International Society to Improve the Use of Medicines

Improving the Use of Medicines: Connecting, Learning, Moving Forward

Kantary Hills Hotel, Chiang Mai, Thailand
October 28 - 30, 2023

Table of contents

An explanation

In preparing this program it was not possible to obtain complete, accurate and consistent information across all organisations and countries regarding the titles of all those named throughout the program.

Therefore, we have made the decision to publish all names without titles. We do hope we are not inadvertently offending anyone in so doing.

Welcome to the Conference!

From Lynn Weekes, Chair, Board of Directors, International Society to Improve the Use of Medicines

Welcome to ISIUM 2023 and what a joy it is to be here with all of you. The world and all of us have experienced so much since we came together for our first international conference in Bangkok at the end of January 2020. Lockdowns were isolating, the pandemic overshadowed everything and yet we saw new collaborations flourish and sharing in the best traditions of our field. And so, we have new problems, we have old problems, we have successes to celebrate and new ideas to explore—together we must grasp the opportunities that all of this brings over the coming days.

In his welcome to the 2020 conference, Arturo Quizhpe said: *'This conference is an act of generosity, of planting seeds, a silent work… Now so that these seeds can flourish and multiply in new projects in each of their scientific, social and work associations, it requires your decision, enthusiasm and commitment'*. This conference sees many of those seeds germinated and thriving and we ask you again in 2023 to bring those same attributes to your presentations and deliberations because the rational use of medicines is important work that can make a difference to people's lives.

Many people have contributed to making this conference a reality: our Chiang Mai hosts; the indefatigable Local Organizing Committee, led by Dean Supat Jiranusomkul and supported by Penkarn Kanjanarat and her amazing team; the wise and well-connected International Program Committee; and our sponsors. The energy and time these people gave have been amply rewarded by the outstanding quality of work that has been submitted for presentation at the conference.

Strap yourself in for a rollercoaster of new perspectives, innovative solutions and inspiring collaborations. Your contribution will be someone else's inspiration and we thank each of you for the richness we can anticipate from the deliberations at the conference.

From Supat Jiranusornkul, Dean, Faculty of Pharmacy, Chiang Mai University

On behalf of the Faculty of Pharmacy at Chiang Mai University, I would like to extend a heartfelt welcome to each of you as we gather for the prestigious ISIUM Conference in our vibrant city. It is an honor to host this esteemed event, which brings together passionate minds from across the world dedicated to improving the rational use of medicines.

Our faculty has long been committed to advancing the field of pharmacy and healthcare, and we are thrilled to serve as the backdrop for these crucial discussions and collaborations. Chiang Mai, with its rich cultural heritage and warm hospitality, provides the perfect setting for fruitful exchanges of ideas.

As the Dean of the Faculty of Pharmacy, I am deeply inspired by the dedication and expertise that each of you brings to this conference. It is your collective wisdom and unwavering commitment to enhancing the use of medicines that will shape a brighter, healthier future for communities worldwide.

Ultimately, the essence of this conference lies in the conversations, questions, debates, and ideas that you, our esteemed participants, bring to the table. We encourage you to share your insights, as we all have much to learn if we are to harness the full potential of medicines for the benefit of our patients and communities.

I wish to express my profound gratitude to our organizing committee, speakers, and co-hosts for their tireless efforts in making this event possible. Together, we are creating a platform for transformative change in healthcare. May your time here be as enriching and memorable as the insights you gain during the conference.

Once again, welcome to Chiang Mai University and the ISIUM Conference. Let us work hand in hand to shape a future where the rational use of medicines truly aligns with the aspirations of people and communities worldwide.

Conference organisers

International program committee

Lynn Weekes	Board member and chair of ISIUM; former CEO of NPS MedicineWise, Australia
Mary Hemming	Board member and company secretary of ISIUM; former CEO of Therapeutic Guidelines Limited, Australia
Mieke Hutchinson-Kern	Partnership Program, Therpaeutic Guidelines limited, Australia
Penkarn Kanjanarat	Board member of ISIUM; Faculty of Pharmacy, Chiang Mai University, Thailand
Anita Kotwani	Retired Professor of Pharmacology, Vallabhbhai Patel Chest Institute, India
Joel Lexchin	Professor Emeritus, School of Health Policy and Management, York University, Canada
Renly Lim	Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Australia
Michael Mosha	Roll Back Antimicrobial Resistance Initiative, Tanzania
Milania Rocha	National Center for Drug Information, University of Costa Rica, Costa Rica (representing Red CIMLAC)

Siritree Suttajit and Puckwipa Suwannaprom (Faculty of Pharmacy, Chiang Mai University) were observers on this committee.

Local organising committee (Thailand)

Supat Jiranusornkul	Dean, Faculty of Pharmacy, Chiang Mai University (Chair)
Chuda Chittasupho	Assistant Dean, Faculty of Pharmacy, Chiang Mai University
Poukwan Arunmanakul	Faculty of Pharmacy, Chiang Mai University
Siritree Suttajit	Faculty of Pharmacy, Chiang Mai University
Puckwipa Suwannaprom	Faculty of Pharmacy, Chiang Mai University
Penkarn Kanjanarat	Board member of ISIUM; Faculty of Pharmacy, Chiang Mai University
Niyada Kiatying-Angsulee	Project Manager, Drug System Monitoring and Development Center
Anchalee Jitraknatee	Director, National Drug Policy Division, Thai Food and Drug Administration
Naphaphorn Puripanyavanich	National Drug Policy Division, Thai Food and Drug Administration
Chanuttha Ploylearmsang	Dean of Faculty of Pharmacy, Mahasarakham University
Phayom Sookaneknun Olson	Faculty of Pharmacy, Mahasarakham University
Noppakun Thammatacharee	Drug System Development Senior Research Manager, Health Systems Research Institute
Tassawan Poomchaichote	Mahidol Oxford Tropical Medicine Research Unit

Lynn Weekes, Mary Hemming, Penkarn Kanjanarat, Siritree Suttajit, Puckwipa Suwannaprom, Janelle Taylor (University of South Australia), and Nataree Darongsuwan (Chiang Mai University) undertook the role of the conference secretariat.

Supporting organisations

This meeting would not have been possible without the generous support from these organisations.

Therapeutic Guidelines Ltd	Therapeutic Guidelines Ltd is an independent, not-for-profit organisation. Its mission is to promote quality use of medicines through the publication of relevant, reliable, and succinct evidence-based clinical information. It has been publishing *Therapeutic Guidelines*, a point-of-care online prescribing support database, for 27 years. It also publishes *Australian Prescriber*, an independent peer-reviewed journal providing critical commentary on drugs and therapeutics for health professionals.
Quality Use of Medicines and Pharmacy Research Centre, University of South Australia	**Consumer-driven, data-informed research, effective in improving use of medicines and improving patient lives.** Research within the QUMPRC, at the University of South Australia, ranges from large-scale data analysis, to the translation of evidence into policy and practice. We work with consumers, health professionals and organisations, ensuring the advanced technologies and methods developed within the Centre, find their way into policy and practice to improve patient lives. Our research focuses on 6 key areas: medicines safety, optimising medicine use, digital health, pharmacy practice, Aboriginal traditional medicines, and evidence translation and policy.
Faculty of Pharmacy Chiang Mai University	The Faculty of Pharmacy, Chiang Mai University, offers a Pharm D program, 4 master's degree programs in Pharmaceutical Sciences, Cosmetic Sciences, Clinical Pharmacy, and Pharmacy Management, and one international doctoral program in Pharmacy. The faculty's research focuses on natural products, pharmaceutical research, and safe and quality use of medicines.
Drug System Monitoring and Development Centre	The Drug System Monitoring and Development Centre creates and manages knowledge as a reliable source to inform policy makers, academia, and the public to promote safe and rational use of medicines. The Drug System Monitoring and Development Centre's strategy is to strengthen drug systems by collaborating with civil society, academia, and partners to strengthen local communities on medicine use and a system to monitor medicine use.
Thai Food and Drug Administration	The Thai Food and Drug Administration (Thai FDA) serves as the main organisation for consumer protection and promotion of health product entrepreneurship for the benefit of good health of the public.

Supporting organisations (contd.)

Health Systems Research Institute	The Health Systems Research Institute (HSRI) is an autonomous state agency working in partnership with multilevel public and private agencies with its main goal being to achieve effective knowledge management in the service of the health system.
Faculty of Pharmacy, Mahasarakham University	The Faculty of Pharmacy, Mahasarakham University is a faculty that leads the way in integrating pharmaceutical knowledge with innovation for the community. Its goal is to produce graduates with comprehensive knowledge in medicine and health, equipped with ethics and moral values, and to develop research in pharmaceutical sciences. It is located in Northeast Thailand.
Mahidol Oxford Tropical Medicine Research Unit	Patient-centred research is the core of MORU's activities. Geographically dispersed across 5 research units and 50 sites across Asia and Africa, our integrated, highly collaborative, flexible network lets MORU address global and regional health problems such as drug-resistant infections, malaria and critical illness.
Thai Health Promotion Foundation	The Thai Health Promotion Foundation (ThaiHealth) is an autonomous government agency. ThaiHealth's missions are to inspire, motivate, coordinate, and empower individuals and organisations in all sectors for the enhancement of health promotive capability as well as a healthy society and environment to support health promotion movement in Thailand.

HEALTH SYSTEMS RESEARCH INSTITUTE

MORU Tropical Health Network

ThaiHealth

About the Conference

Some of you have been endeavouring to improve the use of medicines for decades, some of you are new to the field and each person brings valuable experience and perspective that will allow us to move forward. We will do this not by being a passive audience but as engaged members of ISIUM who understand the importance of connecting, sharing, debating and exploring so that we learn and progress in our own work which ensures the rational use of medicines improves globally.

Historically, independent information and decision-making have cornerstones of better use of medicines, and engagement in the context of different communities—health facilities, health professionals, patients, governments and communities—has proven essential to design and build processes and tools that make sense to people within the constraints of where they live and work. In ISIUM we advocate that the outcomes that are important to people and communities should be at the heart of health care professionals' practice, health systems and policy but this is too frequently not the case.

In recent years, Universal Health Coverage (UHC) has become a reality for many countries and usually comes with improved access to medicines. It is critical that this increased investment in medicines is well placed and leads to the outcomes people value. The COVID-19 pandemic has also changed the way many people engage with their health system and how they view medicines. These changes can be framed as either risks or opportunities but whichever perspective is taken it is certain that these changes will present challenges for better use of medicines. It is a good time for those engaged in improving use of medicines to innovate for a better future for all.

The 2023 Conference was informed by its predecessor in 2020 which was titled: *People Improving the Use of Medicines: What We Know and Don't Know*. At that meeting we heard a call to reinvigorate our work to improve the use of medicines. Key themes emerging from the conference included:

- The value of a holistic, ecological 'one health' approach to rational use of medicines.
- The importance of questioning the need for medicines and medicalisation of society.
- Creating capacity for sharing knowledge.
- Safeguarding, improving and encouraging use of the evidence for rational use of medicines, both through established and new means.
- The value of building relationships across sectors, across countries.
- Insights into empowerment.
- Effective processes for building government and health institution medicines policies.

There was a call for a new language that reflects contemporary culture for improving use of medicines that is more holistic, person-centred and community-centred but which acknowledged and built on the foundations of what has already been achieved. Broader collaborations, beyond health care were identified as necessary for making the innovations we need in this area. At the same time, it was noted that the support of national governments and the World Health Organization was needed to underpin and sustain the work of activists, advocates, health professionals, educators, communicators and researchers.

About the Conference (contd.)

This second ISIUM conference picks up on many of the themes and lessons of the past. The broad objectives of the conference are:

1. To share real experiences in peoples' education and empowerment for health through improving the use of medicines.
2. To share experiences that support improvement of medicines use at country, community, and individual levels, with a special focus on activities involving innovative tools and processes.
3. To explore how community is most effectively placed at the heart of our work to improve use of medicines
4. To share experiences of working in contemporary culture to improve use of medicines with reference to COVID-19 pandemic; and young people as two sub-themes.

One of the major themes of the meeting is the value of seeing problems from different perspectives and to that end we have invited medical anthropologists, sociologists, communication experts, data gurus and policy people to bring us their views. Likewise, the range of perspectives from low, middle and high incomes will see presentations from every continent.

You will see Working Sessions that deal with familiar issues such as antimicrobial resistance and standard treatment guidelines alongside discussions of how to improve medicines literacy and include patients and communities in designing our work.

Finally, the most important part of this conference is the conversations, questions, debates and ideas you bring to it. Please share your ideas, we all still have so much to learn if we are to achieve the best outcomes from medicines for our patients and our communities.

PROGRAM: SATURDAY 28TH OCTOBER 2023

Theme: Connecting and growing our community

09:00 - 09:30	WELCOME AND INTRODUCTION **Chairs:** Lynn Weekes, Chair, International Society to Improve the Use of Medicines, and Pongruk Sribanditmongkol, President, Chiang Mai University *Conference objectives, recognition of hosts, co-hosts, conference committees and sponsors*
09:30 – 10:30	KEYNOTE ADDRESS ***Learning from patients and communities to improve the use of medicines*** (162) **Presenter:** Phaik Yeong Cheah, MORU Tropical Health Network **Chair:** Lynn Weekes
10:30 – 11:00	**MORNING TEA**
11:00 – 11:05	VIDEO PRESENTATION ***Development of a healthcare product surveillance model in grocery store in Sisaket Province*** **Presenter:** Munlika Suphon, Thailand (137)
11:05 – 12:30	PANEL DISCUSSION ***Learning from patients and communities to improve the use of medicines*** **Chair:** Penkarn Kanjanarat, Thailand **Discussant:** Yong Kwok, USA **Panellists:** Punnee Amornviputpanich, Thailand: *What can we learn from the illegal use of colistin at Thailand pig farms?* (160) Maria Fernanda Barros de Oliveira Brandão, Brazil (via Zoom): *Providing information in accessible ways.* (161) Lydia Green, USA: *Can we learn from pharmaceutical companies?* (164) Atittaya Parkpicharoen, Thailand: *Evaluating the effectiveness of a drug delivery system implemented by village health volunteers for diabetic patients during the COVID-19 pandemic.* (94)
12:30 – 14:00	**LUNCH**
14:00 – 15:30	CONCURRENT WORKING SESSIONS ***Working across sectors to improve the use of medicines*** *A mix of short presentations and hands-on workshops*

Working session #1

WORKING WITH PRACTITIONERS, PATIENTS AND COMMUNITIES TO DESIGN RATIONAL MEDICINE USE PROGRAMS

Chair: Debra Rowett
Discussant: Phaik Yeong Cheah

Unused medication among monks with non-communicable diseases: A case study in temples within the Bangkok metropolitan area. Boonyawat Kaewpinta, Thailand. (36)

The management of inappropriate drug distribution problem in grocery with RDU community mechanism by participation of community, Sai Mun Subdistrict, Namphong District, Khon Kaen. Aree Pimdee, Thailand. (97)

Community pharmacy dispensers' views on the antibiotics' poor dispensing practices and misuse: A Dodoma city qualitative study. Michael Mosha, Tanzania. (72)

Working session #2

DIVERSE CHALLENGES, INNOVATIVE SOLUTIONS

Chair: Charles Ayran
Discussant: Alice Siuna Waneoroa

Identifying the most effective policies for minimising inappropriate use of antibiotics: A replicability study using three WHO datasets. Kathleen Holloway, United Kingdom. (25)

Are more expensive medicines better quality? Evidence from Indonesia. Vinky Maria, Indonesia. (61)

Impact of educational intervention on use of medicines in public primary health care centres of Puducherry, India: A WHO indicator-based study. Jayanthi Mathaiyan, India. (63)

Utility of laboratory alert system for detecting adverse drug events: Prolonged INR. Benjaporn Silaruks, Thailand. (128)

Working session #3

EDUCATING HEALTH PROFESSIONALS TO PRACTISE RATIONAL USE OF MEDICINES

Chair: Ravi Shankar
Discussants: Subish Palaian, Arnuparp Lekhakula, Nisha Jha, Sajala Kafle

For more information, see abstract (169)

PROGRAM: SATURDAY 28TH OCTOBER 2023 (CONTD.)

Theme: Connecting and growing our community

15:30 – 16:00	**AFTERNOON TEA**
16:00 – 17:30	CONCURRENT WORKING SESSIONS ***Learning from each other*** *A mix of short presentations and hands-on workshops*

Working session #4

INTEGRATING GUIDELINES WITH ESSENTIAL MEDICINES LISTS

Co-chairs: Mieke Hutchinson-Kern, Robert Moulds

A quantitative comparison of essential cardiovascular medicines from countries in the Southern African Development Community to the WHO model essential medicines list. Ian Naicker, South Africa. **(78)**

Approval of chronic medication entitlements based on the Malta National Formulary and Protocols. Charles Mandy Ayran, Philippines. **(165)**

For more information about this working session, see abstract **(170)**

Working session #5

UNDERSTANDING AND IMPROVING MEDICINES LITERACY

Chair: Chanuantong Tanasugarn
Discussant: Natalia Cebotarenco

Collectively improving the use of medicines through a consumer-centred and multidisciplinary collaboration. Jonathan Dartnell, Australia. **(19)**

Counterfeit medicines awareness among community pharmacists of Kathmandu Valley: A descriptive cross-sectional study. Sajala Kafle, Nepal. **(39)**

Knowledge, attitude and practice of disposal of unused or expired medication. Pathiyil Ravi Shankar, Malaysia. **(125)**

Perceptions of health care providers and patients on factors influencing medication adherence of type 2 diabetes mellitus patients in Labasa, Fiji: A qualitative study. Namrata Singh, Fiji. **(130)**

Working session #6

EXCESS OR ACCESS: INNOVATIVE APPROACHES TO IMPROVE USE OF ANTIMICROBIALS

Chair: Niyada Kiatying-Angsulee
Discussant: Verica Ivanovska

Improving antimicrobial use in secondary and primary public healthcare facilities in India. Anita Kotwani, India. **(47)**

Antibiotic use among pregnant women attended antenatal care clinic at Kilimanjaro Christian Medical Centre in Northern Tanzania. Victor Mosha, Tanzania. **(68)**

Youth as agents of change in raising antimicrobial resistance awareness in the community in Dodoma region. Michael Mosha, Tanzania. **(75)**

Surgical antibiotic prescription patterns and trends in two private hospitals in Madhya Pradesh, India: A 10-year observational study. Kristina Skender, Sweden. **(133)**

Dispensing practices of antibiotic among community pharmacies in Bharatpur metropolitan-city Chitwan, Nepal: A simulated patient cross-sectional study. Anil Kumar Sah, Nepal (via Zoom). **(120)**

Situation of antibiotic use in livestock farms and veterinary drug distribution in Thung Khao Luang District, Roi-Et Province. Supawadee Plengchai, Thailand. **(100)**

17:30 - onwards	**WELCOME RECEPTION AND POSTER PRESENTATIONS**

PROGRAM: SUNDAY 29TH OCTOBER 2023

Theme: Identifying medicines problems and innovating for solutions

08:30 - 09:00	SUMMARY OF KEY MESSAGES FROM DAY 1
09:00 – 10:00	KEYNOTE ADDRESS ***Using routine data to identify medicines problems at local and national levels*** **(159)** **Presenter:** Libby Roughead, Australia (via Zoom) **Chair:** Michael Mosha, Tanzania **Discussant:** Fatima Suleman, South Africa
10:00 – 10:30	**MORNING TEA**
10:30 – 10:35	VIDEO PRESENTATION ***The use of public transport (bajaji, tuk tuk) in communicating antimicrobial resistance*** **(71)** **Presenter:** Michael Mosha, Tanzania
10:35 – 11:30	PLENARY SESSION ***ISIUM voices: Diverse challenges, innovative solutions*** **Chair:** Anita Kotwani, India **Discussant:** Nisha Jha, Nepal **Presenters:** Barbara Mintzes, Australia (via Zoom): *Safeguarding an independent voice for patients and health consumers in health policy.* **(66)** Katrina Perehudoff, Netherlands (via Zoom): *A framework for new medicine launch in low- and middle-income countries.* **(157)** Mawaddati Rahmi, Indonesia: *Comparing prescription compliance practices: A study of online and bricks-and-mortar pharmacies in Indonesia.* **(113)** Sopit Sittiphan, Thailand: *Management of drugs and health product-related problems in communities via home visit approach by the network of Bawal-Ral (home, temple, school and hospital).* **(132)** Othniel Nimbabazi, Rwanda: *African measures and strategies for antimicrobial resistance preparedness.* **(82)**
11:30 – 13:30	PANEL DISCUSSION ***Policy, system and financial approaches for rational use of medicines*** **Chair:** Kathleen Holloway, United Kingdom **Discussant:** Charan Singh Verma, India **Presenters:** Prasit Wattanapa, Thailand: *Thailand rational drug use country: An update* **(166)** Kwong Ng, Singapore: *Policy to practice: Appropriate use of medicines in Singapore through health technology assessment.* **(167)** Judith Mackson, Australia: *Drug use evaluations by Australia's national reimbursement agency: A tool to support rational medicines use.* **(56)** Subhash Mandal, India: *Impact of drug policy and regulation on rational use of medicines of India.* **(58)** Quan Wang, China: *Improving access to medicines and beyond: The national volume-based procurement policy in China.* **(168)**
13:30 – 14:30	**LUNCH**

PROGRAM: SUNDAY 29TH OCTOBER 2023 (CONTD.)

Theme: Identifying medicines problems and innovating for solutions

14:30 – 16:30

CONCURRENT WORKING SESSIONS

Old and new challenges

A mix of short presentations and hands-on workshops

-

Working session #7

USING ROUTINE DATA: INNOVATIVE METHODS AND MEASURES

Chair: Supasit Pannarunothai
Discussant: Piyameth Dilokthornsakul

Informing clinical pharmacy governance using electronic data. Huri Balikubiri, Australia. **(9)**

Eight-year experience of conducting annual point prevalence antibiotic prescribing surveys in Solomon Islands. Samantha Diamana, Solomon Islands. **(20)**

Use of open data for monitoring rational drug use in hospital at national level in Thailand. Penkarn Kanjanarat, Thailand. **(23)**

Measuring medicines use and implementation of policies to improve use. Kathleen Holloway, United Kingdom. **(26)**

Use of AMC surveillance data for action. Verica Ivanovska, Switzerland. **(28)**

Working session #8

DEPRESCRIBING AND OTHER CHRONIC DISEASE MANAGEMENT ISSUES

Chair: Tan Bee Kim
Discussant: Jonathan Dartnell

Deprescribing for patients nearing end-of-life: Views, barriers and facilitators of palliative care patients, their carers and healthcare providers. Aidah Abdul Chin, Malaysia. **(3)**

Promoting rational use of NSAIDs and steroids through proactive hospital-based and community-based surveillance systems in Chiang Mai, Thailand. Chunyanut Chompukeaw, Thailand. **(18)**

Development and feasibility of the physician-pharmacist partnership intervention to deprescribe medications (PPPi-DM) among older people in primary care. Pauline Lai, Malaysia. **(54)**

Polypharmacy and the occurrence of potential drug interactions in geriatric patients with COVID-19 in Karawang General Regional Hospital, Indonesia. Reise Manninda, Indonesia. **(60)**

Working session #9

LEARNING FROM EACH OTHER

Chair: Frances Lois Ucab Ngo
Discussant: Subhash Mandal

Analyses of adverse cannabis-related events reported in the TaWai for health web application. Pitchaya Nualdaisri, Thailand. **(111)**

Studies on drug utilisation and rational drug use during the last decade in Nepal. Nisha Jha, Nepal. **(31)**

Topical corticosteroid counselling among Malaysian community pharmacists: A qualitative cross-sectional study. Pathiyil Ravi Shankar, Malaysia. **(126)**

16:30 – 18:00 **AFTERNOON TEA AND POSTER SESSION**

18:00 – onwards

CONFERENCE DINNER

Northern Thai Cultural Dinner

PROGRAM: MONDAY 30TH OCTOBER 2023

Theme: To the future

09:00 - 09:30	SUMMARY OF KEY MESSAGES FROM DAY 2
09:30 – 10:30	KEYNOTE ADDRESS ***Medicalisation of society and how it influences medicines use by patients*** **(163)** **Presenter:** Luechai Sringernyuang, Thailand **Chair:** To be advised **Discussant:** Pauline Lai
10:30 – 11:00	**MORNING TEA**
11:00 – 11:05	VIDEO PRESENTATION ***Thai RDU: A tool designed for processing indicators of rational drug use from a hospital information system*** **(55)** **Presenter:** Verayuth Lertnatte, Thailand
11:05 – 13:00	PLENARY SESSION ***ISIUM voices: Diverse challenges, innovative solutions*** **Chair:** Kadir Alam, Nepal **Discussant:** Zuzaan Zulzaga, Mongolia **Presenters:** Kathleen Holloway, United Kingdom: *Twenty years of promoting rational use of medicines: From expert opinion to evidence.* **(27)** Alice Siuna Waneoroa, Solomon Islands: *Successful establishment of hybrid multidisciplinary bloodstream infection management group in Solomon Islands.* **(152)** Penkarn Kanjanarat, Thailand: *Rational drug use country indicators as an approach to monitor and evaluate RDU at the National level.* **(40)** Vandana Roy, India: *Antimicrobial surveillance, pharmacoeconomics and adverse drug reaction monitoring of antimicrobials used in patients in a tertiary care teaching hospital in New Delhi (India): Assessing need for policy formulation.* **(118)** Anil Kumar Sah, Nepal (via Zoom): *Medication error in general medicine department of tertiary care Koshi Zonal Hospital in Nepal.* **(121)** Zheng Zhu, China (via Zoom): *The impact of national volume-based procurement on healthcare expenditure for hypertensive patients in Guangzhou, China.* **(155)**
13:00 – 14:00	**LUNCH**
14:00 – 15:00	SUMMING UP ***Discussion of recommendations from working sessions*** **Chairs:** Lynn Weekes, International Society to Improve the Use of Medicines, and Supat Jiranusornkul, Dean, Faculty of Pharmacy, Chiang Mai University *Conference outcomes and messages* *Farewell until next time!*
15:00 – 15:30	**AFTERNOON TEA**

Post-conference activities

MONDAY 30TH OCTOBER 2023

Special interest group meetings

	Group #1	Group #2	Group #3	Group #4
15:30 – 17:30	RATIONAL DRUG USE IN THE HOSPITAL SETTING **Coordinators:** Phayom Sookanaknun Olson, Pemmarin Potisarach, Areerat Leelathanalerk Mahasarakham University, Thailand.	DATABASES FOR RATIONAL USE OF MEDICINES **Coordinators:** Penkarn Kanjanarat, Ratanaporn Awiphan Chiang Mai University, Thailand	MEASURING COUNTRY IMPLEMENTATION OF A NATIONAL PROGRAM TO PROMOTE RATIONAL USE OF MEDICINES **Coordinator:** Kathleen Holloway Sussex University, UK	ACCESS AND RATIONAL DRUG USE STUDIES IN SPECIAL POPULATIONS **Coordinator:** Niyada Kiatying-Angsulee Chulalongkorn University, Thailand

TUESDAY 31ST OCTOBER 2023

Academic site visits

08:30	PICK UP FROM KANTARY HILLS HOTEL (OR A LOCATION NEARBY)		
	Site visit #1 RATIONAL USE OF MEDICINES IN COMMUNITIES: FROM HOSPITAL TO PRIMARY CARE SERVICES **Setting 1:** Nakornping Hospital (Chiang Mai Provincial Hospital) **Setting 2:** Jed-Yod Primary Care Unit	**Site visit #2** HOW DIGITAL HEALTH EMPOWERS PEOPLE IN HEALTHCARE **Setting:** San Sai Hospital (District Hospital)	**Site visit #3** ENGAGING RATIONAL USE OF MEDICINES IN ETHNIC GROUPS AND MIGRANT WORKERS THROUGH COMMUNICATION **Setting:** MAP radio station (Suthep District)
12:00 – 13:00	–	–	**LUNCH**

Poster session 1, Saturday 28 October 2023

Survey of antibiotic use in animal husbandry in five provinces in the Northeastern region. *Janjaree Dokbua, Thailand.* **(1)**

The process of drug safety surveillance in the temples, Pathumratchawongsa District, Amnat Charoen Province. *Janjaree Dokbua, Thailand.* **(21)**

Handling and disposal practice of expired and damaged medicines in the community pharmacies of metropolitan city of Province No. 1, Nepal: A Cross-Sectional Study. *Kadir Alam, Nepal.* **(4)**

Medication adherence in geriatric population: a cross-sectional study in United Arab Emirates. *Subish Palaian, United Arab Emirates.* **(5)**

The qualitative study of rational drug use literacy of people living in Mahasarakham province Thailand. *Somsak Arparsrithongsagul, Thailand.* **(6)**

Pharmaceutical public health competencies: a missing link in promoting patient and community engagement in rational drug use. *Thanayut Auimekhakul, Thailand.* **(7)**

Improving health literacy through community engagement. *Laura Jiménez Ospina, Colombia.* **(14)**

CIMLAC network's strategies to counteract misinformation during the COVID-19 pandemic. *Laura Jiménez Ospina, Colombia.* **(15)**

Information for the community: Contributions of CEBRIM/CFF. *Laura Jiménez Ospina, Colombia.* **(16)**

The prevalence of unused medications in homes at Mueang Lampang, Thailand. *Phongsakorn Jeenklam, Thailand.* **(29)**

The policy advocacy for rational drug use district in Si Chomphu, Khon Kaen. *Suchada Kabin, Thailand.* **(33)**

The development of proactive search and monitoring system for warfarin use in hospital. *Malaiporn Kantha.* **(43)**

Evaluation of antibiotics treatment compliance for pneumonia patients based on therapy guidelines in governments type B hospitals at Jakarta and NTB. *Sondang Khairani, Indonesia.* **(44)**

Measuring effectiveness of rational drug use management system in Lampang hospital in order to become RDU-Hospital. *Watcharaphorn Kingsak, Thailand.* **(46)**

Impacts of Thailand's medical marijuana policy on cannabis use: A community study. *Isarak Laokhom, Thailand.* **(50)**

Management of medication systems in correctional healthcare facilities. *Isarak Laokhom, Thailand.* **(51)**

The complexity spectrum of COVID-19 patients receiving molnupiravir telephone counselling. *Chanunchida Phusadee, Thailand.* **(96)**

Assessment of knowledge, attitude and practice towards antimicrobial use and resistance among students in three secondary schools in Dodoma City. *Michael Mosha, Tanzania.* **(74)**

Transforming RDU hospital into RDU literacy. *Kamolnat Muangyim, Thailand.* **(76)**

The integrated network for managing steroid-adulterated health products, Chiang Rai. *Ratchanit Ratchakit Nedsuwan, Thailand.* **(81)**

Analysis of mixed medications set-seeking behavior reported in TaWai for health web application. *Pitchaya Nuandaisri, Thailand.* **(83)**

Encourage rational drug use in schools in the Sawang Daen Din District, Sakon Nakhon Province. *Sukanya Numchaitosapol, Thailand.* **(84)**

Assessing the knowledge of rational drug use among the general population in Sawang Dan Din District, Sakon Nakhon province. *Sukanya Numchaitosapol, Thailand.* **(85)**

Efficacy and safety of gefitinib generic in JKN insurance in Indonesia. *Fitri Nurhayati, Indonesia.* **(86)**

Case study for extensively drug-resistant tuberculosis management and cost analysis. *Phayom Sookaneknun Olson, Thailand.* **(88)**

Poster session 2, Sunday 29 October 2023

Antibiotic usage and antibiotic residue in Nile Tilapia Farms in Phayao Province: Preliminary evidence in Thailand. *Rujira Panya, Thailand.* **(92)**

Public knowledge and understanding of the Thailand decriminalised cannabis law. *Sukarun Para, Thailand.* **(93)**

Knowledge of paracetamol use among people living in Mueang District, Chiang Rai Province. *Patanin Juntain, Thailand.* **(95)**

Assessment of dispensing and counseling services of community pharmacists in United Arab Emirates: A simulated patient study using common cold scenario. *Subish Palaian, United Arab Emirates.* **(99)**

Family care or shared care for quality use medicine use for elderly. *Chanuttha Ploylearmsang, Thailand.* **(101)**

Prescribing patterns and efficacy of oral vancomycin for *Clostridium difficile* infection in adults. *Pemmarin Potisarach, Thailand.* **(102)**

Perspectives of hospital staff on antimicrobial resistance management in Thailand. *Somying Pumtong, Thailand.* **(105)**

Empowerment interventions for pharmacies to comply with the good pharmacy practice (GPP) in Thailand. *Piyanuch Punturungsee, Thailand.* **(107)**

Whole health systems as a leverage model of Thailand Rational Drug Use Country Policy. *Naphaphorn Puripunyavanich, Thailand.* **(108)**

Male partner involvement in the uptake and use of modern contraception. Perspectives from community members and health care providers in KwaZulu-Natal, South Africa. *Yolandie Ralfe, South Africa.* **(115)**

The situation of inappropriate drugs and health products in the border area of Kanchanaburi Province. *Shinnawat Saengungsumalee, Thailand.* **(119)**

The result of the development of rational drug use (RDU) system in hospitals at Suratthani Province. *Susaraporn Sampradit, Thailand.* **(122)**

Factors affecting the purchasing of cannabis and hemp containing products in Siam university, Bangkok. *Dararat Samretwit, Thailand.* **(123)**

Potentially inappropriate medication in hospitalised older medical patients in Maharaj Nakorn Chiang Mai Hospital. *Bussakorn Sirivorakul, Thailand.* **(131)**

Challenges and adaptations of methadone maintenance treatment (MMT) during the COVID-19 pandemic in northern Thailand. *Karuna Sooktong, Thailand.* **(134)**

Non-adherence to standard treatment guidelines at a district hospital in Limpopo, South Africa, and the resultant cost and implications. *Fatima Suleman, South Africa.* **(136)**

Rational drug use teaching in undergraduate health sciences programs in Thailand: A baseline assessment. *Siritree Suttajit, Thailand.* **(139)**

Applying systems approach in 'Promoting rational use of medicines' course for pharmacy students. *Siritree Suttajit, Thailand.* **(140)**

Expedited pathway for selecting essential medicines in response to pandemic and priority public health conditions in Thailand. *Thanisa Thathong, Thailand.* **(142)**

The effects of the surveillance on the use of Derris scandens (Roxb.) Benth. in patients with stage 3 chronic kidney disease at Renu Nakhon Hospital. Nakhon Phanom Province. *Patchara Thongyod, Thailand.* **(144)**

Can low-wage Indonesians afford to buy medicine? Evidence from 7 districts. *William Nathanial Tjandrawidjaya, Indonesia.* **(146)**

The impact of the rational drug use (RDU) hospital policy on antibiotic usage in public hospitals and primary care units in Thailand. *Nucharin Tomacha, Thailand.* **(148)**

A community pharmacy-based study of symptom recognition and self-seeking medications for common headaches. *Acharawan Topark-Ngarm, Thailand.* **(150)**

The develop a model for promoting rational drug use in Sukhothai Province, Thailand. *Teeraya Vorapani, Thailand.* **(151)**

The Impact of national volume-based procurement on healthcare expenditure for hypertensive patients in Guangzhou, China. *Zheng Zhu, China.* **(156)**

Drug use evaluation of antibiotic prophylaxis for abdominal surgery and relating clinical outcomes in general hospital. *Natapohn Chaipichit, Thailand.* **(158)**

Abstracts

ABSTRACT ID: 1

SURVEY OF ANTIBIOTIC USE IN ANIMAL HUSBANDRY IN FIVE PROVINCES IN THE NORTHEASTERN REGION

Presenter: Janjaree Dokbua, Pharmacist, Pharmacy Department, Pathumratchawongsa Hospital, Amnat Charoen, Thailand

Other author(s): Suthida Pabut, Karnchana Chaipradit, Witsanu Yingyod, Wasan Meekhun, Denchai Dokpong. Drug System Monitoring and Development Centre (DMDC), E-Sarn Team

Organisation: Pathumratchawongsa Hospital, Pathumrat District, Amnat Charoen, Thailand

Background: Ranchers in Northeast Thailand raise a large number of animals (cattle, pigs, goats, chickens, etc.) A survey of antibiotic use behavior in animal husbandry and cognition about the incidence of drug resistance among the animal husbandry in Pathum Ratchawongsa District, Amnat Charoen province found that 90% of ranchers use antibiotics throughout the husbandry process. In the indications for the treatment of diseases, disease prevention and accelerate growth. There is also a lack of literacy about the antibiotics use in animal husbandry and their impacts.

Method: Samples of animal husbandry farmers in 12 districts in Northeast Thailand were randomly selected and interviewed during November 2019 - May 2021. Data were analysed by descriptive statistics.

Results: Findings showed that a total of 343 animal ranchers, 70.55 percent of them were males, most of them were farm owners (89.5%). The types of animals raised were mostly cattle (29.48%), followed by pigs, chickens, fish and buffaloes. The largest source of antibiotics was veterinary pharmacies (39.41%), followed by agricultural products stores. Most of the ranchers said they knew about antibiotics (65.69%) and 42.65% knew antibiotic resistance. The most commonly-used antibiotic was amoxicillin (25 %), followed by penicillin (18 %). They were used for treating sick animals (74.73%), disease prevention (16.56%), and growth acceleration (2.40 %). Most farmers disposed of drug containers by burial method (32.60 %), and incineration and general waste disposal (15.93%).

Conclusion: All agencies should raise concerns and understanding of antibiotic use among the farmers. All 3 sectors, namely the people sector, the government sector and the social sector, are the driving force for the successful of behavioral change.

Authors declared no conflict of interest.

ABSTRACT ID: 3

DEPRESCRIBING FOR PATIENTS NEARING END-OF-LIFE: VIEWS, BARRIERS AND FACILITATORS OF PALLIATIVE CARE PATIENTS, THEIR CARERS AND HEALTHCARE PROVIDERS

Presenter: Aidah Abdul Chin, Department of Primary Care Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia and Hospis Malaysia, Kuala Lumpur, Malaysia

Other author(s): Pauline Siew Mei Lai[1], S.A. McCarthy[2]
[1]Department of Primary Care Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur and School of Medical and Life Sciences, Sunway University, Selangor; [2]Hospis Malaysia, Kuala Lumpur

Organisation: University of Malaya, Kuala Lumpur, Malaysia and Hospis Malaysia, Kuala Lumpur, Malaysia

Background: Little is known about how to support deprescribing approaches when patients are nearing end-of-life. Therefore, we aimed to explore the perspectives of patients, their carers and healthcare providers about deprescribing for patients nearing end-of-life.

Method: This qualitative study was conducted from September 2021 to August 2022 in Kuala Lumpur, Malaysia. We recruited patients on ≥5 medications, and their carers who were ≥18 years, and community palliative care nurses from Hospis Malaysia. Nurses were recruited because they conduct home visits, able to identify patients who may benefit from deprescribing, and can initiate deprescribing after consulting with physicians. Individual in-depth interviews were conducted using a topic guide. Thematic analysis was used to analyse the transcribed interviews.

Results: A total of 5 patients, 9 carers and 11 community palliative care nurses participated. Five themes emerged: (1) a wait-and-see approach; (2) proactive deprescribing; (3) the deprescribing process; (4) social influences; and (5) confidence to deprescribe. Deprescribing was deemed important and necessary. A reserved strategy from nurses occurred when there were perceived disadvantages of deprescribing, mainly around fear of relapse from the cessation of medications, which could result in changes and the influence it had on relationships with patients and their families. The nurses' 'non-prescriber' role in deprescribing was also identified as

an obstacle. However, nurses felt confident to deprescribe, as they had the support of physicians and pharmacists from the institution to validate their decision. Nurses had a proactive attitude toward deprescribing and had a solid comprehension of the deprescribing process. They viewed themselves as advocates to improve the patient's quality of life.

Conclusion: Patients, carers and community palliative care nurses reported that deprescribing was necessary for patients nearing end-of-life. Findings from this study can be used to improve the understanding of nurses on deprescribing and to inform the development of guidelines.

I, Aidah Abdul Hassan Chin, hereby declare that I have no conflict of interest in relation to the study and its association. I affirm that my work or personal interests do not conflict with my ability to deliver fair and objective perspectives on this project.

ABSTRACT ID: 4

HANDLING AND DISPOSAL PRACTICE OF EXPIRED AND DAMAGED MEDICINES IN THE COMMUNITY PHARMACIES OF METROPOLITAN CITY OF PROVINCE NO. 1, NEPAL: A CROSS-SECTIONAL STUDY

Presenter: Kadir Alam, Associate Professor, Department of Clinical Pharmacology and Therapeutics, B. P. Koirala Institute of Health Sciences, Dharan, Nepal

Other author(s): Nishant Shrestha, Anil Kumar Sah

Organisation: B.P. Koirala Institute of Health Sciences

Background: Within self-life period medicines are used to diagnose, treat, prevent, or control symptoms. An expired and poorly handled medicine may produce unintended and hazardous effect. A substantial amount of medical waste is generated from nation's healthcare activities.

Purpose: Aimed to determine knowledge and practice regarding handling of expired and damaged medicines associated factors.

Method: A cross-sectional study was conducted in 215 community pharmacies of Biratnagar Metropolitan City of Eastern Nepal from January 2022 to June 2022. Ethical approval was received from PU-IRC. Randomly selected retailers were interviewed. Descriptive and inferential statistics were used.

Result: Out of 215 respondents interviewed 19.53% were females and 80.47% males. About 45.12% respondents were in age group 25-34 years. Only 4.65% of respondents had educational degree of B. Pharm followed by 33.35 % Diploma in Pharmacy and 9.77% orientation training. Likewise, 35.35% of respondents had of 1- 5 years of experience and 6-10 years with 30.23% respectively. Among 920 expired drugs found during visit, antimicrobial drugs were most expired drugs with 21.96 %, followed by hormonal drugs 16.85 % and cardiovascular drugs 15.65 %. About 57.21% of pharmacies had expired and damaged medicines. Similarly, 99.07% respondents were found with the practice of checking expired date regularly and 80.75% found to check them every week. About 63.26% have adequate knowledge regarding handling of expired and damaged medicines. Similarly, 63.26% have good practice regarding handling of expired and damaged medicines. There were strong association between knowledge regarding handling of expired and damaged medicines and level of education (P=0.000) and also between level of knowledge and level of practice (P=0.000).

Conclusion: The knowledge and practice of handling expired and damaged medicines was insufficient by community pharmacy personnel. Educational intervention and policy enforcement from regulating body is required to improve situation.

Author(s) declared no conflict of interest.

ABSTRACT ID: 5

MEDICATION ADHERENCE IN GERIATRIC POPULATION: A CROSS-SECTIONAL STUDY IN UAE

Presenter: Subish Palaian, Department of Clinical Sciences, College of Pharmacy and Health Sciences, Ajman University, Ajman, UAE

Other author(s): Muaed Al Omar, Department of Clinical Sciences, College of Pharmacy and Health Sciences, Ajman University, Ajman

Organisation: Ajman University

Background: Adherence to medication regimens is essential to effectively manage long-standing health conditions. Due to comorbidities, geriatrics tend to use poly pharmacy which may lead to risk of non-adherence. Non-adherence is linked to decreased therapeutic outcomes and quality of life. Moreover, it leads to recurrent costly hospital visits with potential of ADRs.

Purpose: This study was conducted to assess the UAE's geriatrics' attitude towards medication adherence using a self-reported questionnaire, it also measures the prevalence of polypharmacy and the specific barriers to medication adherence.

Methods/description of process, or experience: This is a cross-sectional study carried out in the UAE among geriatric population aging 67 years old and above were data are collected by interviewing the concerned population in 4 care home centers. Using SPSS, relevant statistical tests were utilised to measure the impact of different variables on adherence. Some of these tests are; one sample-Chi-square, Mann-Whitney-U test as well as Kruskal-Wallis H and many others.

Results: A total of 95 patients were assessed for medication adherence with average age of 73.65 +4.514 years. The average number of medications taken per day was found to be 6.21+3.884. The mean total adherence score of participants was 3.15 +1.663 out of 6. A total of 53 patients (55.8%) stated that they often forget taking their medications. The test results revealed that gender, employment

status, insurance status, and the presence of a caregiver did not lead to significant statistical differences in total medication adherence score (p-value = 0.137, 0.356, 0.638, 0.051 respectively). High cost (n=65, 68.4%), polypharmacy (n=56, 58.9%) and ADRs occurrence (n=63, 66.3%) were the main barriers to medication adherence.

Conclusion: Special attention and more focused studies need to be carried out in order to minimise non-adherence among geriatrics. The focus should be on polypharmacy and forgetfulness among elderly patients.

Author(s) declared no conflict of interest.

ABSTRACT ID: 6

THE QUALITATIVE STUDY OF RATIONAL DRUG USE LITERACY OF PEOPLE LIVING IN MAHASARAKHAM PROVINCE THAILAND

Presenter: Somsak Arparsrithongsagul, Assistant Professor, Faculty of Pharmacy, Mahasarakham University, Thailand

Other author(s): Somsak Arparsrithongsagul, Naweeya Sriponsan, Pimmanee Jeanum, Kampanat Mathenge, Khemmarat Uthisen, Issara Chummalee

Organisation: Faculty of Pharmacy, Mahasarakham University

Background: Health literacy is a key to develop health systems and to solve the problems of irrational drug use. Previous literature reviews found that there was limited research on improving health literacy among people regarding self-care management and they focused only on the elderly in Bangkok. There were few qualitative studies on rational drug use.

Aim: This qualitative research, using in-depth interview focus group discussion, aimed to study rational drug use for health literacy among people living in Nonphiban Sub-district, Kae Dam District, Mahasarakham Province.

Method: In-depth interviews were performed with 30 participants using a semi-structured interview form covering six skill-based issues to promote health literacy on drug use. Three focus group discussions involved 8-10 participants each group.

Conclusion: This study findings showed that awareness and comprehension of drug use were necessary due to the risks of improper drug use and inappropriate access to health information. Drug information varies depended on where the users acquired the medicines. In some drug stores, there were no healthcare professionals available to give accurate drug information, especially in case of medications that needed to be prescribed by physicians or pharmacists. They also received much incorrect information from misleading advertising and the internet. These issues had to be resolved to prevent negative consequences. Moreover, these people might circulate incorrect health information to others. However, if the advice came from reliable healthcare providers, they would believe and follow it seriously.

That was a great way to implement an effective heath literacy strategy in a community that was consistent with the government's rational drug use promotion policy.

Author(s) declared no conflict of interest.

ABSTRACT ID: 7

PHARMACEUTICAL PUBLIC HEALTH COMPETENCIES: A MISSING LINK IN PROMOTING PATIENT AND COMMUNITY ENGAGEMENT IN RATIONAL DRUG USE

Presenter: Thanayut Auimekhakul, Faculty of Pharmacy, Chiang Mai University, and Consumer Protection and Pharmaceutical Department, Chiang Mai Provincial Public Health Office

Other author(s): Puckwipa Suwannaprom, PhD[1], Siritree Suttajit, PhD[1]
[1]Faculty of Pharmacy, Chiang Mai University

Organisations: Faculty of Pharmacy, Chiang Mai University; Consumer Protection and Pharmaceutical Department, Chiang Mai Provincial Public Health Office

Background: Pharmacists can promote rational drug use through empowering people, collaborating with communities, and policy advocacy. These activities require pharmaceutical public health competencies, which are not currently emphasised in the Thai pharmacy competency framework.

Purpose: To discuss the five domains of pharmaceutical public health competencies for Thai pharmacists, developed from a scoping review, and the relevant competency concepts that may assist in expanding the pharmacist's role in promoting rational drug use at family and community levels.

Methods/description of process, or experience: The scoping review was used to search three online databases and other sources, including grey literature, for relevant competencies published in English and Thai between January 1, 2011 and December 31, 2020. Search terms included ‘public health’, ‘health promotion’, ‘primary care’, ‘community pharmacy’, ‘pharmacy’, and ‘pharmacist’. Competencies were extracted, and inductive coding of themes was undertaken to develop competency framework drafts.

Results: After reviewing 1429 articles, 57 were found to be relevant to pharmaceutical public health competency. Five domains were identified using inductive coding: individual health promotion, community empowerment, information and evidence-based practice, communicative competence, and emergency and epidemic response. These domains included 17 subdomains supported by several relevant concepts, such as Pender's health promotion model, Gibson's empowerment framework, and shared decision-making for the individual health promotion domain; and IUPHE's health promotion framework and continuous improvement concept for the community health promotion domain.

Conclusion: This scoping review developed a five-dimensional pharmaceutical public health competency framework that is evidence-based and may strengthen the current competency framework for Thai pharmacists. This will better prepare them to promote rational drug use by involving patients and communities. Further research is needed to validate the framework's applicability to the practice context of Thai pharmacists and to develop it into sector-specific competency or advanced practice.

Author(s) declared no conflict of interest.

ABSTRACT ID: 9

INFORMING CLINICAL PHARMACY GOVERNANCE USING ELECTRONIC DATA

Presenter: Huri Balikubiri, University of South Australia, SA Pharmacy

I am a first-year PhD student enrolled at the University of South Australia. My research explores how clinical pharmacy governance can be informed and improved using routinely collected electronic data in Australian hospitals. My personal history is I was born in the Democratic Republic of Congo and lived there until age five. I have grown up and currently live in Adelaide, South Australia. I completed the Bachelor of Pharmacy (Honours) program in 2020 at the University of South Australia for my undergraduate studies. I gained registration as a pharmacist in 2021 and I have been working as a rotational clinical pharmacist at the Modbury Hospital in South Australia since then. Previously, I worked as a pharmacy student in the community setting for four years.

Other author(s): Libby Roughead[1], Anna Kemp-Casey[1], Andre Andrade[1], Michael Bakker[2]
[1]University of South Australia; [2]SA Pharmacy

Organisation: University of South Australia

Background: Clinical governance ensures that healthcare organisations provide clinical care that maximises positive outcomes for patients. Good clinical governance utilises appropriate performance and outcome data to assist evidence-based decision-making. National-level clinical governance frameworks available in Australia are not specific to hospital clinical pharmacy services.

Purpose: To review national guidelines to determine the goals, domains and activities of clinical pharmacists that should be regularly measured to inform the delivery of pharmacy services in hospitals.

Method: The published and grey literature was searched. Documents describing the national clinical governance approach for healthcare in Australia, New Zealand, England, Canada, and the United States, were reviewed to identify the goals and domains of clinical care that promote positive patient outcomes. These elements of care were contextualised to the hospital pharmacy setting using the service objectives and stakeholder duties described in the pharmacy practice standards and guidelines from national and multinational pharmacy organisations to determine the activities to measure.

Results: The national clinical governance frameworks have the common goal of delivering healthcare that is patient-centred, safe, effective, and integrated. The domains within the frameworks identify the need for care to be timely, efficient, equitable, reliable, and sustainable, to maximise positive patient outcomes. The clinical pharmacy activities identified that support these domains include conducting medication histories, reconciliations, and reviews, developing medication management plans, participating in medication prescribing, monitoring, administration, and ensuring continuity of pharmaceutical care at discharge.

Conclusion: The identified activities are electronically documented and can potentially be measured using electronic data. Measuring the extent to which the identified elements of care are evident in these activities may provide useful insight to evaluate how well services are delivered. Our future research will investigate the practicality and suitability of utilising data from electronic systems in hospitals to monitor the delivery, impact, and outcomes of pharmacy services.

Author(s) declared no conflict of interest.

ABSTRACT ID: 14

IMPROVING HEALTH LITERACY THROUGH COMMUNITY ENGAGEMENT

Presenter: Laura Jiménez Ospina, Network of Drug Information Centers of Latin America and the Caribbean

Other author(s): Pamela Alejandra Saavedra[1], Fátima Pimentel Montero[1], Dulce Calvo Barbado[1], Teresa Rescala[1], Beatriz Requena[1], Sandra Lima[1], Andrea Salazar[1], Lisbeth Tristán[1], Milania Rocha[1]
[1]Network of Drug Information Centers of Latin America and the Caribbean (Red CIMLAC)

Organisation: Network of Drug Information Centers of Latin America and the Caribbean

Background: The CIMLAC Network has been working to educate patients on the proper use of medicines and other human health products.

Purpose: To describe the activities carried out in the region to promote the safe use of medicines by increasing patients' understanding of their diseases and the importance of maintaining their control.

Method: We identified the disclosure activities aimed at patients and the community in general carried out by 4 centers in the region.

Results: In Colombia, there is a Pharmaceutical Guidance Service whose objective is to make scientific research available to the population and provide support to the needs, deficiencies or problems experienced by society in its environment. In Costa Rica, health fairs are held in which employees travel to different areas of the country to interact directly with people in the community and provide bulletins on topics related to health and medicines. In Bolivia, social interaction activities are developed. In these spaces, education focuses on issues related to sexual and reproductive health, hygiene and nutrition, from the perspective of rational use of medicines and health promotion. In Panama, community-oriented educational activities have been developed on the rational use of medicines, focusing on the prevention of health conditions, communicable and non-communicable diseases and the safe use of medicines.

Conclusion: Providing quality evidence-based information with the aim of promoting the safe use of medicines by the sick population and the community in general through lectures and the production of simple and clear scientific material for rapid dissemination are some of the strategies used by the CIM members of the network together with the communities in the Latin American region.

Author(s) declared no conflict of interest.

ABSTRACT ID: 15

CIMLAC NETWORK'S STRATEGIES TO COUNTERACT MISINFORMATION DURING THE COVID-19 PANDEMIC

Presenter: Laura Jiménez Ospina, Network of Drug Information Centers of Latin America and the Caribbean

Authors: Dulce Calvo Barbado[1], Pamela Alejandra Saavedra[1], Fátima Pimentel Montero[1], Milania Rocha[1], Gladys Mabel Maidana[1]
[1]Network of Drug Information Centers of Latin America and the Caribbean (Red CIMLAC)

Organisation: Network of Drug Information Centers of Latin America and the Caribbean (Red CIMLAC)

Background: During the pandemic, the CIMLAC network considered that disinformation and false information to be a problem that needed to be countered basis on the available evidence.

Purpose: To describe strategies and valid information generated by the network to minimise the impact of the information cutter installed by the pandemic.

Method: The informational strategies used by the network were identified during 2020- 21. Activities aimed at the community that sought to clarify in an illustrative way the most frequent doubts of the population and health professionals are described.

Results: Several strategies were developed to provide the community with valid, clear and evidence-based information. CIMLAC's social media network, such as Facebook and Instagram, was used, which allowed a greater reach to the population. Educational resources included fact sheets on hydroxychloroquine and chloroquine: cardiac adverse effects; ivermectin and neurotoxic effects; chlorine dioxide is not a drug. The topics addressed in the electronic newsletters were on myths and truths about COVID-19 and use of chlorine dioxide in COVID-19. In addition, for healthcare professionals, two editions were published on pharmacological treatments for COVID-19: What evidence is there? and Evidence Update: What is the Existing Evidence? and Evidence Update. The network sought to reach out to the community with two enlightening webinars on Chlorine Dioxide Toxicity and Chlorine Dioxide: What Do We Lose By Testing? Respecting Patients' Rights and a webinar on Hydroxychloroquine Use in the Context of the Pandemic.

Conclusion: The collaborative work carried out by the CIMLAC network is crucial to adequately inform the population. Strategies such as those described here can reach people and enable them to receive adequate guidance on health in general and on COVID-19 in particular.

Author(s) declared no conflict of interest.

ABSTRACT ID: 16

INFORMATION FOR THE COMMUNITY: CONTRIBUTIONS OF CEBRIM/CFF

Presenter: Laura Jiménez Ospina, Network of Drug Information Centers of Latin America and the Caribbean

Authors: Dulce Calvo Barbado[1], Pamela Alejandra Saavedra[1,2]
[1]Network of Drug Information Centers of Latin America and the Caribbean (Red CIMLAC); [2]Federal Council of Pharmacy, Brazil

Organisation: Network of Drug Information Centres of Latin America and the Caribbean (Red CIMLAC)

Background: Considering the large territorial extension of Brazil, the unequal distribution of the population in the territory, and the distances between small communities and large urban centres, there is a great variation in the access to information by the population.

Purpose: Seeking to remedy this inequality, the team of the Brazilian Centre for Drug Information developed the Coronavirus Campaign, providing safe information based on evidence.

Method: Two strategies were prepared for popular and community communication, a leaflet addressed to the community and a pocket guide for community pharmacists. It should be pointed out that in Brazil, community pharmacies kept serving the public throughout the pandemic, which made it necessary to disseminate information for this profession.

Results: The triptych aimed to assist the population in identifying the signs and symptoms of the disease and to provide advice on prevention. Common, day-to-day language was used in the form of questions and answers without medical terms, in addition to highlighted tips and images related to the purpose of the material. The material used visual aids that facilitated the understanding of the content by the target audience.

The pocket guide 'Pharmacist, Know How to Welcome, Examine, and Care' provided information on coronaviruses and COVID-19. The contents included information on the disease, detection and early recognition, clinical criteria for case definition and suspicion, as well as preventive and control measures. The language used was technical, organised, and complete, with the use of figures for the most important aspects.

Conclusion: It was observed that triptychs and guides can help build the response capacity of communities to health crises and their social consequences through the structuring and consolidation of health communication strategies.

Author(s) declared no conflict of interest.

ABSTRACT ID: 18

PROMOTING RATIONAL USE OF NSAIDS AND STEROIDS THROUGH PROACTIVE HOSPITAL-BASED AND COMMUNITY-BASED SURVEILLANCE SYSTEMS IN CHIANG MAI, THAILAND

Presenter: Chunyanut Chompukeaw, Primary Care Pharmacist, Nakornping Hospital, Chiang Mai, Thailand

Organisation: Nakornping Hospital

Background: Irrational drug use is a common problem in Thailand. A lot of patients were admitted from taking polypharmacy which contains NSAIDs and steroids. They were presented by gastrointestinal bleeding (GI bleeding), Cushing's syndrome, acute renal failure (AKI), organ damage and death.

Purpose: To promote rational use of NSAIDs and steroids by using Hospital-based and Community-based Surveillance Systems.

Method: This study was a descriptive study. We included patients admitted to the Internal medicine department of Nakornping Hospital from August 1, 2022 to May 25, 2023. Patients were diagnosed with one of the following conditions: 1. GI bleeding 2. Cushing's syndrome 3. AKI. The hospital pharmacist will record current medications on the first day of admission. If there is NSAIDs or steroids use, the data will be sent to ADR-monitoring pharmacist for reporting to HPVC. Primary care pharmacists (PC pharmacists) will set the home visit for patients who live in Mae Rim and Mueang District. Patients who live in other districts will be called to follow-up in 1 and 6 months after discharge. PC pharmacist provides pharmaceutical care and returning all data to the consumer protection network.

Results: All 402 patients were included, 14 patients used NSAIDs and steroids. Polypharmacy containing NSAIDs and steroids is taken by 9 patients. There are 4 patients who had taken NSAIDs inappropriately. Most patients had bought NSAIDs and steroids from pharmacy (42.9%) and grocery stores (28.6%) respectively. PC pharmacists have visited 3 patients' homes and did the telepharmacy with 11 patients. After following-up in 1 and 6 months, there is no patient use NSAIDs and steroids again. All data which had been sent to the consumer protection network was noticed into the community.

Conclusion: Hospital-based and community-based surveillance system help identifying problems, increasing awareness, and preventing the Irrational NSAIDs and steroids use problems.

Author(s) declared no conflict of interest.

ABSTRACT ID: 19

COLLECTIVELY IMPROVING THE USE OF MEDICINES THROUGH A CONSUMER-CENTRED AND MULTIDISCIPLINARY COLLABORATION

Presenter: Jonathan Dartnell, NPS MedicineWise (previously), QUM Connect (current)

Over 20 years of experience in senior roles for organisations in Australia dedicated to improving the use of medicines and the quality of health care including QUM Connect, NPS MedicineWise and Therapeutic Guidelines.

Other author(s): Jonathan Dartnell[1,2], Sue Brown[1,2], Louise Hardy[3], Debra Rowett[4,5], Rachelle Buchbinder[6,7,8], Catherine Hill[6,9,10]
[1]NPS MedicineWise, New South Wales; [2]QUM Connect, Victoria; [3]Arthritis Australia; [4]Quality Use of Medicines and Pharmacy Research Centre, University of South Australia; [5]Drug and Therapeutics Information Service, SALHN, South Australia; [6]Australian Rheumatology Association; [7]School of Public Health and Preventive Medicine, Monash University; [8]Australia and New Zealand Musculoskeletal Clinical Trials Network and Cochrane Musculoskeletal; [9]The Queen Elizabeth Hospital, South Australia; [10]University of Adelaide, South Australia.

Organisation: QUM Connect

Background: A consortium of nine member and four affiliated organisations collaborated on a program to improve the use of biological medicines to achieve better health outcomes for people with inflammatory arthritis, inflammatory bowel disease and psoriasis.

Purpose: A collective impact approach was the basis for bringing together consumers with cross-sector and cross-discipline stakeholders. This provided a framework for potentially more effective implementation of evidence supporting best practice, improved medicine use and health outcomes.

Method: Steps included: (1) forming the consortium with an agreed common agenda, backbone organisation and distributed responsibilities; (2) continuous communications with all stakeholders; (3) co-designing program objectives, key messages and strategy based on shared research/analysis of drivers; (4) co-development and testing of program interventions and implementation via consortium channels; (4) shared measurement – agreed key performance indicators, reporting, evaluation measures and evaluation plan.

Results: Over 3 years, the consortium developed and implemented 70 activities and resources for use across specialist practices, primary care, private and public hospitals, hospital and community pharmacies, consumers in these settings and wherever self-management occurred. Positive impacts on knowledge, confidence and practice were seen across all therapeutic areas, despite already high levels of knowledge and practice in some areas.

A program governance structure and processes that enabled efficient and effective ways to work together was established. Cross-sector perspectives improved collective understanding of the issues and fostered mutual accountability.

Consumers were represented at every stage, working with the range of multidisciplinary clinicians in program governance, program and resource design, development, and testing with people with lived experience.

It took time and effort to develop relationships and trust, and to establish good structures and processes to work well together.

Conclusion: The consortium-based approach provided a platform for developing a complex national program to collectively improve the use of medicines.

Author(s) declared no conflict of interest. This program was funded by the Australian Government Department of Health through Value in Prescribing – (bDMARDs) Program Grant.

ABSTRACT ID: 20

EIGHT YEAR EXPERIENCE OF CONDUCTING ANNUAL POINT PREVALENCE ANTIBIOTIC PRESCRIBING SURVEYS IN SOLOMON ISLANDS

Presenter: Samantha T. Diamana, Ministry of Health and Medical Services, Solomon Islands

Other author(s): Solomon Bosa[1], Jayms Faneagalo[1], Doreen Ghaokabosa[1], Jacob Aupala[1], Alice Suina[1]
[1]Ministry of Health and Medical Services, Solomon Islands

Organisation: Solomon Islands Ministry of Health and Medical Services

Background: Solomon Islands is a South-Western Pacific nation, population of approximately 700,000. The country's National Referral Hospital (NRH) in Honiara has over 300 beds, a small team of five pharmacists and no infectious disease physician.

Antimicrobial resistance has been identified as a national priority in the Solomon Islands. The first national antibiotic guidelines were published in 2015.

Participation in hospital point prevalence surveys (PPS) can provide insights into areas of antimicrobial prescribing that can be improved to enhance patient safety, while informing policy and quality improvement initiatives to ensure the appropriate and judicious use of antimicrobials.

Purpose: To describe eight years of experience in conducting annual hospital-wide antibiotic PPS at NRH.

Method: Annual PPS were conducted at NRH from 2016-2023. All inpatients' medication charts in acute and general wards were reviewed. Data were collected for inpatients on these wards who were actively charted an antimicrobial on the audit day. The antimicrobials charted were reviewed for compliance with the Solomon Islands Antibiotic Guidelines and other local guidelines and assessed for appropriateness.

Results: Fully appropriate antibiotic inpatient prescriptions: 2016: 21.4%; 2017: 36.89%; 2018: 33.33%; 2019: 45%; 2020: 42.5%; *2021: 73%; *2022: 93%; 2023: 31.74%

* Antibiotic PPS in 2021 and 2022 were impacted by severe antibiotic shortages in Solomon Islands. Given this context, only the choice of antibiotics as per the prescribed indication, based on availability, were assessed for appropriateness.

Conclusion: Overall, appropriateness of antibiotic prescribing has remained consistent from 2016 to 2023.

For a small resource-limited country such as Solomon Islands, it is a significant achievement to sustain this antimicrobial surveillance activity. The PPS results will be used to inform the recently established Antimicrobial Stewardship Committee in developing antimicrobial education, training of the hospital workforce and implementation of effective antimicrobial stewardship practices at NRH.

Author(s) declared no conflict of interest.

ABSTRACT ID: 21

THE PROCESS OF DRUG SAFETY SURVEILLANCE IN THE TEMPLES, PATHUMRATCHAWONGSA DISTRICT, AMNAT CHAROEN PROVINCE

Presenter: Janjaree Dokbua, Pharmacist, Pharmacy Department, Pathumratchawongsa Hospital, Amnat Charoen, Thailand

Other author(s): Kanta Kamonchanok, Pathumratchawongsa Hospital, Pathumrat District, Amnat Charoen, Thailand

Organisation: Pathumratchawongsa Hospital, Pathumrat District, Amnat Charoen, Thailand

Background: Monks are a group that is more prone to health problems, especially chronic diseases. Problems with drug use and health products in the temple include using the wrong drug, a dangerous drug found in the sermon set, sharing medicines with other monks, resulting in the risks of adverse drug events.

Aim: The objectives of this descriptive and action research were 1) to study the situation of medicines and health products uses in the temples and 2) to develop a surveillance system for drug use in temples.

Method: Data were collected by interviewing with questionnaires from a sample group of monks at all 31 temples in the Pathumratchawongsa area. The research was conducted during April 2021 – May 2021. Data were analysed by descriptive statistics.

Results: The results showed that a total of 110 monks (26.36 %) had chronic diseases: diabetic (48.0%) and hypertension (28.0%). Forty-five percent used medicines, incorrectly, such as collecting pills in jars or without pill bags, splitting the pill by biting, stop taking the medication or adjusting the dose by themselves, and chewing pills before swallowing. 77 % of the medicines used in the temples was obtained from monk offering sets. There were inappropriate medicines found in monk offering; 10% were dangerous drugs, 0.2% were antibiotics, and 9 % were analgesic drug or non-steroidal anti-inflammatory drugs. 48% of herbal medicines were used. They stored their medicines depending on ease of use. Deteriorated and expired drugs were found at 10.55% and 11.08%, respectively. Community network helped managing the risks of medicines and health products in temples, including having a patrol in the temple, monitoring drug use, and providing knowledge in the community, honorable mention for the temples with good practice. This mechanism resulted in no inappropriate drugs or health products found in the temple. No patients were hospitalised from drug use or health products.

Author(s) declared no conflict of interest.

ABSTRACT ID: 23

USE OF OPEN DATA FOR MONITORING RATIONAL DRUG USE IN HOSPITAL AT NATIONAL LEVEL IN THAILAND

Presenter: Penkarn Kanjanarat, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Author): Traithep Fongthong[1], Penkarn Kanjanarat[2], Kittpak Jenghua[3], Naphaphorn Puripunyavanich[4], Phetlada Borriharn[5], Bunnasorn Techajumlernsuk[6], Isareethika Jayasvasti Chantarasongsuk[7], Verayuth Lertnattee[8]
[1]National Health Security Office Region 3, Nakhon Sawan; [2]Faculty of Pharmacy, Chiang Mai University, Chiang Mai; [3]Faculty of Pharmaceutical Sciences, University of Phayao, Phayao; [4]National Drug Policy Division, Food and Drug Administration, Ministry of Public Health, Nonthaburi; [5]Faculty of Allied Health Sciences, Northern College, Tak; [6]Faculty of Pharmaceutical Sciences, Huachiew Chalermprakiet University, Bangkok; [7]Institute of Nutrition, Mahidol University, Nakhon Pathom; [8]Faculty of Pharmacy, Silpakorn University, Nakhon Pathom.

Organisation: National Health Security Office Region 3

Background: The Rational Drug Use Country Indicators (RDUCIs) have been developed as an approach to monitor and evaluate Thailand RDU country policy implementation. The Open Data of the Ministry of Public Health (MOPH) is available for public use and might be feasible for RDU monitoring.

Purpose: To feasibility test the MOPH open data to measure RDU prescribing in public hospitals using RDUCIs.

Method: Seven from 22 RDUCIs were selected; rates of antibiotic prescribing in upper respiratory tract infection (URI), acute diarrhea (AD), fresh traumatic wound (FTW), and antibiotic prophylaxis in vaginal delivery of normal term labor (APL), NSAID in chronic kidney disease stage 3-5, inhaled corticosteroid (ICS) in asthma, and prescribing drugs in the national list of essential drugs (ED) in outpatients. Open Data of the RDU Service Plan in 2022 had data from 901 hospitals and 10,422 primary care units. Power BI software was used for data processing and presentation on dashboard as against the target goals of ≤20%, ≤20%, ≤10%, ≤5%, ≥80%, and ≥80% for URI, AD, APL, NSAID, ICS, and ED, respectively, with no target goal for FTW.

Results: The rates of antibiotic prescribing in URI, AD, APL, and FTW were 10.34%, 21.75%, 13.67%, and 46.10%, respectively. NSAID prescribing in CKD stage 3-5 patients was 1.73%. ICS prescribing in asthma was 73.37%, while ED prescribing was 90.92%. Only antibiotic prescribing in URI and ED prescribing met the target goals.

Conclusion: The rates of antibiotic prescribing in AD, APL, and FTW were higher than the target goals, while prescribing of ICS in asthma remained below the target. Continuous monitoring using indicators on wider providers should be extended to cover all hospitals in Thailand. The selected proxy indicators showed that the MOPH Open Data has a potential to use for monitoring RDU prescribing in public hospitals in Thailand.

Author(s) declared no conflict of interest.

ABSTRACT ID: 25

IDENTIFYING THE MOST EFFECTIVE POLICIES FOR MINIMISING INAPPROPRIATE USE OF ANTIBIOTICS: A REPLICABILITY STUDY USING THREE WHO DATASETS

Presenter: Kathleen Holloway, Institute of Development Studies, Sussex University, UK

Doctor who has worked for: 11 years in the UK national health service as a clinician; 10 years in Asian countries for various non-governmental organisations in TB, leprosy, malaria control and essential medicines; 10 years in WHO Geneva and 6 years in WHO Regional Office for Southeast Asia as a public health physician specialising in essential medicines and promoting rational use of medicines.

Organisation: Institute of Development Studies, Sussex University, UK

Background: Antibiotic misuse occurs globally, yet policy implementation to reduce inappropriate overuse remains poor in many low/middle-income countries (LMIC) possibly due to limited evidence of which policies are most effective.

Purpose: Identify which policies are consistently associated with less inappropriate use of antibiotics in LMIC public primary care.

Method: Data on four standard indicators of inappropriate antibiotic use from independently published surveys done during 2006-12 and implementation of 18 policies from WHO surveys in 2007 and 2011 were analysed. The average difference for each indicator of antibiotic use was calculated for countries implementing and not implementing specific policies. Regression analysis was undertaken of antibiotic use versus number of policies a country reported implementing. Comparison of results from this study were compared with two previous studies, one using the same WHO data source (2003-7) and the other using data from country visits in Southeast Asia (2010-2015) to identify policies mostly highly and consistently associated with lower use.

Results: Data on at least one indicator of antibiotic use and policy implementation was available for 44 countries. Policies associated with lower use (for >1 antibiotic use indicator) included: national antimicrobial strategy; national antimicrobial resistance taskforce; drug and therapeutic committees; public education; undergraduate doctor training on standard treatment guidelines and essential medicine lists; disallowing antibiotic over-the-counter sales; legislation for drug promotion; updated formulary manual; and medicines free at the point of care. The number of policies a country implemented was weakly negatively correlated for all four indicators of use. Comparison with previous studies showed that the same above-mentioned policies ranked among the top 10 policies in all 3 studies. Major limitations included small sample sizes for use data and possible inaccuracy in self-reporting of policies by countries.

Conclusion: Certain essential medicines policies are consistently found to be associated with lower inappropriate overuse of antibiotics.

Author declared no conflict of interest.

ABSTRACT ID: 26

MEASURING MEDICINES USE AND IMPLEMENTATION OF POLICIES TO IMPROVE USE

Presenter: Kathleen Holloway, Institute of Development Studies, Sussex University, UK.

Organisation: Institute of Development Studies, Sussex University, UK

Background: Many low/middle-incomes countries (LMIC) have not implemented national programs to promote rational use of medicines (RUM) possibly because there is no standard, low-cost, quick, and easy method to measure medicines use, factors influencing use, and policy implementation in a cohesive way.

Purpose: To propose a methodology to measure implementation of a national program to promote RUM, including measurement of use, influencing factors, and policy implementation, to take corrective action.

Methods/description of process/experience: A review was undertaken of methods to measure medicines use and implementation of essential drug policies. The utility of generated data, how such data were used to identify effective interventions and policies, and the methodological challenges encountered were explored. The findings were used to develop a tool to assess implementation of a national strategy to promote RUM.

Results: Standard WHO methodologies exist for measuring country pharmaceutical situations and medicines use in the community, primary care, and hospital care. Many local studies on medicines use and intervention impact have been published. A WHO database of all surveys in primary care in LMIC using adequate methodology allowed identification of global trends in use and effective interventions. Questionnaires on pharmaceutical policy completed by Ministries of Health revealed multiple health system factors influencing use. A tool for evaluating medicines management, building on the above methods, was developed, and successfully field-tested in Southeast Asian countries. This tool involved rapid data collection by government workers through record review, observation, and interview at central and peripheral levels, allowed the exploration of multiple factors influencing use, and led to the development of practical local/national action plans to improve use. An adaptation of this tool, highlighting methodological challenges, will be presented.

Conclusion: A tool to assess whether countries have a national programme to promote RUM could be used by ISIUM members and the global community.

Author(s) declared no conflict of interest.

ABSTRACT ID: 27

TWENTY YEARS OF PROMOTING RATIONAL USE OF MEDICINES: FROM EXPERT OPINION TO EVIDENCE

Presenter: Kathleen Holloway, Institute of Development Studies, Sussex University, UK.

Organisation: Institute of Development Studies, Sussex University, UK

Background: Global effort to promote rational/quality use of medicines has spanned many decades but progress has been slow and irrational use remains prevalent. Why? Lack of understanding? belief? data? evidence? investment? or political will?

Purpose: To review the main efforts to promote rational use of medicines in low and middle-income countries to identify the major barriers to overcome and a way forward.

Methods/description of process/experience: Review of major activities to promote rational use of medicines, including the outcomes of past conferences on improving the use of medicines, key research, WHO documents, publications, and reviews over the past 25 years.

Results: In 2002, WHO identified 12 core strategies to promote rational use of medicines through expert opinion and these strategies remain the central recommendations on the WHO website today. Between 1997 and 2020, four international conferences were held in 1997, 2004, 2011, and 2020, where, overall, there was representation from over 130 countries, presentation of over 1120 abstracts, and repeated recommendation for national programmes to scale-up effective interventions. Recommendation for national programmes incorporating the 12 core strategies was made and included in WHO Resolution WHA60.16 in 2007, and evidence for the effectiveness of such national programmes was subsequently produced and published. However, still today, many countries are not implementing such national programmes. There has been suggestion for a new WHO resolution where countries are classified as 'Rational Drug use (RDU) Countries' or not depending on monitoring of medicines use and implementation of the 12 core strategies.

Conclusion: Lack of progress in improving medicines use is not due to lack of information or evidence, but rather investment and political will. Classification of countries as 'RDU' ones or not could possibly stimulate political will and investment by national governments and the global community.

Author(s) declared no conflict of interest.

ABSTRACT ID: 28

USE OF ANTIMICROBIAL CONSUMPTION (AMC) SURVEILLANCE DATA FOR ACTION

Presenter: Verica Ivanovska, WHO Technical Officer for Antimicrobial Use

Clinical pharmacist, pharmcoepidemiologist, MPH, with international experience

Other author(s): Arno Muller[1], Martina Escher[1]
[1]World Health Organization (WHO)

Organisation: World Health Organization

Background: Antimicrobial consumption data (AMC) refers to estimates derived from aggregated data sources and serves as a proxy for actual antimicrobial use. AMC data do not contain patient information or treatment indications, but they estimate the quantity and types of consumed medicines. AMC data are often readily available, allowing for their routine collection and analysis.

Purpose: The analysis of AMC data serves to:
1) generate actionable information for relevant health professionals and stakeholders,
2) identify signals i.e., changes over time or between settings, reflecting problems of inappropriate use and trigger further investigation,
3) support the identification, planning and implementation of interventions aimed at improving the use of antimicrobials and prevent/contain AMR,
4) monitor and assess the impact of interventions to change practices related to antimicrobial use.

Method: For standardisation, WHO AMC methodology uses ATC/DDD classification system. For national AMC, the main indicators are DDD per 1000 inhabitants per day (DID), and mg/kg of biomass (in One Health context). The quantity of antimicrobials as presented as DID for total AMC and by pharmacological subgroups (ATC3). Relative AMC is estimated by route of administration (i.e. oral, parenteral, other), and AWaRe (Access, Watch and Reserve). Finally, WHO also uses the list of most frequently used antimicrobials stratified by route of administration (DU75). These high-level indicators need to be interpreted in the context of the population demographics, healthcare system, infectious diseases burden.

Results: In 2022, 58 countries submitted their national AMC data to WHO GLASS platform aiming to inform national actions and global policies. The author will present case study on the use of AMC data for action.

Author(s) declared no conflict of interest.

ABSTRACT ID: 29

THE PREVALENCE OF UNUSED MEDICATIONS IN HOMES AT MUEANG LAMPANG, THAILAND

Presenter: Phongsakorn Jeenklam, Pharmacy Department, Lampang Hospital, Thailand

Other author(s): Roungtiva Muenpa, Pharmacy Department, Lampang Hospital, Thailand

Organisation: Lampang Hospital

Background: Unused medications both leftover medicines and junk medications are still an important problem found in Thailand especially among the non-communicable diseases (NCDs) patients. Unused medicines might indicate the effect of treatment, wastage and patient safety. Primary care center (PCC) in Thailand had provided services for NCDs patients in community. In dispensing process, patients asked to bring leftover medicines in every single visit to check their compliance and count their belonging medicines. There were only some patients followed the process thus they might be unused medication in homes.

Purpose: To explore the prevalence of leftover medicines in homes of the NCDs patients in five PCCs of Mueang Lampang and to determine the reasons behind this unused.

Method: The survey of unused medications in homes were done in five PCCs. NCDs patients were home visited and interviewed during December 2022 to January 2023. Patient characteristics, unused medicines, and reason of unused were collected and data were analysed using descriptive statistics.

Results: Out of 87 NCDs patients, 57 patients (65.5%) had unused medications in homes 68 problems. The most frequently problems found was leaf over medicine 50 problems (73.5%). The rest were junk medicine which consists of expired medicine 10 problems (14.7%), deteriorated 4 problems (5.9%) and no indication 4 problem (5.9%). The top three leftover medicines were glipizide 5 mg (n=14, 12.4%), metformin 500 mg (n=10, 8.9%) and aspirin 81 mg or simvastatin 10 mg (n=9, 8.0%). The quantity of leftover medicines had found the most was metformin 500 mg (2,462 tablets), followed by glipizide 5 mg (696 tablets). The reasons of leftover medicines problems were patient's noncompliance such as forgot to take medicines, stop using medication and step-down dose of regimen.

Conclusion: Leftover medicines in homes of NCDs patients found around two thirds and mostly due to patient's noncompliance.

Author(s) declared no conflict of interest.

ABSTRACT ID: 31

STUDIES ON DRUG UTILISATION AND RATIONAL DRUG USE DURING THE LAST DECADE IN NEPAL

Presenter: Nisha Jha, Department of Clinical Pharmacology and Therapeutics, KIST Medical College and Teaching Hospital

Other author(s): Pathiyil Ravi Shankar, International Medical University, Kuala Lumpur, Malaysia

Organisation: KIST Medical College and Teaching Hospital

Introduction: Drug Utilisation studies are done to monitor and evaluate the prophylactic, therapeutic and empiric use of drugs to promote safe and rational drug use. Nepal is a Himalayan country with a population of approximately 30 million situated in South Asia.

Method: An extensive literature survey was done to track the studies done in Nepal in last decade. The search was done by using HINARI and the Google Scholar database. The data was extracted for the last 10 years (2013-2023). A total of 45 studies were extracted. The criteria noted for the selected studies were the number of authors, the province where the study was done, the type of institution, the profession of the authors, types of medicines studied, parameters studied, duration of the studies, whether an intervention was done, the methodology followed, strengths and challenges mentioned by the authors and the suggestions for further improvements.

Results: The number of authors ranged from 1 to 13. Maximum studies, 17 (38%) were conducted in province number 3 (which includes Kathmandu). Basic Science Faculties from Medical Colleges and Teaching Hospitals were the most common authors in 21 (45%) of these studies. Clinicians and Pharmacists were the second most common personnel to conduct these studies. The use of antibiotics, and prescription audits in different departments. Primary healthcare centers and private hospitals were also study sites. WHO Core drug use indicators were used for most studies. The duration of the study varied from 1 month to 1 year.

Conclusion: Most studies were conducted in province number three. Further studies must be done for promoting rational drug use in Nepal, especially in other provinces. Generic prescribing and the inclusion of medicines from national essential medicine list should be encouraged. Overuse of antibiotics and polypharmacy should be discouraged.

Author(s) declared no conflict of interest.

ABSTRACT ID: 32

KNOWLEDGE OF PARACETAMOL OF THE POPULATION OF HUAY PLA KUNG COMMUNITY, MUANG DISTRICT, CHIANG RAI PROVINCE

Presenter: Patanin Juntain, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Other author(s): Pakvipa Suwanprom[1], Siritri Suttajit[1]
[1]Faculty of Pharmacy, Chiang Mai University, Chiang Mai

Organisation: Master of Pharmacy Management Pprogram, Chiang Mai University

Purpose: To assess the basic knowledge of paracetamol among the population who use convenience stores.

Method: This study was a cross-sectional exploratory study, collecting data from a sample of people 18 years of age and older who purchased paracetamol at a dose of 500 mg in a convenience store in Huay Pla Kung community, Muang District, Chiang Rai Province. 112 people were recruited from convenient randomisation and collected data by questionnaire of 10 right or wrong questions.

Results: From data collection by questionnaire, a total of 112 subjects, mostly female, accounted for 83.93% of the respondents' average knowledge score on paracetamol. 9.57±0.67 points Out of 10 points, 66.07% (N=74) of the respondents had the correct knowledge, with the least correct answer: Paracetamol is an ingredient in Decolgen (a combination drug to relieve flu symptoms containing paracetamol) at 28.57%, followed by paracetamol can be used to reduce knee pain and paracetamol is an ingredient in Tiffy (a combination medicine to relieve flu that contains paracetamol). 8.93% and 7.14%, respectively.

Conclusion: The data shows that the subjects did not know that paracetamol was a component of combination medicines to relieve flu symptoms and that paracetamol could be used to reduce knee pain. This study provides background information for promoting knowledge and developing educational materials on the use of paracetamol in convenience stores. To achieve reasonable use.

Author(s) declared no conflict of interest.

ABSTRACT ID: 33

THE POLICY ADVOCACY FOR RATIONAL DRUG USE DISTRICT (RDU DISTRICT) IN SI CHOMPHU, KHON KAEN

Presenter: Suchada Kabin, Pharmacy Department, Si Chomphu Hospital, Khon Kaen, Thailand

Organisation: Si Chomphu Hospital

Objectives: This action research aimed to study the policy advocacy for RDU district which compose of three key components as RDU hospital, RDU PCU and RDU community and its outcomes in Si Chomphu, Khon Kaen, Thailand.

Method: The subjects of this action research, carried out between 2018-2023, were 65 health personnel working in hospital and 5 sub-district health-promoting hospitals, and 125 community leaders in five community networks. The study was composed of 3 phases. The first phase was the promotion of RDU hospital between 2018-2020, and the outcomes, before and after the campaign, were compared using 20 key performance indicators of the Ministry of Public Health (MOPH). The second phase was the promotion of RDU Primary Care Units (RDU PCU) in 5 sub-district health-promoting hospitals between 2020-2021. The third phase was the promotion of RDU community between 2021-2023.

Results: The policy advocacy was composed of three parts. The first part was RDU hospital, executed by the Pharmaceutical and Therapeutic Committee using RDU hospital 'PLEASE'. The second part was RDU PCU, executed by the District Health Coordinating Committee using the District Health System Accreditation. The third part was RDU community, executed by the District Quality Development Committee using the five key activities of RDU community. The policy advocacy improved medical personnel's RDU knowledge. Antibiotic prescriptions for upper respiratory infections, acute diarrhea, and traumatic wounds were decreased (15.2%, 15.2% 40.0% respectively). The campaign achieved all 20 MOPH's KPIs and completed all five key activities of RDU community.

Conclusion: The policy advocacy for RDU, utilising PLEASE concept, and five key activities of RDU community led to systematic problem-solving by linking the information between the hospital and community. The campaign also successfully obtained the participation from all sectors.

Author(s) declared no conflict of interest.

ABSTRACT ID: 36

UNUSED MEDICATION AMONG MONKS WITH NON-COMMUNICABLE DISEASES: A CASE STUDY IN TEMPLES WITHIN THE BANGKOK METROPOLITAN AREA

Presenter: Boonyawat Kaewpinta, Pharmacy Department, Watchan Chaloem Phra Kiat 80 Phansa Hospital, Chiang Mai, Thailand

Other author(s): Nattanan Deepu, Pharmacy Department, Priest Hospital, Bangkok, Thailand

Organisation: Watchan Chaloem Phra Kiat 80 Phansa Hospital, Chiang Mai, Thailand

Background: Thailand is facing a problem of excess unused medication, which exceeds the demand. It has been found that over 60% of patients have leftover medication. However, there is no data on unused medication specifically in the group of Buddhist monks.

Purpose: Therefore, the focus is on addressing the issue of unused medication among monks with non-communicable diseases.

Method: A survey was conducted among monks residing in Bangkok from December 1, 2563, to February 28, 2564. Data was collected from a sample group of 198 monks who received healthcare services at the Priest Hospital.

Results: The study revealed that monks with non-communicable diseases had 49.5% of unused medication. The total value of the unused medication was 19,452.5 baht, or 206.9 baht per monk. Factors related to the presence of unused medication among monks with non-communicable diseases were found to be comorbidities such as hypertension, high cholesterol, heart disease, and improper medication management. Monks who had caregivers or a pharmacy managing their medication had less unused medication compared to those who managed their medication by themselves.

Conclusion: This study provides foundational data for the development of care and medication management for monks with non-communicable diseases and expand the results to other individuals with illnesses.

Author(s) declared no conflict of interest.

ABSTRACT ID: 39

COUNTERFEIT MEDICINES AWARENESS AMONG COMMUNITY PHARMACISTS OF KATHMANDU VALLEY: A DESCRIPTIVE CROSS-SECTIONAL STUDY

Presenter: Sajala Kafle, Department of Clinical Pharmacology and Therapeutics, KIST Medical College and Teaching Hospital Lalitpur, Nepal

Other author(s): Sajala Kafle[1], Nisha Jha[1], Shital Bhandary[2], Pathiyil Ravi Shankar[3]
[1]Department of Clinical Pharmacology and Therapeutics, KIST Medical College and Teaching Hospital Lalitpur, Nepal; [2]Department of Community Health Sciences and School of Public Health, Patan Academy of Health Sciences, Nepal; [3]IMU Centre for Education, International Medical University, Kuala Lumpur, Malaysia

Organisation: KIST Medical College and Teaching Hospital, Nepal

Background: Counterfeit medicines are a significant problem globally. In a developing country like Nepal, community pharmacists play an important role in supplying medicines. The study was done to assess pharmacists' awareness towards counterfeit medicines in all three districts of Kathmandu valley.

Objective: To assess the awareness and perception regarding counterfeit medicines among community pharmacists of Kathmandu, Lalitpur, and Bhaktapur districts.

Method: A cross-sectional study was conducted using the convenience sampling method. Data were collected from Kathmandu, Bhaktapur, and Lalitpur districts in March 2021 after obtaining ethical clearance from National Health Research Council (reference no. 2200) and taking informed consent from community pharmacists.

Results: Among the 348 community pharmacists who participated, 252 (72.4%) were from Kathmandu, 58 (16.7%) were from Lalitpur, and 38 (10.9%) from Bhaktapur. Most 255 (73.3%) were aged between 20 to 30 years, 227 (65.2%) were male, 240 (69.2%) had completed a Diploma in Pharmacy, 204 (58.7%) had working experience of more than 5 years and 347 (99.7%) had done their education in Nepal. Among them only 2.8% had knowledge of community pharmacists dispensing counterfeit drugs, 337 (96.8%) believed that actions should be taken against community pharmacists dispensing counterfeit drugs, 330 (94.8%) believed that pharmacists who dispense counterfeit drugs are unprofessional; 343 (98.6%) stated that there should be strong law against counterfeit medicines.

Further, 110 (31.6%) respondents mentioned that vitamins and supplements are most likely to be counterfeited and 343 (98.6%) believed that by using quality and price parameters we could identify counterfeit drugs.

Conclusion: The finding shows that there should be strong laws to manage the problem of counterfeit medicines by the government and the policymakers. Healthcare professionals, pharmacists, pharmaceutical companies as well as the general public must be made aware of counterfeit medicines.

Author(s) declared no conflict of interest.

ABSTRACT ID: 40

RATIONAL DRUG USE (RDU) COUNTRY INDICATORS AS AN APPROACH TO MONITOR AND EVALUATE RDU AT THE NATIONAL LEVEL

Presenter: Penkarn Kanjanarat, Department of Pharmaceutical Care, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand.

Penkarn received a BPharm from Chiang Mai University, an MSc (Hospital Pharmacy Management) from Mahidol University, and a PhD (Pharmacy Healthcare Administration) from the University of Florida. She is currently director of the Health and Medicine Policy Center that coordinates research and capacity building to promote the safe and effective use of medicine and traditional medicine. She is a member of the National Working Group on Monitoring and Evaluation of Rational Drug Use of Thailand. She was a member of the Scientific Working Group that was instrumental in establishing a pilot project on RDU in the hospital setting that led to the development of national RDU policy in public hospitals. She has conducted research in identifying RDU indicators for hospitals and the country. She has conducted pharmacoepidemiology research in drug utilisation and drug safety in children and drug policy.

Authors: Penkarn Kanjanarat[1], Phetlada Borriharn[2], Naphaphorn Puripunyavanich[4], Traithep Fongthong[1], Kittpak Jenghua[3], Bunnasorn Techajumlernsuk[6], Isareethika Jayasvasti Chantarasongsuk[7], Verayuth Lertnattee[8]
[1]Faculty of Pharmacy, Chiang Mai University, Chiang Mai; [2]Faculty of Allied Health Sciences, Northern College, Tak; [3]National Drug Policy Division, Food and Drug Administration, Ministry of Public Health, Nonthaburi; [4]National Health Security Office Region 3, Nakhon Sawan; [5]Faculty of Pharmaceutical Sciences, University of Phayao, Phayao; [6]Faculty of Pharmaceutical Sciences, Huachiew Chalermprakiet University, Bangkok; [7]Institute of Nutrition, Mahidol University, Nakhon Pathom; [8]Faculty of Pharmacy, Silpakorn University, Nakhon Pathom

Organisation: Chiang Mai University

Background: Thailand has developed strategies and actions to promote rational drug use at various levels since 2014. In 2019, the RDU country was proposed as the future nationwide target.

Purpose: To develop RDU country indicators (RDUCIs) for monitoring and evaluating RDU achievements at the national level.

Method: Desk review, literature reviews, and expert meetings were used for drafting and reviewing process. A survey of experts from different agencies involved in the policy and implementation of RDU in Thailand was conducted. Content validity and usefulness of the indicators were rated by the experts. RDUCI templates were developed and tested for feasibility of data collection and processing from two sources (8 hospital information system databases and the MOPH Health Data Center).

Results: Twenty-two RDUCIs were selected. The structure/process indicators included RDU national center; an organisation for developing RDU guidelines; a guideline for essential medicines; % hospitals (public and private) with PT&C; % provinces with Provincial RDU committee; and % provinces met 'RDU Province' criteria. Output indicators included % hospitals met the 'RDU hospital' criteria, % primary care units met the standard RDU criteria; 4 indicators on antibiotic prescribing for outpatient upper respiratory tract infection (URI), acute diarrhea (AD), fresh traumatic wound (FTW), and antibiotic prophylaxis in normal vaginal delivery. Output indicators included NSAID prescribing in CKD stage 3-5; inhaled corticosteroid for asthma; long-acting beta-agonist or long-acting anticholinergic for COPD; ACEI and ARB prescribing for diabetes with hypertension or albuminuria; and necessary drug treatment for acute coronary syndrome. Prescribing medicine in the essential drug list; people with RDU literacy, and RDU behavior were included. Outcome indicator covered % of hospitalisations with uncontrolled asthma, COPD, DM, or HTN. The financial impact was pharmaceutical expenditure per capita compared with the OECD.

Conclusion: Further developments should aim for appropriateness of RDUCIs at the international level.

Author(s) declared no conflict of interest.

ABSTRACT ID: 43

THE DEVELOPMENT OF PROACTIVE SEARCH AND MONITORING SYSTEM FOR WARFARIN USE IN HOSPITAL

Presenter: Malaiporn Kantha, Kranuan Crown Prince Hospital, Khon Kaen

Organisation: Kranuan Crown Prince Hospital

Background: Kranuan Crown Prince Hospital dose not have the proactive search and monitoring system for drug-related problems in patients taking warfarin. Most drug-related problems (DRPs) encountered are preventable problems. If we can detect problems or signs that may cause problems before it is expected to reduce the number or severity of adverse events. We are therefore interested in developing such a system.

Purpose: To develop the proactive search and monitoring system for DRPs in patients taking warfarin.

Method: A prospective descriptive study was conducted in Kranuan Crown Prince Hospital. Total patients who treatment with warfarin were divided into 2 groups; the outpatient group during 1 July 2022 - 31 January 2023 and the inpatient group during 1 November 2022 - 31 January 2023. Data was collected from electronic medical record and pharmaceutical care record. Tools for proactive search and monitoring include the 'Trigger tool ME tool' table by HosXp program and the outpatient warfarin clinic.

Results: The patients were recruited with 723 outpatient group and 59 inpatient group. Out of 723 outpatients, 304 (42%) had DRPs. The most drug-related problems were inappropriate behavior by patient such as Drug-herb interaction. The rate of patients with INR 2-3.5 showed a 15.7% improvement trend from the first month. Of the 59 inpatients, 19 (32.2%) had DRPs. All medication errors were severity level above E which lead to modifications to other drug systems, including medication reconciliation policy.

Conclusion: The development proactive search and monitoring system for drug-related problems in patients taking warfarin can detect DRPs, reducing the severity of adverse events and improve target level INR. This system increases the efficiency and safety of warfarin treatment.

Author(s) declared no conflict of interest.

ABSTRACT ID: 44

EVALUATION OF ANTIBIOTIC TREATMENT COMPLIANCE FOR PNEUMONIA PATIENTS BASED ON THERAPY GUIDELINES IN GOVERNMENTS TYPE B HOSPITALS AT JAKARTA AND NTB

Presenter: Sondang Khairani, Faculty of Pharmacy, Universitas Pancasila, Doctoral Program Faculty of Pharmacy, Universitas Pancasila

Sondang Khairani is a pharmacist from Indonesia. She is a lecturer at the Faculty of Pharmacy at Universitas Pancasila, for pharmacotherapy, pharmaceutical care, and pharmacology topics. She is currently pursuing her doctoral degree at Universitas Pancasila in the topic of antibiotic drugs quality in pneumonia patients. Prior to that, she has conducted several researches in the area of pharmacotherapy in infectious diseases. She is also interested in cost effectiveness analysis of antibiotics and has acted as moderator in several national seminars in pharmacoeconomic.

Other author(s): Hesty U Ramadaniati[1], Prih Sarnianto[1], Erna Kristin[3], Yusi Anggriani[1]
[1]Faculty of Pharmacy, Universitas Pancasila; [3]Faculty of Medicine, Universitas Gadjah Mada.

Organisation: Universitas Pancasila

Background: Pneumonia is one of the respiratory tract infections that causes death in developing countries, including Indonesia. Antibiotics is the first-line treatment for pneumonia. One of the significant causes of antibiotics resistance is irrational use of drugs.

Purpose: This study aims to evaluate the use of antibiotics using the guidelines therapy of pneumonia by the Indonesian Pulmonologist Association (PDPI) at two type B government hospitals in Jakarta (Hospital A) and NTB (Hospital B).

Method: The study was conducted with cross-sectional design. The data was obtained from the medical records of adult patients with pneumonia in 2019 and 2022.

Results: We selected 421 patients based on inclusion criteria. Hospital A = 159 patients and Hospital B = 262 patients. The top 3 of most used antibiotics in Hospital A is ceftriaxone (89.74%), azithromycin (3.18%), and meropenem (2.45%). The top 3 of most used antibiotics at the Hospital B is ceftriaxone (61.27%), levofloxacin (10.17%), and meropenem (7.85%). Compliance to PDPI guidelines in Hospital A and B based on type of antibiotics is 6.91% and 46.56%, based on doses of antibiotics is 71.69% and 96.56%, based on dose frequencies of antibiotics is 75.47% and 60.30%, and based on duration of antibiotics use is 44.65% and 67.93%.

Conclusion: The result from Chi-square analysis in Hospital A showed $p < 0.05$ that demonstrated correlation between outcomes and antibiotics treatment compliance. Hospital B showed $p > 0.05$ that demonstrated no correlation between the antibiotic's treatment compliance and patient's clinical outcomes.

Author(s) declared no conflict of interest.

ABSTRACT ID: 46

MEASURING EFFECTIVENESS OF RATIONAL DRUG USE MANAGEMENT SYSTEM IN LAMPANG HOSPITAL IN ORDER TO BECOME RDU HOSPITAL

Presenter: Watcharaphorn Kingsak, Pharmacy Department, Lampang Hospital, Lampang, Thailand

Other author(s): Paphaoon Sony

Organisation: Lampang Hospital, Lampang, Thailand

Background: The rational use of medicine is an essential indicator that reflects the quality of health services. Ministry of Public Health of Thailand have been setting key performance indicators (KPI) for rational drug use from year 2022 to 2026. There are 12 KPIs for rational drug use (RDU) in hospitals and 2 KPIs for RDU primary care, so to become an RDU hospital every hospital has to succeed in more than 10 from 12 KPIs in hospital setting and in RDU primary care more than 80% of Lampang Hospital primary care subunit have to achieve success in both 2 KPI. To become an RDU hospital Lampang Hospital has to develop an RDU management system.

Purpose: The objective of this research is to evaluate effectiveness of rational drug use management system in Lampang Hospital in order to become an RDU hospital.

Methods/description of process or experience: This research is action research studying rational drug use management in Lampang Hospital. Data was collected retrospectively from October 2021 until September 2022 collected 12 KPIs from RDU KPI template and study separate to 3 phase. Data analysis use descriptive statistics such as frequency and percentage.

Results: The result proving that knowledge management and developing RDU system management in Lampang Hospital resulting in Lampang Hospital success 10 KPI from 12 KPI and in RDU-primary care, there are 25 of primary care subunit from 27 success both of KPI in primary care. In 2 KPI that not success are 1) KPI percentage of antibiotic used in acute diarrhea although the result is decreased from 35% to 27% after developing RDU management and 2) KPI pregnancy; 2 patients got contraindicated drug but happened before developing RDU-Ssstem management

Conclusion: Knowledge management and RDU system management in Lampang Hospital resulted in Lampang Hospital becoming an RDU hospital.

Author(s) declared no conflict of interest.

ABSTRACT ID: 47

IMPROVING ANTIMICROBIAL USE IN SECONDARY AND PRIMARY PUBLIC HEALTHCARE FACILITIES IN INDIA

Presenter: Anita Kotwani, Ex-Director Professor, Department of Pharmacology, V. P. Chest Institute, University of Delhi, Delhi, India

Anita Kotwani has more than 41 years of teaching and research experience. She was on a short-term assignment for one year at World Health Organization, Southeast Asia Region Office in New Delhi as Technical Officer. Her main areas of research expertise are: surveillance of antimicrobial medicines use, antimicrobial consumption, containment of antimicrobial resistance and access to essential medicines. She has recently retired in 2023 from University of Delhi and working on a project, Antimicrobial Resistance and Labour Migration across Healthcare Boundaries in northern South Asia.

Other author(s): Sumanth Gandra, Associate Professor of Medicine, Division of Infectious Diseases, Washington University School of Medicine, Saint Louis, USA

Organisation: V. P. Chest Institute, University of Delhi

Background: As a significant proportion of the population gets treatment at secondary and primary public healthcare facilities (SP-PHCFs) in India, antimicrobial stewardship programs (AMSP) are much needed at SP-PHCFs for the rational use of antimicrobials.

Purpose: To identify the existing federal and state-level policies, systems and resources that are in place which can facilitate the implementation of AMSP in SP-PHCFs in India.

Methods This case study was done in one of the district hospitals, a secondary care level hospital in the state of Haryana, India by interviewing the key stakeholders of the facility, observing, and understanding the implementation of various policies and programs. In-depth interviews were conducted with officials of the National and the State level policymakers/regulators. The audio-recorded interviews were transcribed verbatim and a thematic analysis was done. Various evidence-based credible resources for AMSP from the World Health Organization (WHO) and the Indian Council of Medical Research (ICMR) were studied to facilitate/improve the existing policies.

Results: We identified two existing monitoring programs namely the National Quality Assurance Program (NQAP) and Kayakalp program which have several measurable elements such as infection control, standard treatment guidelines (STGs), prescription auditing, essential medicine list (EML), availability of antimicrobials and incentives for meeting quality standards, that could be leveraged to strengthen AMSP activities in SP-PHCFs. Revising the EML based on WHO AWaRe classification, incorporating the STGs for common clinical infections from the WHO EML AWaRe book and ICMR, program-mandated requirements for dedicated staff/ standards for AMSP activities and antimicrobial-specific prescription audits as per WHO AMS tool-kit are identified as opportunities for strengthening AMSP activities.

Conclusion: The NQAP and Kayakalp programs in SP-PHCFs are identified as working well in the system. These two programs can easily incorporate AMSP-related activities using WHO and ICMR-recommended practices to improve the rational use of antimicrobials.

Author(s) declared no conflict of interest.

ABSTRACT ID: 50

IMPACTS OF THAILAND'S MEDICAL MARIJUANA POLICY ON CANNABIS USE: A COMMUNITY STUDY

Presenter: Isarak Laokhom, Drug System Monitoring and Development Centre (Thai Drug Watch)

Other author(s): Anuwat Kulthaisong[1], Witsanu Yingyod[1]
[1]Drug System Monitoring and Development Centre (Thai Drug Watch)

Organisation: Drug System Monitoring and Development Centre (Thai Drug Watch)

Background: The legalisation of medical marijuana in Thailand has led to changes in the classification of cannabis. However, the lack of clear guidelines and regulations has raised concerns about increased accessibility and potential risks, particularly among vulnerable populations.

Purpose: This study aimed to assess the impacts of Thailand's medical marijuana policy on cannabis use, with a focus on community engagement, health literacy, and risk mitigation.

Method/description of process or experience: A survey was conducted among 126 village health volunteers in the Sawang Daen Din District, Sakon Nakhon province. The questionnaire collected data on demographics, knowledge, attitudes, and behaviours related to marijuana use. Descriptive statistics were used for data analysis.

Results: The majority of participants were female (80.95%) with an average age of 57.29 years. Most had completed primary education (74.6%) and reported no experience with marijuana (77.78%). Attitudes varied, with a significant proportion opposing the decriminalisation of cannabis. Access to cannabis and health-related information was predominantly through online sources (30.2%). Decision-making regarding marijuana use relied on advertisements for some participants (47.6%).

Conclusion: Thailand's medical marijuana policy has led to changes in cannabis classification and increased access to marijuana. Efforts are needed to address the lack of clear guidelines, reduce demand, and promote health literacy. Community engagement and education play a crucial role in mitigating potential risks associated with marijuana use.

Author(s) declared no conflict of interest.

ABSTRACT ID: 51

MANAGEMENT OF MEDICATION SYSTEMS IN CORRECTIONAL HEALTHCARE FACILITIES

Presenter: Isarak Laokhom, Drug System Monitoring and Development Centre (Thai Drug Watch)

Other author(s): Anuwat Kulthaisong[1], Witsanu Yingyod[1]
[1]Drug System Monitoring and Development Centre (Thai Drug Watch)

Organisation: Drug System Monitoring and Development Centre (Thai Drug Watch)

Introduction: Correctional healthcare facilities face significant challenges in managing drug systems due to constraints in budget, personnel, medical equipment, and appropriate medications that align with the incarcerated population's needs. These challenges directly impact the physical and mental health care of the incarcerated individuals.

Purpose: The purpose of this research was to develop a comprehensive management model for drug systems in correctional healthcare facilities. The study aimed to improve the overall management and quality of drug use within these settings.

Method: The research was conducted in a correctional healthcare facility located in Sawang Dan Din District, Sakon Nakhon Province. The study consisted of four phases. Phase 1 involved collaborative planning with stakeholders involved in the care and management of drug systems in correctional healthcare facilities. Phase 2 implemented the agreed upon processes and protocols. Phase 3 focused on observation and studying drug errors within the facility. Phase 4 involved reflecting and disseminating the findings to relevant parties, facilitating collaborative discussions to propose future drug system enhancements for the upcoming budget year.

Results: The research study resulted in several important findings. Budget allocations for drug procurement and support from the parent hospital were established. Guidelines for drug formulary management, availability of life-saving medications, and drug supply chain processes were developed. Proper drug storage facilities were established according to best practices. A drug consultation system was implemented, and guidelines for referring critically ill incarcerated individuals were put in place.

Conclusion: The findings of this research highlight the importance of developing a robust management model for drug systems in correctional healthcare facilities. Addressing issues related to equipment, facilities, personnel, budget, and management can significantly impact drug safety and overall healthcare quality. Collaborative network development involving stakeholders is crucial for sustainable and continuous improvements in correctional healthcare facilities.

I declare no conflicts of interest related to this research.

ABSTRACT ID: 54

DEVELOPMENT AND FEASIBILITY OF THE PHYSICIAN-PHARMACIST PARTNERSHIP INTERVENTION TO DEPRESCRIBE MEDICATIONS (PPPI-DM) AMONG OLDER PEOPLE IN PRIMARY CARE

Presenter: Pauline Siew Mei Lai, Department of Primary Care Medicine, University Malaya, Kuala Lumpur, Malaysia and School of Medical and Life Sciences, Sunway University, Selangor, Malaysia

Pauline is an Associate Professor at the Department of Primary Care Medicine, University of Malaya. She graduated from the Victorian College of Pharmacy (Melbourne) and obtained her Doctorate from the University of Malaya. Pauline's research focuses on medication optimisation. Most of her work was on the screening and treatment of postmenopausal women with osteoporosis, which utilises an interprofessional collaborative approach. She is also involved in improving patient outcomes in older persons, such as de-prescribing medications in older persons, utilisation of e-health (e.g., a medication adherence application or remote blood pressure monitoring) to improve patient outcomes/medication safety and issues regarding advance care planning. She is also involved in antibiotic stewardship projects.

Other author(s): Sheron Sir Loon Goh[1], Pauline Siew Mei Lai[1], Siti Nurkamilla Ramdzan[1], Kit Mun Tan[2]
[1]Department of Primary Care Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur; [2]Division of Geriatric Medicine, Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur.

Organisation: University Malaya

Background: To date, there is limited data on the development and feasibility of an intervention to deprescribe medications which involved a pharmacist to review medications, in middle-income countries.

Purpose: To develop and evaluate the feasibility of the physician-pharmacist partnership intervention to deprescribe medications (PPPi-DM) in a primary care clinic in Malaysia.

Method: The PPPi-DM was developed based on findings from a qualitative study, which reported that doctors preferred a step-by-step deprescribing intervention which involved pharmacists to review patients' medications. We modified the physician-pharmacist partnership for patient safety (PPP-PS) intervention (which we initially developed to identify drug-related problems) to include steps on deprescribing. Patients ≥65 years with multiple chronic diseases, prescribed ≥5 medications and having ≥1 potentially inappropriate medications (PIMs) were recruited in March 2022. Primary care trainees (defined as doctors undergoing their 4-year specialist training in family medicine) who were treating these patients were also recruited. Outcomes measured: proportion of PIMs identified and deprescribed, doctors' acceptance rate regarding pharmacist's recommendations and the process of delivering the intervention.

Results: 36/167 (22%) PIMs were identified from 20 patients; pharmacist=34/36 (94%), doctors=2/36 (6%). Deprescribing was performed on 14/20 (70%) older patients. Doctors' acceptance rate was 19/36 (52.7%): proposed by pharmacist=17/34 (50%), self-proposed by

doctor=2/2 (100%). The eligibility criteria used for recruitment and the current workflow used for deprescribing medications were suitable. The entire deprescribing process ranged from 45–60 minutes. All patients agreed to deprescribe their medication when suggested by their doctor. Some doctors did not deprescribe medication(s) as it was still indicated 15/17(88.2%), did not want to interfere with medications prescribed by another specialist 1/15 (6.7%), and insufficient time during the patient-doctor consultation 1/15 (6.7%).

Conclusion: The PPPi-DM was successfully developed and was found to be feasible in our setting. A randomised controlled trial should be conducted to assess the effectiveness of PPPi-DM in improving clinical outcomes.

Author(s) declared no conflict of interest.

ABSTRACT ID: 55

THAI RDU: A TOOL DESIGNED FOR PROCESSING INDICATORS OF RATIONAL DRUG USE FROM A HOSPITAL INFORMATION SYSTEM

Presenter: Verayuth Lertnattee, Faculty of Pharmacy, Silpakorn University, Nakhon Pathom

Verayuth received a BPharm and an MSC (Computer Science) from Chulalongkorn University in 1989 and 1996 respectively. He also received an MSc (Pharmacy) from Mahidol University in 1991 and a PhD in Technology from Sirindhorn International Institute of Technology, Thammasat University. His research interests include artificial intelligence and data mining in medical, herbal, pharmaceutical information, information retrieval, and collective intelligence. He also applies information technology in educational research.

Other author(s): Prasert Apadsing[1], Thong Bunyos[2], Penkarn Kanjanarat[3], Isareethika Jayasvasti[4], Traithep Fongthong[5], Naphaphorn Puripunyavanich[6]

[1]Department of Pharmacy, Thatoom Hospital, Surin; [2]Retired Government Officer; [3]Faculty of Pharmacy, Chiang Mai University, Chiang Mai; [4]Institute of Nutrition, Mahidol University, Nakhon Pathom; [5]National Health Security Office Region 3, Nakhon Sawan; [6]National Drug Policy Division, Food and Drug Administration, Ministry of Public Health, Nonthaburi

Organisation: Silpakorn University

Background: The measurement of rational drug use in hospitals (RDU hospital) relies on values calculated from the Health Data Center (HDC) website. The results cannot be obtained immediately as they depend on the processing cycle. Additionally, the list of medications used in HDC may not be up to date.

Purpose: To develop a tool that can process indicators for RDU hospital within the desired timeframe. It is necessary to utilise data from the hospital as a primary data source.

Method: A study was conducted on the database structure of hospital information systems commonly used in Thai hospitals, including HOSxP (MySQL), HOSxP (PostgreSQL), and Hospital OS. Subsequently, a tool was developed to directly connect to the hospital database. This tool was developed using Delphi programming language and operates under the Windows operating system. The tool was named 'ThaiRDU'. After the successful development of the tool, it was tested against data obtained from the HDC website, using seven hospitals for comparison.

Results: The ThaiRDU tool has the capability to calculate RDU hospital indicators in real-time. It has several features, e.g., several platforms, saves cost, and is simple to use. When comparing the values obtained from the tool with those from HDC, they are generally close to each other. However, there may be some differences in certain indicators of certain hospitals. The values obtained from the tool are more accurate than those from HDC because the tool uses hospital medication codes, which reduces errors caused by code conversion. Additionally, the tool allows for accurate medication lists without relying on updates from HDC.

Conclusion: The ThaiRDU enables real-time monitoring of RDU indicators in hospitals using a primary data source from the hospital information system. This allows healthcare providers to continuously adjust and optimise medication usage, leading to improve rational drug use.

Author(s) declared no conflict of interest.

ABSTRACT ID: 56

DRUG USE EVALUATIONS BY AUSTRALIA'S NATIONAL REIMBURSEMENT AGENCY: A TOOL TO SUPPORT RATIONAL MEDICINES USE

Presenter: Judith Mackson, Sydney Pharmacy School, The University of Sydney

Judith is a PhD candidate examining population level monitoring of medicines use. Her background is in quality use of medicines implementation programs and medicines regulation and policy. She was formerly a member of the Drug Utilisation Sub-Committee.

Other author: Barbara Mintzes, Professor of Evidence Based Pharmaceutical Policy, Sydney Pharmacy School, The University of Sydney.

Organisation: The University of Sydney

Background: Population-wide subsidised access to medicines is a fundamental component of Australia's health system and National Medicines Policy. Governance over Australia's reimbursement program is provided by the Pharmaceutical Benefits Advisory Committee and its Drug Utilisation Sub-Committee (DUSC). Drug use evaluations are an ongoing component of the program.

Purpose: We aimed to examine how the findings of drug utilisation reviews for subsidised medicines are used to support quality of medicines use and to assist in management of drug costs.

Method: We retrieved all publicly available drug utilisation reviews carried out by the DUSC and related post-market review documents published between 2012 and 2022. We aimed to examine the range of medicines reviewed, the methods used, and to characterise policy responses and interventions. A content analysis was conducted, based on standardised data extraction.

Results: 119 reports examined medicines use. 51 examined single drugs or a fixed dose combination product. 73 reports assessed the predicted versus actual use of a medicine. Many drug classes and some single drugs were examined multiple times. The most frequently examined classes were antipsychotics, immunosuppressants, diabetes drugs (excluding insulins), protein kinase inhibitors, monoclonal antibodies and antibody drug conjugates. 8 reports were comprehensive whole-of-drug class or disease management reviews which examined medicines in smoking cessation, pulmonary arterial hypertension, chronic obstructive pulmonary disease, dementia, childhood asthma, type 2 diabetes, biologics in psoriasis and ezetimibe. Key issues addressed were problematic use, unsubsidised indications and patterns of use with high cost implications with limited likely benefits.

Conclusion: This is the first comprehensive assessment of how Australia's national reimbursement agency uses reviews of population patterns of medicine use to inform policy. Management of medicines reimbursement schemes involves complex decision making, governance, implementation and evaluation. Evaluation is essential to ensure program goals are met and schemes are sustainable.

Author(s) declared no conflict of interest.

ABSTRACT ID: 58

IMPACT OF DRUG POLICY AND REGULATION ON RATIONAL USE OF MEDICINES OF INDIA

Presenter: Subhash C. Mandal

Subhash Mandal completed his M. Pharm. and Ph.D (Pharm) from Jadavpur University. He is presently Associate Editor, 'Pharmacy Education Journal' published by International Pharmaceutical Federation (FIP) and Associate Editor of 'Experimental Pharmacology and Drug Discovery' of Frontier, Switzerland. He is the founder co-ordinator of Drug Information Centre on behalf of IPA, Bengal Branch and has been publishing a bi-weekly Drug Information Bulletin for more than 15 years. He started his career as an academic, and then shifted to pharmaceutical industry and finally he served as a pharma regulator for 28 years for the Government of West Bengal, India. Subhash is serving Indian Pharmaceutical Association (IPA) as Vice President and Chairman, Regulatory Affairs Division.

Organisation: Indian Pharmaceutical Association

Background: Access to medicines is a problem in India like several other countries though India is now almost self-sufficient in manufacturing of drug. It has already indicated by other studies Rational Use of Medicines (RUM) is an important tool for improving access to medicines which is not properly followed in India.

Purpose: This study aimed to identify the impact of existing related policies and regulations.

Method: Studied the policies and regulation framed in India from January 2000 – December 2022 from available resources and analysed the documents to reach a logical conclusion.

Result and discussion: Result shows that there are several efforts to implement RUM by framing policies and regulations by several government authorities and other agencies. A few such efforts are preparing and publishing of Formulary, Standard Treatment Guidelines by government agencies and non-government agencies. A few important legislations are MCI and NMC framed regulation to promote prescription in generics and follow RUM both are not mandatory leaving scope for interpretation by the prescribers, so most of the prescribers are not following this regulation. Presently the price of drugs included in the DPCO 2013 schedule is being controlled by Department of Pharmaceuticals and DPCO 2013 includes all drugs under National List of Essential Medicines (NLEM), but there are several costly medicines out of NLEM used widely for some prevalent diseases not included in the existing NLEM. Other effort by government of India to restrict unethical promotion of pharmaceuticals is publishing Uniform Code for Pharmaceutical Marketing Practice which is voluntary in nature and there is no further development for serious implementation by making it mandatory.

Conclusion: Therefore, serious efforts are required to be put in by all stake holders for serious implementation of already initiated steps, amend the legislation making it mandatory for proper implementation of RUM.

Author(s) declared no conflict of interest.

ABSTRACT ID: 60

POLYPHARMACY AND THE OCCURRENCE OF POTENTIAL DRUG INTERACTIONS IN GERIATRIC PATIENTS WITH COVID-19 IN KARAWANG GENERAL REGIONAL HOSPITAL, INDONESIA

Presenter: Reise Manninda, Faculty of Pharmacy, Universitas Pancasila, Indonesia.

Reise is a pharmacist from Indonesia. She is a lecturer at the Faculty of Pharmacy at Universitas Pancasila in pharmacotherapy, clinical pharmacy, pharmacoeconomics. Reise completed her master program in clinical pharmacy from one of prestigious Universitas Indonesia. Her current work as Research Assistant part of STARMeds Project team focuses on the development of impact evaluation methods of substandard and falsified medicines in terms of economic, social, and health outcome in Indonesia. Her research interests lie in the area of rational use of medicine, pharmaceutical management and community, health economics/policy, and medicine pricing.

Other author(s): Sondang Khairani[1], Yusi Anggriani[2], Hidayat[3], Muthia Sarrah[2]
[1]Faculty of Pharmacy, Universitas Pancasila, Indonesia and Doctoral Program Faculty of Pharmacy, Universitas Pancasila; [2]Faculty of Pharmacy, Universitas Pancasila; [3]Karawang General Regional Hospital

Organisation: Universitas Pancasila

Background: Polypharmacy is a growing and major public health issue, particularly in the geriatric population. The management of COVID-19 treatment continues to develop by involving various types of drugs, both symptomatic and supportive therapy. COVID-19 infection with comorbid conditions in geriatric patients can have an effect on increasing drug use and potential drug interactions.

Purpose: This study aims was to determine whether there was a relationship between the level of polypharmacy and the incidence of potential drug interactions in the Karawang General Regional Hospital for the period January – December 2021.

Method: A cross-sectional retrospective prescription chart review for 182 geriatric patients was conducted at the outpatient pharmacy department of a regional hospital. Variables extracted included demographic information, diagnosis, medication profil, and polypharmacy. Potential drug-drug interactions were determined with web-based multi-drug interaction checkers.

Results: The most common clinical problems in patients with hypertension, diabetes mellitus, kidney disease, stroke and heart disease. Data obtained from 108 patients received treatment with 5–9 types of drugs. The most drug therapy for COVID-19 is favipiravir, azithromycin, levofloxacin, vitamin D and vitamin C. Potential drug interactions were experienced by 148 (81.3%) patients with a total of 764 events. There is a correlation between the level of polypharmacy and the potential for drug interactions (r: 0.537, p <0.001). There is a significant relationship between the level of polypharmacy and potential drug interactions (r: 0.537, p <0.001).

Conclusion: There is a significant relationship between polypharmacy and potential drug interactions. Comprehensive consideration of disease management, patient factors, and rational drug review would limit the occurrence of significant drug interactions in geriatric patients.

Author(s) declared no conflict of interest.

ABSTRACT ID: 61

ARE MORE EXPENSIVE MEDICINES BETTER QUALITY? EVIDENCE FROM INDONESIA

Presenter: Vinky Maria, Faculty of Pharmacy, Pancasila University, Jakarta, Indonesia

Other author(s): Vinky Maria[1], William Nathanial Tjandrawidjaya[1], Ayu Rahmawati[1], Yusi Anggriani[1], Elizabeth Pisani[1]
[1]Faculty of Pharmacy, Pancasila University, Jakarta, Indonesia

Organisation: Faculty of Pharmacy, Pancasila University

Background: Since Indonesia, the fourth most populous country in the world, began providing free medicines through its National Health Insurance system in 2014, manufacturers have complained that prices are unsustainably low, while the public has questioned the quality of cheap or free medicines.

Purpose: We investigated drug price variation in 4 provinces in Indonesia and examined the relationship between price and quality.

Method: We bought 872 samples of amlodipine, allopurinol, amoxicillin, cefixime, and dexamethasone from healthcare facilities and retail outlets in urban and rural areas in four provinces across Indonesia, recording the price paid and comparing it with the public procurement price. Pharmacopoeial tests for quality were undertaken for 816 samples.

Results: Prices varied widely, especially for branded generics. Overall, 25% of medicines were sold at over 15 times the public procurement price; a tenth of these relatively expensive medicines were unbranded generics. The median price across all samples was 5.9 times the public procurement price (4.4 times for unbranded generics and 10.3 times for branded generics). Medicines were generally more expensive in remoter areas. There was no difference quality between branded and unbranded generics (90.5 vs 93.4% passed testing respectively, p = 0.14), or across quartiles of relative price (p test for trend 0.24).

Conclusion: Both branded and unbranded medicines are sold at a wide range of prices across Indonesia. However, we found no relationship between price and quality.

Conflict of Interest: The study was funded by UK National Institute for Health and Research. The authors have no conflicts of interest.

ABSTRACT ID: 63

IMPACT OF EDUCATIONAL INTERVENTION ON USE OF MEDICINES IN PUBLIC PRIMARY HEALTH CARE CENTERS OF PUDUCHERRY, INDIA: A WHO INDICATOR-BASED STUDY

Presenter: Jayanthi Mathaiyan, Department of Pharmacology, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry, India

Other author(s): Dinesh Kumar Meena[1], Mahalakshmy T[2], Kesavan Ramasamy[1]
[1]Department of Pharmacology, JIPMER; [2]Department of Preventive and Social Medicine, JIPMER

Organisation: Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER)

Background: Rational use of medicines includes appropriate prescribing, dispensing and use of medicines by patients for health-related needs. Irrational use of medicines is an important public health issue with harmful implications for patients, health care and communities as a whole.

Purpose: A pre- and post-intervention study was conducted to analyse the impact of educational practices on prescribing, dispensing and patient knowledge in public PHCs (primary health care centres) of Puducherry, a union territory in South India.

Method/description of process, or experience: Prescriptions were collected over one year from a representative sample of nine PHCs with 90 prescriptions from each PHC collected by trained staff with a postgraduate degree in pharmacy, at three different time points of the year. Consultation time and dispensing time were evaluated. Patients were interviewed to check their knowledge of prescribed medicines. An educational intervention was provided for prescribers, pharmacists and the patients visiting these PHCs. In the post-intervention study, the same procedures were repeated as pre-intervention. Results of pre- and post-intervention study were compared based on WHO indicators for rational use of medicines.

Results: The average number of medicines prescribed decreased from 3.2 to 2.5 ($p < 0.0001$), and percentage of prescriptions with antibiotics from 39.6 % to 21.2 % ($p < 0.0001$). Adequate labelling of dispensed medicines increased from 65.71 % to 80.28 % ($p < 0.0001$) and patient knowledge on prescribed medicines increased from 75.55 % to 91.48 % ($p < 0.0001$). No significant difference was observed in medicines prescribed by generic names, prescriptions with injections and percentage medicines dispensed.

Conclusion: Educational interventions for prescribers, pharmacists and patients can help in rational use of medicines at primary health care facilities.

Author(s) declared no conflict of interest.

ABSTRACT ID: 66

SAFEGUARDING AN INDEPENDENT VOICE FOR PATIENTS AND HEALTH CONSUMERS IN HEALTH POLICY

Presenter: Barbara Mintzes, Professor of Evidence Based Pharmaceutical Policy, Charles Perkins Centre and School of Pharmacy, Faculty of Medicine and Health, University of Sydney, NSW, Australia

Other author(s): Lisa Parker[1], Wendy Lipworth[2]
[1]Charles Perkins Centre and Sydney Pharmacy School, The University of Sydney; [2]Department of Philosophy, Centre for Agency, Value and Ethics (CAVE), Macquarie University, Australia

Organisation: University of Sydney

Background: Consumer health organisations ('patient groups') play an important role in research, policy, information provision, and patient support. Increasingly, patient groups rely on financing from pharmaceutical companies. This can influence the priorities of these groups in a manner that is not always in the consumer's best interest – for example industry funded groups might not raise issues regarding pricing or safety concerns. A key question is how these sponsorships could be better managed to ensure independence of patient voices.

Purpose: This session aims to examine how industry sponsorship of patient groups could be better managed, in order to support members' interests and an independent voice for patients.

Method: This session begins with a review of the evidence on industry funding of patient groups in Australia, an an international systematic review of research on industry funding of patient groups. We then highlight the areas where sponsorship arrangements could be better managed and discuss the types of tools that might be used to do so.

Results: Industry funding of consumer groups is widespread and funding patterns are often closely aligned with sponsors' line of marketed products and/or those under consideration for reimbursement. Few studies have assessed the impacts of sponsors on groups' positions; those that do have consistently found an association between positions and sponsors' interests. Our team's research with Australian patient groups found little consistency in how industry sponsorships are managed, with some accepting pressure from sponsors that others consider to be unacceptable.

Conclusion: Drawing from this body of research, in 2020 a national Australian workshop of groups with and without industry funding jointly developed core principles to better manage sponsorship. This session will focus on how to best operationalise these principles, as well as applicability to initiatives in lower and middle-income countries.

Author(s) declared no conflict of interest.

ABSTRACT ID: 68

ANTIBIOTIC USE AMONG PREGNANT WOMEN ATTENDED ANTENATAL CARE CLINIC AT KILIMANJARO CHRISTIAN MEDICAL CENTRE IN NORTHERN TANZANIA

Presenter: Victor Vincent Mosha, Kilimanjaro Clinical Research Institute, Tanzania

Other author(s): Esther Nchimbi[1], Calvin Mmari[1], Mustapha Bakari[1], Winfrida Mwita[2], Sia Emmanuel Msuya[3]
[1]Kilimanjaro Christian Medical University College; [2]Kilimanjaro Clinical Research Institute; [3]Institute of Public Health

Organisation: Kilimanjaro Clinical Research Institute

Background: Antibiotics play a key role in treating infections during pregnancy and also in reducing maternal and infant mortality. During pregnancy infections are common particularly the ones caused by bacteria and necessitate the further use of antibiotics. However, inappropriate use of antibiotics during pregnancy has been associated with antibiotic resistance, infections, allergic asthma, obesity, and neurologic disorders during childhood. Globally, about 80% of the prescribed medications during pregnancy are antibiotics. In Tanzania where the burden of antibiotic resistant infections and non-infectious disease is high, data regarding antibiotic use during pregnancy is limited.

Purpose: The aim of this study was to describe antibiotics use among pregnant women who attended the antenatal care clinic at KCMC Hospital from January 2021 to July 2022

Method: Data were collected from the files of pregnant women kept at the KCMC Medical Record department. Demographics, antibiotics prescribed and reasons for prescriptions were analysed using STATATM version 16.

Results: A total of 380 patient files of pregnant women with at least three antenatal care clinic visits were reviewed whereby more than half (52.9%) had at least one antibiotic prescription. Penicillin (88.8%), nitroimidazole (48.8%), and cephalosporin (33.3%) were the most commonly prescribed antibiotics while phenicol (1.0%) and glycopeptide (0.5%) were least prescribed. Most antibiotics (83.7%) were prescribed for urinary tract infections based on the urinalysis results. More than three-quarters (79.7%) of the prescriptions were done without culture and sensitivity results.

Conclusion: This study revealed a high proportion of antibiotics prescribed during pregnancy with the majority of pregnant women treated without culture and sensitivity testing. Although delaying therapy is not an option, appropriate and definitive treatment is critical for the control of antibiotic resistance during pregnancy and other effects on both mother and child.

Author(s) declared no conflict of interest.

ABSTRACT ID: 71

THE USE OF PUBLIC TRANSPORT (BAJAJI, TUK TUK) IN COMMUNICATING ANTIMICROBIAL RESISTANCE

Presenter: Michael Mosha, Roll Back Antimicrobial Resistance Initiative, Dodoma, Tanzania

Michael Mosha is currently a Project Lead at Roll Back Antimicrobial Resistance Initiative, a non-governmental organisation in Tanzania that aims to curb antimicrobial resistance (AMR), where he previously served as a Monitoring, Evaluation and Research Officer. He is a public health specialist with a training background as a pharmacist. Michael has a number of years of experience working in the AMR field.

Other author(s): Erick Venant[1], Baritazar Stanley[1], Dorine Grace Mushi[1], Fatuma Denis[1], Eva Ombaka[2]
[1]Roll Back Antimicrobial Resistance Initiative; [2]St. John's University of Tanzania

Organisation: Roll Back Antimicrobial Resistance Initiative (RBA Initiative)

Background: The World Antimicrobial Awareness Week (WAAW), which is held every year, aims to raise awareness of global antimicrobial resistance.

Purpose: Given the success of the bajaji or tuk tuk campaign during 2021 WAAW, RBA Initiative sought to reach more people during 2022 WAAW using the same approach – using the three-wheeled motorcycles or bajaji as they are the most popular form of public transportation, and their use is expanding even in rural regions. The bajaji drivers were designated as AMR ambassadors.

Method: This program recruited forty (40) drivers of tuk tuk or bajaji in Dodoma, Tanzania. The 40 drivers conveyed AMR messages to the community via an advertisement with a key AMR message in Kiswahili language placed behind the bajaji and distributed AMR flyers to their passengers and the general public through an organised cavalcade around the city of Dodoma. The two key messages which were put behind the bajaji were: 'Always complete the dose as directed by the healthcare professionals' and 'AMR happens when microorganisms develop the ability to defeat the drugs designed to kill them/stop their growth'. Only 20 bajaji drivers and some journalists were trained on AMR and the training covered the general concept of AMR so that the drivers could understand and disseminate the messages. Also, RBA Initiative used 'edutainment' during the training, with a special AMR Kiswahili song performed by the schoolchildren.

Results: A pre- and post-survey was conducted among the community members and the results showed an increase in AMR awareness from 41.7% to 88.1% respectively. However, 1215 AMR flyers were distributed to pedestrians and passengers at various streets, markets, and bus and train stations by bajaji drivers.

Conclusion: The use of public transport in AMR campaigns is resource effective, efficient and adaptive to the general community.

Author(s) declared no conflict of interest.

ABSTRACT ID: 72

COMMUNITY PHARMACY DISPENSERS' VIEWS ON THE ANTIBIOTICS' POOR DISPENSING PRACTICES AND MISUSE; A DODOMA CITY QUALITATIVE STUDY

Presenter: Michael Mosha, Roll Back Antimicrobial Resistance Initiative, Dodoma, Tanzania

Organisation: Roll Back Antimicrobial Resistance Initiative (RBA Initiative)

Background: Antibiotics misuse is currently one of the crucial public health topics attributed by several factors, but not limited to poor dispensing practices by the community pharmacy dispensers. The involvement of these community pharmacy dispensers has been less explored.

Purpose: To explore factors those contribute to poor antibiotics dispensing among the community pharmacy dispensers in Dodoma City, Tanzania.

Method: A qualitative study using a semi-structured face-to-face in-depth interview was conducted from February 2021 to May 2021 among the community pharmacy dispensers in Dodoma city. The interviews were audio recorded by the phone recorder and transcribed. Thematic analysis was done for the transcripts obtained from the in-depth interviews.

Results: Forty-four (44) in-depth interviews were done. The majority of the community pharmacy dispensers accepted to dispense the antibiotics without a prescription. The themes that emerged were an increase of drug community outlets making the business more competitive rather than service provision, high consultation costs at the hospital, customer and pharmacy owner pressures and an increase in community members' knowledge. However, the more experienced community pharmacy dispensers agreed that they can prescribe antibiotics for minor illnesses.

Conclusion: This study showed that there were poor dispensing practices of the antibiotics by the community pharmacy dispensers influenced by business owner and customers, increased number of pharmacies and increased knowledge of patients/customers. It, therefore, recommended that the relationship between the customers/patients and the community pharmacy dispensers should be more professional.

Author(s) declared no conflict of interest.

ABSTRACT ID: 74

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS ANTIMICROBIAL USE AND RESISTANCE AMONG STUDENTS IN THREE SECONDARY SCHOOLS IN DODOMA CITY

Presenter: Michael Mosha, Roll Back Antimicrobial Resistance Initiative, Dodoma, Tanzania

Other author(s): Erick Venant[1], Fatuma Denis[1], Baritazar Stanley[1], Kelvin Msovela[1], Dorine Grace Mushi[1], Pendo Masanja[1], Eva Ombaka[2], Pendo Masanja[3], Karin Wiedenmayer[4]
[1]Roll Back Antimicrobial Resistance Initiative, Dodoma; [2]St. John's University of Tanzania, Dodoma; [3]University of Dodoma; [4]Swiss Tropical and Public Health Institute, Basel, Switzerland and University of Basel, Basel, Switzerland

Organisation: Roll Back Antimicrobial Resistance Initiative (RBA Initiative)

Introduction: Antimicrobial resistance is still not given enough attention and the public is insufficiently aware of its existence, leading to behaviour, which propagates the rise of antimicrobial resistance (AMR). One of the objectives of Tanzania's national action plan on antimicrobial resistance is to improve awareness and understanding of antimicrobial use and resistance through effective communication, education, and training. This task will need involvement of many stakeholders and sectors.

Purpose: To assess the knowledge, attitudes and practices toward antimicrobial use and resistance among students in three secondary schools in Dodoma city.

Method: For this interventional pre-post comparative study, data were collected before and after training on antimicrobial use and resistance. Secondary school students from Mkonze, Merriwa and Kiwanja cha Ndege secondary school who are members of AMR school clubs participated. Training included classroom teaching and arts and crafts. We used quantitative and qualitative data collection methods by using self-administered paper-based structured coded questionnaires delivered to the students with the supervision of school guardians. Analysis was done through Excel and SPSS.

Results: Three aspects were investigated: awareness of ways to reduce AMR; knowledge that antibiotics cannot be used to treat flu and factors that contribute to AMR. Before the training knowledge of these students was below 37%. Three months after the training knowledge had increased to above 90%.

Conclusion: Training of secondary school students significantly improved awareness, knowledge and attitude regarding antimicrobial use and antimicrobial resistance. AMR school clubs are an effective vehicle to raise awareness and mitigate the AMR crisis. Focus on students will lead to wider awareness in the community.

Author(s) declared no conflict of interest.

ABSTRACT ID: 75

YOUTH AS AGENTS OF CHANGE IN RAISING ANTIMICROBIAL RESISTANCE AWARENESS IN THE COMMUNITY IN DODOMA REGION

Presenter: Michael Mosha, Roll Back Antimicrobial Resistance Initiative, Dodoma, Tanzania

Other author(s): Erick Venant[1], Baritazar Stanley[1], Dorine Grace Mushi[1], Fatuma Denis[1], Israel Mwingira[1], Eva Ombaka[2], Roger Harrison[3], Karin Wiedenmayer[4]
[1]Roll Back Antimicrobial Resistance Initiative; [2]St. John's University of Tanzania; [3]University of Manchester, UK; [4]Swiss Tropical and Public Health Institute, Basel, Switzerland

Organisation: Roll Back Antimicrobial Resistance Initiative (RBA Initiative)

Background: Changing peoples' behaviour is not easy and the older a person is, the more they are set in their ways. Schoolchildren are in their formative years, which is the right time to impart knowledge and best practices that will guide their behaviour in life. Importantly, students have links with families and communities and are future leaders. Roll Back Antimicrobial Resistance Initiative has been pioneering the use of youth as agents of change to increase antimicrobial resistance (AMR) awareness, promote positive behavioural change and thus reduce treatment failure due to AMR.

Purpose: To equip schoolchildren with knowledge and skills to understand antimicrobial use and resistance and ability to pass the knowledge to their families, other students and community at large.

Method: These included classroom teaching, arts and crafts like songs, skits, drama, traditional dances and storytelling and fun videos. Further motivation for active participation was encouraged through AMR Arts and Crafts competition. The content of the training included topics such as behaviour that fuels AMR, hand hygiene and sanitation and the one-health approach.

Results: The RBA-Initiative has trained 322 students (AMR club members) from 2020 to 2022 through the AMR school club project. These trained students have since delivered key AMR messages to over 11,000 fellow school children, 83 schoolteachers and as well as over 3000 community members, including family members. Also, we realised a challenge of **W**ater, **S**anitation **A**nd **H**ygiene (WASH) infrastructures to most of the schools. RBA Initiative has built and handed over a handwashing station and a water tank to the winner of AMR Arts and Crafts competition.

Conclusion: If young people are engaged and empowered, they can increase community knowledge and awareness about AMR as change agents, contributing to the national action plan on AMR.

Author(s) declared no conflict of interest.

ABSTRACT ID: 76

TRANSFORMING RDU HOSPITAL INTO RDU LITERACY

Presenter: Kamolnat Muangyim, Sirindhorn College of Public Health Chonburi, Praboromrajchanok Institute, Thailand

Other author(s): Naphaphorn Puripunyavanich[1], Nucharin Tomacha1, Anchalee Jitruknatee[1]
[1]Food and Drug Administration, Thailand

Organisation: Sirindhorn College of Public Health

Background: Since 2013, there were 7 provinces volunteered for the rational drug use (RDU) hospital development project, and could accomplish the targeted requirements, identified as RDU hospitals' key factors: 'P L E A S E'. After that in 2016 health literacy was announced as a national agenda, expected as a strategy addressing cost-effective well-being of all Thais. Thus, RDU literacy and RDU literate community were set as goals of RDU promoting plan.

Purpose: This qualitative study aimed to explore the method to improve RDU literacy among Thai people and their communities.

Method: This process model synthesis was based on insight of two projects: RDU hospital development project and the development of 92 Queen Sirikit Health Centers into health literate organisation (HLO). Then the proposed process model was proved by connoisseurship.

Conclusion: In order to improve both individual and community RDU literacy, socio-ecological model of health should be taken into account. This means all related health organisations should develop themselves into HLOs having 10 attributes proposed by Brach et al, 2012. RDU hospital's key factors, 'P L E A S E', can be solid foundation for HLO development. However, the scaling up process requires three conditions: the construction of a single digitalised information platform collecting all related patient safety and consumer protection data, the establishment of RDU coordinator bridging between hospitals and community health centers, and the establishment of RDU literacy coaching system. The expected outcomes of RDU literacy will be RDU literate people, described by V-shape model of the Department of Health, MoPH, Thailand, and RDU literate community, described as the self-management community addressing consumers' safety. In addition, the valuable lessons learnt from the development of 92 Queen Sirikit Health Centers into HLOs including '13-steps tool kit to HLO' and 'HLO coaching system' can be applied in RDU hospital transforming practice.

Author(s) declared no conflict of interest.

ABSTRACT ID: 78

A QUANTITATIVE COMPARISON OF ESSENTIAL CARDIOVASCULAR MEDICINES FROM COUNTRIES IN THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY TO THE WHO MODEL ESSENTIAL MEDICINES LIST

Presenter: Ian Naicker, Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Durban, South Africa

Other author(s): Fatima Suleman[1], Velisha Ann Perumal-Pillay[1]
[1]Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Durban, South Africa

Organisation: University of KwaZulu-Natal

Background: Cardiovascular disease (CVD) is a leading cause of death and disproportionately affects low- and middle-income countries (LMICs). The WHO Model List of Essential Medicines (WHO EML) is a tool for improving accessibility and availability of medicines. This study compared the 2021 WHO EML CVDs basket of medicines to latest available national essential medicines list (NEMLs) for South Africa and fifteen Southern African Development Community (SADC) countries to assess consistency in CVDs medicine listing.

Method: A comparator list was extracted by combining cardiovascular medicines listed in the 2021 WHO EML for adults and children. SADC country NEMLs were obtained from the WHO Essential Medicines and Health Products Information Portal. Consistency of NEMLs was calculated as a percentage coverage of CVD medicines listed in the 2021 WHO EML.

Results: The SA hospital level NEML scored 70% consistency. This was below Tanzania (84%), Namibia (81%) and Botswana (74%). The mean consistency for SADC NEMLs was 62%. The lowest scoring country was Eswatini at 25%. The SA PHC NEML scored 35%. The least listed medicines were beta blockers, angiotensin receptor blockers (ARBs), clopidogrel (43%) and paediatric formulations (furosemide (36%); digoxin (43%)). Individual antihypertensive medicines were most commonly listed. Botswana was the only country to list a single pill combination (SPC) for the treatment of hypertension.

Conclusions: This comparison indicates that South Africa and most SADC countries are aligned with 2021 WHO EML recommendations. The inclusion of age-appropriate formulations for children as well as ARBs and SPC for the treatment of hypertension may improve patient adherence and cardiovascular outcomes. Frequent updates to NEMLs should improve consistency. NEMLs were not available for two countries. Country health expenditure was not accounted for. LMICs adopting the essential medicine list strategy should consider imposing minimum consistency thresholds to the WHO EML to improve accessibility and availability of CVD medicines.

Author(s) declared no conflict of interest.

ABSTRACT ID: 81

THE INTEGRATED NETWORK FOR MANAGING STEROID-ADULTERATED HEALTH PRODUCTS, CHIANG RAI

Presenter: Ratchanit Ratchakit Nedsuwan, Pharmacist, Chaingrai Prachanukroh Hospital.

Other author(s): Ratchanit Ratchakit Nedsuwan[1], Geelarak Chaikla Maneerat[2]
[1]Chiangrai Prachanukroh Hospital; [2]Public Health Office Chiangrai

Organisation: Chaingrai Prachanukroh Hospital

Background: Using steroid-adulterated health products without medical indication is the main health-related problems of Chiang Rai Province. Affected patients admitted to hospitals and selling steroid-adulterated health products in communities are still observed. Therefore, control and management of the problem need to be implemented.

Purpose: To develop the integrated steroid-adulterated health product management model with modalities network including government, private and public sectors.

Method: Operation research by searching stakeholders who related to the problems. Information from stakeholders were analysed and the operational approach using a risk management model were developed and implemented in the communities.

Result: The working group from related stakeholders was established. The five components of integrated steroid management guideline have been developed which include: 1. Surveillance network which monitors unsafe health products in the communities. 2. The surveillance system in the health care service which emphasises the active searching and treatment according to standards protocol at the provincial level. 3. Create the network communication for both authorised and unauthorised vendors and the communities 4. Create the social measurement in all levels of villages, sub-districts, districts, provinces. 5. Create the legal measurement. The guideline has been implemented in 7 pilot districts of Chiang Rai province.

Conclusion: The developed model can solve the problem completely. using team composition and developed approaches There was an activity to manage steroid-adulterated health products in the pilot district. of Chiang Rai Province.

Author(s) declared no conflict of interest.

ABSTRACT ID: 82

AFRICAN MEASURES AND STRATEGIES FOR ANTIMICROBIAL RESISTANCE PREPAREDNESS

Presenter: Othniel Nimbabazi, Research Fellow, Global Health Corps/Ministry of Health, Rwanda

Other author(s): Lilian Ngaruiya, Ecumenical Pharmaceutical Network, Kenya

Organisation: Global Health Corps/Ministry of Health

Background: With significant strides having been made since the first case of HIV in the 1980s, antimicrobial resistance threatens to reverse this progress and slow the attainment of global targets on HIV. With 24 out of 100,00 deaths in Sub-Saharan Africa being attributed to antimicrobial resistance (AMR), there is an eminent risk of treatment failure during the management of drug-resistant viral strains and associated OIs. Second-line/MDR antimicrobials are expensive hence reduced access further broadens the chasm of inequalities contrary to the AIDS response targets.

Purpose: The main aim of this study was to assess the measures put in place by African countries to limit the risk of AMR as a pandemic

Method: A systematic review was done on publications for the period of 2016–2022 on AMR prevalence, strategies, and measures to tackle AMR in Sub-Saharan Africa (SSA). The reviews included search engines PubMed, Google Scholar, MEDLINE and Web of Science, WHO and other AMR actors' reports.

Results: The WHO Joint External Evaluation (JEE) reports that investigates the preparedness and response to handling emergency public risks, indicated that the mean SSA-AMR preparedness score was 53% less than the overall mean SSA-JEE score. Quite a number of African countries have developed comprehensive NAPs but the extent of implementation varies within the region. There is limited data on already developed strategies in various countries.

Conclusion: A renewed focus on HIV and other infectious diseases management with an AMR component is necessary for the sustainability of the milestones achieved and the attainment of set targets. The implementation and progressive assessment of the NAPs is low-hanging fruit that can be explored to ensure that AMR can be delayed and or avoided in the long run. Data-driven strategies from surveillance can be used to develop suitable interventions to maximise the already constrained resources.

Author(s) declared no conflict of interest.

ABSTRACT ID: 83

ANALYSIS OF MIXED MEDICATIONS SET-SEEKING BEHAVIOR REPORTED IN TAWAI FOR HEALTH WEB APPLICATION

Presenter: Pitchaya Nuandaisri, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand

Other author(s): Rungnapa Kongwong[1], Panupong Puttarak[2], Pitchaya Nuandaisri[2]
[1]Warinchamrab Hospital, Warinchamrab, Ubon Ratchathani, Thailand; [2] Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand

Organisation: Faculty of Pharmaceutical Sciences, Prince of Songkla University, Hat-yai, Songkhla, Thailand

Introduction: Mixed medication set-seeking behaviour has been prevalent in the Thai community for decades. It persists in our community, although healthcare professionals have been a part of the solution. TaWai for Health web application, a proactive surveillance tool for reporting safety in medicine and healthcare products, has been developed by a network of government agencies and academia. The networking has been expanded to other parties to take part in reporting the healthcare product problems and also the mixed medication set.

Method: This study, therefore, was to analyse the data related to the Mixed medication set, which had been reported to the TaWai for Health between April 15, 2020 and February 6, 2023. The data were presented with descriptive statistics.

Results: During the study period, 30 cases caused by mixed medicine set were reported. Five cases were found to be seriously harmed by the mixed medications set and required hospitalisation as a result of anaphylaxic shock. The mixed medications set were obtained from the pharmacy (9) grocery store (8) known person (8) clinic (2) online purchasing (2) flea market (2) and others (3). The mixed medicines set were intended to be used as a painkiller (n=31, 91%) and others such as antiseptics, dizziness treatment, and cold fever relief. There were approximately 3–4 tablets per pack. Seriously, 11 cases (32%) of herbal mixed medications set which adulterated with steroids were reported as well.

Conclusion: Mixed medication set-seeking behaviour has been a persistent problem and requires holistic and effective solutions. Continuous development and improvement are required for surveillance and seamless referral data systems. The health services' accessibility in terms of medical use needs to be improved to meet everyone's requirements.

Author(s) declared no conflict of interest.

ABSTRACT ID: 84

ENCOURAGE RATIONAL DRUG USE IN SCHOOLS IN THE SAWANG DAEN DIN DISTRICT, SAKON NAKHON PROVINCE

Presenter: Sukanya Numchaitosapol, Head of Pharmaceutical Division, Sawang Dandin Crown Prince Hospital

Other author(s): Witsanu Yingyod, Pharmacist[1], Isarak Laokhom, Pharmacist[1], Anuwat Kulthaisong, Pharmacist[1]
[1]Sawang Dandin Crown Prince Hospital

Organisation: Sawang Dandin Crown Prince Hospital

Introduction: The study focuses on addressing the prevalent issues of health service provision in educational institutions in the Sawangdaendin district of Sakon Nakhon province. Key problems include insufficient separation of facilities for health services, inadequate knowledge of medication use and nursing care among school nurses, inconsistent medication management frameworks leading to expired and deteriorated medications, and the absence of data collection and referral systems from school clinics to hospitals. These issues pose risks to student safety.

Purpose: The objectives are to assess medication management and health service provision in schools, compare school nurses' knowledge before and after a program, and evaluate school medication cabinet standards. Data was collected from 107 educational institutions, including early childhood development centres, primary and secondary schools, and vocational colleges. Research tools included questionnaires, knowledge assessments, and evaluations of medication cabinet standards. Descriptive statistics and paired sample t-tests were used for analysis.

Results: Results show that primary schools comprise the majority, having participated in basic nursing care and medication knowledge programs. However, most schools lack full-time nurse presence (91.7%) and rely on external medication and supply support (65.4%). Providing health services in clinics is challenging for almost all schools (97.2%), with additional obstacles including high nurse workloads (36.36%) and low knowledge scores on medication use (88.90%) and health service provision (76.67%) before the program. Knowledge scores significantly improved after the program ($t = 2.15 \pm 1.762$, $p < 0.001$). The second assessment revealed higher average scores for school medication cabinet standards.

Conclusion: The study identifies challenges in medication management and health service provision in schools. An integrated area-based approach is necessary to address these issues and improve medication systems. The research outcomes will aid in developing an efficient medication management model, serving as a benchmark for other districts facing similar challenges.

Author(s) declared no conflict of interest.

ABSTRACT ID: 85

ASSESSING THE KNOWLEDGE OF RATIONAL DRUG USE AMONG THE GENERAL POPULATION IN SAWANG DAN DIN DISTRICT, SAKON NAKHON PROVINCE

Presenter: Sukanya Numchaitosapol, Head of Pharmaceutical Division, Sawang Dandin Crown Prince Hospital

Other author(s): Isarak Laokhom[1], Witsanu Yingyod[1], Anuwat Kulthaisong[1]
[1]Sawang Dandin Crown Prince Hospital

Organisation: Sawang Dan Din Crown Prince Hospital

Background: Promoting rational drug use among the general population is crucial for improving patient outcomes and ensuring safe medication practices. This study aimed to assess the level of rational drug use knowledge in a sample of the general population.

Purpose: The objective of this study was to evaluate the participants' knowledge of rational drug use using a 36-item questionnaire and identify areas for improvement.

Methods/description of process: A total of 448 participants are in Sawang Dan Din District, Sakhon Nakhon Province, predominantly female (n=392), with an age range of 51–60 years (44.64%), were included in the study. The questionnaire assessed various aspects of rational drug use knowledge. Data on demographics, education, occupation, and chronic illnesses were also collected.

Results: The average score on the questionnaire was 21.39 out of 28, indicating a knowledge level of 76.4%. Participants were categorised as follows: good knowledge (42.86%, n=192), moderate knowledge (53.57%, n=240), and low knowledge (3.57%, n=16). Specifically, 81.55% demonstrated good knowledge of drug use based on labels and packaging, while understanding drug use through advertisements was moderate (58.16%). Regarding rational drug selection and usage, 83.57% exhibited good knowledge, and 83.39% showed understanding of medical terminology.

Conclusion: This study revealed a moderate level of rational drug use knowledge among the general population. While participants demonstrated strengths in interpreting drug labels and selecting drugs rationally, there is room for improvement in comprehending drug advertisements. It is crucial to develop educational materials and training programs to enhance rational drug use knowledge and promote behavioural changes. These interventions can contribute to improved public health outcomes.

Author(s) declared no conflict of interest.

ABSTRACT ID: 86

EFFICACY AND SAFETY OF GEFITINIB GENERIC IN JKN INSURANCE IN INDONESIA

Presenter: Fitri Nurhayati, Faculty of Pharmacy, University of Pancasila, Indonesia.

Fitri Nurhayati is a PhD candidate and also a hospital pharmacist. She joined Starmeds Project as scholarship awardee with interests in pharmacoeconomy and health-system pharmacy. She is the main researcher, collected data, and analysed for her thesis.

Other author(s): Fitri Nurhayati[1], Yusi Anggriani[2], Elisna Syahruddin[3]
[1, 2] Faculty of Pharmacy, University of Pancasila, Jakarta Selatan, Indonesia; [3] Division of Thoracic Oncology Department of Pulmonology Respiratory Medicine Faculty of Medicine, Universitas Indonesia Persahabatan National Respiratory Referral Hospital, Jakarta, Indonesia

Organisation: Starmeds, University of Pancasila, Indonesia

Background: Innovator drugs have been replaced with generic drugs for efficiency purposes in Indonesia's national health insurance called Jaminan Kesehatan Nasional (JKN). Since 2021, the generic gefitinib has been used in the therapy of Non-Small Cell Lung Cancer (NSCLC) harboring EGFR mutation. There is no previous study about the efficacy and safety of gefitinib generic in the clinic, so we conducted this study.

Purpose: This study aimed to evaluate the efficacy and safety of generic gefitinib in JKN Program in Indonesia.

Method: A retrospective observational cohort was conducted on JKN at the Persahabatan National Respiratory Referral Hospital, Jakarta. This study used medical records as information resource from patients treated from January 2020 – December 2022. The patients must be at least 18 years old and have a minimum of 3 months of gefitinib innovator or generic only. Progression-free survival (PFS) is obtained from the beginning of therapy to stopping due to resistance/disease progression. We collected and analysed factors that might influence PFS, such as age, sex, smoking history, family cancer history, comorbid, stadium, and performance status. The most common adverse events of gefitinib were diarrhea, dyspepsia, paronychia, and skin disorders. The statistical method was Kaplan-Meier survival analysis to determine PFS, chi-square for characteristics and adverse events.

Results: A total of 61 patients were included (innovator: 29 and generic: 32). We found that the median PFS between innovator and generic group was not significantly different, 12,2 ± 1,461 and 16,70 ± 1,909 months, respectively, p-value 0.241 ($p>0.05$). Nine characteristics data that measured were similar. Adverse events of diarrhoea and dyspepsia were not significant different but skin rash and paronychia were more happened to generic than innovator group.

Conclusion: There was no significant difference in PFS, but there was significant differences in skin rash and paronychia events between innovator and generic groups.

Author(s) declared no conflict of interest.

ABSTRACT ID: 88

CASE STUDY FOR EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS MANAGEMENT AND COST ANALYSIS

Presenter: Phayom Sookaneknun Olson, International Primary Care Practice Research Unit, Faculty of Pharmacy, Mahasarakham University, Mahasarakham, Thailand

Other author(s): Suratchada Chonsopon[1], Krongkwan Duangpawang[2], Gedmukda Chansriri[3], Chattarin Nasuksom[2], Chataya Wongwan[2]
[1]Social Pharmacy Research Unit, Faculty of Pharmacy, Mahasarakham University; [2]International Primary Care Practice Research Unit, Faculty of Pharmacy, Mahasarakham University; [3]Mahasarakham Hospital;

Organisation: Mahasarakham University

Background: Extensively drug-resistant tuberculosis (XDR-TB) is a worldwide outbreak. The treatment course requires several years and high-cost medications with many adverse drug reactions. Studies in an effective disease management are still limited.

Purpose: This research aimed to 1) assess clinical and safety outcomes of new drugs for XDR-TB, 2) explore factors related to XDR-TB, 3) evaluate disease management, and 4) cost analysis in a provider perspective.

Method: Descriptive and qualitative study was designed. In-depth interviews were performed in a patient, a relative, and 20 medical providers to evaluate factors related to XDR-TB and disease management. Clinical information and cost were collected using forms. Thematic analysis was used to synthesis for themes, sub-themes from verbatim description scripts.

Results: The patient had been taking five medications (linezolid, moxifloxacin, clofazimine, capreomycin, bedaquiline) for 336 days. Three hospital admissions were recorded due to initiating medications and treating adverse drug reactions. The clinical outcomes showed no pathogen in pleural specimen, negative culture result, consistent chest x-ray, increasing body weight, and a healing surgical wound. Adverse drug reactions were reported on hepatitis, QT-prolongation, acute renal injury, anemia and thrombocytosis. Factors related to XDR-TB were individual, social attitude, treatment plan, and access to care. Disease management was related to individual (readiness, workload, feeling of providers), object (place, cost) and health system (facilities, policy, and treatment plan). The total treatment cost was 615,061.26 Baht. Of this number, the cost of other drugs and labour was 285,872.26 Baht (46.5%). The five new medications cost was 329,189 Baht (53.5%). The ratio of labour and material costs was 4:1.

Conclusion: Clinical outcomes were in a good prognosis. The cost of treatment was high. Factors related to XDR-TB and disease management showed important information to identify, resolve and prevent new cases of XDR-TB.

Author(s) declared no conflict of interest.

ABSTRACT ID: 92

ANTIBIOTIC USAGE AND ANTIBIOTIC RESIDUE IN NILE TILAPIA FARMS IN PHAYAO PROVINCE: PRELIMINARY EVIDENCE IN THAILAND

Presenter: Rujira Panya, Pharmacy Department, Dokkhamtai Hospital, Phayao, Thailand

Other author(s): Pitchayapa Prommeedech[1], Poungtong Wongwai[2], Hathaikan Chowwanapoonpohn[3], Adinat Umnuaypornlert[4]
[1] Phayao Provincial Public Health Office; [2]Thailand Consumers Council (Phayao); [3]Faculty of Pharmacy, Chiang Mai University; [4]Faculty of Pharmacy, Phayao University

Organisation: Pharmacy Department, Dokkhamtai Hospital, Phayao, Thailand

Introduction: Antimicrobial resistance (AMR) infections have caused fatalities, days spent in hospitals, and financial impact worldwide. One of the most significant avenues for the development of antibiotic resistance in food production systems is inappropriate antibiotic use in fish farm production.

Aim: The researchers examined antibiotic use in tilapia farms, as well as preliminary examination of antibiotic residues in the fish fillet in order to understand the issues of the inappropriate use of antibiotics in talapia cultivation.

Method: The research was conducted in Phayao Province, which is home to much of Thailand's tilapia farming. A standardised, structured questionnaire was used to interview the farmers.

Results: Findings showed that although there were no antibiotic residues found in the fish fillet, half of the farmers in this study had used antibiotics in fish farming. Among the farmers, only 42.86%, 32.14%, and 50.00% properly read the registration number, expiration date, and directions for medicine use on the label. Many farmers were unaware of medication residues, antibiotic resistance, and antibiotic-resistant infection. They occasionally, or never, administered the drug as indicated on the label and the fisheries scientists' advice, and properly disposed of containers as chemical waste. They showed insufficient knowledge and inappropriate drug use behaviours while producing tilapia. In order to reduce antimicrobial resistance in the future, it is essential to provide farmers with accurate information and to encourage appropriate action about the use of antibiotics in fish farming.

Author(s) declared no conflict of interest.

ABSTRACT ID: 93

PUBLIC KNOWLEDGE AND UNDERSTANDING OF THE THAILAND DECRIMINALISED CANNABIS LAW

Presenter: Sukarun Para, Master of Pharmacy Program, Pharmacy Management, Chaingmai University

Organisation: Thai Traditional and Alternative Medicine Group, Samut Sakhon Provincial Public Health Office

Background: Thailand has announced the withdrawal of cannabis from being a drug since June 9, 2022. Cannabis has become a plant that can be used a variety of ways, such as medical use, non-medical use. Including Samut Sakhon province, the problem of access too easy and misuse is also reflected in the number of complaints about inspections. And reports of cannabis addiction treatment admissions also came up.

Objective: To explore knowledge understanding the legality of cannabis after being unlocked of people in Muang District, Samut Sakhon province

Method: The results were analysed by descriptive statistics, including frequency, percentage and mean. The data collection was a questionnaire. The target groups were people in Muang District, Samut Sakhon province. A sample of 205 people using a specific random method.

Results: The age group that answered the most questions was the age group over 40 years, accounting for 30.73 percent, followed by the group under 20 years, the percentage of people who did not know the purpose of liberalising cannabis. Representing 16.75 percent, being a group of people over 40 years old, representing 38.23 percent, as for the current legal cannabis status issue, 11.71 percent who still think it is a drugs by being in the group over 40 years old, misunderstanding the regulations for the distribution of 81.68 percent, being in the group over 40 the most, not knowing the regulations for propagating cannabis 37.5% and misunderstood the regulations for smoking cannabis in public places Representing 84.80 percent, a group of students the most.

Conclusion: The public still does not know the legal status of cannabis and the laws involved. Stakeholder should be dissemination of information and creating knowledge and understanding, especially for the purpose of unlocking regulations, distribution, propagation. Especially in the group under 20 years old and over 40 years old.

Author(s) declared no conflict of interest.

ABSTRACT ID: 94

EVALUATING THE EFFECTIVENESS OF A DRUG DELIVERY SYSTEM IMPLEMENTED BY VILLAGE HEALTH VOLUNTEERS FOR DIABETIC PATIENTS DURING THE COVID-19 PANDEMIC

Presenter: Atitaya Parkpicharoen, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Organisation: Chiang Mai University

Background: A comprehensive overview of a study conducted at Doisaket Hospital, which implemented a drug delivery system utilising village health volunteer (VHVs) to address the challenges posed by the COVID-19 pandemic.

Purpose: 1) Evaluate drug knowledge, drug usage behaviours, and patient satisfaction among these patients; 2) Compare fasting blood sugar (FBS) levels before and after the implementation of the drug delivery system.

Method: The research methodology involved a literature review and in-depth interviews to assess the needs and conditions of the diabetic patient population. The study was conducted at the Cheongdoi Primary Care Unit (PCU) in Doisaket District, Chiang Mai, between April 1 and May 31, 2022. Data was collected from 30 diabetic patients who maintained good control over their FBS levels. Paired t-tests were employed to compare FBS levels before and after the drug delivery intervention.

Results: The findings indicated that the majority of drug delivery users were elderly patients receiving 1–2 medications. The survey data revealed a high level of drug knowledge, drug usage behaviours, and satisfaction among diabetic patients utilising the drug delivery service provided by VHVs. Additionally, the comparison of FBS levels before and after the drug delivery intervention showed no significant difference.

Conclusion: The implementation of the drug delivery system by VHVs at the Cheongdoi PCU in Doisaket District was deemed effective, safe, and satisfactory for patients. The study suggests that hospitals in Thailand should consider implementing diverse drug delivery systems to improve patient access and alleviate overcrowding issues.

Author(s) declared no conflict of interest.

ABSTRACT ID: 95

KNOWLEDGE OF PARACETAMOL USE AMONG PEOPLE LIVING IN MUEANG DISTRICT, CHIANG RAI PROVINCE

Presenter: Patanin Juntain, Master of Pharmacy Management Program, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Organisation: Faculty of Pharmacy, Chiang Mai University

Background: Paracetamol has been commonly used for relief pain and reduce fever. People can easily get it from a hospital, a drug store, or from a grocery store. Paracetamol is also available in the market as combination medicines for flu and analgesics. Inadequate knowledge of the medicine might lead to inappropriate use that may cause severe liver toxicity.

Purpose: To assess the basic knowledge of paracetamol among people living in a community in Muang District, Chiang Rai Province.

Method: A cross-sectional exploratory study, collecting data from 112 community residing individuals who purchased a 10-tablet pack of paracetamol 500 mg from a convenience store at Huay Pla Kung Community, Muang District, Chiang Rai Province. Participants were selected conveniently, and asked about their knowledge in indications, dosage, and awareness of paracetamol in combination pills. Data collected between March 1–31, 2023, using a 10-true/false questionnaire.

Results: Study samples were mostly female. In general, they had good knowledge in paracetamol use (9.57±0.67 points, out of 10). All of them knew about paracetamol indications in reducing fever and relieving headache. They answered correctly in paracetamol dosage. However, some participants did not know that paracetamol was an ingredient in flu combination pills, which contained 500 mg paracetamol (28.57% and 7.14%, respectively.)

Conclusion: Most people know the indication of paracetamol in reducing fever and relieving headache, and its dosage. There are still some misunderstandings, such as its indication in reducing muscle and knee pain, and its component in common combination medicines. Promoting rational use of commonly used medicine, as paracetamol requires cooperation from all sectors, including governments, manufacturers, distributors, and relevant agencies to ensure that drug labelling and advertising are informative, as well as promoting public education and justify laws and regulations.

Author(s) declared no conflict of interest.

ABSTRACT ID: 96

THE COMPLEXITY SPECTRUM OF COVID-19 PATIENTS RECEIVING MOLNUPIRAVIR TELEPHONE COUNSELLING

Presenter: Chanunchida Phusadee, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Other author(s): Siritree Suttajit[1], Puckwipa Suwannaprom[1]

[1]Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Organisation: Master of Pharmacy Management Program, Faculty of Pharmacy, Chiang Mai University

Background: Molnupiravir is an antiviral drug for COVID-19 patients with mild symptoms and risk factors who are receiving home quarantine treatment in Thailand. Telephone medication advice by pharmacists is therefore an alternative option for these patients. However, the diverse and complex contexts of each patient pose challenges in designing telephone counselling services that ensure the rational use of medicines.

Purpose: To explore the associated context of telephone medication counselling in COVID-19 patients in home quarantine who were prescribed molnupiravir by Rajpracha Samasai Institute.

Methods/description of process, or experience: Retrospective descriptive research was conducted using data from the Rajpracha Samasai Institute database. The study included 132 COVID-19 patients who were treated as outpatients with self-isolation and received molnupiravir and telephone counselling from pharmacists at the institute between March 1, 2022, and April 30, 2023. Descriptive statistics were used to identify patient characteristics, and content analysis was used to group the patient and service contexts.

Results: COVID-19 patients aged 25 to 93 years were enrolled. The average counselling time was 3.27±1.35 minutes (min 1, max 8), ranging from a single recommendation up to three repetitions. In each case, four groups of factors contributed to varied challenges during telephone counselling: Individual (e.g., aging, disability, occupation); family (e.g., knowledge of family members, other concurrent COVID-19 cases in a family); counselling environment (receiving a counselling call while driving, loud TV noise); and 4) service (e.g., physician variation in case screening for molnupiravir, molnupiravir availability at the time of counselling). All of these factors contributed to a context complexity spectrum ranging from simple to complicated to complex.

Conclusion: Telephone medication counselling, as well as the future design of tele-pharmacy, should consider the complexity spectrum of patient contexts to ensure that rational use of medicines can be promoted in different contexts.

Author(s) declared no conflict of interest.

ABSTRACT ID: 97

THE MANAGEMENT OF INAPPROPRIATE DRUG DISTRIBUTION PROBLEM IN GROCERY WITH RDU COMMUNITY MECHANISM BY PARTICIPATION OF COMMUNITY; SAI MUN SUB-DISTRICT, NAMPHONG DISTRICT, KHON KAEN

Presenter: Aree Pimdee, Pharmacist, Pharmacy Department, Namphong Hospital, Khon Kaen, Thailand

Other author(s): Suchada Vattisu, Chief Pharmacist, Pharmacy Department, Namphong Hospital, Khon Kaen, Thailand

Organisation: Namphong Hospital, Khon Kaen, Thailand

Background: Inappropriate medications distribution in the Sai Moon community, Khon Kaen reflects irrational drug use, posed a health risk, with all monitored grocery stores selling harmful drugs. To solve the problem of inappropriate drug use in Sai Mun Sub-district in 2020–2022, the Sai Mun Sub-district Community Health Network has implemented the RDU community mechanism as a tool to solve the problem.

Objective: To implement RDU community policy to manage improper drug distribution in Sai Mun Sub-district's grocery stores.

Method: The study followed an action research, applying key 5 RDU community strategies; proactive hospital and active community-based surveillance, community participation, private sector engagement, and RDU literacy. The target groups are Sai Mun Sub-district Community Health Network, including community leaders, village health volunteers, local government officials, teachers, monks, totalling 160 people, and 10 medical personnel. The study was divided into 3 phases between 2020 and 2022.

Results: Phase I: Sai Mun network identified the issue and implemented the RDU community. Phase II: Feedback of the findings in Phase I to the community, led to formally establishing a community health network. Members consist of community leaders, monks, teachers, volunteers, and public health officials. There is a division of roles and responsibilities in promoting rational drug use according to the community context. Phase III: Collaboration with 44 grocery store owners by signing an MOU to distribute the rational medicines and raising awareness by supporting media of prohibited drug and penalties for illegal drugs in grocery stores, temples, and schools. As well as a community rule forbidding drug peddling in 13 villages. These actions led to a 29.55% decrease in inappropriate drug sales.

Conclusion: The participation of the community and the application of the RDU community mechanism have effectively increased appropriate drug distribution in Tambon Saimun context.

Author(s) declared no conflict of interest.

ABSTRACT ID: 99

ASSESSMENT OF DISPENSING AND COUNSELING SERVICES OF COMMUNITY PHARMACISTS IN UAE: A SIMULATED PATIENT STUDY USING COMMON COLD SCENARIO

Presenter: Subish Palaian, Department of Clinical Sciences, College of Pharmacy and Health Sciences, Ajman University, Ajman, United Arab Emirates.

Subish Palaian is an Associate Professor at College of Pharmacy and Health Sciences, Ajman University, United Arab Emirates. He obtained his PhD from University Sains Malaysia, Malaysia in the year 2010. His research experience is mainly related to Pharmacovigilance and patient safety, and has published extensively on patient safety and rational use of medicines.

Other author(s): Muaed Al Omar, Nageeb Hassan, Department of Clinical Sciences, College of Pharmacy and Health Sciences, Ajman University

Organisation: Ajman University

Background: During minor health illnesses, patients visit the community pharmacies for health advice and over-the-counter medications. While dispensing any medications to a patient, the pharmacist is required to obtain appropriate medical and medication history, label medications, and counsel. The simulated patient (SP) methodology is often used to assess dispensing practices due to its investigative and undercover nature.

Purpose: Our aim was to assess the history-taking, dispensing, and counselling practices of community pharmacists.

Method: A study was conducted among pharmacies in Ajman, United Arab Emirates wherein three final undergraduate pharmacy students role-played common cold patients seeking advice from the pharmacists.

Results: A total of 34 (male 25; female 9, Arab 5 and non-Arabs 29) pharmacists were visited by the trained SPs. The SPs received a total of 105 medications: antihistamines 23 (21.9%), expectorants 17 (16.19%), antibiotics 14 (13.33), and NSAIDs 13 (12.38%). Of the antibiotics, 9 were beta-lactam and 5 were macrolides. Pseudoephedrine/loratadine (n=8) was the common medication followed by guaifenesin, pseudoephedrine hydrochloride, dextromethorphan hydrobromide, and acetaminophen (n=6), ibuprofen (n=4), amoxicillin/clavulanate potassium (n=4), etc. The information on the duration of medication was provided by only 12 (35.29%) of them and none of them took a medication history. The labelling standard was 'good' in 20 (58.28%) and 'poor' in 4 (11.76%). The average dispensing time was '30–60 secs' in 22 (64.70%) of the cases. The counselling on allergy was provided by only one pharmacist, side effects by 4 (11.76%), contraindications by 2 (5.88%), and instructions on taking the medication by 31 (91.17%).

Conclusion: Poor dispensing practices existed among community pharmacists with a few patients even receiving antibiotics for the common cold. Often medicines that were not needed were dispensed due to improper history taking. The dispensing practices and counselling standards are too low suggesting interventions to improve pharmacy practice in the country.

Author(s) declared no conflict of interest.

ABSTRACT ID: 100

SITUATION OF ANTIBIOTIC USE IN LIVESTOCK FARMS AND VETERINARY DRUG DISTRIBUTION IN THUNG KHAO LUANG DISTRICT, ROI ET PROVINCE

Presenter: Supawadee Plengchai, Pharmacist, Department of Pharmacy and Consumer Protection, Thung Khao Luang Hospital Roi Et Province

Other author(s): Issarapong Nasomroop, Pharmacist, Department of Pharmacy and Consumer Protection, Thung Khao Luang Hospital Roi Et Province

Organisation: Tungkaoluang Hospital, Roi Et Province

Introduction: This study was funded by Drug System Monitoring and Development Center (DMD). Antibiotic resistant problem partly cause by antibiotics were widely used in farming due to farmers' lack of knowledge, awareness, and rational use of antibiotics.

Objective: To survey and study the situation of antibiotics used, antibiotics distribution, the behaviour of farmers and related organisations in Thung Khao Luang District, Roi Et.

Method: A face-to-face questionnaire survey was applied to 32 farmers and 5 drug distributors located in the region from June to August 2020.

Results: There were 32 farmers which were 30 farm owners and 2 contracted farmers. 93.8% of the farms used antibiotics and 6.3% of the farms had no antibiotics. 56.3% of farmers had access to antibiotics from agricultural products stores, 21.9% of the internet, 15.6% of veterinary pharmacies, 3.1% of grocery stores, and 3.1% of drug stores. The most commonly used antibiotic was enrofloxacin 71% in porcine farms, erythromycin with Vitamin B12 in 42% in chicken/duck/bird farms and other antibiotics such as Union Sulfa, amoxycillin, chloramphenicol, tetracycline, amoxycillin + colistin, gentamycin, etc. Agricultural product shop surveys found 38 drugs contained with 20 registered drugs (53%) and 18 unregistered drugs (47%) were sold 4 in 5 stores.

Conclusion: 93.8% of antibiotic use was prevalent in livestock farms, with easy access to drugs purchased at an agricultural supply store, 56.3% had a drug sold in an agricultural store. 47% were unregistered drugs, 36.8% were antibiotics, and farmers had no understanding of the use of antibiotics. Development of solutions in 2023 is to operate in 10 districts, Roi Et Province in order to policy formulation.

Author(s) declared no conflict of interest.

ABSTRACT ID: 101

FAMILY CARE OR SHARED CARE FOR QUALITY USE MEDICINE USE FOR ELDERLY

Presenter: Chanuttha Ploylearmsang, International Primary Care Practice, Faculty of Pharmacy, Mahasarakham University

Organisation: Faculty of Pharmacy, Mahasarakham University

At the present time, the global population is rapidly aging, including in Thailand. The country became a completely aged society in 2022. In actual fact, most of the elderly face health problems, especially chronic diseases that are generally of a multimorbid nature. Therefore, polypharmacy is used, which can cause medication-related problems, such as side effects, adverse drug reactions, and an increase in the potential for medicine interaction. In order to prevent these problems, the proper use of medication is necessary.

This study interviewed and observed 94 elderly and their families in an urban community about the role of family on elderly medication use in February – April 2021. The result showed that families of the elderly can be involved in their care, through the deployment of shared care and family care principles, thereby playing a part in ensuring that medication is employed correctly and appropriately. They can, for example, accompany the elderly to their doctor's appointments, provide information about medication use, and pay attention to how it is used. If these principles are followed, they can play an effective part in the avoidance of medication-related problems. The families of the elderly can play a significant role in the use of medication by the elderly and can improve the positive effects of medication use, well-being, quality of life, and disease control.

Author(s) declared no conflict of interest.

ABSTRACT ID: 102

PRESCRIBING PATTERNS AND EFFICACY OF ORAL VANCOMYCIN FOR CLOSTRIDIUM DIFFICILE INFECTION IN ADULTS

Presenter: Pemmarin Potisarach, Clinical Pharmacy Division, Faculty of Pharmacy, Mahasarakham University, Thailand

Other author(s): Wiraphol Phimarn[1],Pornnutcha Kidrai[2], Anisarawan Thongtun[2], Pichitra Srimaya[3], Panchalee Rattanasakornkul[3], Kritsanee Saramunee[4], Ampika Changpat[1], Piangkwan Srimongkhol[1]
[1]Clinical Pharmacy Division, Faculty of Pharmacy, Mahasarakham University; [2]Faculty of Pharmacy, Mahasarakham University; [3]Pharmacy Department, Suddhavej Hospital, Faculty of Medicine, Mahasarakham University; [4]Social Pharmacy Division, Faculty of Pharmacy, Mahasarakham University;

Organisation: Faculty of Pharmacy, Mahasarakham University

Background: *Clostridium difficile* infection (CDI) is a bacterial infection caused by *Clostridium difficile* (CD). The incidence and prevalence of CDI have increased, proposing a significant problem. Treatment of non-severe, initial CDI generally involves the administration of the antibiotic vancomycin, as recommended by the guideline. However, the discrepancies still exist between the use of low (125 mg PO every 6 hours) and high dose (>125 mg PO every 6 hours) of oral vancomycin in clinical practice, generating confusion for pharmacists due to the inconsistency of prescribed oral vancomycin patterns.

Purpose: The aim of this study was to investigate the prescribing patterns of oral vancomycin and its outcomes in adult patients diagnosed with non-severe, initial CDI.

Method: A retrospective chart review study was performed on 67 patients at Suddhavej Hospital, Faculty of Medicine, Mahasarakham University (MSU) between January 1, 2015 and October 1, 2022. We analysed the patterns of prescribed oral vancomycin including dose, frequency, and duration. Chi-squared test was used to compare oral vancomycin doses and clinical outcomes.

Results: Of the 67 patients, 44 participants met the inclusion criteria. Four prescribing patterns were discovered: 1) vancomycin 125 mg PO every 6 hours (81.82%), 2) vancomycin 250 mg PO every 6 hours (9.09%), 3) vancomycin 500 mg PO every 6 hours (2.27%), and 4) others (6.82%) (250 mg PO every 24 hours and 125 mg PO every 8 hours). The association between low and high dose of oral vancomycin for non-severe, initial CDI and clinical outcomes were found to have no statistically significant difference ($p = 0.898$).

Conclusion: The majority of prescribing patterns of oral vancomycin was 125 mg PO every 6 hours. There is no statistically significant difference of clinical outcomes between high and low dose of oral vancomycin in non-severe, initial CDI.

Author(s) declared no conflict of interest.

ABSTRACT ID: 105

PERSPECTIVES OF HOSPITAL STAFF ON ANTIMICROBIAL RESISTANCE MANAGEMENT IN THAILAND

Presenter: Somying Pumtong, Faculty of Pharmacy, Mahidol University, Bangkok

Other author(s): Luerat Anuratpanich[1], Nithima Sumpradit[2], Khumthorn Malatham[3], Pitak Santanirand[3], Thitipong Yingyong[4], Wantana Paveenkittiporn[5], Weerawat Manosuthi[6], Visal Moolasart[6], Varaporn Thienthong[6], Sukanya Numsawad[2], Ukrit Sitthiboot[7], Saranya Khunjan[7]
[1]Faculty of Pharmacy, Mahidol University, Bangkok; [2]Food and Drug Administration, Ministry of Public Health, Nonthaburi; [3]Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok; [4]Department of Disease Control, Ministry of Public Health, Nonthaburi; [5]Department of Medical Sciences, Ministry of Public Health, Nonthaburi; [6]Bamrasnaradura Infectious Disease Institute, Nonthaburi; [7]Faculty of Pharmacy, Mahidol University, Bangkok

Organisation: Faculty of Pharmacy, Mahidol University, Thailand

Background: As part of the government's priorities to tackle the antimicrobial resistance (AMR) crisis, the Thai government initially endorsed the national strategic plan on AMR for 2017–2021, which later was extended to 2022. One of the strategies to achieve the goal is AMR containment in humans, and strengthening the capacity of AMR healthcare providers is an important strategic action. There are currently few published data regarding Thai healthcare workforce for AMR management. Rigorous evidence is needed for human resource development.

Purpose: To investigate health professionals' opinions on AMR management in hospitals.

Method: Between May and November 2021, in-depth interviews were conducted with twenty health professionals involved with AMR management at public hospitals (physician 4, pharmacist 5, nurse 4, medical technologist 2, and epidemiologist 5). In terms of AMR management, an interview guide covered activities including infection and prevention control (IPC), antimicrobial stewardship, and surveillance.

Results: All hospitals had AMR management systems operated through an infection control committee consisting of multidisciplinary professionals. Most of participants were positive about the benefits of the AMR activities to both patients, hospitals, and the country. The majority agreed that there was a shortage of staff, particularly nurses. The interviews highlighted a number of issues that impeded the efficiency of AMR management, including: workload; staffing capacity; incentives and career paths; leader support; policies; monitoring and evaluation; team collaboration; and laboratory equipment. Collaboration, mentoring, and networking would contribute to their success. Furthermore, leadership and policymaker support are needed.

Conclusion: Although certain AMR actions have been implemented in hospitals, there are still significant challenges. Strengthening staff capacity is an issue that must be addressed promptly to deal with the AMR problem and ensure the maintenance of competence across all levels and roles. Consideration should be given to career advancement opportunities and incentives in order to retain the staff.

Author(s) declared no conflict of interest.

ABSTRACT ID: 107

EMPOWERMENT INTERVENTIONS FOR PHARMACIES TO COMPLY WITH THE GOOD PHARMACY PRACTICE (GPP) IN THAILAND

Presenter: Piyanuch Punturungsee, Primary Care Pharmacy Program, Faculty of Pharmacy, Mahasarakham University

Other author(s): Piyanuch Punturungsee[1], Chanuttha Ploylearmsang[1]
[1]Faculty of Pharmacy, Mahasarakham University

Organisation: Mahasarakham University

Background: Good pharmacy practice (GPP) is to provide people with quality pharmacy services as well as to promote drug use safety.

Objectives: To find out the effect of the process of empowering modern pharmacies to meet the GPP standards and to investigate the problems and obstacles that affect the pharmacy licensees in complying with the GPP.

Method: An action research using the Deming Cycle (PDCA) to design a process, in collaboration with relevant parties, to promote GPP compliance. The process consisted of a group intervention and an individual intervention designed to be consistent with the SOAP assessment. The action plan was implemented over a 9-month period. The GPP outcomes were assessed. Samples were 32 pharmacy licensees in Nakhon Ratchasima Province, which have not yet passed the GPP assessment. They were randomly selected by the stratified sampling method.

Results: After participating in the empowerment process, there were 62.50% or 20 pharmacies passed the GPP assessment in all categories. The average GPP compliance score had statistically significantly higher than before the process ($p < 0.001$). For the satisfaction of the participants, the overall score was at the highest level.

Conclusion: The process of empowering modern pharmacies to meet GPP standards showed a positive effect. The rate of pharmacies that passed the GPP criteria also increased. In addition, the participants in the process were highly satisfied. Therefore, the PDCA cycle should be used in pharmacy development. Meanwhile, GPP self-assessment is a tool to help pharmacy licensees in systematic problem resolution.

Author(s) declared no conflict of interest.

ABSTRACT ID: 108

WHOLE HEALTH SYSTEMS AS A LEVERAGE MODEL OF THAILAND RATIONAL DRUG USE COUNTRY POLICY

Presenter: Naphaphorn Puripunyavanich, National Medicine Policy Division, Food and Drug Administration, Ministry of Public Health, Nonthaburi

Other author(s): Naphaphorn Puripunyavanich[1], Nucharin Tomacha[1], Anchalee Jitraknatee[1], Penkarn Kanjanarat[2], Hathaikan Chowwanapoonpohn[2], Puckwipa Suwannaprom[2], Siritree Suttajit[2], Somying Pumtong[3], Supasit Pannarunothai[4]
[1]Food And Drug Administration, Ministry of Public Health, Nonthaburi; [2]Faculty of Pharmacy, Chiang Mai University, Chiang Mai; [3]Faculty of Pharmacy, Mahidol University, Bangkok; [4]Health Equity Monitoring Foundation, Phitsanulok

Organisation: Food and Drug Administration, Thailand

Background: Since the 1960s, Thailand has realised irrational uses of medicine in both public and private healthcare delivery, as well as in self-medication. This issue has been attempted by various governments. During the last decade, the rational drug use (RDU) hospital policy was systematically implemented nationwide; however, the RDU is still a big challenge. With no paucity, Thailand moves forward to the 'RDU country' policy by the next decade.

Purpose: To develop a model towards the RDU country policy, focusing on health systems approach.

Method: A mixed-methods approach was employed for this action research. The WHO's six building blocks of health systems and policy process served as the foundation for the development of the model. Data collection was between May 2021 and December 2022.

Results: Phase 1: The three main gaps in RDU's health systems were found as follows: private healthcare delivery, particularly at the primary care level; medication literacy and self-medication; and access to a reliable source of self-medication. Phase 2: Developing the 'RDU district' model to empower medicine literacy and ensure medication safety as the ultimate outcomes. Phase 3: The model was implemented under the supervision of the provincial health offices in four different contexts. Phase 4: Monitoring and evaluation revealed two key determinants for success: policy adoption and support from provincial and regional high-level administrators; and highly capable 'RDU coordinators' at the provincial and district levels to collaborate with whole systems stakeholders.

Conclusion: In Thailand's policy context, the RDU whole systems model seemed workable approach towards the RDU country. Actors, including RDU coordinators and high-level administrators were success factors from the bottom-up mechanisms.

Author(s) declared no conflict of interest.

ABSTRACT ID: 111

ANALYSES OF ADVERSE CANNABIS-RELATED EVENTS REPORTED IN THE TAWAI FOR HEALTH WEB APPLICATION

Presenter: Pitchaya Nualdaisri, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand

Other author(s): Chawisa Sriwatanawaranyu[1], Warathita Waramitra[1], Chawalin Inthong[1], Panupong Puttarak[1]
[1]Faculty of Pharmaceutical Sciences, Prince of Songkla University, Hat-yai, Songkhla

Organisation: TaWai for Health Unit, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Thailand

Introduction: Cannabis (Cannabis sativa L.) can legally be used as herbal medicines and health products in Thailand. However, data on cannabis-related adverse events in Thailand are relatively limited. The Ministry of Public Health, therefore, still requires spontaneous reports regularly via various tools. TaWai for Health web application is a proactive surveillance tool for reporting safety in using of medicine and healthcare product.

Method: The data reported into the TaWai for Health between September 1st,2021, and February 23rd, 2023, were analysed. The severity of adverse events, expectation of usage, and product type were presented with descriptive statistics.

Results: A total of 26 adverse events related to cannabis products were reported to the TaWai for Health. All cases were reported by pharmacists who worked in public and private sectors in five provinces. Some serious symptoms, such as unconsciousness, dizziness, and anxiety, were found in seven cases (26.92%). There were 11 adverse event reports caused by cannabis mixed in herbal medicines recipe: seven reports from cannabis oil, and four reports from Suk Sai-Yad recipe. One case was suspected that it was a drug interaction between Suk Sai-Yad recipe, Andrographis paniculata L. extract, and Sahatsatara recipe. According to the reports, the cannabis mixed with herbal medicines was intended to be used to reduce pain, promote sleep, and increase appetite. Another 15 reports were investigated as the adverse events caused by unregistered products such as fresh and dry cannabis leaves and cannabis-mixed brownies. These cannabis products were intended to be consumed for fun, euphoria, or accidentally.

Conclusion: Cannabis has been used for many purposes. Adverse reactions are inevitable. For the protection of patients and society, authorised organisations must promote continuous and regular monitoring and reporting. The TaWai for Health can be a tool for active surveillance and can cooperate with the nation's primary system effectively.

Author(s) declared no conflict of interest.

ABSTRACT ID: 113

COMPARING PRESCRIPTION COMPLIANCE PRACTICES: A STUDY OF ONLINE AND BRICKS-AND-MORTAR PHARMACIES IN INDONESIA

Presenter: Mawaddati Rahmi, Pancasila University, Jakarta, Indonesia

She is a researcher at the Center for Pharmaceutical Policy, Management and Service Studies (CEPHAS) at Pancasila University, Indonesia. She used to be on the field conducting surveys and providing support for data management. She is interested in health systems, particularly access to and quality of medicines, as well as health systems in general.

Other author(s): Ayu Rahmawati[1], William Nathanial Tjandrawidjaya[1], Yusi Anggriani[1], Elizabeth Pisani[1]
[1]Pancasila University, Jakarta, Indonesia

Organisation: Pancasila University

Background: Technology market researchers have identified Indonesia as both the largest e-commerce market in Southeast Asia, and the fastest growing in Asia. Indonesian pharmacies are permitted to sell medicines online through platforms registered with the Ministry of Health; in practice, medicines are also widely sold online by unregistered sellers. By regulation, sellers at both bricks-and-mortar and registered online pharmacies must demand prescriptions for all prescription medicines. However, studies in other countries have found online medicine sellers rarely require prescriptions.

Purpose: We studied compliance with prescription requirements in offline and online pharmacies in Indonesia.

Method: We bought prescription-only medicines, including antibiotics, from bricks-and-mortar pharmacies, and from registered and unregistered online pharmacies. We only provided prescriptions if sellers request them. We compared rates of prescription use between the three types of pharmacies, and for antibiotics (amoxicillin and cefixime) compared with other prescription medicines (allopurinol, amlodipine, and dexamethasone).

Results: We bought 732 samples from brick-and-mortar pharmacies and 328 samples online. Several online platforms required the upload of prescriptions before purchase. Online sellers were 3.7 times more likely to require a prescription compared with face-to-face sellers (28.1% vs 7.6%, p=0.000). Both types of sellers were more likely to require prescriptions for antibiotics than for other medicines (20.7% vs 9.6% overall, p=0.000). For non-antibiotics, bricks-and-mortar pharmacies only required prescriptions for 3.8% of purchases. Registered online sellers were 2.7 times more likely to require prescriptions than unregistered sellers (50.5% vs 18.6%, p=0.000).

Conclusion: Surprisingly, even unregistered online medicine sellers have higher prescription compliance than bricks-and-mortar pharmacies in Indonesia, perhaps because platforms can be designed to enforce prescription upload. To improve prescription compliance, including for antibiotics, regulatory authorities should focus on supervising bricks-and-mortar pharmacies.

The study was funded by UK National Institute for Health and Research. The authors have no conflicts of interest.

ABSTRACT ID: 115

MALE PARTNER INVOLVEMENT IN THE UPTAKE AND USE OF MODERN CONTRACEPTION: PERSPECTIVES FROM COMMUNITY MEMBERS AND HEALTH CARE PROVIDERS IN KWAZULU-NATAL, SOUTH AFRICA

Presenter: Yolandie Ralfe, Wits MatCH Research Unit, Department of Obstetrics and Gynaecology, Faculty of Health Sciences, University of the Witwatersrand, Durban, South Africa

Other author(s): Cecilia Milford PhD[1], Joanna Paula Cordero MA[4], Fatima Suleman PhD[3], Petrus S Steyn MD, MPhil[4], Jennifer Ann Smit PhD[1]

[1]Wits MatCH Research Unit (WMRU), Department of Obstetrics and Gynaecology, Faculty of Health Sciences, University of the Witwatersrand, Durban; [2]School of Public Health and Nursing, College of Health Sciences, University of KwaZulu-Natal, Durban; [3]Discipline of Pharmaceutical Science, College of Health Sciences, University of KwaZulu-Natal, Westville, South Africa; [4]UNDP-UNFPA-UNICEF-WHO-World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP), Department of Sexual and Reproductive Health and Research, World Health Organization, Geneva, Switzerland.

Organisation: Wits MatCH Research Unit

Background: Male partners play a key role in the uptake and use of modern contraception. However, they are often excluded from sexual and reproductive health programmes and receive limited information. Male partner influence can lead to discontinued contraceptive use, increasing the risk of unintended pregnancies and increasing the rate of unmet need. In this study, we explored how and why the male partner plays such a key role in the use of modern contraception.

Method: This qualitative study was conducted in the eThekwini metro of KwaZulu-Natal South Africa. Focus group discussions were held with community members (n=103), of which 25 were males; and health care providers (n=16). In-depth interviews were conducted with 8 key stakeholders. The data were analysed using a grounded theory approach and the health utilisation behavioural model. Data analysis was conducted using NVIVO 10.

Results: The results showed that the male role in contraceptive use is complex. A dual nature emerged from the data. Men can present as either obstacles or facilitators to using contraception. In cases where men were identified as obstacles, it was mainly due to a lack of quality information and understanding. Supportive male partners helped their female partners overcome barriers and remain adherent to their contraception.

Conclusion: Providing men with quality and comprehensive information about modern contraception is key to improving long-term contraceptive use. Policymakers and service delivery programmes must improve to include men in the discussion about using contraception without impeding the rights of female users.

Author(s) declared no conflict of interest.

ABSTRACT ID: 118

ANTIMICROBIAL SURVEILLANCE, PHARMACOECONOMICS AND ADVERSE DRUG REACTION MONITORING OF ANTIMICROBIALS USED IN PATIENTS IN A TERTIARY CARE TEACHING HOSPITAL IN NEW DELHI: ASSESSING NEED FOR POLICY FORMULATION

Presenter: Vandana Roy, Director Professor and Head, Department of Pharmacology, Maulana Azad Medical College and Associated Hospitals, New Delhi, University of Delhi, India

Other author(s): Sahil Kumar[2], Bimba HV[3], Pinky Dharmashaktu[3], MK Daga[4] NS Hadke[5], Vandana Tayal[6], Ijasul Haque[7]
[1]Director Professor and Head, [6]Professor, [7]Senior Resident Department of Pharmacology, Maulana Azad Medical College, New Delhi, India; [2] Assistant Professor, Pharmacology, ESIC Dental College, Delhi; [3]Former Residents, Department of Pharmacology, Maulana Azad Medical College; [4]Consultant in Medicine, Institute of Liver and Biliary Sciences, New Delhi; [5]Former Director Professor, Surgery, Maulana Azad Medical College, New Delhi

Organisation: Maulana Azad Medical College

Background: Inappropriate use of antimicrobial medicines (AMM) has contributed to the development of AM resistance, waste of economic resources and adverse drug reactions (ADR). AM surveillance can provide information about AM use practices and action needed.

Purpose: Assess AMM utilisation, rationality, cost, compliance of prescribed AMM with hospital essential medical list (EML), extent of AMMs prescribed in outpatients and incidence of ADRs to AMMs

Method: Observational, prospective study conducted in 2010, 2015 among patients admitted to medicine and surgery departments of a tertiary care teaching hospital. Prescription audits in outpatients conducted in 2015 and 2022. ADRs monitored from 2014 – 2021. Inpatient and outpatient records of admitted patients were reviewed. Rationality of AM prescribed assessed as per Kunin's criteria. Cost of AMM and ABC analysis done. Causality assessment of ADRs done by WHO UMC scale.

Results: Among Inpatients an increase in AMM encounters (60% – 73.7%), total AMM prescribed (32.9% – 46.1%), multiple AM prescribed (75.2% – 84.5 %), increase in AMMs prescribed from EML (74.4% – 94.6%) was observed. Decrease in individual AMMs prescribed (46–33), use of parenteral AMM (72% – 63.7%) and a decrease in expenditure incurred on AMM (52% – 37%) and average cost on AMM per patient (INR 1834–1501) observed. In outpatients decreased AMM encounters were observed from 40% (2016) to 16.5% (2022) in medicine and 25.6% (2016) to 20.9% (2022) in surgery department. AMM accounted for the maximum number of ADRs 49% (235) and 46% of serious ADRs were due to AMM.

Conclusion: A trend towards improved use of AMM resulting in lesser expenditure on AMM indicates that initiatives to increase awareness about AMR among doctors are effective. Pharmacovigilance activities with ADR monitoring can help promote safe use of AMM in patients. Implementation of an antimicrobial stewardship program is needed to further improve the use of AMM.

Author(s) declared no conflict of interest.

ABSTRACT ID: 119

THE SITUATION OF INAPPROPRIATE DRUGS AND HEALTH PRODUCTS IN THE BORDER AREA OF KANCHANABURI PROVINCE

Presenter: Shinnawat Saengungsumalee, Lecturer, Faculty of Pharmacy, Siam University, Bangkok, Thailand

Other author(s): Phakarat Tangkheunkan[1], Pantawan Boonpet[1], Panattha Duangngam[1], Siwanuch Wisesdee[1], Suyanee Pongthananikorn[2], Sunti Chomyong[3], Nuttida Suwanmoke[3], Kamolwan Tantipiwattanasakul[1], Chumpol Saengwan[4], Narongchai Sritaphatso[4], Shinnawat Saengungsumalee[1]
[1]Faculty of Pharmacy, Siam University, Bangkok; [2]Department of Food and Pharmaceutical Chemistry, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok; [3]Phra Nakhon Si Ayutthaya Health Provincial Office, Phra Nakhon Si Ayutthaya; [4]Drug System Monitoring and Development Center in the central region node, Bangkok

Organisation: Siam University, Drug System Monitoring and Development Center (DMDC)

Introduction: In the western border region of Thailand, which borders Myanmar, there is an international market for medicines and health products. There are often problems with improper use of health products, resulting in health problems for people in border areas. The researchers see the importance of this problem and want to study the situation of health products. In the western border area of Thailand, this would lead to surveillance and public education for the development of the health system of the border of the west region.

Aim: This study aims to explore the situation of inappropriate drugs and health products in the border area of Kanchanaburi Province.

Method: This survey is conducted using a randomised sampling group of 95 people and data collection tools.

Results: The survey's primary data and data on the use of drugs and health products showed that 70 respondents had a history of receiving drugs in the past year. The top three drugs were traditional, herbal, and drug set (Ya-chud), respectively. Most of them were used to treat diseases. Most of the drug users were farmers and employees. Most of the drug transactions were from hospitals and healthcare centres. Most drugs were from Thailand, followed by Myanmar; no other health products were found.

Conclusion: Improper use of medicines in border areas remains a problem.

Author(s) declared no conflict of interest.

ABSTRACT ID: 120

DISPENSING PRACTICES OF ANTIBIOTIC AMONG COMMUNITY PHARMACIES IN BHARATPUR METROPOLITAN-CITY CHITWAN, NEPAL: A SIMULATED PATIENT CROSS-SECTIONAL STUDY

Presenter: Anil Kumar Sah, Department of Pharmacy, Purbanchal University School of Health Sciences, Gothgaun, Morang, Nepal

Other author(s): Pooja Rimal[1], Kadir Alam[2]
[1]Department of Pharmacy, Purbanchal University School of Health Sciences, Gothgaun, Morang, Nepal; [2]Department of Clinical Pharmacology and Therapeutics, B. P. Koirala Institute of Health Sciences, Dharan, Nepal.

Organisation: Purbanchal University

Background: In low- and middle-income countries (LMICs), where public cannot afford to visit the physician and purchase medicines, community pharmacies (CP) are the first point of contact for health consultation. They are the main sources for getting medicine

including antibiotics. Nepal is also considered as one of the major contributors to growing antibiotics resistance day by day due to irrational uses of antibiotics, overuse and misuse like self-demanding and purchasing antibiotic.

Purpose: Aimed to evaluate the dispensing practices of antibiotics in community pharmacies by using a simulated patient survey.

Method: A cross-sectional study was conducted in 101 community pharmacies of Bharatpur metropolitan city, Chitwan. Ethical approval was taken from PU-IRC and written Informed consent was taken prior to simulated Survey. Simulated patient survey was conducted with fictitious case of diarrhea scenario to determine the antibiotics dispensing practice. Sample size was calculated, and simple random sampling was used to select the registered community pharmacies. Chi-square test was used to find the association between antibiotics dispensing practices with different variables.

Results: Out of 101 retailers surveyed 93.07% and 11.88% of retailer dispensed antibiotic to the simulated patient at the 1st and 2nd levels of demand. Most commonly dispensed antibiotic was metronidazole (34.38%). About 100% of non-pharmacy personnel and 87.5% of pharmacy personnel dispensed antibiotic to the simulated patient at the 1st level of demand and 46.70% of and 19.64% at the 2nd level of demand respectively. Statically, at the 1st and 2nd levels of demand in association with antibiotic dispensing found to be significant p=0.014 and p=0.024.

Conclusion: Study concluded that antibiotics can be obtained without prescription. There are guidelines and laws for dispensing antibiotics, but strict implementation is lacking. Hence, strict implementation of law and awareness among the dispensers is needed to improve dispensing practice.

Author(s) declared no conflict of interest.

ABSTRACT ID: 121

MEDICATION ERROR IN GENERAL MEDICINE DEPARTMENT OF TERTIARY CARE KOSHI ZONAL HOSPITAL IN NEPAL

Presenter: Anil Kumar Sah, Department of Pharmacy, Purbanchal University College of Medical and Allied Sciences, Purbanchal University, Morang, Nepal

Other author(s): Kadir Alam, Mohammad Mustafa, Kaji Adhikari, Deependra Prasad Sarraf

Organisation: Purbanchal University

Background: Medication errors are the leading cause of patient harm, injuries and even death in hospitalised patients. It endangers patient safety and also increases the cost of treatment leading to enhanced financial burden to the individuals and the community as well.

Purpose: To determine the pattern of occurrence of medication errors.

Method: A descriptive cross-sectional study was conducted in 188 hospitalised patients in medical ward at Koshi Zonal Hospital, Biratanagar, Nepal. The patients were selected by simple random sampling technique. Medication errors were identified and categorised by reviewing the cardex. The data were analysed to determine the cause of medication errors including rates of harm to patients. The descriptive statistics frequency and percentage were calculated using Microsoft Excel 2007. The findings were presented as tables and graphs.

Results: A total of 985 medication errors were found in 650 (38.3%) drugs prescribed in 177 (94.1%) patients. Approximately 72.9% of the errors reached the patients and 32.39% of the errors were harmful. The most common observed errors were administration errors (41.6%) followed by prescribing errors (36.5%), transcription error (14.3%) and monitoring error (7.5%). Omission of prescribing information (63.88%) and wrong dosing schedule (34%) were the most common type of prescribing and transcription error respectively. Omission of dosages administration (57.32%) to patients was the most common type of administration error. All types of medication errors were highest in the alimentary tract and metabolism class of drugs (32.39%).

Conclusion: Medication errors were associated with the majority of the hospitalised patients signifying the requirement of immediate preventive strategies and policies to ensure patient safety.

Author(s) declared no conflict of interest.

ABSTRACT ID: 122

THE RESULT OF THE DEVELOPMENT OF RATIONAL DRUG USE (RDU) SYSTEM IN HOSPITALS AT SURATTHANI PROVINCE

Presenter: Susaraporn Sampradit, Secretary of Suratthani RDU Working Team, Suratthani Provincial Public Health Office,

Other author(s): Kachapon Nimdet[1], Nuengruethai Sukhathip[1], Natnicha Wongsaiyid[1]
[1]Suratthani Provincial Public Health Office

Organisation: Suratthani Provincial Public Health Office

Background: Irrational drug use and unused drug waste are considerable problems in the modern world. Thailand has implemented the rational drug use policy as an important issue.

Purpose: This action research aimed to develop and evaluate the model for increasing rational drug use (RDU) at Suratthani province.

Method: RDU model were developed by action research cycle. Observational research and focus group discussion were conducted at Suratthani RDU working team meeting. Data from 20 hospitals in Suratthani were collected between 2018 and 2021. Results were presented in term of passing the hospital's RDU criteria and indicator for antibiotic prescribing. Descriptive statistics were used for percentage and frequency.

Results: The study found that explicit policy from provincial executive director has a significant effect on driving the system. The determination of indicators and obvious goals for staff at district levels lead to highly effectiveness. In addition, the development of antibiotic prescribing guidelines influenced physicians' confidence. Also, continuous supervision by the provincial working group resulted in the continuous and sustainable development of the interdisciplinary communication model in the hospital. The results shown are: In 2021, there are 14 hospitals that have passed the RDU hospital criteria, increasing by 85% compare with 2 hospitals in 2018. Comparing 4 key indicators in outpatients, result showed that antibiotic use in Upper respiratory tract were reduced by 25.4%, in acute diarrhea by 13.6%, in fresh wounds from accidents by 29.0% and antibiotic use in vaginal term delivery decreased by 38.5%.

Conclusion: Analysis of problems and joint development of a rational drug prescription system among multidisciplinary groups in hospitals, and clear indicators results in more rational use of antibiotics.

Author(s) declared no conflict of interest.

ABSTRACT ID: 123

FACTORS AFFECTING THE PURCHASING OF CANNABIS AND HEMP CONTAINING PRODUCTS IN SIAM UNIVERSITY, BANGKOK

Presenter: Dararat Samretwit, Faculty of Pharmacy, Siam University, Bangkok, Thailand

Other author(s): Dararat Samretwit[1], Wachana Tungkwampian[2], Shinnawat Saengungsumale[1], Kanokpond Sangkaew[1], Jarawee Charoentong[1], Onpreeya Sributdee[1]
[1]Faculty of Pharmacy, Siam University, Bangkok; [2]Pharmacy Department, Chaophraya Abhaibhubejhr Hospital, Prachin Buri

Organisation: Siam University

Background: Announcement from the Ministry of Public Health to remove cannabis-hemp from the list of narcotic drugs since June 6, 2022, and cannabis extracts that contain less than 0.2% of tetrahydrocannabinol (THC) or cannabidiol (CBD) are not classified as narcotics, result in an increasing consumption of cannabis-hemp containing products.

Purpose: To study factors affecting the purchasing of cannabis-hemp containing products in Siam University students.

Method: Online survey questionnaire was distributed to 402 Siam University students during January–February 2023. Data was analysed by descriptive statistics (percentages, mean and standard deviation). Multivariate logistic regression analysis was performed to determine factors affecting purchasing behaviour.

Results: Most respondents were female (65.42%), aged more than 20 years (57.21%), studied in Faculty of Pharmacy (14.43%), had a bachelor's degree (99.75%), were the first-year students (32.09%), without any underlying disease (92.04%). The measurement of marketing mix influence buying behaviour, namely product, price, place and promotion, were in moderate level (3.52 ± 1.16). There were 138 respondents ever use the product (34.33%), frequency less than twice a month (47.1%), dosage form were food and beverage (70.28%), the purpose for consumption (63.76%), reported adverse event 24.64%, most of which were unusual drowsiness (52.94%), the respondents themselves were influence on buying behaviour (85.4%). The reason for reject purchasing were concerning about side effects (79%). The mean knowledge out of 10 score is 5.86 ± 2.27. It was found that the factors affecting purchasing decision were age and gender ($p < 0.05$).

Conclusion: There were amount of consumption of cannabis-hemp products, but students still lack accurate knowledge. This research can be used to develop the accurate information among students. The data of this study were beneficial for related parties to apply for product development in the future.

Author(s) declared no conflict of interest.

ABSTRACT ID: 125

KNOWLEDGE, ATTITUDE, AND PRACTICE OF DISPOSAL OF UNUSED OR EXPIRED MEDICATION: A CROSS-SECTIONAL STUDY AMONG SENIOR MEDICAL, DENTAL, AND PHARMACY MALAYSIAN STUDENTS

Presenter: P Ravi Shankar, IMU Centre for Education, International Medical University, Kuala Lumpur, Malaysia

Ravi Shankar's areas of interest are education about rational use of medicines, pharmacoepidemiology and pharmacovigilance.

Other author(s): Lee Li Guo[1], Ariyananda PL[2], Jaiprakash H[3], Htet Htet[3], Yoke Lin Lo[4]
[1]Master of Pharmacy Practice student, International Medical University, Kuala Lumpur; [2]Division of Clinical Medicine, International Medical University, Kuala Lumpur; [3]Department of Pharmacology, School of Medicine, International Medical University, Kuala Lumpur; [4]School of Pharmacy, International Medical University, Kuala Lumpur

Organisation: International Medical University

Background: Healthcare professionals play an important role in safeguarding and promoting the proper disposal of medicinal waste. Students as future professionals will have an important role. The objective of this study was to assess the knowledge, attitude, and practice regarding the disposal of unused or expired medicines among medical, dental, and pharmacy students in a private university in Malaysia.

Method: An online survey was performed among medical, dental, and pharmacy students at a private university. The characteristics of the students were recorded, and the answers to survey questions concerning the knowledge, attitude, and practice of medicine disposal were analysed.

Results: A total of 419 students completed the survey with a response rate of 71%. The respondents' knowledge of the definition of 'expired' medications and their safe disposal requires strengthening. Their perspectives/attitudes toward the topic were good. About half of all respondents kept unused medicines and 12% kept expired medicines, but only 2% used expired ones. Almost 75% of the students surveyed disposed of unused medicines in the garbage. Most perceived that creating awareness about proper medicine disposal is the responsibility of the government (91%), pharmaceutical industries (93%), multimedia (86%), and health professional (96%), but only 10% cited teaching institutes. The medical and pharmacy students have a higher score in their self-rated confidence in disposing of unused and expired medicines correctly than the dental students (mean scores of 6.34 and 7.12 vs. 5.65, respectively, $p < 0.05$).

Conclusions: The knowledge and practice of proper disposal of medicines should be strengthened. Opportunities to allow students to gain knowledge and develop confidence in the proper disposal of unused and expired medicine can be considered.

Author(s) declared no conflict of interest.

ABSTRACT ID: 126

TOPICAL CORTICOSTEROID COUNSELLING AMONG MALAYSIAN COMMUNITY PHARMACISTS: A QUALITATIVE CROSS-SECTIONAL STUDY

Presenter: P Ravi Shankar, IMU Centre for Education, International Medical University, Malaysia

Other author(s): Abigail D Nathan[1], Chandrashekhara TS[2]
[1]Master of Science in Public Health Student, International Medical University, Kuala Lumpur; [2]Division of Community Medicine, International Medical University, Kuala Lumpur

Organisation: International Medical University

Background: Topical corticosteroids (TCS) are commonly available in community pharmacies and used in skin conditions like atopic dermatitis and psoriasis among others. Problems like both overuse, use of potent steroids and steroid phobia have been identified. The study aimed to obtain community pharmacists (CPs) views regarding factors influencing their counselling of patients about TCS; challenges associated, important problems, the counselling process, and shared care with other professionals.

Method: Seven licensed practicing community pharmacists (from the Klang Valley, Malaysia) were interviewed between 23rd September to 14th November 2021. These were CPs participating in the questionnaire study who agreed to be interviewed. NVIVO 11 software was used for analysis. Codes and themes were generated and agreed on by the researchers.

Results: The major themes identified related to the process mentioned of providing information to patients, the issues addressed by CPs during the counselling (including steroid phobia, overuse of TCS, patients asking for a specific preparation by name), less counselling support material, language barriers, lesser knowledge about certain conditions, information sources used by CPs (material provided by Ministry of Health and Malaysian Pharmacists Association, MIMS) and suggestions to strengthen the quality of counselling (specialisation in skin diseases, webinars, shared care models). Steroid phobia was seen more commonly among parents of young children and young patients. MIMS was available as a smartphone application making it easier to use. Advanced training for CPs in the management of skin conditions can be considered.

Conclusions: Counselling was conducted while dispensing TCS in the open area of the pharmacy. Challenges to counselling were lack of time, limited counselling materials, and language barriers. Steroid phobia requires attention. Initiatives to strengthen counselling mentioned by respondents appear feasible. Further research is required.

Author(s) declared no conflict of interest.

ABSTRACT ID: 128

UTILITY OF LABORATORY ALERT SYSTEM FOR DETECTING ADVERSE DRUG EVENTS: PROLONGED INR

Presenter: Benjaporn Silaruks, Khon Kaen Hospital, Thailand

Clinical Pharmacist (Cardiovascular and Thoracic Ward), former Deputy Director of Medical Education Center (Education Innovation, Technology, and Informatics), and Head of Pharmacy Education Center at Khon Kaen Hospital, Thailand. She has also been a member of the Curriculum Committee in Essential Course for Medical Educators, Ministry of Public Health.

Other author(s): Nattida Deepetch, PharmD[1], Rakfan Sawadpanich MD[2]
[1]Department of Pharmacy, Yasothon Hospital; [2]Thai Board of Thoracic Surgery, Head of Cardiovascular and Thoracic Ward, Deputy Head of Department of Surgery, Chairman of Medical Society.

Organisation: Khon Kaen Hospital

Background: Rapidly identifying adverse events is a more important issue in assessing causes that do harm to patients and in providing optimal care to improve patient outcomes. Bleeding events were associated with an increased risk of hospitalisation and mortality. The prolonged international normalised ratio (INR) should be considered. The use of automated laboratory alerts could substantially simplify its detection.

Purpose: This study aimed to evaluate the performance of a laboratory alert system of prolonged INR for detecting adverse drug events (ADE).

Method: The retrospective observational study was conducted at Khon Kaen Hospital, a tertiary teaching hospital. Medical records of patients using an alert parameter: prolonged INR (INR >6.0), were reviewed, during a 3-month period, in 2020. The trigger was extended to include warfarin use and signs of bleeding (blood transfusion or reduction of haemoglobin concentration). Causality assessment was performed using Naranjo's algorithm in such cases as having suspected ADE.

Results: There were 142 signals of prolonged INR in 88 patients. Over half of those (54.9%) were alerted at the initial hospitalisation. Characteristics of patients who had prolonged INR included having an infection (53.5%), liver failure (14.8%), and renal failure (11.3%). Over seventy percent of signals (71.8%) were found as adverse drug events and associated with anticoagulants. Of those, eighteen signals were assessed as ADE with active bleeding (17.6%). The positive predictive value of initial and extended triggers was 50% and 100%, respectively. One-fourth of ADE was associated with drug-drug interaction. Clinical outcomes were mostly improved among those having ADE (78.4%).

Conclusion: The alert notification system of prolonged INR could be an effective method, for the pharmacovigilance program, to detect ADE. This could provide a great opportunity for pharmacists and healthcare teams to find incidences of ADE and improve patient safety outcomes.

Author(s) declared no conflict of interest.

ABSTRACT ID: 130

PERCEPTIONS OF HEALTH CARE PROVIDERS AND PATIENTS ON FACTORS INFLUENCING MEDICATION ADHERENCE OF TYPE 2 DIABETES MELLITUS PATIENTS IN LABASA, FIJI: A QUALITATIVE STUDY

Presenter: Namrata Singh, Pharmacist, Ministry of Health and Medical Services, Fiji

Author: Namrata Devi Singh

Principal Supervisor: Ledua Tamani, Fiji National University, Fiji (Masters in Health Service Management thesis)

Organisation: Ministry of Health and Medical Services

Introduction: Type 2 diabetes mellitus (T2DM) is a disease that has a lot of complications associated with it if it is not managed well by patients. The knowledge and health literacy needed to understand its consequences not only on people's health but on the health system and the health cost associated with it, is very important. The crucial factor that helps to slow down the progress towards irreversible complications is good medication adherence. HCPs try to share the information and educate people about medication adherence but there are other associated factors that eventuate to non-adherence. This study has aimed to highlight factors influencing medication adherence in T2DM patients in Labasa, Fiji.

Method: Phenomenological study design was used to explore the perceptions of HCPs and patients on factors influencing the medication adherence of T2DM patients in Labasa, Fiji. A qualitative study was conducted in 2023 at the Labasa Divisional Hospital in Fiji.

Results: Thematic analysis revealed seven major themes which included: (1) patient-related factors influencing medication adherence, (2) disease-diabetes associated factors, (3) medication-associated factors, (4) health care facility-associated factors, (5) health professionals-associated factors, (6) cultural beliefs, (7) and socioeconomic factors. The common themes emerged in the FGDs were: (a) barriers and challenges influencing medication adherence, (b) medication-associated factors influencing medication adherence, (c) and health care professionals-associated factors influencing medication adherence.

Conclusion: Factors influencing patients medication adherence of patients are either in a positive or negative way. These factors warrant urgent attention from authorities to look into these factors and provide more support to patients in terms of ensuring medications are available and assisting HCPs by improving their working conditions and more staff training for better counselling in improving patients' medication adherence.

Author(s) declared no conflict of interest.

ABSTRACT ID: 131

POTENTIALLY INAPPROPRIATE MEDICATION IN HOSPITALISED OLDER MEDICAL PATIENTS IN MAHARAJ NAKORN CHIANG MAI HOSPITAL

Presenter: Bussakorn Sirivorakul, Pharmacist, Maharaj Nakorn Chiang Mai Hospital, Chiang Mai, Thailand

Other author: Panas Jesadaporn, Department of Internal Medicine, Maharaj Nakorn Chiang Mai Hospital

Organisation: Maharaj Nakorn Chiang Mai Hospital, Chiang Mai, Thailand

Background: Older patients in the medical ward are at high risk of experiencing adverse drug reactions due to multimorbidity and polypharmacy. Screening potentially inappropriate medications (PIMs) is one approach to discontinue or reduce high-risk medications, which improves clinical outcomes and quality of life in this population.

Purpose: To investigate the use of PIMs in older medical patients, Maharaj Nakorn Chiang Mai Hospital

Method/description of process or experience: A descriptive cross-sectional study was conducted between August 2022 and January 2023. Pharmacists screened newly admitted patients' medication lists in the medical wards. Eligibility criteria are those aged 65 and over who: 1) had four or more chronic diseases, 2) had congestive heart failure, liver disease, or chronic kidney disease, 3) had cognitive impairment, or 4) received warfarin, enoxaparin, or digoxin. The Screening Tool of Older Persons' Prescriptions (STOPP) criteria were used to identify and classify PIMs.

Results: 532 of 1,051 patients met the eligibility criteria. Their current medication lists revealed 185 instances that matched the STOPP criteria. The top three PIMs were: 1) benzodiazepines (55 occurrences, 29.7%), 2) continuous prescription of benzodiazepines for more than 4 weeks (37 occurrences, 20.0%), and 3) proton pump inhibitors prescribed at full dose for uncomplicated peptic ulcers or erosive peptic esophagitis lasting more than 8 weeks (31 occurrences, 16.8%).

Conclusion: Frequent instances of PIMs in older medical patients including prescribing benzodiazepines and proton pump inhibitors without indications. And prescribing benzodiazepines which increased the risk of falls in older people. Developing strategies to reduce the prescribing of these medications may help decrease adverse drug reactions and healthcare costs.

The researchers declare no conflicts of interest or financial support from any organisation.

ABSTRACT ID: 132

MANAGEMENT OF DRUGS AND HEALTH PRODUCT-RELATED PROBLEMS IN COMMUNITIES VIA HOME VISIT APPROACH BY THE NETWORK OF BAWAL-RAL (HOME, TEMPLE, SCHOOL AND HOSPITAL)

Presenter: Sopit Sittiphan, Pharmacist, Narathiwat Provincial Public Health Office, Thailand

Organisation: Narathiwat Provincial Public Health Office

Background: Thailand is facing an increasing number of drug and health product-related problems (DHPRs) in elderly patients. These problems can lead to increased morbidity, mortality, and healthcare costs. The Bawal-Ral network approach was introduced to improve such a situation. Members of this network include Oryor Noi (consumer protection students), health volunteers, community leaders, and religious leaders. These partners work together to provide home visits to elderly patients with chronic illnesses. During these visits, they measure blood pressure, provide healthcare services, and search for health product problems. They also provide knowledge on health products and take care of physical health with a mental and spiritual dimension.

Purpose: To study the process and outcome of the management of DHPRs in the elderly with chronic disease in the responsible area of Yi Ngo Sub-district Health Promoting Hospital, Yi Ngo District, Narathiwat, by using the Bawal-Ral network approach.

Method: Action research by collecting data with face-to-face questionnaires (pre- and post-home visit interventions) from a sample group of elderly people (aged 60 years and over) who were chronically ill in the responsible area of Yi Ngo Sub-district Health Promoting Hospital, Narathiwat, totalling 120 people, conducted during the period November 2019 – June 2020.

Results: Home visit by Bawal-Ral network was successful in reducing the prevalence of households using steroid-containing herbal drugs and combination drugs from 16% to 0%. The study also showed that the network was effective in reducing the prevalence of expired or deteriorated drugs from 2% to 0%. Additionally, the study revealed that the network's efforts improved knowledge and behaviour on drug consumption among subjects from 33.58% to 99.23% and 2.33% to 3.73%, respectively. The percentage of satisfaction among the target group who received home visits was 98.4%.

Conclusion: Home visits by the Bawal-Ral network are an effective way to protect consumers and improve health in the community.

Author(s) declared no conflict of interest.

ABSTRACT ID: 133

SURGICAL ANTIBIOTIC PRESCRIPTION PATTERNS AND TRENDS IN TWO PRIVATE HOSPITALS IN MADHYA PRADESH, INDIA: A 10-YEAR OBSERVATIONAL STUDY

Presenter: Kristina Skender, Department of Global Public Health, Karolinska Institutet, Sweden

Other author(s): Anna Machowska[1], Shyam Kumar Dhakaita[2], Cecilia Stålsby Lundborg[1], Megha Sharma[1,3]
[1]Department of Global Public Health, Health Systems and Policy, Karolinska Institutet, Stockholm, Sweden; [2]Department of Surgery, Ruxmaniben Deepchand Gardi Medical College, Surasa, Ujjain, India; [3]Department of Pharmacology, Ruxmaniben Deepchand Gardi Medical College, Surasa, Ujjain, India

Organisation: Karolinska Institutet

Background: Inappropriate antibiotic use contributes to the global rise of antibiotic resistance, prominently in low- and middle-income countries, including India. There is a lack of long-term studies about antibiotic prescribing in surgery departments in private hospitals in India.

Aim: To analyse 10 years' antibiotic prescribing trends at surgery departments in a teaching (TH) and a non-teaching hospital (NTH) in Central India.

Method: Data for surgery inpatients (TH-15,016; NTH-14,499) were prospectively collected from 2008 to 2017 in two hospitals. Antibiotics were classified by the WHO AWaRe system and analysed against the diagnoses and adherence to the National List of Essential Medicines India (NLEMI) and the WHO Model List of Essential Medicines (WHOMLEM). Total antibiotic use was calculated by DDD/1000 patient-days. Time trends of antibiotic prescribing were analysed by linear regression.

Results: The most common indications were inguinal hernia (TH-12%) and calculus of kidney and ureter (NTH-13%). The most prescribed antibiotics were fluoroquinolones (TH-20%) and third-generation cephalosporins (NTH-41%), and as perioperative antibiotic prophylaxis (PAP), norfloxacin (TH-19%) and ceftriaxone (NTH-24%). Prescribed antibiotics were mostly Access (57%) in the TH and Watch (66%) in the NTH. Culture and susceptibility tests were seldom done (TH-2%; NTH-1%). Adherence to the WHOMLEM (TH-75%; NTH-62%) was higher than adherence to the NLEMI (TH-69%; NTH-50%). Mean DDD/1000 patient-days was two times higher in the NTH (185) than in the TH (90). Overall antibiotic prescribing significantly increased in both hospitals over 10 years (TH-β= 0.23; NTH-β= 1.23), as well as proportion of Watch antibiotics (TH, β=0.16; NTH, β=0.96).

Conclusion: In both hospitals, total antibiotic use and consumption of Watch antibiotics increased over 10 years. The choice of PAP was often inappropriate and antibiotic prescribing was mostly empirical. The results of this study confirmed the need for local antibiotic prescribing guidelines and implementation of antimicrobial stewardship programs.

Author(s) declared no conflict of interest.

ABSTRACT ID: 134

CHALLENGES AND ADAPTATIONS OF METHADONE MAINTENANCE TREATMENT (MMT) DURING THE COVID-19 PANDEMIC IN NORTHERN THAILAND

Presenter: Karuna Sooktong, Thanyarak Chiangmai Hospital, Chiang Mai, Thailand

A recent pharmacist with five years of patient care experience in methadone maintenance therapy.

Other author(s): Puckwipa Suwannaprom[1], Siritree Suttajit[1]
[1]Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Organisation: Chiang Mai University

Background: Effective methadone maintenance therapy (MMT) and treatment retention are vital for productive and fulfilling lives of opioid users. Despite the large opioid caseload in northern Thailand, MMT clinics remain few. The COVID-19 pandemic has made it more challenging for existing clinics to provide effective treatment.

Aim: To explore the challenges and adaptations of methadone service in the hospitals run by the Ministry of Public Health in northern Thailand during the COVID-19 pandemic.

Method: An online survey was conducted from September 2022 to February 2023 to investigate the challenges and adaptations of 37 current MMT clinics of Ministry of Public Health hospitals (health regions 1 and 2, 12 provinces) in northern Thailand during the COVID-19 pandemic. Content analysis was employed to analyse the survey responses.

Results: The COVID-19 pandemic had a significant impact on MMT clinics. The pandemic led to a workforce shortage and inconsistency in support and training for MMT staff, and more patients lost to follow-up. MMT staff were reallocated to other COVID-19 services, leading to increased workload, demotivated staff, and negative attitudes toward MMT. Of the 37 MMT clinics surveyed, 28 modified their work procedures to better accommodate their patients. Most clinics increased take-home methadone doses above the legal maximum for patients with transportation issues. Some hospitals created screening requirements for take-home methadone doses due to staff concerns about methadone overdose and misuse. Some hospitals set up proactive MMT services and collaborated more with local community networks to reach and monitor patients in drug epidemic areas.

Conclusion: Despite staff shortages and other challenges, most hospitals adapted their MMT services during the COVID-19 pandemic to keep patients treated. The pandemic has highlighted the need for long-term investment to create more resilient MMT services in northern Thailand.

Author(s) declared no conflict of interest.

ABSTRACT ID: 136

NON-ADHERENCE TO STANDARD TREATMENT GUIDELINES AT A DISTRICT HOSPITAL IN LIMPOPO, SOUTH AFRICA, AND THE RESULTANT COST AND IMPLICATIONS

Presenter: Fatima Suleman, Professor, School of Health Sciences/World Health Organization Collaborating Centre for Pharmaceutical Policy and Evidence Based Practice, School of Health Sciences, University of KwaZulu-Natal, Durban, South Africa

Other author(s): Shirindza ME, Postgraduate Student, Discipline of Pharmaceutical Sciences, School of Health Sciences, University of KwaZulu-Natal, Durban, South Africa

Organisation: University of KwaZulu-Natal

Background: Standard treatment guidelines (STGs) promote a standardised approach and informs decision making in managing patients, and if these are appropriately implemented, good quality care and health system savings can be achieved.

Objectives: The objective of the study was to compare prescribing patterns and healthcare expenditure for STG items versus non-STG items in a public hospital in Limpopo in South Africa.

Method: Existing patient medical records were used to collect data from 248 randomly selected patient files from a district hospital in Limpopo in South Africa. A pre-designed data collection tool was used to extract patient information, including demographic data as well as prescribing information. Data obtained was analysed using SPSS computer software.

Results: The number of prescriptions with non-STG medication was 71 (31.9%). The total expenditure of the prescribed medication amounted to ZAR18 701.02 (for 248 prescriptions). This expenditure was further divided in terms of ZAR12 173.03 (65.1%) for prescriptions aligned with STGs and ZAR6 527.99 (34.9%) for prescriptions not aligned with STGs.

Conclusion: Even though this study found that two-thirds of the prescriptions and expenditure are aligned with STGs, it is of concern that one third is still not aligned, as this could be amplified in terms of cost implications across the system. Further investigation and ongoing monitoring are recommended.

Author(s) declared no conflict of interest.

ABSTRACT ID: 137

DEVELOPMENT OF A HEALTHCARE PRODUCT SURVEILLANCE MODEL IN GROCERY STORE IN SISAKET PROVINCE

Presenter: Munlika Suphon, Sisaket Provincial Public Health,Thailand Ministry of Public Health

Other author(s): Munlika Suphon[1], Jindaporn Uppatham[1] Sileethorn Boukajorn[1], Mr Kanuttawut Luangthep[2]
[1]Sisaket Provincial Public Health, Thailand Ministry of Public Health; [2]Academic Service Center, Sirindhorn College of Public Health, Ubon Ratchathani

Organisation: Sisaket Provincial Public Health Office, Thailand Ministry of Public Health

Purpose: This study aims to develop a healthcare product surveillance model for grocery stores and action research to evaluate the inappropriate distribution of healthcare products in grocery stores, Sisaket Province. The 5-step study: Planning, studying and developing the tools to study inappropriate distribution of healthcare products in grocery stores. Survey the grocery stores in Sisaket province by using developing tools. Observation focusing on inappropriate distribution of healthcare products. Evaluate and feedback of information to the community. Developing and amplifying to other communities.

Results: The result showed 'GIS store' or 'Homdang Project' is an online tool developed by applied questionnaires on Google Forms. Survey conducted by health volunteers, health network and health officials. Data was collected and prioritised into 3 classes, green (safe), yellow (unsafe but not critical) and red (unsafe). The information showed real time on Google Data Studio including location of the store. The results of 9,305 stores in 22 districts showed the stores were classified green 58.49%, yellow 24.15% and red 17.36%. The unsafe healthcare products were drugs 14.53%, the knowledge of alcohol and tobacco products 2.55% and food products 1.07%. The result data will be feedback to the responsible person in each district for problem resolve plans.

Author(s) declared no conflict of interest.

ABSTRACT ID: 139

RATIONAL DRUG USE TEACHING IN UNDERGRADUATE HEALTH SCIENCES PROGRAMS IN THAILAND: A BASELINE ASSESSMENT

Presenter: Siritree Suttajit, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Other author(s): Naphaphorn Puripunyavanich[1], Chairat Shayakul[2], Pisonthi Chongtrakul[3], Nuttasiri Thanawuth[4], Suntrawadee Theinpichert[5], Arnuparp Lekhakula[6]
[1]Food and Drug Administration, Ministry of Public Health, Nonthaburi, Thailand; [2]Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand; [3]The Medical Council of Thailand; [4]Faculty of Pharmaceutical Sciences, Prince of Songkla University, Hat Yai, Thailand; [5]Continuing Nursing Education Test Center, Thailand Nursing and Midwifery Council, Thailand; [6]Faculty of Medicine, Prince of Songkla University, Hat Yai, Thailand

Organisation: Faculty of Pharmacy, Chiang Mai University

Background: Undergraduate students must develop a rational drug use (RDU) mindset and skills to provide trustworthy healthcare. In 2013, the Thai National RDU Subcommittee established the Working Group on Health Workforce Development for RDU (WG) to achieve this mission. The WG conducted a national survey to gain insight about the RDU teaching situation in Thailand, as there was no existing information.

Purpose: To describe the baseline situation of RDU teaching in the undergraduate programs of six health sciences professionals (medicine, dentistry, veterinary medicine, pharmacy, nursing, and public health) in Thailand in academic year 2013.

Method: A survey was developed based on the teaching survey of the Consortium of Thai Medical Schools and a core RDU curriculum drafted by the WG. The survey included four parts: nine core knowledge topics, five core skills, seven core attitudes, and challenges and recommendations for integrating RDU into the curriculum. A survey was carried out both public and private universities, between November 2013 and January 2014.

Results: A total of 56 out of 179 schools responded. RDU was included in 14–56% of curriculum objectives. Knowledge (26–82%) and skills (21–47%) were taught more than attitudes (16–30%). Teaching methods were mainly lecture-based, even for skills and attitudes. Pharmacology outnumbered pharmacotherapy courses. Overall, 49.1% of curricula evaluated students' learning outcomes, primarily through written exams (45.6%). Most schools were unable to determine how well their graduates used medicine because there were no measurements.

Conclusion: A survey of six professions revealed variations in RDU teaching and challenges in integrating it into the curriculum. The WG responded by convening meetings with instructors across professions to identify common core RDU competencies, developing a teaching guidebook, providing support for implementation and evaluation, and training the instructors. A second round of surveys is planned for 2023, with an expansion to other health professionals' education programs.

Author(s) declared no conflict of interest.

ABSTRACT ID: 140

APPLYING SYSTEMS APPROACH IN 'PROMOTING RATIONAL USE OF MEDICINES' COURSE FOR PHARMACY STUDENTS

Presenter: Siritree Suttajit, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Other author(s): Puckwipa Suwannaprom[1], Penkarn Kanjanarat[1], Ratanaporn Awiphan[1], Hathaikan Chowwanapoonpohn[1], Nantawarn Kitikannakorn[1], Chabaphai Phosuya[1]
[1]Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Organisation: Faculty of Pharmacy, Chiang Mai University

Background: The WHO promotes rational use of medicines (RUM) by teaching problem-based pharmacotherapy in the undergraduate curriculum. However, irrational drug use is a complex problem with many contributing factors beyond the individual. Therefore, future pharmacists should be a change agent with systems mindset.

Purpose: To share the experiences of applying systems approach in designing a course on promoting RUM for PharmD pharmacy students at the Faculty of Pharmacy, Chiang Mai University, Thailand.

Method: In 2013, Chiang Mai University added 'Promoting RUM (464544)', to its PharmD curriculum for 5th year pharmacy students. The 2-credit course was designed to instil a RUM mindset and build a system manager for promoting RUM in support of the National Drug Policy 2011. The course runs from 2018 to 2023, with 80 students each year.

Results: The course was designed based on WHO/INRUD materials and focused on RUM concepts, policies, complex interventions, and evaluation. In later years, systems thinking, design thinking, and service design were added to provide a more systems-oriented and people-centred approach. To expand RUM and provide students with hands-on experience, activities were blended with a 2-practice credit course, 'Integration of Pharmaceutical Care in Community.' In groups, students collaborate with pharmacists and healthcare professionals using a systems approach to address complex RUM problems in a hospital or community. The course is updated annually based on instructor observations, student feedback, and available resources.

Conclusion: A 'Promoting RUM' course in the pharmacy curriculum provided an opportunity to design a learning platform that enables students to make sense of the complexity of irrational drug use in a systematic way. In new curricula that do not have this subject, the faculty should foster a systems view in other relevant subjects to ensure that we are producing graduates who can support Thailand in becoming a 'Rational Drug Use Country.'

Author(s) declared no conflict of interest.

ABSTRACT ID: 142

EXPEDITED PATHWAY FOR SELECTING ESSENTIAL MEDICINES IN RESPONSE TO PANDEMIC AND PRIORITY PUBLIC HEALTH CONDITIONS IN THAILAND

Presenter: Thanisa Thathong, Food and Drug Administration, Ministry of Public Health, Thailand; Subcommittee for Development of the National List of Essential Medicines, Thailand

Thanisa Thathong has been working at the Thai Food and Drug Administration in the division of national drug policy since 2013. As a secretariat of National List of Essential Medicines (NLEM) subcommittee and expert committees under the subcommittee, her responsibilities include gather, appraise, and present reliable and good evidence to support policy decision making processes. She has a special interest in research related to health policy, drug system, and drug reimbursement system.

Authors: Worasuda Yoongthong[1,2], Anchalee Jitraknatee[1,2], Wannisa Theantawee[1,2], Suwee Siripraphawattana[1,2], Kritsada Pongsuriya[1,2], Jutatip Laoharuangchaiyot[1,2], Thanisa Thathong[1,2]
[1]Food and Drug Administration (FDA), Ministry of Public Health, Thailand; [2]Subcommittee for Development of the National List of Essential Medicines (NLEM), Thailand.

Organisation: Food and Drug Administration (FDA), Ministry of Public Health, Nonthaburi, Thailand.

Background: The National List of Essential Medicines (NLEM) has played a crucial role in ensuring access to medicines for priority health needs in Thailand since 1981. Thailand faced COVID-19 pandemic since 2019. We use the Emergency use authorisation for COVID-19 medicines and procured by government purchasing to ensure access to COVID-19 medicines in national clinical practice guideline. However, after pandemic in 2022, the central procurement for COVID-19 treatment has changed to normal benefit packages. Therefore, the NLEM Subcommittee established the expedited pathway for selecting essential medicines in response to pandemic and priority public health conditions in Thailand.

Objective: To evaluate the expedited pathway through the National expert panel on urgent essential medicines.

Method: documentary reviews the output of the National expert panel on urgent essential medicines from July 2022 to May 2023.

Results: The NLEM Subcommittee has appointed the National expert panel on urgent essential medicines. The panel is responsible for selecting unmet need, breakthrough, emergency or public health importance medicines as well as those explicitly better health outcomes comparing the existing list. The expert panel has used the scrum process to work with all relevant experts in clinical, economic, relevant organisation to expedite the process. Then the strategic expert panel consider the proposed list before the final decision by NLEM subcommittee. The expedited pathway was used to select 13 medicines. The selection process was accomplished within 4 months since submission to formally inclusion NLEM list in the government gazette. The COVID-19 medicines have been included for the first time as special list in NLEM. Therefore, we can ensure continuous access for COVID-19 medicines in national benefit package. The list has to be reviewed every 6 month or with changes in evidence.

Conclusion: Implementing the expedited pathway for selecting essential medicines improve consideration time and timely response to pandemic situation.

Author(s) declared no conflict of interest.

ABSTRACT ID: 144

THE EFFECTS OF THE SURVEILLANCE ON THE USE OF DERRIS SCANDENS (ROXB.) BENTH IN PATIENTS WITH STAGE 3 CHRONIC KIDNEY DISEASE IN RENU NAKHON HOSPITAL OF NAKHON PHANOM PROVINCE

Presenter: Patchara Thongyod, Pharmacist, Renu Nakhon Hospital, Nakhon Phanom Province

Co-authors: Ananusara Yarungsee, Professional Pharmacy Officer, Renu Nakhon Hospital, Nakhon Phanom Province

Organisation: Renu Nakhon Hospital, Nakhon Phanom Province, Thailand

Introduction: Chronic kidney disease patients are increasing continually in Thailand. Renu Nakhon Hospital has promoted the use of Derris Scandens (RoxB.) Benth for musculoskeletal pain instead of NSAIDs in patients with stage 1 and 2 chronic kidney disease (CKD). However, it should not be used for patients with stage 3 CKD.

Method: The action research study was applied for developing the surveillance system to alarm the use of Derris Scandens (RoxB.) Benth in patients with stage 3 CKD at Renu Nakhon Hospital between October 1, 2021, and September 30, 2022. Physicians, pharmacists, a registered nurse, and an IT technician worked together to develop a notification message, on the hospital's computer

screen, that would pop-up when Derris Scandens (RoxB.) Benth was prescribed for patients with eGFR ≥ 59 ml/min/1.73m^2. When it message appears, pharmacists would notify the physician to reconsider his prescribing. Descriptive statistics were applied to present the study results.

Results: A total of 205 patients with kidney disease received the Derris Scandens (RoxB.) Benth. Of these, 141 (69%) were female. Of the 205 patients, 5 (2.44%) were patients with stage 3 CKD; all had been identified and alerted by the system and had been confirmed by the physicians to be prescribed the Derris scandens (RoxB.) Benth. Of the 5 patients, 2 were males and 3 females. They had been identified as stage 3 CKD for 3 years in 1 patient, for 7 years in 2 patients, for 8 years in 1 patient, and for 10 years in 1 patient. Their eGFR was increased in 4 patients and decreased in 1 patient.

Conclusion: The alert notification regarding the eGFR level raises the awareness of physicians and pharmacists before prescribing the Derris Scandens (RoxB.) Benth for patients with stage 3 CKD.

Author(s) declared no conflict of interest.

ABSTRACT ID: 146

CAN LOW-WAGE INDONESIANS AFFORD TO BUY MEDICINE? EVIDENCE FROM SEVEN DISTRICTS

Presenter: William Nathanial Tjandrawidjaya, Pancasila University, Jakarta, Indonesia

William N. Tjandrawidjaya is a pharmacist who is currently working at the Center of Pharmaceutical Policy, Management and Services Studies (CEPHAS) Universitas Pancasila as a research assistant for Systematic Tracking At Risk Medicine (STARmeds). He supported the data collection process of more than 1000 medicine samples in Indonesian market. STARmeds is the first study in Indonesia that measures the prevalence of substandard and falsified medicines. This study aims to support the post-market surveillance in Indonesia. This study is a collaboration between Universitas Pancasila, Imperial College London and Erasmus University Rotterdam.

Other author(s): Vinky Maria[1], Ayu Rahmawati[1], Yusi Anggriani[1], Elizabeth Pisani[1,2]
[1]Pancasila University, Jakarta, Indonesia; [2]London School of Hygiene and Tropical Medicine, London, UK

Organisation: Pancasila University

Background: Indonesia, the world's fourth most populous nation, is extremely diverse both geographically and economically. A mandatory national health insurance system has since 2014 provided free medicines in health facilities, but a majority of patients also buy medicines out of pocket.

Purpose: We measured the affordability of retail medicine prices in 7 districts in Indonesia, comparing major cities with remote rural areas.

Method: Mystery shoppers bought 872 samples of five common medicines from pharmacies and health facilities in seven districts, including the three largest cities and more remote rural areas in Western, Central, and Eastern islands. We compared the cost of a course of treatment of allopurinol, amlodipine, amoxicillin, cefixime, and dexamethasone with the district's monthly minimum wage. We defined medicines as affordable if one course cost less than one day's wage.

Results: Medicine prices varied widely by brand and outlet. We used the lowest quartile price of each medicine by district to calculate affordability. At that price, the average cost of a treatment course was around 0.6% of the minimum wage – well under a day's wages. The outlay was between two and three times higher in remote eastern areas and rural districts than it was in large cities, which have higher minimum wages. However, even the most expensive of the study medicines in the most remote district cost less than half a day's earnings

Conclusion: Although the cost of treatment relative to earnings was higher in more remote districts, common medicines were widely available at prices affordable to patients earning the minimum wage in all areas of Indonesia studied.

The study was funded by UK National Institute for Health Research. The authors have no conflicts of interest.

ABSTRACT ID: 148

THE IMPACT OF THE RATIONAL DRUG USE (RDU) HOSPITAL POLICY ON ANTIBIOTIC USAGE IN PUBLIC HOSPITALS AND PRIMARY CARE UNITS IN THAILAND

Presenter: Nucharin Tomacha, Food and Drug Administration, Thailand

Other author(s): Naphaphorn Puripunyavanich[1], Anchalee Jitruknatee[1], Supasit Pannarunothai[2]
[1]Food and Drug Administration, Thailand; [2]Centre for Health Equity Monitoring Foundation, Phitsanulok

Organisation: Food and Drug Administration, Thailand

Background: The Ministry of Public Health (MoPH) implemented the Rational Drug Use (RDU) hospital policy, encompassing key elements known as 'PLEASE', as an integral performance agreement for chief executive officers of all MoPH levels from 2017 to 2020. Hence, the RDU hospital policy was quarterly monitored with active feedback across public hospitals and primary care units (PCUs) of the MoPH through the inspector-general mechanisms.

Purpose: To examine the impact of the RDU hospital policy on outpatient antibiotic prescribing and cost savings for upper respiratory tract infections (URI), acute diarrhea (AD), and fresh traumatic wounds (FTW).

Method: Antibiotic prescribing data from 897 public hospitals and 10,370 PCUs in the Health Data Center of MoPH, were extracted. Descriptive statistics were employed to compare the percentage of antibiotic usage before (2016) and after (2020) the implementation of the RDU hospital policy. Additionally, the overall cost savings resulting from the reduction in irrational antibiotic use were estimated by approximating the antibiotic costs per visit for URI, AD, and FTW.

Results: In 2020, there was a significant improvement in the overall percentage of antibiotic prescribing compared to 2016. Public hospitals demonstrated a 20% reduction in antibiotic prescribing for FTW. There was a 19% reduction in public hospitals and a 29% reduction in PCUs for URI. In the case of AD, there was a 22% reduction in public hospitals and an impressive 60% reduction in PCUs. The estimated two-time point cost savings were over US$5.9 million (US$1 = 32.00 THB in 2020).

Conclusion: The strong RDU hospital policy implementation, including regular site visits for audits and an active feedback system through the MoPH inspector-general mechanisms, effectively improved antibiotic prescription practices in both public hospitals and PCUs. To enhance the RDU policy packages within Thailand's health systems, it is recommended to sustain the implementation of these policies.

Author(s) declared no conflict of interest.

ABSTRACT ID: 150

A COMMUNITY PHARMACY-BASED STUDY OF SYMPTOM RECOGNITION AND SELF-SEEKING MEDICATIONS FOR COMMON HEADACHES

Presenter: Acharawan Topark-Ngarm, Faculty of Pharmaceutical Sciences, Khon Kaen University

Other author(s): Nuttawadee Rattanakongsawat[1], Thidarat Sirimasgool[1], Boonyanut Chatthammarat[1], Nadthatida Hansuri[2], Nirachara Tawinkan[2], Sunee Lernsinudom[3], Acharawan Topark-Ngarm[4]
[1]Former undergraduate student, Bachelor of Pharmacy Program, Faculty of Pharmaceutical Sciences, Khon Kaen University; [2]Registered Pharmacist, Faculty of Pharmaceutical Sciences, Khon Kaen University; [3]Associate Professor, Faculty of Pharmaceutical Sciences, Khon Kaen University; [4]Assistant Professor, Faculty of Pharmaceutical Sciences, Khon Kaen University

Organisation: Khon Kaen University

Background: Acute headaches are common problems worldwide. In Thailand, community pharmacies are widely used and play an essential role in the management of common ailments. Symptom recognition by patients may lead to self-seeking medications in community pharmacies.

Purpose: This study aimed to 1) compare the symptom recognition by patients and by pharmacists assessed according to the International Classification of Headaches Disorders 3rd Edition (ICHD-III) 2) explore self-seeking medications and medications dispensed by pharmacists.

Method: A cross-sectional observational study was conducted in 9 community pharmacies in Khon Kaen municipality of Thailand from February 2 to March 31, 2018. ICHD-III was used to guide and standardise pharmacists for symptom recognition and drug dispensing to persons having migraine and tension-type headaches (TTH). Patients' and pharmacists' symptom recognition and medication approach for headaches were compared.

Results: Among 49 patients obtaining the services in 9 pharmacies, patients' self-recognition was aligned with the pharmacists' recognition in 40 cases (81.6%). Alignment for migraine recognition was 85.7% and tension-type headache (TTH) was 76.2%. Regarding medications, self-seeking medications were aligned with medications dispensed by the pharmacists in 16 out of 28 cases (57.1%) for migraine and in 15 out of 21 patients (71.4%) for TTH. In 12 self-seeking cases for anti-migraine medications, 9 cases sought inappropriate drugs and 3 cases needed additional drug therapy. In TTH, all 6 self-seeking cases sought inappropriate drugs. The top three self-seeking medications were paracetamol, NSAIDs, and ergotamine (32.7, 28.6, and 26.5%, respectively), while medications dispensed by pharmacists were NSAIDs, ergotamine, and paracetamol (46.9, 22.4, and 12.2%, respectively).

Conclusion: Community pharmacists encounter common headaches and present the opportunity to contribute significantly to improving symptom recognition and proper use of medicine.

Author(s) declared no conflict of interest.

ABSTRACT ID: 151

THE DEVELOP A MODEL FOR PROMOTING RATIONAL DRUG USE IN SUKHOTHAI PROVINCE, THAILAND

Presenter: Teeraya Vorapani, Pharmacist, Sukhothai Provincial Public Health Office, Sukhothai, Thailand

Other author(s): Pongpol Vorapani, Pharmacist, Sukhothai Provincial Public Health Office, Sukhothai, Thailand

Organisation: Sukhothai Provincial Public Health Office

Background: Medicine is the one of the four essential factors in life. The prescription of drugs is therefore important in the care of the patient's health, especially antibiotics. If the drug is inappropriately prescribed, it can lead to drug resistance, making treatment more difficult. The patient stays in the hospital longer and can die.

Method: This research is a quasi-experimental study to develop a model for promoting rational drug use in Sukhothai Province, Thailand, with in-depth interviews and focus groups discussion. Quantitative and qualitative data were analysed.

Results: The research results showed that the model of rational drug use promotion in Sukhothai Province, Thailand. There are main components consisting of policy, management, integration, monitoring and evaluation and information technology. From the trial of a new model to promote rational drug use in Sukhothai Province in 3 main areas, public hospital, Tambon health hospital and the private sector, it was found that 88.89% of public hospitals promote rational drug use, 100% of Tambon health hospitals. In the community, proactively sell illegal health products in stores, covering 81.14%, including the private sector promoting rational drug use in pharmacies and private hospitals, more than 80%.

Conclusion: Therefore, the promotion of rational drug use should focus on both the public sector, private sector, and the community and continually integrate with network partners that the people receive sustainable safety.

Author(s) declared no conflict of interest.

ABSTRACT ID: 152

SUCCESSFUL ESTABLISHMENT OF HYBRID MULTIDISCIPLINARY BLOODSTREAM INFECTION MANAGEMENT GROUP IN SOLOMON ISLANDS

Presenter: Alice Siuna Waneoroa, General Physician, Internal Medicine Department, National Referral Hospital, Solomon Islands

Other author(s): Alice Siuna Waneoroa[1], Emire Meone Maefiti[1], Hilda Zoleveke[1], Esther Bogese[1], Frances Kennedy[1], Wendy Jackson[2], Matt Mason[2,3], Mieke Huthchinson-Kern[2] Nikki Townell[2]
[1]Internal Medicine Department, National Referral Hospital; [2]Pacific Regional Infectious Diseases Association (PRIDA); [3]The University of the Sunshine Coast, Australia

Organisation: National Referral Hospital

Background: Solomon Islands is a nation of 700,000 people with a small health workforce and no infectious disease physician. Bloodstream infections (BSIs) are a significant cause of mortality. Historically management of BSI in Solomon Islands had been challenging, including delays in notification, lack of clinician understanding, non-standardised approach to patient management and lack of appropriate antibiotics.

Purpose: A multidisciplinary group with local and international clinicians was established with the purpose of improving clinical management of patients with BSIs within a larger program to support training, and capacity building to address the threat of antimicrobial resistance (COMBAT-AMR).

Methods/description of process/experience: The Solomon Blood Stream Infection group includes physicians, surgeons, infection prevention and control (IPC) nurses, microbiology scientists and pharmacists at the National Referral Hospital with online support from international counterparts (PRIDA and Alfred Hospital). Weekly hybrid meetings provide real time review and patient management advice for positive blood cultures and multi-resistant organisms (MROs). There is a strong mentoring and information sharing focus. The meetings provide a forum to discuss issues relating to IPC, antimicrobial stewardship and microbiology.

Results: Weekly meetings have been held since March 2022 with discussions on diagnosis and management of conditions such as infective endocarditis and surgical site infections. Participants have reported better dissemination of information and improved collaboration between teams. This resulted in the early identification and containment of two MRO outbreaks. Audits, policies, and training have been developed and implemented from gaps identified during meetings.

Conclusion: This project highlights the importance of multidisciplinary involvement and local engagement in the successful management of complex infections in low resource settings. It is expected that the same approach could be effectively applied to the management of non-communicable diseases. The provision of regular online expert support is an effective and sustainable method to provide mentoring and support development of local champions.

Author(s) declared no conflict of interest.

ABSTRACT ID: 155

IMPACTS OF NATIONAL REIMBURSEMENT DRUG PRICE NEGOTIATION ON DRUG ACCESSIBILITY, UTILISATION, AND COST IN CHINA: A SYSTEMATIC REVIEW

Presenter: Zheng Zhu, Department of Health Policy and Management, School of Public Health, Peking University, China

Other author(s): Quan Wang[1], Zhihu Xu[1], Jiawei Zhang[1], Peien Han[1], Li Yang[1]
[1]Department of Health Policy and Management, School of Public Health, Peking University, China

Organisation: Peking University

Objective: Since 2016, the Chinese government has regularly implemented seven rounds of the National Reimbursement Drug Price Negotiation (NRDPN) to improve the accessibility of innovative drugs. This systematic review aimed to determine the effects of NRDPN on drug price, availability, affordability, utilisation, cost, and health outcomes in China.

Method: We searched the electronic databases PubMed (which includes MEDLINE), Web of Science, China National Knowledge Infrastructure (CNKI), Wanfang, and VIP for all associated studies published in English or Chinese between January 2016 and December 2022. One of the following outcomes had to be reported: drug price, availability, affordability, utilisation, cost, or health outcomes.

Results: From a total of 2628 studies, we identified 18 studies that met the inclusion criteria (14 interrupted time-series studies and 4 controlled before-after studies). The published studies indicated the implementation of the NRDPN policy decreased drug prices and improved drug availability and affordability. It has been suggested that the NRDPN was conducive to narrowing disparities in availability and affordability across regions, hospital levels, and types of health insurance. In addition, it was associated with the increased use of successful negotiated drugs and decreased out-of-pocket expenditures. However, health outcome changes attributed to NRDPN policy were not found in the published studies.

Conclusion: Evidence to date generally suggests the NRDPN policy is an effective way to improve the accessibility of innovative medicines and protects vulnerable populations from inequity in access to medicines. It is also associated with a price reduction and patient financial burden alleviation. However, there are still challenges to benefiting patients sufficiently and equally. Policymakers should develop a more collaborative policy combination to coordinate with the NRDPN policy, as well as improve financial protection and equal opportunities in access to medicine.

Author(s) declared no conflict of interest.

ABSTRACT ID: 156

THE IMPACT OF NATIONAL VOLUME-BASED PROCUREMENT ON HEALTHCARE EXPENDITURE FOR HYPERTENSIVE PATIENTS IN GUANGZHOU, CHINA

Presenter: Zheng Zhu, Department of Health Policy and Management, School of Public Health, Peking University, China.

Other author(s): Zhaofeng Yu[1], Yan Sun[1], Jiawei Zhang[1], Peien Han[1], Li Yang[1]
[1]Department of Health Policy and Management, School of Public Health, Peking University, China

Organisation: Peking University

Background: In 2019, the Chinese government launched the national volume-based procurement (NVBP). 7 antihypertensive drugs were selected in the first round of NVBP. This study aimed to evaluate the impact of NVBP on the expenditure of patients with hypertension.

Method: The Guangzhou claims data of patients diagnosed with hypertension was extracted from the China Health Insurance Research Association (CHIRA) database, covering 36 months from January 2017 to December 2019. Adopting the interrupted time series (ITS) and difference-in-difference (DID) approach, we evaluated the impacts of the NVBP policy on total healthcare expenditure, health insurance expenditure, and patients' financial burden at both the collective level and individual level. We also examined how patients and health facilities' characteristics affected the association.

Results: At the collective level, we found that the introduction of the NVBP policy reduced total healthcare expenditures and health insurance expenditures for outpatient services by 11.40% and 15.63%, respectively (all $p < 0.01$), while it appeared to have no impact on inpatient services. At the individual level, the DID analysis showed that the total healthcare expenditures per visit decreased by 35.40% ($p < 0.01$), among which healthcare insurance expenditures decreased by 36.81% and out-of-pocket expenditures decreased by 24.65% for outpatients treated with NVBP-list drugs. However, we did not detect any changes in healthcare expenditures per admission. In subgroup analysis, we found a greater decrease in healthcare expenditure per visit for secondary and tertiary hospitals, as well as patients with urban and rural residents medical insurance (URRMI).

Conclusion: This study provides additional evidence that the NVBP policy was associated with achieving cost containment, alleviating patients' burdens, and relieving pressure on health insurance funds, which provides important lessons for other countries that are seeking to improve their drug procurement processes. However, the impact of NVBP policy is likely to differ across facilities level and health insurance schemes.

Author(s) declared no conflict of interest.

ABSTRACT ID: 157

A FRAMEWORK FOR NEW MEDICINE LAUNCH IN LOW- AND MIDDLE-INCOME COUNTRIES

Presenter: Katrina Perehudoff: 1) Law Centre for Health and Life, University of Amsterdam, The Netherlands; 2) Amsterdam Institute for Global Health and Development, The Netherlands; 3) WHO Collaborating Centre for Governance, Accountability, and Transparency in the Pharmaceutical Sector at the University of Toronto

Background: The decision to market a medicine in a certain country rests primarily with the pharmaceutical company with the rights to produce and market it in that territory. Most new medicines are marketed first in Europe, North America, and other high-income countries before they are marketed in low- and middle-income countries (LMICs), even if those medicines were clinically tested in LMICs. In some LMICs, only half (51%) of WHO-designated essential medicines and vaccines are available to purchase on the local market. The availability of the right medicine at the right time on the domestic market is an important first step towards the rational use

of medicines. When investigating the 'diffusion' of an innovative medicine (meaning its uptake or use in the national health system), most studies focus on high-income countries (not developing countries), and do not account for the essential first step this process: the reasons for a company to choose to market its product in an LMIC. The limited evidence on this subject suggests that company decisions to market medicines can be influenced by a variety of factors, such as the national industrial and pharmaceutical policy, and the local requirements for market approval. However, there is no systematic framework that illustrates what these determinants of LMIC market launch are nor how they relate to one another.

Method: This is an exploratory qualitative study examining which factors influence the decision of pharmaceutical companies to market their medicine in LMICs. This study used a causal mapping approach to identify factors influencing launch decisions of pharmaceutical companies from a scoping review of scientific literature followed by semi-structured interviews with stakeholders.

Results: Twelve scientific articles were included in the literature review, and six stakeholders were interviewed to date. Based on the preliminary results, three categories of determinants of LMIC market launch were identified: factors related to the specific LMIC market, factors related to the specific company, and factors related to the specific product.

Participants of the ISIUM Conference will be invited to comment on the tentative conceptual framework that has been developed to illustrate the sub-components of these factors.

Author(s) declared no conflict of interest.

ABSTRACT ID: 158

DRUG USE EVALUATION OF ANTIBIOTIC PROPHYLAXIS FOR ABDOMINAL SURGERY IN A GENERAL HOSPITAL

Presenter: Natapohn Chaipichit, Division of Clinical Pharmacy, Department of Pharmaceutical Care, School of Pharmaceutical Sciences University of Phayao, Phayao, Thailand; Department of Pharmaceutical Care, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand

Natapohn Chaipichit is the assistant professor in clinical pharmacy in the department of Pharmaceutical Care, Chiang Mai University (CMU). Prior to joining CMU, she was an Assistant Professor in the department of Pharmaceutical Care, Phayao University from 2015–2023. She received her PhD in pharmacy and health system from Khon Kaen University, where she had initiated adverse drug reactions assessment tool for patient use. Her research interests include medication safety and patient engagement in healthcare service.

Other author(s): Nat Na-ek[1], Jittamas Rojcheewin[1], Chacrit Thimit[1], Natchanon Wichiankanyarat[1], Teeraporn Cheawcharn[1], Panuwat Traitham[2]

[1]Division of Clinical Pharmacy, Department of Pharmaceutical Care, School of Pharmaceutical Sciences University of Phayao, Phayao, Thailand; [2]Department of Surgery, Phayao Hospital, Phayao, Thailand

Organisation: Chiang Mai University

Background: Surgical site infection prevention is a vital component of Thailand's patient safety goals. To achieve this goal, understanding patterns of antibiotic use and misuse is crucial.

Purpose: To evaluate the appropriateness of antibiotic prophylaxis for abdominal surgery and to determine the prevalence of abdominal surgical site infections.

Method: This retrospective cohort study collected data from patients who underwent abdominal surgery procedures at a general hospital in northern Thailand from January 1, 2019, to December 31, 2021. Data were extracted from medical records and evaluated based on four criteria: indication, dosage, administration, and therapeutic monitoring.

Results: Out of the 448 patients included in this study, the majority were male (53.4%) with a mean age of 54.00 ± 8.41 years old. The three most common procedures were appendectomy (35.71%), gallbladder and biliary tract operations (18.08%), and hernia repair (15.18%). More than half of patients (56.03%) received ceftriaxone plus metronidazole. Only 25 patients (5.6%) met all the criteria for appropriate antibiotic use. The major observed issue was inappropriate indication (67.63%). Inappropriate timing of antibiotic administration, both pre- and post-operation, affected 24.6% and 50.9% of participants, respectively. Among these, seven patients (1.6%) were diagnosed with surgical site infections, and all of them were in the group that exhibited inappropriate antibiotic use.

Conclusion: Inappropriate indication and timing of antibiotic administration were the major issues in antibiotic prophylaxis for abdominal surgery, potentially leading to surgical site infections. Active monitoring may be necessary to ensure the appropriate use of antibiotics for preventing surgical site infection.

Author(s) declared no conflict of interest.

ABSTRACT ID: 159

USING ROUTINE DATA TO IDENTIFY MEDICINES PROBLEMS AT LOCAL AND NATIONAL LEVELS

Presenter: Libby Roughead, Bradley Distinguished Professor, Quality Use of Medicines and Pharmacy Research Centre, Clinical and Health Sciences, University of South Australia

The advent of electronic medical records as well as electronic claims and payment data has resulted in a treasure trove of data that can be used to support quality use of medicines activities. The data available vary from simple sales and billing records, often in aggregated from, through to complete capture of an individual's medical history including clinical data. This plenary session will focus on the potential of using these varied data sources to identify and resolve medication problems at the local and national level. The session will demonstrate how population data sets can be used to generate evidence of medication safety, including use of aggregated data to highlight potential problems with medicines at the local or national level. It will include a focus on how population data sets can be used to improve health care at the population level, and conclude with a discussion of the potential for data sets using patient collected data, such as wearable devices, to support improvements in medication safety and quality use of medicines.

ABSTRACT ID: 160

WHAT CAN WE LEARN FROM THE ILLEGAL USE OF COLISTIN AT THAILAND PIG FARMS?

Presenter: Punnee Amornviputpanich, BA (Political Science) Chulalongkorn University, Thailand; MA (Political Science) Waseda University, Japan; PhD (Communication Arts) Dhurakij Pundit University, Thailand

I am an investigative journalist with a deep passion for shedding light on environmental and human rights issues. For over sixteen years, I have worked with The Nation Group and specialise in investigative reports on environmental and human rights. I have been fortunate to receive recognition for my work. Awards such as 'Best Investigative News Award', 'Best UNICEF Child Rights Reporting', 'Best Environmental Reporting' and 'Human Right Media Award'. My journey in journalism has been complemented by academic pursuits, and I hold a Doctor of Philosophy (PhD) focused on Communication Arts from Dhurakij Pundit University. This academic background has enriched my understanding of effective communication, enabling me to present complex issues in a compelling and accessible manner. My dedication to excellence in research was recognised when I received the prestigious 'Best Research Award' from Thairath Foundation. Following the completion of my PhD, I co-founded Thailand Data Journalism Network (TDJ) and work on data journalism projects as a consulting editor on data-driven stories, and E-learning content on health promotion.

This is the story in Thailand about how investigative journalism was able to expose the linkage of MCR-1, colistin and pig farms, and the subsequent impact on consumers and local communities. While it is common for pig farmers to use antibiotics not only to keep their pigs healthy and disease-free but also to increase their growth rate and weight gain, Colistin has been described as an 'antibiotic of last resort'. Reports that pigs were getting food laced with colistin has worried the public and doctors fear such 'frivolous' use could lead to the spread of deadly bacteria resistant to antibiotics.

Media in the United States reported the first MCR-1 gene in *E. coli* bacteria in May 2016, which was found in a Pennsylvania woman. The news caused global alarm about colistin 'abuse' because *E. coli* would be cured immediately by colistin, so the case was unprecedented.

We found similar cases in Thailand as well. As a result of this investigative news, Thailand Livestock Development Department agreed to make colistin a controlled medicine for use only under supervision of a veterinarian.

Antibiotic use in massive livestock operations – over 60,000 tons per year worldwide – spawns AMR bacteria, which can then be transmitted to humans.

So how can the media help in situations like these? Can we learn from pharmacists, patients, and communities to improve the RDU?

ABSTRACT ID 161

PROVIDING INFORMATION IN ACCESSIBLE WAYS

Presenter: Maria Fernanda Barros de Oliveira Brandão, Conselho Regional de Farmácia do Estado da Bahia

Other authors: Suiane Costa Ferreira[1], Marcelo Ney de Jesus Paixão[1] Mila Palma Pacheco[1]
[1]Universidade do Estado da Bahia – UNEB

Background: Guidance on the rational use of medicines is a practice that needs to be promoted due to the damage that medicines can cause if used inappropriately.

Purpose: The objective was to promote health education with children in a school with the aim of raising awareness, promoting health and multiplying knowledge about the rational use of medicines in the context of storage using educational practices involving workshops, games and gamification.

Experience: The activities took place in a public school in October 2019. The project was planned by UNEB, CRF-BA and the school itself. The actions were carried out by a multidisciplinary team. The activities were supported by health students. The actions were structured in five moments: presentation; gamification with the QR Code feature; conversation circle about medicines, in a dialogued, dynamic and playful way; interaction with human board 'Farma Game'; and closure of activities with awards.

Results: The activities involved 250 children and 10 teachers. During the activity, the children were attentive, participatory and sometimes euphoric, demonstrating interest. The language was adapted to work with the public, an essential strategy for raising awareness. The use of gamification and games was well accepted by thinking as a player and using a language of its own among the public.

Conclusion: The experience was enriching and challenging, bringing the academy closer to the community. The use of active methodologies proved to be important in promoting the rational use of medicines, requiring creativity and knowledge for their elaboration.

ABSTRACT ID 162

LEARNING FROM PATIENTS AND COMMUNITIES TO IMPROVE THE USE OF MEDICINES

Presenter: Phaik Yeong Cheah

Antimicrobial resistance (AMR) is a complex and systemic problem. The impacts of AMR are uneven, affecting the poorest and most disadvantaged communities (e.g., populations at the highest risk of infections, children under five) the most. We must curb the spread of AMR without exacerbating this inequality. Any action taken to reduce antimicrobial resistance can have consequences for health and development goals. The notion of a 'just transition,' which gained prominence in climate governance, could serve as a starting point for these discussions, prioritising justice, sustainability, inclusivity, and equity in planning for a future with AMR. Interventions to mitigate AMR need to be context-specific, locally driven, and include the voices of patients and the most vulnerable communities.

ABSTRACT ID 163

MEDICALISATION OF SOCIETY AND HOW IT INFLUENCES MEDICINE USE BY PATIENTS

Presenter: Luechai Sringernyuang, Thailand

Medicalisation is the process in which 'nonmedical problems' become defined and treated as 'medical problems'. Although the medicalisation process and its determinants are not simple and straightforward, the inclusion of a broad range of life events i.e., social deviance, mental disorders, anxiety, learning disabilities, sexual- and gender-related issues, aging and death act., is evident. Determinants of such processes are not only roles of medical profession but also the treatment business, medical insurance, and social pressure of vast interest groups.

Modern pharmaceuticals are more than a therapeutic fix but also vehicles of Western/biomedical mechanistic worldview. Medicines in self-care in the context of poor market and drug distribution regulations make people's life enormously pharmaceuticalised. The abnomalising of normal life events results in an increase in false health demand, and a decrease in thresholds of daily discomforts. Medicines, then, become the center of therapeutic and healthcare endeavors. Easy and wide access to the internet and satellite TV makes marketing of health products beyond control. Today, even in remote communities, Thailand, and others alike, life events used to be normal in the traditional cultural view like those relating to aging are more medicalised.

This presentation, through case examples, aims to shed light on the process of the pharmaceuticalisation of life events in the Thai context and discuss how it impacts the ways daily life and health are being defined and managed in different social contexts.

ABSTRACT ID 164

CAN WE LEARN FROM PHARMACEUTICAL COMPANIES?

Presenter: Lydia Green, United States of America

In the constantly changing world of healthcare, the pharmaceutical industry plays a pivotal role in shaping how medical treatments are perceived, prescribed, and utilised. These companies are skilled at marketing communications – blending science and emotion to communicate favourable clinical information to healthcare practitioners and consumers. These practices extend beyond promoting the benefits and features of their prescription medications as life science companies seek to affect how medicine is practised globally. While the healthcare research community has diligently scrutinised the marketing strategies employed by the pharmaceutical industry, attempts to curb their influence through regulation, legislation, or hefty fines have largely failed and met with limited success.

Lydia Green's talk will challenge the conventional way we look at pharmaceutical marketing. Rather than condemn the industry, Lydia proposes an innovative perspective that seeks to explore and glean insights from their successful marketing techniques. Throughout her talk, attendees will gain invaluable insights into how combining industry marketing communication expertise and public health objectives can lead to faster adoption of evidence-based healthcare practices. By adapting and repurposing proven strategies from pharmaceutical marketing, the public health community can help prevent the misuse of medications.

ABSTRACT ID 165

APPROVAL OF CHRONIC MEDICATION ENTITLEMENTS BASED ON THE MALTA NATIONAL FORMULARY AND PROTOCOLS

Presenter: Charles Mandy G. Ayran, Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Malta; Department of Pharmacy, College of Pharmacy, University of the Philippines Manila, Philippines

Other authors: Maresca Attard-Pizzuto[1], Lilian M. Azzopardi[2]
[1]Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Malta; [2]Department of Pharmacy, College of Pharmacy, University of the Philippines Manila, Philippines

Background and objectives: The Pharmacy of Your Choice (POYC) is Malta's government pharmaceutical service responsible for approving free medicine entitlements. With the increasing number of applications and non-approvals of medicine entitlements due to non-compliance to government protocols and national formulary resulting in the delay of access to medicines, this research aimed to optimise the POYC medicines approval system through pharmacist interventions to ensure efficient service delivery to patients.

Method: A mixed-method three-phased development design was utilised. The reasons for non-approvals before and during the COVID-19 pandemic were characterised through retrospective database review and Pareto analysis. A panel of experts evaluated non-approval risks through Failure Mode and Effects Analysis (FMEA) via Delphi technique using risk matrix and five-point ordinal scales for severity, occurrence, and detectability to develop interventions to streamline access to entitlement approvals.

Results and discussion: From January 2012 to October 2020, characterization of medicines not approved (n=26,785) showed that the top medicines contributing to non-approvals were clopidogrel (8%), levothyroxine (5%), and omeprazole (4%). Process-specific reasons which served as bottlenecks were: medicine not corresponding to legislated condition (43%), application not according to government protocol (10%), and medicine not available in the formulary (7%). Expert panelists agreed that critical failure modes requiring interventions were: application was not according to government protocol, medicine did not correspond to legislated condition, and exceptional case applications awaiting for approval. Interventions identified to mitigate risks in POYC included: orientation manual for prescribers and pharmacists, review of information technology systems to facilitate access to supporting documents, and monthly feedback system regarding data on non-approvals.

Conclusion: Risk assessment and prioritization of the most common causes of non-approvals through FMEA as a regular quality exercise is important to identify interventions or optimisation of processes which can reduce delays in access to entitlement approvals and enhance a patient-centric approach.

ABSTRACT ID 166

THAILAND MOVING TOWARDS RATIONAL DRUG USE COUNTRY: POLICY IMPLEMENTATION IN THE CYCLONE OF CHANGES DURING COVID-19 PANDEMIC

Presenter: Prasit Wattanapa, Chair of National Rational Drug Use Subcommittee of Thailand

The irrational use of medicines has persisted as a global and national challenge for decades. As far back as 1976, the World Health Organization (WHO) has consistently emphasized the significance of rational use of medicine (RUM) or rational drug use (RDU). In 2007, the World Health Assembly underscored its importance, culminating in a global situation assessment.

In Thailand, the national essential lists of medicines have played a pivotal role since 1981 as important tools for promoting RDU. However, during that period, concrete implementation of monitoring and evaluation systems and other WHO RDU core interventions had not yet been put in place. A critical turning point that significantly influenced the ongoing development of the drug system and RDU in Thailand occurred when the Royal Thai Government established the National Drug System Development Committee, following the Office of the Prime Minister Regulations (B.E. 2008), with the Food and Drug Administration serving as its secretary.

In 2013, Thailand initiated the RDU hospital program with the primary goal of promoting the rational use of medicines within public hospitals, aligning with the strategic plan for delivering excellent healthcare services, as outlined in the 20-year National Strategy for Public Health (2018-2037). Additionally, this program was formally integrated into the Hospital Accreditation Standards of Thailand, However, ensuring operational efficiency within the hospital necessitates the use of positive reinforcement to drive and motivate the hospital staff to work continuously and effectively.

While RDU has become an integral component of hospital service quality, we have identified three main gaps within the health system with regard to RDU: firstly, private healthcare delivery, particularly at the primary care level, requires further attention. Secondly, medication literacy and self-medication need to be addressed. Finally, access to a reliable source for self-medication remains a concern. Moreover, a significant proportion of medication-related problems (MRPs), nearly half among outpatients and close to ninety precents among patients at home, are preventable MRPs. Despite an increase in access to government healthcare services, the purchase of vitamins and supplements by individuals with higher incomes has surged exponentially, largely due to the influence of advertising.

Therefore, in December 2018, the National Drug System Development Committee, chaired by a Deputy Prime Minister, unveiled a national policy aimed at transforming Thailand into a Rational Drug Use (RDU) country[†]. The overarching objective of this policy is to enhance the quality of life for the Thai population by promoting rational drug use. This entails ensuring widespread access to

safe, effective, high-quality, and affordable essential medicines, as well as the sustainability of the healthcare system. This policy, RDU will become a fundamental right for the Thai people, ensuring they receive exceptional pharmaceutical and healthcare services. Furthermore, RDU will progressively evolving into a societal norm in Thailand.

From 2020 to 2022, the RDU country policy was implemented amidst the global COVID-19 pandemic. This period brought about significant transformations in the healthcare system, primarily driven by advances in digital technology. These changes provided an opportunity to enhance the RDU system. However, the spread of misinformation during the pandemic, often referred to as an 'infodemic,' posed a particular threat to individuals with limited RDU literacy and those from lower socio-economic backgrounds.

Now, we executed this policy as a multifaceted approach that reshaped the landscape of RDU within all existing healthcare and non-healthcare policies. The implementation began with a clear understanding of the policy's goals in collaboration with various groups of stakeholders. We also reviewed the RDU definitions, encompassing the three main stakeholders: health professionals, patients, and the general population.

The implementing mechanisms national policies on rational drug use using an integrated theoretical framework to put policy into practice. Governance mechanisms for effective policy implementation at both national and regional levels are need. This mechanism relies on the efficient collaboration among policy makers, policy actors, and those affected by the policy.

A key component of this mechanism is the national agency responsible for rational drug use, known as ‘the RDU Center’. This unit acts as a crucial 'link' between policy makers and practitioners. It operates under the umbrella of the National Drug Policy Division within the Thai Food and Drug Administration. The responsibilities of the RDU Center encompass not only the development of mechanisms to drive policy implementation on both the national and regional fronts but also the establishment of monitoring and evaluation systems and information systems. These systems are vital for effective policy monitoring and evaluation, and they are developed in collaboration with relevant agencies.

At the local level, the 'RDU Province' represents a set of policy packages designed to implement the RDU country policy. A key factor in propelling the development of a “RDU province” is the presence of policy actors operating at the local level. These actors require guidance and support from both provincial and regional executives.

One notable policy actor responsible for promoting rational drug use is the 'RDU Coordinator' stationed at the provincial and district levels. This individual must possess the competence to collaborate effectively with stakeholders. The development of an 'RDU Province' faces several notable challenges, including cooperation with private healthcare settings, the limited understanding of healthcare practitioners and health workers regarding rational drug use literacy, and the establishment of RDU information systems in hospitals and communities.

Currently, the RDU country policy undergoes continuous review and advancement as part of the national action plan for the medicine system development for the period 2023-2027. To ensure sustainability, the healthcare system, particularly at the primary care level, must undergo a comprehensive redesign to ensure equitable access to essential medicines from reliable distribution sources for self-medication across all districts, regardless of differences in education, income, or geographic location. Furthermore, it should be restructured to promote health literacy in rational medicine use, encourage self-care, and harness modern technology, including telemedicine, tele-pharmacy, and other digital innovations.

† *Rational Drug Use Country is country with rational use of medicines system that is in accordance with World Health Organization recommendations but this policy are cross driving and continuous improvement in related organization and people from upstream (pharmaceutical manufacturers/pharmaceutical company) to midstream (healthcare institutes/health professionals) and downstream (people, patients and society) in 3 relatively components; consciousness/awareness, good administrations and effective regulatory system in all modern, herbal and traditional medicines. Community-centered (District) is area based on RDU country implementation form national level, healthcare institutes and community level which are participations from upstream, midstream and downstream.*

ABSTRACT ID 167

POLICY TO PRACTICE: APPROPRIATE USE OF MEDICINES IN SINGAPORE THROUGH HEALTH TECHNOLOGY ASSESSMENT

Presenter: Kwong Ng, Chief Health Technology Assessment Officer, Agency for Care Effectiveness, Ministry of Health Singapore

Other author: Darren Ng, Assistant Director (Health technology evaluation, utilisation review and adoption), Agency for Care Effectiveness, Ministry of Health Singapore

Background: The Agency for Care Effectiveness (ACE) was established in 2015 as the national health technology assessment (HTA) agency of Singapore. The agency supports providers, patients, and payers to make informed decisions about patient care by conducting HTAs, publishing healthcare guidance and providing education.

Purpose: The presentation details ACE’s journey in shaping appropriate, cost-effective use of medicine and clinical practice through a mix of policy, system, and financial approaches in the Singapore context.

Methods/description of process, or experience: In 2020, the cross-agency National Medicine Policy (NMP) workgroup was formed to align objectives, review efforts, and establish strategies across diverse workstreams governing the access and use of medicines in Singapore. Under its auspices, ACE collaborated with other stakeholders in various efforts to improve the affordability, accessibility, and rational use of medicines in Singapore.

Results: Through various efforts, ACE had harnessed the use of HTA to inform decisions about patient care by providers, patients and payers and promote appropriate use of medicines.

Conclusion: Close collaboration across stakeholders in the medicine use landscape towards common goals is vital for effective translation of policy into actual clinical practice towards appropriate use of medicine.

Conflict of interest: Kwong Ng is the Chief HTA Officer and Darren Ng is an assistant director (Health technology evaluation, utilisation review and adoption) at the Agency for Care Effectiveness. The authors are employed by the Ministry of Health Singapore and have no other conflicts of interest.

ABSTRACT ID 168

IMPROVING ACCESS TO MEDICINES AND BEYOND: THE NATIONAL VOLUME-BASED PROCUREMENT POLICY IN CHINA

Presenter: Quan Wang, China

Since 2019, the Chinese central government has taken significant steps to centralise national purchasing power and has implemented a pooled procurement system. We provide an in-depth analysis of China's National Volume-Based Procurement (NVBP) policy, which represents a unique approach to pooled procurement within the pharmaceutical sector. The primary objectives of the NVBP are to reduce drug prices, enhance access to affordable medications, and improve the overall functioning of the pharmaceutical industry in China. Our analysis delves into the key features of the NVBP, including its centralised procurement system, volume-based procurement approach, and the guaranteed procurement volumes allocated to winning bidders. We also address the challenges and implications associated with the NVBP, such as its impact on the pharmaceutical industry, the sustainability of price reductions, and the importance of striking a balance between price reduction and industry sustainability. Through a comparative analysis, we shed light on the distinct characteristics of China's approach to pooled procurement and its potential ramifications for healthcare policies and practices. By examining the NVBP within the broader context of China's evolving healthcare landscape, we aim to contribute to a deeper understanding of the implications and effectiveness of this unique policy initiative.

ABSTRACT ID 169

WORKING SESSION 3: EDUCATING HEALTH PROFESSIONALS TO PRACTISE RATIONAL USE OF MEDICINES

Working session chair: Ravi Shankar

Medicines are an important healthcare intervention, but their irrational use can have serious consequences, including increasing the cost of treatment, adverse drug reactions, interactions, and antimicrobial resistance, among others. Health professionals play an important role in practising the rational use of medicines (RUM). Different personnel including doctors, nurses, pharmacists, paramedical personnel, traditional and complementary medicine practitioners, licensed drug sellers, and others are involved in RUM. Interprofessional collaboration is also important.

In this working session educators working in Thailand, Nepal, and the United Arab Emirates will discuss their experiences and perspectives on educating health professionals to practice RUM. The working session will be led by Ravi Shankar currently working in Malaysia who has been involved in educating medical students to use essential medicines rationally in Nepal, and the Caribbean. He has also been involved with research projects and workshops for various health professionals. Subish Palaian will describe his experiences with RUM in Nepal (Pokhara and Bharatpur) and in the United Arab Emirates. He has been involved in providing drug information services, pharmacovigilance, and teaching students among others. He had been involved in publishing drug information and pharmacovigilance bulletins. Sajala Kafle will talk about a recently completed project on educating community pharmacists in the Kathmandu Valley, Nepal about antimicrobial resistance. Arnuparp Lekhakhul will present on the Thai experience of educating health professionals on RUM. Nisha Jha will describe the initiatives at KIST Medical College, Lalitpur, Nepal to educate undergraduate medical students on RUM. Education initiatives among other professionals will also be mentioned. An overview of educating health professionals about RUM from the region, especially from the countries of Thailand, Nepal, and United Arab Emirates will be obtained.

The working session also incorporates audience sharing and discussion sessions. You are invited to join the deliberations and attend this important and interesting session.

ABSTRACT ID: 170

WORKING SESSION 4: INTEGRATING GUIDELINES WITH ESSENTIAL MEDICINES LISTS

Working session chair: Robert Moulds

The basic scenario for this working session will be as described below.

The Standard Treatment Guidelines for the management of a particular clinical condition or group of conditions is to be updated for your country.

A guideline writing group has been established to undertake this task and has decided to adapt appropriate Standard Treatment Guidelines from other countries or organisations for use in your country. You know that most such guidelines recommend the use of a particular drug to treat the condition(s) being considered, so it is likely the writing group will be looking to include this treatment in the guideline for your country. However, you and the guideline writing group also know that this drug is currently not on your Essential Medicines List, so prescribers will not be able to follow the guideline unless the drug is added to the Essential Medicines List.

How might this problem be addressed in your country, and what would you see as the major hurdles to be overcome?

Possible examples to consider (each subgroup will be allocated several examples for specific consideration, but can also consider other examples if they wish):

– Dapagliflozin (oral) for type 2 diabetes
– Liraglutide injection for type 2 diabetes
– Etanercept injection for chronic spondylarthritis
– Denosumab injection for glucocorticoid induced osteoporosis
– Cefazolin (oral) for surgical antibiotic prophylaxis
– Clindamycin (oral) for cellulitis in patients who have immediate, or delayed severe, hypersensitivity to penicillins
– Liposomal amphotericin injection for cryptococcal meningitis
– Ticagrelor (oral) for acute coronary syndromes
– Clozapine (oral) for chronic schizophrenia
– Mirtazapine (oral) for major depression
– Beclomethasone plus glycopyrronium plus formoterol triple combination inhaler for COPD
– Human immunoglobulin injection for acute Guillain Barre syndrome (post-infectious polyneuritis)
– Palonosetron injection for cancer chemotherapy induced nausea and vomiting