tests can detect the presence of the virus before and after the transmissible period as well in asymptomatic individuals. However, the downside is that positive results can be seen also in patients who have already recovered (perhaps 12 months earlier!) and are no longer infectious. Such patients may be then quarantined for two weeks, at significant cost and disruption, unnecessarily.

Rapid Antigen testing may be useful if a person is infectious and could be, despite its limitations and if used correctly, a very effective screening tool. With regular testing of individuals exposed to the infection (for example, three times a week), individuals who can transmit the virus to others can be quickly identified. In conclusion, both systems have their place. Antigen tests can be a powerful tool to reduce infections and to limit unnecessary self-isolation whilst RT-PCR remains the gold-standard testing tool.

References

INNOVA. How Antigen Testing Works. Available at <https://innovamedgroup.com/how-antigen-testing-works/>

UP HOSTS THE INTERNATIONAL VIRTUAL CONFERENCE: UNDERSTANDING COVID-19 DIAGNOSTICS & OPTIMIZING COMMUNITY RESILIENCE

 <p>UNIVERSITY OF PUTHISASTRA</p> <p>GEOSPATIAL DISTRIBUTION AND ACCESS TO COVID-19 TESTING IN CAMBODIA</p> <p>MUYNGIM ENG, B. PHARM, MSC. RESEARCHER AT UNIVERSITY OF PUTHISASTRA (855) 49 42 04 06 ENG.MUYNGIM@GMAIL.COM</p> 	<p>MOBILE COVID-19 TESTING IN THE COMMUNITY PROMOTES RESILIENCE</p> <p>AMANULLAH ZADRAN, MPH</p> <p>Assoc. Director, Point-of-Care Testing Center for Teaching and Research (POCT-CTR™)</p> <p>Copyright © 2021-2022 by Knowledge Optimization,® Davis CA, USA. All international rights reserved.</p> <p>Point-of-Care Testing Center for Teaching and Research</p> 	<p>POINT-OF-CARE COVID-19 WORKSHOP: EXPLORING PRACTICAL USES AND PLANNING FUTURE STRATEGIES</p> <p>GERALD J. KOST, MD, PH.D, MS, FAACC</p> <p>FULBRIGHT SCHOLAR, 2020-2022, ASEAN PROGRAM DIRECTOR, POCT-CTR, SCHOOL OF MEDICINE EMERITUS PROFESSOR, PATHOLOGY & LABORATORY MEDICINE UNIVERSITY OF CALIFORNIA, DAVIS CEO, KNOWLEDGE OPTIMIZATION® DAVIS, CALIFORNIA, USA 1530 574 3845 USA SMART CAMBODIA 1855 96 963 0979 Gerald.Kost@GMAIL.COM</p> <p>Research results may be preliminary. Final conclusions may differ. Please consult your doctor. Do not use for medical purposes without consulting your doctor. No warranty of fitness. Training by request.</p> <p>Copyright © 2021-2022 Knowledge Optimization® Davis, California, USA</p> <p>Global Point of Care Strategies for Bioscience, Emergencies, and Public Health Resilience</p> <p>Edited by Gerald J. Kost, PhD, MS, FAACC Cynthia M. Costin</p> <p>Chinese translation will be available in June, 2021. You are welcome to translate to Khmer without copyright fee.</p> 
--	--	--

On 8th May, 2021, UP welcome more than 40 participants from USA, Canada, New Zealand, Thailand, Singapore, and Cambodia to a conference about the COVID-19 Diagnostics in Cambodia. There were three speakers presenting.

Dr. Gerald Kost, DIRECTOR, POCT•CTR, SCHOOL OF MEDICINE, at UNIVERSITY OF CALIFORNIA, DAVIS, USA, defined point-of-care testing (POCT) and presented an overview of POC COVID-19 strategies which could be potentially implemented in Cambodia to detect the outbreak and limit their spread. POCT is intrinsically temporal, because it produces fast actionable results and inherently spatial. People can be tested where needed the most. He added that COVID-19 diagnostic testing should be free, fast, smart, and connected at points of patient care. Testing could be also performed in the home by yourself!

Muyngim ENG, a researcher from UP, presented about the GEOSPATIAL DISTRIBUTION AND ACCESS TO COVID-19 TESTING IN CAMBODIA. Through her research project with Dr. Gerald Kost, she illustrated three main issues. Firstly, there is the need for increasing the COVID-19 testing accessibility, which can be identified by using geospatial technologies. Secondly, the country is facing limited testing capacity and testing efficiency with only a few types of COVID-19 tests available for the population. Thirdly, the currently low awareness of the impact of different prevalence ranges on testing performance could be enhanced by using Predictive Value Geometric Mean-Squared (PV GM2) articularly among health providers.

AMANULLAH ZADRAN, Assoc. Director, Point-of-Care Testing Center for Teaching and Research at University of California, Davis, USA also illustrated the setup of Mobile Drive-Thru Testing System where he is implementing at Solano County located ~45 miles from SFO and 45 miles from Sacramento. This is one of the solutions that Cambodia could consider in the future to promote resilience through evidence-based decision-making directly to sites of need.

UP FACULTY OF DENTISTRY CASE STUDY SERIES FOR DENTAL STUDENTS

The temporary closure of our dental clinic to students has seriously impacted on their clinical training. To help reduce the effect this is having, the Faculty of Dentistry decided to launch a series of online clinical case presentation webinars with local and international invited speakers. The first invited dentist to present was Dr Michele Tjeuw who is a pediatric dentist from Sydney, and head of the dental branch of the NGO AHHA, which is a partner of UP.

Dr Michele presented several cases focusing on preschool children with Early Childhood Caries – which is a huge problem among children here in Cambodia. Dr Michele discussed the etiology, presentation, and management of such cases.

The second speaker was Assoc Prof Thomas George, an Oral Pathologist from University of Malaya. His talk focused on identification of Potentially Malignant Oral Mucosal Disorders, and he discussed how to assess and differentiate between different types of lesions, and how they should be managed.

Since all the dental schools in Cambodia are presently in a similar position regarding restrictions on clinical practice, UP invited students from UHS, IU, Norton and the Armed Services dental schools to also join. Over the next few weeks we have many more excellent speakers lined up from Australia, Singapore, Malaysia and Cambodia.

University of Puthisastra
Case Presentation Series

Case Presentation For Dental Students
Topic 'Pediatric Dentistry'

Dr. Michele Tjeuw, BDS, MSc
Dr Michele graduated as a dentist from Sydney University and later completed her Masters in Pediatric Dentistry. She has worked in hospital and private clinics in Sydney, and was an Assoc Professor at the University of North Carolina. Dr Michele is currently Head of the dental section of AHHA - an NGO which regularly visits Cambodia to provide care for disadvantaged and special needs children.

LIVE WEBINAR Monday **24** May **3:00 PM**

សាកលវិទ្យាល័យ ព្រះព្រហ្មវិហារ
UNIVERSITY OF PUTHISAstra

TOPIC: ORAL PATHOLOGY
"DIFFERENTIAL DIAGNOSES AND CLINICAL PATHOLOGICAL CORRELATION OF PIGMENTED LESIONS"

ASSOCIATE PROF.
Thomas George

- University of Malaya
- Adjunct Associate Prof. at UP

29th MAY 2021
3:00 PM - 5:00 PM
(Phnom Penh Time)

FREE REGISTRATION!

UNIVERSITY OF PUTHISAstra
Building No. 55, Street 180 & 184, Sangkat Beoung Raing, Khan Daun Penh, Phnom Penh
Tel : 023 221 624 | www.puthisastra.edu.kh

UP MIDWIFERY STUDENTS IN THE BATTLE AGAINST COVID-19

Even though we are facing the Covid-19 pandemic, the midwifery department of the University of Puthisastra still continues to organize the midwifery program for our students to study virtually. Since 19th April, 2021, our second year midwifery students started their online learning in the second semester. This is the activity of their online learning in theory skill of midwifery. In addition to that, our Midwifery students also help fighting against Covid-19 Pandemic

Covid-19 is spreading in Phnom Penh and other provinces in Cambodia. To help the government fighting against the spread of Covid-19, UP Midwifery student volunteered as vaccinator in the Covid-19 vaccination event at Kork Roka Health Center, Prek Pnov District, Phnom Penh.

As part of government recommendation, we are recommended to get vaccinated once available to break the circuit of Covid-19 and keep in mind the 3 defenses and 3 don'ts together.



HIGH QUALITY IMPLANTS IN DENTAL CLINIC

University of Puthisastra is conducting a postgraduate Diploma in Dental Implantology for some of Cambodia's best dentists. The two-year course is being taught by Australian implant specialists and is based on a similar course at Sydney University.

In the second year of the program students need to place implants on patients. The cost of a high quality implant placed by dentists in the course is up to 75% lower than in some private clinics (as little as \$250).

For a free consultation and appointment, please call Dr. Pisal Khom on 089 245 456 or 016 956 289. Note that strict cross infection control protocols are in place.

For more information about the UP Dental Clinic (on Street 180), please visit: <https://www.puthisastra.edu.kh/dental-clinic/>



STUDENT RESEARCH HIGHLIGHTS SUGAR OVER-CONSUMPTION AMONG CAMBODIAN CHILDREN

Last week three recent dental graduates (Kaing Koung, Hok Vanseng and Hout Bunlong) defended their thesis entitled "Sugar consumption of 8-9 year old children in Phnom Penh". Their research was part of a wider series of studies looking at sugar consumption among primary, secondary and tertiary students in Cambodia being conducted by UP Dental Students. The study abstract (below) summarizes the findings, and highlights the high sugar consumption of Cambodian children – who on average consume 2 to 4 times more than the WHO recommended maximum.

The thesis defense was attended by 100 staff and students, such was the interest in this topic. The examiners were Assoc Prof Tineke Water (Chair of Defense Committee and Director of Research at UP), Dr Hou Sokuntheary (MOH), Ms Tun Sreypeov (Head of Nursing) and Dr Kong Kalyan (Assistant Dean of Dentistry). The thesis was supervised by Prof Callum Durward, Dean of Dentistry, with support from Dr Bethy Turton and Dr Horn Rithvitou.



The thesis group recommended a range of interventions to address this important public health issue, which not only contributes to poor oral health, but also to obesity, diabetes, cardiovascular disease and other non-communicable diseases. It is hoped to publish this and other sugar studies in the future, so they can be used to inform future policies and strategies around sugar and health.

UP is proud to be leading research in Cambodia into this important area, and we look forward to hearing the findings from studies on other age-groups in the near future.

Abstract

Introduction: Sugar consumption has been shown to be strongly associated with dental caries and is also one of the main risk factors for several non-communicable diseases including diabetes.

Aim: the aim of this study was to investigate the dietary sugar consumption habits of 8–10-year-old children in Phnom Penh. **Methods:** this cross-sectional study investigated sugar consumption in a convenience sample of 200 primary school children from 4 schools in Phnom Penh. Informed written content was obtained from the parents or caregivers. Socio-demographic and dietary information was obtained from each child during an interview by one of 9 trained interviewers. The interview included a 24-hour dietary assessment. The data obtained from the interviews were entered and analyzed using SPSS.

Results: The mean age of the children was 9.8 years (±SD3.1). The mean estimated minimum, maximum and mostly likely sugar consumption over 24 hours were 109.3 grams, 192.8grams and 188.4 grams. Mid-morning and mid-afternoon were the times of day when children were most likely to consume sugary drinks and foods. Almost all children brought money to school from home each day, mostly given by their parents. Most of the sugar consumed was in the form of sweet drinks. Children are consuming 2-4 times the old WHO recommended maximum sugar intake per day (or 4-8 times the new WHO maximum). 53.6 percent of children did not think there were enough healthy foods and drinks sold in and around their school. Many vendors were selling sweet drinks and packaged snacks in the school grounds. **Conclusion:** Phnom Penh primary school children have a high consumption of sugar primarily, in the form of packaged snacks and sugar-sweetened beverages, far higher than the WHO recommendations.

YEAR 4 DENTAL STUDENTS FORM ON-LINE STUDY CLUB

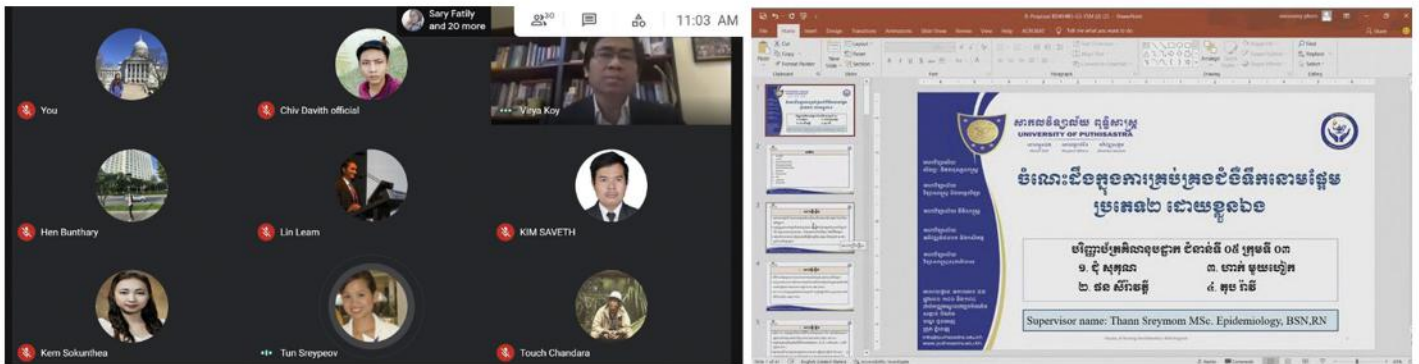
To help students continue to learn during the present Covid-19 period, year 4 students have set up their own Online Study Club.

The aims of the club are: to help classmates master online learning; to review lectures (especially for the more difficult subjects); to present interesting clinical cases; and to let the students share experiences and solve problems together. The initiator of the club, student Heng Chansakada, said “As the organizer of the online study club, I really appreciate the support we are getting from our professors, seniors, and all the dental faculty at UP”.

Some of those who have offered to lead sessions include Mr Heng Rithi, Mr Cheam Sophanna, Dr Sao Soksan, Dr Meng Bunleng, Ms Teav Sovannara, and Mr Choun Lina. Congratulations to Year 4 on this excellent initiative, which will support student learning.



ORAL DEFENSE RESEARCH PROPOSAL FOR BSN YEAR 4 BATCH 5 STUDENTS. SUCCESSFUL COMPLETION OF INITIAL STEPS



UP's BSN Year 4 students presented their online Oral Defense Research proposal, on 7th May 2021, hosted by the Faculty of Nursing.

The BSN students did their oral proposal defense on their chosen topics and divided into five groups with five proposal topics and four to five students in each group. The proposal's defense is designed so that faculty members and supervisors can ask questions and ensure that students actually understand their field and their area of focus.

During the proposal defense, students were asked questions by members of the thesis committee, the chair and the thesis supervisors. Questions are typically open-ended and require that the student think critically about their work. A defense typically takes around 20 minutes in terms of questions and answers.

After their defense, students will need to make changes, based on the comments received, and then resubmit their thesis to the Faculty of Nursing the due date.

UP JOINS THE: DIGITAL UNIVERSITIES WEEK-UK ON TRANSFORMING TEACHING, LEARNING, AND THE CAMPUS EXPERIENCE

UP recognizes that online learning is playing an enormous role in education – both now, accelerated by COVID, but also in the future. COVID has jumped started us into the online future.

UP therefore recognizes that to be the best we must learn from the best and is strongly committed to finding and using the very best of online technologies and practice. Otherwise, Cambodia will be left behind.

UP's Learning and Teaching (L&T) Team took advantage of UP being the only Cambodian university listed in the extremely prestigious Times Higher Education (THE) rankings to join the online "THE: Digital Universities Week-UK on Transforming teaching, Learning, and the Campus experience" from 17th May to 21 May 2021.

There are many themes, but we have found three themes the most interesting.

- "Digital transformation: It's mostly not about technology - Leaving the lecture theatre behind";
- "Innovative teaching for world-class learning", and
- "What is the secret to quality control in online teaching"?

The digital transformation is not really about technology. It is about the individuals and culture. Neil Morris, deputy vice-chancellor of digital transformation at Leeds University, mentioned that digital technology it's primarily about people and culture. The world is changing rapidly through technological advances, and the pressure to embrace technology impacts everyone.

The decision to embrace, adopt, and harness digital technology is an individual choice. Therefore, time and resources must be a focus to support colleagues and students to embrace the possibility that digital technology can offer through talking, listening, story-telling, and by leading by example. A micro course of about twenty minutes is a stepping-stone to up skill faculty members. Teachers may also have to be innovative in teaching.

THE DIGITAL

Universities Week **UK**

TRANSFORMING TEACHING, LEARNING, AND THE CAMPUS EXPERIENCE

17-21 MAY 2021

Innovative teaching is really important for world-class learning, and we should leave the lecture theatre behind. Ian Dunn, a provost and chief academic officer of Coventry University Group, stated that even though a person is standing and delivering to 200 or 300 in the lecture hall, probably only 100 people were actively listening. It doesn't make sense at all. Education technology is exploded, and the technology allows us to break the content down and brings it in much richer content in order to navigate students through that piece of learning. Then, the academics should spend time with students to support the learning and system that make sense of the content to be questioning to all the things we offer in higher education. If we get the system right, it would provide the opportunities for students to collaborate with peers. In the lecture, when we ask questions, students in the front usually answer the questions. The rest may be silent and nervous regarding their understanding.

The final theme that L&T team found interesting is the quality control in online teaching. As universities embrace digital education, lecturers are continuing to adapt and refine their teaching methods to deliver a first-class online service. However, when using new and unexplored methods of delivery, it can be difficult to ensure consistency across classrooms.

Helen Carmichael, deputy director of the Centre for Higher Education Practice, University of Southampton, stated that synchronous and asynchronous teaching is about how, not about what. The role of lecturer is to facilitate, and better learning outcome is the evidence. Students' feedback and peer review can be integrated to assess the online teaching. Students, leadership, and relevant stakeholders contribute to the quality control of online teaching.

The most important thing is the feeling of connection between students and their lecturers. Creativity and innovation are really important. From student satisfaction survey, it is about building trust and good rapport between lecturers and students. Students know that their lecturers are knowledgeable about their subject, but it is about student engagement in learning. The final words from speakers include mentoring, student engagement, making simple, keep your learners close, and trust your instinct are the secret to quality teaching.

MAJOR STEP FORWARDS IN INTEGRATING ORAL HEALTH INTO GLOBAL HEALTH



In an event on 26 May co-organized by Ministry of Health Sri Lanka & WHO Collaborating Center for Quality Improvement and Evidence-based Dentistry at NYU College of Dentistry, on the occasion of the 74th WHO World Health Assembly, the "integration of oral health into global health" was discussed. Over 500 participants from more than 90 countries attended the online event hosted by NYU. UP was represented by Dean of Dentistry, Prof Callum Durward.

Political priority for oral diseases in a global health context has long been low. This is about to change. A major milestone was the adoption of a resolution on oral health during the 148th Executive Board meeting of WHO in January 2021. Member States called for the development of a global oral health strategy, action plan, and monitoring framework in order to integrate oral health with Universal Health Coverage and the global NCD agenda by 2030. The endorsement of the resolution was on the agenda of the World Health Assembly from 24 May until 1 June 2021.

Almost half of the world's population suffers from one or several oral diseases. Tooth decay, severe gum diseases, toothlessness, and oral cancer are largely preventable oral diseases, yet have a serious impact on individuals, health systems, and economies at large. The disease burden and related consequences show significant inequities, particularly affecting low- and lower-middle-income countries and disadvantaged populations everywhere, including in Cambodia.

During the online meeting the urgent need for impactful action on oral health through policies and health systems, globally and within countries was discussed. Speakers and panelists discussed possible milestones of the process for the coming decade, implications for strengthening Universal Health Coverage, and the vision of good oral health for all.

The meeting was chaired by Dr. Habib Benzian, Research Professor at NYU College of Dentistry and Co-director, WHO Collaborating Center for Quality Improvement & Evidence-based Dentistry. UP has an MOU with NYU and in recent years has hosted NYU teams which came to collaborate in the Healthy Kids Cambodia project. Speakers included Dr. Bente Mikkelsen (WHO Director NCD) and Dr. Benoit Varenne (WHO Oral Health Officer), and Dr. Carol Guarnizo-Herreno (Co-chair Lancet Commission on Oral Health).

The new WHO resolution on oral health urges Member States to address key risk factors of oral diseases shared with other non-communicable diseases such as high intake of free sugars, tobacco use and harmful use of alcohol, and to enhance the capacities of oral health professionals. It also recommends a shift from the traditional curative approach towards a preventive approach that includes promotion of oral health within the family, schools and workplaces, and includes timely, comprehensive and inclusive care within the primary health-care system. The resolution proposes that oral health should be firmly embedded within the non-communicable disease agenda and that oral health-care interventions should be included in universal health coverage programs.

More than 3.5 billion people suffer from oral diseases - mostly in poor and socially-disadvantaged populations. Most oral diseases have been linked with other non-communicable diseases such as cardiovascular diseases, diabetes, cancers, pneumonia, obesity and premature birth. One major problem is that oral health is not covered by many universal health coverage packages.

WHO has agreed to develop a draft global strategy on tackling oral diseases for consideration in 2022 and by 2023 to translate that strategy into an action plan and recommend "best buy" interventions.

UP DENTAL CLINIC OPEN FROM MONDAY TO SATURDAY



The UP Dental Clinic will be open 6 days per week to see emergency and general patients.

Patients must call the receptionist on 012 414 563 / 098 414 563 or contact us via our Facebook page (UP Dental Clinic) or by Telegram number 012 414 563 to make an appointment. Patients will be spaced to allow sufficient time to fully disinfect the clinical area between patients.

Special measures are in place to prevent transmission of Covid-19, following MOH guidelines.

