A message from the chair

We begin 2021 with a great line-up of online events taking forward our agenda from the Bangkok meeting in January 2020 as ISIUM moves into the next phase of activating its platform to bring people together to share experience and advocate for improved use of medicines.

**March 17, 2021: People Improving the Use of Medicines: Re-invigorating global and local agendas.**
The international launch of the Bangkok Conference report, hosted in collaboration with the Thai Drug System Monitoring and Development Centre (DMDC) and the Thai National RDU Subcommittee. The program and details about how to register have been circulated.

**March 25, 2021: ISIUM Conversation** (first of a series). Libby Roughead from the University of South Australia will lead this conversation and will get us to think about antibiotic prescribing during COVID. The Australian experience shows a significant fall in antibiotic prescribing during COVID. How can we continue the trend? What are experiences in other countries?

**April 6, 2021: Who Killed Rational Use of Medicine?** The global launch (in English) of the story of the conference written by Satya Sivaraman for a non-technical audience. This will be launched in association with ReAct Latin America.

**April 7, 2021: Who Killed Rational Use of Medicine?** The global launch as above (in Spanish) mainly for a Latin American audience.

These are great opportunities for us to discuss progress, challenges and the different situations people face in acting on rational use of medicines, whether as communities, policy-makers, managers, health professionals at hospital or primary health care level, or individual people.

Here in this newsletter are wonderful contributions from members working in Kazakhstan, South Sudan, Nepal, and Ecuador; and from Geneva, a report on an international insulin project.

I am also happy to announce that ISIUM has been asked to form an expert team to assist the Thai National Rational Drug Use (RDU) Subcommittee and its Thai team develop the concept and indicators for the ‘RDU Country’ concept presented to the ISIUM meeting. We hope that there will be a webinar on this concept soon – and a discussion on how each one of us can advocate for it. Members of the team are Dulce Calvo, Gerel Dorj, Mary Hemming, Hans Hogerzeil, Kathy Holloway, Tracey Laba, Mary Murray, Libby Roughead and Budiono Santoso.

See you online soon!

Mary Murray
A reflection: My journey in medicine and clinical pharmacology
Raikhan Tuleutayeva, Semey Medical University, Kazakhstan

I have often been asked: When did you decide to become a clinical pharmacologist? Why did you choose this particular specialty? How long have you been studying this? To this last question my response is … probably always!

I have been reflecting on my years of study, my work as an intern, and my first years as a doctor in the Department of Therapy and Nephrology at the regional clinical hospital. Even then – more than 30 years ago now – before making a decision to prescribe drugs to a patient, I asked myself every time: What is the main goal? What do I expect to happen as a result of the therapy?

Each medical university department had a supervising professor and we discussed difficult patients with our supervisors … and I still remember the most interesting cases, and the most difficult patients. I quickly realised that success in resolving the most complex problems depended on a comprehensive and acceptable approach. My teacher, Professor Lyudmila Kussainovna Karazhanova, played a big role in my professional development. Each of her rounds, each clinical analysis, turned into a master class.

Nowadays there is a lot of talk about ‘competencies’ in the training of a specialist and the training process is structured in a way to ensure that certain competencies are achieved at each level of training. When I was trained, our education system did not use this jargon, we were simply taught everything that would be useful in our practical activities. No matter how much theoretical knowledge is taught, if medical training does not include clinical components such as seeing patients every day, making differential diagnoses, prescribing treatment, monitoring effects, and trying to prevent possible undesirable drug reactions – it is impossible to become a good doctor.

We devoted a lot of time to our main work, we were tutored in clinical and critical thinking, and we were trained to work with the literature. Doctors in all specialties have the same responsibilities – to preserve human health, and to prescribe medicines correctly and safely without doing harm. Rational use of medicines is a basic prerequisite for quality healthcare.

After 15 years as a resident doctor, I started working in the Department of Internal Medicine at Semey Medical University (pictures below). Semey is situated in eastern Kazakhstan on the banks of the Irtysh River. Semey Medical University was established in 1952 and provides medical education to national and international students. Working in this clinical department involved teaching the students various practical skills, encouraging them to relate practice to theory, helping them find answers to complex questions, and teaching them to love their profession.

We developed and introduced some innovative teaching methods; we conducted integrated lectures, practical classes, and symposia. Our goal was to teach students a comprehensive approach in different clinical situations. This helped students to revise and refresh the knowledge gained in theoretical departments, to work with the literature and how to find scientific evidence in medical databases. This approach influenced many of our students in the choice of a future profession, who then continued their studies through residency and became clinical pharmacologists.

Natalia Cebotarenco played a huge role in the development of our specialty, clinical pharmacology. I remember that the first time we met was at a large forum on pharmaceutical policy reform in the Republic of Kazakhstan. I was fortunate to meet her, and she kindly agreed to make a preliminary visit to our university. It was December 2017. Natalia ran a master class on working with databases of evidence-based medicine and rational use of medicines; all the participants were delighted and came away with a keen interest in the use of medicines.

We continued to work with Natalia, collaborating on research in pharmacoepidemiology and rational use of medicines. We developed an interactive training program that involved trainees performing their own searches on specified topics. At the end of each training seminar a symposium was held to develop a resolution from the...
recommendations put forward by the trainees based on the research they had undertaken as part of their project. Consequently, the participants really felt ‘ownership’ of the conference resolution.

Participants learned from all the different people involved in the seminars, including specialist teachers, practitioners and undergraduates. Their horizons were expanded, they gained a better understanding of practical healthcare and medical education, they identified weaknesses in the medical education, and they learnt to appreciate the benefits of joint decision-making especially for complex problems.

Today, the status of clinical pharmacology in the medical community is much higher than it was 10 to 15 years ago. There is no doubt that clinical pharmacologists play a key role in making decisions on the rational use of medicines. There is vigorous debate around the standards required for training and professional practice for clinical pharmacologists.

The Republic of Kazakhstan has adopted a program for the development of healthcare for 2020-2025, where the main tasks are the issues of quality longevity and the preservation of people’s health. Semey Medical University is involved in this program and is making a considerable contribution to the health of the population by promoting and supporting rational use of medicines. We are providing training in rational pharmacotherapy by participating in conferences, conducting seminars and holding master classes. This coming year we will be holding a training course for the elderly entitled ‘Safe use of medicines’. We have been able to continue this work during the pandemic using online technology.

A report from South Sudan

Buchay Othom Rago, ISIUM member

My name is Buchay Othom Rago. I grew up in Khartoum, Sudan and I graduated from the Faculty of Pharmacy at the University of Khartoum in 2005. I moved to Juba in the southern part of Sudan in 2005 (before it gained independence from Sudan). I did my internship at the Juba Teaching Hospital and I joined the Directorate of Pharmaceutical Services and Supplies in the South Sudanese Ministry of Health in 2007 as the Rational Medicines Use and Training Officer. Ever since then I have been interested in rational use of medicines.

In 2017 I obtained a master’s degree in Biotechnology, Innovation and Regulatory Science from Purdue University (USA).

The country

South Sudan is a landlocked country in East-Central Africa. It gained its independence in 2011 but is still trying to recover from the results of the long-standing civil conflicts: a massive loss of life, displacement of people, and breakdown of the social fabric. United Nations reports suggest that about 1.4 million people have been rendered homeless since the latest conflict began in 2013. Of these, more than one million are said to be seeking refuge in humanitarian camps within the country, while the rest are in neighbouring countries.

The current population of South Sudan is approximately 11.2 million. Approximately 50 percent of the population lives below the national poverty line, 83 percent lives in rural areas, and 72 percent is under the age of 30.

Apart from the devastating human losses, the protracted civil unrest severely affected the country’s infrastructure and health system, and it is still struggling with nation building and governance in a grim economic situation. It is considered a fragile state.
Its health system

Prior to the latest conflict in December 2013, the Ministry of Health was responsible for 53 hospitals (3 teaching hospitals, 9 state hospitals and 41 county hospitals), 286 primary health care centres, and 1062 primary health care units in rural South Sudan. A 2010 survey found that only 40 percent of the population had access to primary health care (living within a one-hour walk of a medical centre).

South Sudan has one of the lowest healthcare budgets in the world and, because of this lack of financial support from the government, international organisations have intervened to become major providers of healthcare.

Because of the fractured infrastructure in South Sudan there is limited capacity for the states and counties to forecast needs, to improve the weak or absent distribution system or to address the lack of qualified staff in pharmaceutical management.

Use of medicines

At the moment there is little in place to support the rational use of medicines and good patient care in South Sudan. Not only is there a lack of management systems and limited information technology but there is no reliable information about medicines, and there is no public education; there is not even an appropriate multidisciplinary national body responsible for medicine policies.

A national drug and therapeutics committee was established a long time ago, but it did not ever convene to take up its mandate to coordinate medicine use policies in the country. A drug and therapeutics committee was set up at a major hospital (Juba Teaching Hospital), but it didn’t last long. So currently there is no functional drug and therapeutic committee anywhere in the whole country.

Clinical treatment guidelines are available, but they are no longer current as they have not been updated for more than 10 years. An essential medicines list based on treatments of choice is available and a process was put in place to review and update it, but it has not ever been disseminated.

Unfortunately there are many examples of irrational use of medicines in South Sudan, including:

- **Polypharmacy**: Too many medicines are prescribed per patient, one example being that, for malaria patients, medicines are prescribed to treat all symptoms when antimalarial therapy is sufficient to treat the cause of all the symptoms.

- **Inappropriate use of antibiotics**: Antibiotics are used for non-bacterial infections (to treat cold, fatigue and body pain) and when antibiotics should be used, they are used in inadequate dosages.

- **Overuse of injections**: Our local people believe that an injection is more effective than oral medicine and they demand to be prescribed injections instead of oral medicines even when oral formulations would be more appropriate.

- **Less than optimal antimalarial therapy**: Failure to prescribe antimalarial therapy in accordance with the national malaria guideline for South Sudan. The current recommended antimalarial therapy is artemisinin-based combination therapy (ACT), but monotherapy is still prescribed to patients.

- **Inappropriate self-medication**: Some people cannot afford to pay for a physician consultation, so they self-medicate, often with prescription-only medicines.

Access to pharmaceuticals and other health supplies is another problem in South Sudan – procurement is slow, and this leads to major stock shortages in the public system throughout the country. And even though all patients are meant to be able to obtain essential drugs for free, most South Sudanese are still faced with out-of-pocket expenses, or they need to rely on support from non-government organisations or pay for medicines from private drug vendors.

In the face of these difficult conditions, the Ministry of Health has been able to make some progress; one of its big achievements is the development of a regulatory system for the management of pharmaceutical and health commodities. However, the system has not been able to be implemented yet as there are still many challenges to overcome, including a critical shortage of trained staff, inadequate infrastructure, and a lack of financial resources for training on existing policies.

If South Sudan had some appropriate systems in place, it would improve access to medicines, encourage quality care and reduce irrational use of medicines throughout the country.
Promoting rational use of antimicrobials in Lalitpur, Nepal

Ravi P Shankar, International Medical University, Kuala Lumpur, Malaysia

Antimicrobials are commonly misused and overused, especially in developing nations, and efforts to promote their rational use have steadily gained momentum. They are now recognised as a finite and important resource requiring careful use. Multidrug and extremely drug-resistant organisms have been noted and there is a widespread fear that antimicrobial resistance will take the world back to the pre-antibiotic era.

Nepal is a low-income country in South Asia which lies along the southern slopes of the Himalayan mountains. It is landlocked and bordered by India to the east, south, and west and the Tibet Autonomous Region of China to the north. Its territory extends roughly 500 miles from east to west and 90 to 150 miles from north to south. The capital is Kathmandu.

KIST Medical College is a private institution situated in Lalitpur district of the Kathmandu valley. It offers undergraduate courses in medicine and dentistry and postgraduate courses in a few disciplines. Lalitpur is the third largest city of Nepal after Kathmandu and Pokhara. It is globally famous for art and architecture and for the skills of its artists and artisans. The teaching hospital provides healthcare to patients from Lalitpur city and the rural areas of the district. Patients from Kathmandu and Bhaktapur, the other districts in the valley and from other districts of Nepal also seek care.

Nepal has a variety of medicine use problems and several initiatives have been conducted at different levels and among different stakeholders to promote the rational use of medicines. The Department of Pharmacology at KIST Medical College is committed to promoting the rational use of medicines. A drug information centre is operating, and the department teaches students to use essential medicines rationally. There is a regional pharmacovigilance centre and a medicine and therapeutics committee at the institution. The department has conducted several workshops and other events including workshops on generic medicines, rational use of medicines and scientific writing since 2008. Sessions have been conducted for the medical and dental college faculty, medical and dental officers, nurses, pharmacists, pharmacy students, schoolteachers, paramedical workers, and media personnel.

A workshop on strategies for promoting rational use of antimicrobials and reducing antimicrobial resistance was conducted at the institution from 17th to 19th April 2019. Workshops are usually conducted either at the pharmacology small group learning room with facilities for small group work and presentations or at the college auditorium. To ensure the workshops are self-sustaining a modest participation fee is charged. Some workshops are partially subsidised with grant money from research organisations if the projects are selected. We recognize that good food is important to keep participants motivated and energetic and a good lunch is provided, and tea and snacks are available. Group work is an important component of the workshop.

For the present workshop three groups of participants were chosen: medical professionals, dental and pharmacy professionals. There were participants from both within the institution and from outside. Dr Nisha Jha, a pharmacist with nearly two decades of experience was the chief organiser and her dynamic team has rich and varied experience of organising several workshops. Participants were divided into small groups and the main areas addressed were ethical prescribing, rational use of antimicrobials, antimicrobial stewardship, infection control, role of healthcare professionals in promoting rational use of antimicrobials, monitoring the use of antimicrobials, knowledge about microbes, the role of the microbiology laboratory to tackle antimicrobial resistance and the role of different government and non-government organisations. The resource persons were from within KIST Medical College and from other institutions in the Kathmandu valley. I was involved in designing the workshop, planning different sessions and in providing guidance remotely. I did not directly facilitate any sessions but provided guidance to the resource persons from the pharmacology department of KIST Medical College. The topic was vast and important and choosing areas to be addressed required careful thought. The availability of resource persons also influenced the topics chosen.
The sessions were interactive and conducted using a mixture of English, the medium of instruction and Nepali, the national language. Participant feedback was obtained regarding each session. Their knowledge, attitude and practice regarding antimicrobials and antimicrobial resistance was studied both immediately before and after the workshop. Participants were mostly young with less than 5 years of work experience. Post-session scores were significantly higher for 6 of the 12 sessions. And the overall post-intervention score was also significantly higher. The study has been recently published in the Hamdan Medical Journal.1

We are planning to conduct a study among healthcare professionals at the institution on the issues of antimicrobial resistance and antimicrobial stewardship. Antimicrobial stewardship and interprofessional collaboration have been shown to be important to promote rational use of antimicrobials. In low-income countries like Nepal, the power differential and lack of interprofessional education and collaboration creates challenges in stewardship. We are using a questionnaire developed by a Pakistani research team2 with their permission. The questionnaire may be modified if required. The proposal is currently under review by the Institutional Review Board and will be initiated after obtaining approval. Baseline data will be obtained and areas with less knowledge among participants can be targeted through educational interventions. The study will also be helpful in developing a stewardship program at the teaching hospital.

Several initiatives to improve medicine use by healthcare professionals have been conducted. The pharmacology and pharmacy team has developed linkages with different individuals and institutions both within Nepal and outside which helps them focus on teaching-learning of rational use of medicines and develop interventions based on data from the studies they have conducted. The department plans to study the impact of these initiatives on prescribing practices shortly among both outpatients and inpatients.


Access to insulin: A century after its discovery
Christa Cepuch, ISIUM member

It seems to have taken a major anniversary to mobilise the global public health community to increase its attention on access to insulin.

Insulin was discovered in 1921, but today – a century later – half of people living with diabetes who need insulin cannot get it. There are many complex barriers to its access; arguably, unaffordable prices in many countries, including most low- and middle-income countries (LMICs) tops the list. Three enormous pharmaceutical companies almost exclusively control global insulin manufacturing, supply and pricing. Both prevalence and mortality rates from diabetes have recently been rising globally both in high-income countries and LMICs. About 1.6 million people die annually from diabetes and its complications, and today more than 400 million people are living with diabetes around the world. This is projected to rise to 700 million by 2045, with the biggest rises in LMICs.

It is estimated that around 60 million people with type 2 diabetes need insulin globally today, while everyone living with type 1 diabetes needs insulin for their survival. With needs increasing in the shadow of insulin’s 100th anniversary, issues surrounding access are finally being highlighted through the following efforts, among others:

- A WHO pilot project on insulin prequalification was launched in 2019, with hopes of increasing the number of quality assured insulins beyond those of the big three companies.

- In January, the WHO Executive Board asked the Director-General to document the most significant obstacles to improving diabetes care and treatment. Some member states are hopeful for a WHA resolution on improving diabetes care, including access to insulin.

- In April 2021 WHO will launch the multi-partner Global Diabetes Compact – a comprehensive approach to support countries in implementing effective programs for the prevention and management of diabetes. One of its objectives will be to set crucial diabetes treatment targets.

After a century of neglect, it’s beyond time to ensure access to insulin for all people living with diabetes who need it.

First insulin injection

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Christa Cepuch trained as a clinical pharmacist and has an MPH. Her interests include access to medicines, and medicines quality. She has worked for HAI Africa in medicines policy, and currently works at MSF’s Access Campaign with a focus on NCDs. Her contact is CecilPuch@gmail.com.
They convinced us that if we didn’t possess eternal youth something was wrong with us. They invented diseases, ‘pathologized’ our differences, defined our sadness, got into our orgasms, filled us with fears and risks.

We lack vitamins, hormones and hair ... we have too many wrinkles and ounces of weight ... we need to improve our immunity, our memory and our performance.

The marks of having lived have become signs of illness ... natural processes have become vestiges of anti-beauty.

We were also sold the solution. We would be transformed from being patients to consumers. Our behaviour would be changed by misleading advertising. So-called pharmaceutical cures would be juxtaposed with irrelevant symbolic imagery and idealised messages to create false impressions, unrealistic expectations.

Advertising is an instrument of the market and it plays on the imagination of society; this ‘persuasion’ is a form of manipulation. Culture and socio-economic factors shape consumers’ decisions and influence consumption. People try to fill the gaps that are generated for them. They do not need a specific product, they are looking for a set of symbolic meanings such as success, power, social acceptance and beauty, among others. Although regulations exist for the ethical promotion and advertising of medicines and medical devices, in practice they are not always complied with or enforced.

A strategy used by the pharmaceutical industry is to medicalise life, i.e., to turn situations that have always been normal into pathological conditions and to try to resolve, through medicines, situations that are not medical, but social, professional or interpersonal.

In the mid-20th century, the World Health Organization defined health as ‘a state of complete physical, mental and social well-being and not merely the absence of disease”. But is health a ‘state’? Not at all, it is a process, it is a continuous journey through life and its circumstances. The health of an 18-year-old is not the same as that of an 85-year-old, even if both are considered healthy. And how do we understand “complete well-being”?

This concept leads us to develop unrealistic expectations. We could all consider ourselves to be either sick, or too tall, or too short, or bald, or sad, etc.

“Health is that autonomous way of living, with freedom to choose and therefore, to be informed and with a critical, supportive and joyful sense, this occurs when s/he continues to achieve his/her own realisation and, for this, nothing has to be medicalised.”

From a group of biologists and physicians at a congress in Perpignan in 1976

It encourages us to medicalise life events in search of an unattainable standard. It benefits neither human beings, nor health systems, nor the environment. The only winners are industries that are linked to health, pharmaceuticals, diagnostics, food, etc.

We need to use other terms to develop a definition of health that is grounded in our reality and one which benefits human beings.

We suggest it would be helpful to define health in terms such as autonomy, dignity, adaptability, joy among others.

We need to understand life beyond the stereotypes that the advertising industry puts forward that medicalise us. Life is not just for the intangible and the beautiful.

Life is now, without filters.

FURTHER READING
4. Organización Mundial de la Salud. Preámbulo de la Constitución de la Organización Mundial de la Salud. 1946 Jul 22;
Please support ISIUM!

ISIUM’s success depends on it being completely independent of funding from vested interests but this creates a real challenge because the only sources of funding available are membership fees and donations. ISIUM has been able to function thus far only because of the work of volunteers, but we have been able to achieve a great deal through this work. We deliberately put what resources we had into bringing people together for the meeting in Bangkok, to share work and develop an agenda for the future.

Now it is time to focus urgently on developing some sustainable infrastructure to support the collaboration, sharing and project work that members are keen to do and to support our advocacy work to bring new energy to the rational use of medicines movement.

The ultimate aim is to build an international hub for quality use of medicines that will feature:

- an internationally shared secretariat to manage governance, funding, advocacy, and collaboration with other global institutions;
- a community of practice comprised of a network of people and organisations that collaborate on work to improve the use of medicines;
- a user-friendly platform for people to communicate with each other on work to improve the use of medicines;
- a comprehensive database of evidence to support work in the field.

To help ISIUM achieve these aims we urgently need more resources, i.e. members and donations.

If you are not a member but wish to be part of the ISIUM community, PLEASE JOIN! You can do this through ISIUM’s website. If you are already a member, could you please consider making an additional contribution. Any donation – no matter how small – will make a difference.

You can make a donation through the PayPal Giving Fund portal. Or you can make a direct deposit into ISIUM’s special donations account. The bank account details of this are:

Bank: Commonwealth Bank of Australia
Account name: International Society to Improve the Use of Medicines Limited Donations
BSB: 063-158
Account number: 1044 8030

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