



Launch of VigiLyze | New theses | ACSoMP now ten

UMC course | Smart Kenyan reporting



Marie Lindquist Director **Uppsala Monitoring** Centre

Sometimes I envy people who work with their hands to produce beautiful or practical things; tangible results that give pleasure to those who use them. Working in pharmacovigilance, by contrast, resembles the job of a cleaner, where the result of one's hard labour is only noticed if the job is not done.

How do we provide evidence of the value of our efforts? What is our answer when people ask how many lives we have saved, or how much harm has been avoided as a direct result of our signal detection, evaluation and communication? And yet we must try to do just that; produce justification that our work is worthwhile, and cost-effective.

I think it is very fortunate that UMC has been in a position to generate funding for development international pharmacovigilance from products that are derived from our core work, and which in themselves are useful tools for pharmacovigilance and patient safety. This carries with it a responsibility to use our income in the best possible way, to support our mission and the WHO Programme. As part of the UMC planning process we are thinking hard about devising measurable goals, with relevant quantitative and qualitative parameters. It is not easy, but it is essential to go through the process and make our best efforts to define when and how we can say that we have accomplished what we set out to achieve.

Whether we like it or not, we live in a world where resources are limited and we have to compete with other, perhaps equally worthwhile causes. No one in our field of work can take it for granted that funds will be provided for pharmacovigilance, no matter how important we think the work is. We need to convince others that pharmacovigilance is an essential part of a functioning health care system. In order to do that we need to successfully promote that what we do tackles a widespread and serious health care problem, while producing evidence that supports our conviction that patient harm from use of medicines is reduced as a result of our work. I believe the implementation of pharmacovigilance indicators, as discussed and agreed at the recent WHO Advisory Committee on Safety of Medicinal Products (ACSoMP) meeting is an important step towards providing such evidence.

Using these indicators, countries will be able to assess and evaluate the progress and evolution of pharmacovigilance in their settings.

One thing that troubles me - and I'm not only thinking about pharmacovigilance – is that it is not always the most deserving who get the attention. Those who shout loudest stand a much better chance of getting their voices heard - whether for good reason or not; and the needs of the shy or unassuming get ignored. Who praises the quiet, diligent worker for having completed another day of 'routine', or 'maintenance' work, and how many take any notice at all of the office cleaner?

I do believe that high-flyers and innovators should be rewarded for their achievements, in their families, work places or society as a whole; but it should not be at the expense of those who are just as important, but whose contributions may be less spectacular. Many years ago now, my father started a small-scale, successful hydropower business, based on his innovative thinking and long experience as an expert in the field. All these years, my mother has worked with him, always in the background, providing essential administrative assistance, as well as general support and encouragement through thick and thin. I take the opportunity to express my appreciation of her work, and that of all other extraordinary 'ordinary' people out there - society would not function without you!

I have often noted that those who are good at selfpromotion are not necessarily good at delivery. So how can the unsung heroes who deliver good results promote their work clearly and strongly, without resorting to hyperbole or unsubstantiated self-aggrandizement (which they are eminently unsuited for anyway!)? Maybe we all have something to learn from the likes of Angelina Jolie and David Beckham who manage to combine glamorous appearances in the limelight with solid professionalism in their areas.

Mari Endy

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Global vaccines

The global advisory committee meets in Bangkok.



Cutting the ribbon for an exciting new ICSR search engine.





New theses

Kristina Star describes her research in paediatric drug safety, plus two Swedish PhDs.



High-level delegation visits Mauritius.





Expecting the Worst

UMC book now has a Japanese edition.



Rome summons WHO Programme

Geoffrey Bowring

Plans are advancing for the 36th annual meeting of the WHO Programme for International Drug Monitoring, to be hosted by the Italian Medicines Agency (AIFA, L'Agenzia Italiana del farmaco) in Rome.

Modern centre

The conference will take place from 26th-28th September (with pre-meetings on the 25th) at the Centro Congressi Roma Eventi, in the centre of the city. The congress centre is a well-equipped and modern complex with catering on site. The UMC presentations on the 25th will cover many tools used by WHO Programme members and offer the opportunity to discuss them in depth with UMC staff.

A welcome reception planned for the Wednesday evening will give everyone attending a chance to break the ice before the meeting begins the following day.

Packed agenda

Official invitations and the major topics have been sent to all national centre heads in the WHO Programme. Focus this year is likely to include government commitment to pharmacovigilance, experiences with different systems for ICSR data management,



Amphitheatre at the Roma Eventi

safety monitoring of medicines in children, public access to information in VigiBase, safety of medicines in long-term care and in pregnancy and in biotherapeutics. There will also be several sessions of Problems of Current Interest where national centres raise topical concerns and lead discussions on current issues within patient safety.

Then on to Pisa

The annual meeting will take place a few days before the annual scientific meeting of ISoP which is taking place in Pisa, just a few hours north by train, starting on the 1st October.

RISK: What risk? Whose risk?

Uppsala Monitoring Centre Research Conference 2014

May 22-23, Uppsala Concert and Congress Centre, Uppsala, **Sweden**

Science is opening doors to new ways of identifying drugs likely to cause harm and specifying patients at risk for adverse drug reactions. These developments further the boundaries of traditional pharmacovigilance and demand new thinking and practice. A prime challenge is to provide information that is practical and effective for health professionals and patients to anticipate and prevent harm.

This symposium will showcase some of the latest methods and fields of enquiry in safeguarding patients.

The topics to be debated will include:

- Patient groups at risk genotypes and phenotypes
- Structure analysis of medicinal products

- Individualized benefit-risk assessment
- Effective communication to health professionals and patients in clinical settings.

This programme will intrigue and excite all those with an interest in patient safety, the risks and benefits of medicines, and the practice of pharmacovigilance.

For a sense of what you might expect from a UMC Research Conference, please find the programme and information from 2012 at http://www.who-umc.org/Research.



The Uppsala Concert and Congress Centre

New education and patient reporting centre

Linda Härmark

The World Health Organization designated the Netherlands Pharmacovigilance Centre Lareb as a Collaborating Centre for Pharmacovigilance in Education and Patient Reporting, for an initial period of four years from 13 May 2013. The head of the new Collaborating Centre is Dr. Agnes Kant, and the responsible officer at WHO is Shanthi Pal.

Areas of work

The Terms of Reference of the WHO Collaborating Centre for Pharmacovigilance in Education and Patient Reporting include development and maintenance of a core pharmacovigilance curriculum, to be part of the university curriculum for pharmacy, medical and paramedical professions, and training and promotion along with research in the area of patient reporting. As with all WHO Collaborating Centres, it will need to work closely with WHO HQ and report annually on the achievements made in reaching its goals.



Staff of the new Collaboratina Centre, from left: Agnes Kant, Eugene van Puijenbroek, Linda Härmark and Florence van Hunsel

Recognition and encouragement

At Lareb, we are very happy to have become a WHO collaborating centre, it is recognition of the hard work we do in order to further pharmacovigilance, develop encourages us to continue to do our best. Lareb has accepted patient reports since 2003 and since then also conducted research in this area to investigate the contribution of patient reporting to pharmacovigilance. This resulted in Florence van Hunsel's doctoral thesis in 2011. Since then, Florence has supervised the research in this area within Lareb.

For education, there will be close collaboration with the University of Groningen in building a core curriculum in pharmacovigilance. We will also try to make use of, and/or collaborate with, other parties who are interested in a pharmacovigilance curriculum. We will start carrying out the work described in the terms of reference as soon as possible.

If you have questions or ideas concerning the topics Education in pharmacovigilance or Patient reporting please do not hesitate to contact us at I.harmark@lareb.nl

Monitoring Medicines Results

Ennita Nilsson

The Monitoring Medicines consortium, an EU-supported collaboration, met on 20th May 2013 during the World Health Assembly in Geneva to conclude the Project and share the results from the past four years in order to increase public awareness of its outcomes.

The interregional consortium members of the project (from United Kingdom, Sweden, Denmark, Philippines, Kenya, Ghana, Switzerland, Netherlands, and Morocco) issued a statement directed towards policy- and decision-makers regarding the safe use of medicines, to reinforce patient safety at all levels and encourage further collaborations.

The project was supported with €2 million funding from the European Commission through the Seventh Framework Programme (FP7). The overall aim of the project was to strengthen what we know about medicines, sharing that knowledge and putting it to use to reduce patient deaths and adverse effects due to medicines. The project started in September 2009 and officially ends in July 2013.

The consortium achievements are:

- Developed guidelines, and implemented technology for direct patient reporting of adverse drug relations. The user-friendly tool for patient reporting was developed with input from various patient organisations and some countries are field-testing it.
- Developed methods for identification of products of sub-standard quality in pharmacovigilance databases.
- Developed guidelines for reporting medication errors, and methods for analysing and learning from such reports to prevent harm and encourage collaboration.
- Developed and tested new methods for safety monitoring of medicines introduced in Public Health Programmes (e.g. HIV/AIDS and malaria), namely Cohort Event Monitoring (CEM), and Targeted Spontaneous Reporting (TSR), currently being piloted in Uganda, Kenya and Belarus.

UMC redesignation

Sten Olsson

In April the UMC received notification from Zsuzsanna Jakab, Director of the WHO Regional Office for Europe, stating that The Uppsala Monitoring Centre has been redesignated as a WHO Collaborating Centre for International Drug Monitoring, to be effective from 23 July 2013 to 23 July 2017.

The terms of reference of the Collaborating Centre are to:

- 1. Lead scientific development in the WHO Medicines Safety Programme particularly regarding:
- Identification and explanation of important safety signals related to medicinal products
- Develop best practices in pharmacovigilance
- Improve the visibility and status of pharmacovigilance globally.
- 2. Provide useful, high-quality and costeffective pharmacovigilance products and services to member countries of the WHO Medicines Safety Programme for local applicability building on international standards.
- 3. Contribute to capacity building in WHO member countries in establishing and supporting sustainable, high quality pharmacovigilance systems and evaluating their performance.

Pharmacovigilance again at WHA

Jenny Wong

During the 66th WHO World Health Assembly, on May 21, the WHO Department of Essential Medicines and Health Products held a technical briefing for Member States focused on strengthening the pharmacovigilance for better regulatory function in low- and middle-income countries. This event marked the 50th anniversary of the WHO resolution on 'Clinical and Pharmacological Evaluation of Drugs' (see p7). The briefing was held in partnership with the governments of Ghana, the Philippines, and the United States, and was chaired by Dr Margaret Hamburg, Commissioner of the U.S. Food and Drug Administration (U.S. FDA) and Dr Sherry Ayittey, Minister of Health, Ghana. The evening seminar, after a long day of Assembly deliberations, attracted an attentive audience of approximately 70 to 80 participants.

The high-level speakers presented the processes, challenges and the importance of pharmacovigilance in their respective countries' regulatory agencies. Dr Hamburg began the session by describing the FDA's approach to pharmacovigilance and how these processes have informed U.S. regulatory decisions in pre- and post-market product introduction.



Niklas Norén, Margaret Hamburg

Differing perspectives

The WHO Programme highlighted the scope of work and benefits derived from pharmacovigilance activities. The Philippines explained how data from their eReporting system for pharmacovigilance has led to improved regulatory decisions and more informed decision making on disease treatment The UMC showed how pharmacovigilance centres have contributed to drug quality surveillance and the continued growth of Vigibase™. Croatia



Viola Macolić -Sarinić

served as the voice for patient involvement, demonstrating the positive contributions that the patient medication experiences have provided in drug monitoring. Croatia was the first country to use the UMC online application for reporting by patients rather than by healthcare professionals. Uganda emphasized the importance of developing partnerships with public health programmes and how these partnerships have led to increased recognition of monitoring for adverse drug reactions.

Working with manufacturers

Dr. Ayittey concluded the event by summarizing pharmacovigilance practices and referred to WHO's prequalification programme. With increased access to medicines, she emphasized the importance of developing relationships with local manufacturers to encourage participation in the pre-qualification programme so that the drugs delivered to patients are safe and effective.

Pharmacovigilance at the centre

The central theme of the event placed pharmacovigilance at the core of a comprehensive drug quality and safety approach. Pharmacovigilance activities have the ability to empower low- and middleincome countries with better decisionmaking by regulators, improved treatment strategies, healthcare practices treatment outcomes. It can also guide procurement of effective medicines and provides a quality assurance mechanism for drug safety.

Update from the New Zealand IMMP

Mira Harrison-Woolrych

The New Zealand (NZ) Intensive Medicines Monitoring Programme (IMMP) has recently completed a study of the smoking cessation medicine varenicline (Champix®). This cohortevent-monitoring (CEM) study included over 23,000 NZ patients dispensed this medicine between 2007 and 2011 and a summary of the key findings from the study can be found at: The IMMP has http://www.otago.ac/immp. published research papers on utilization of varenicline¹, psychiatric effects², risk of suicide³, cardiovascular events⁴ , haematological events⁵ and also reported a new signal of memory impairment⁶. In this study the IMMP also identified all women of reproductive age prescribed varenicline and followed up these women for fetal exposure to varenicline during pregnancy (paper in press).

Bisphosphonates

The IMMP is now monitoring the utilization and safety of bisphosphonate medicines. medicines are widely prescribed worldwide for prevention and treatment of osteoporosis, Paget's disease, bony metastases, multiple myeloma and other indications. In 2011 an estimated 60,000 NZ patients were prescribed a bisphosphonate medicine and the IMMP is now collecting data to conduct a utilization study of bisphosphonate dispensings during 2012. The IMMP is also currently following up cohorts of patients dispensed zoledronic acid (Aclasta®) or alendronic acid (Fosamax®) during a four-month period in 2012. This study aims to quantify the rates of known adverse reactions (e.g. gastrointestinal effects) and also identify new signals with these medicines.

In addition to the above studies of bisphosphonate medicines, we are also conducting a study of Bisphosphonate-Related Osteonecrosis of the Jaw (BRONJ). This study aims to identify every case of BRONJ in NZ during a specific time period and the IMMP is collaborating with the Carney Centre for Pharmacogenomics (in Christchurch, NZ) to further investigate genetic aspects.

Recently the IMMP has developed electronic capture of prescription data (to establish the IMMP cohorts) and now over 65% of NZ pharmacies submit dispensing data for the monitored medicines in this way. In addition to this development, the IMMP has updated its patient information and also improved the amount of information about the programme on the IMMP website. We invite you to take a look at: http://www.otago.ac/immp.

Threats to future

Against this background of ongoing intensive monitoring studies and enhancements to the programme, the IMMP is facing a funding crisis. In 2012 the NZ Ministry of Health (Medsafe) stopped funding the IMMP and it has since been operating on residual research funding. All attempts to secure future funding for the IMMP have so far been unsuccessful and now this wellknown and respected CEM programme - which has operated within the NZ Pharmacovigilance Centre for over 35 years – is facing closure in the coming months. This would be a sad outcome for pharmacovigilance worldwide as the IMMP has been the foundation stone for newer CEM programmes around the world.

Further information

To find out more about the IMMP please contact the Director at:

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- 1. Harrison-Woolrych M, Ashton J. Utilization of the smoking cessation medicine varenicline: an intensive post-marketing study in New Zealand. Pharmacoepidemiol Drug Saf. Sep;19(9):949-953.
- 2. Harrison-Woolrych M, Ashton J. Psychiatric adverse events associated with varenicline: an intensive postmarketing prospective cohort study in New Zealand. Drug Safety. Sep 1;34(9):763-772.
- 3. Harrison-Woolrych M. Varenicline and suicide. Safety data from New Zealand. BMJ. 2009;339:b5654.
- 4. Harrison-Woolrych M, Maggo S, Tan M, Savage R, Ashton J. Cardiovascular events in patients taking varenicline: A case series from intensive postmarketing surveillance in New Zealand. Drug Safety. 2011;35(1):33-43.
- 5. Harrison-Woolrych M, Härmark L, Tan M, et al. Epistaxis and other haemorrhagic events associated with the smoking cessation medicine varenicline: A case series from two national pharmacovigilance centres. European Journal of Clinical Pharmacology. 2012;68(7):1065-1072.
- Tan M, Harrison-Woolrych M. Memory impairment associated with varenicline. European Journal of Clinical Pharmacology. 2013;69(5):1195-1196.

GVSI in Bangkok

Sten Olsson

The Global Vaccine Safety Initiative (GVSI) planning group met for a face-to-face meeting in Bangkok on 18-19 June 2013. The planning group is guiding WHO in the implementation of the Global Vaccine Safety Blueprint to optimize the safety of vaccines through effective use of vaccine pharmacovigilance principles and methods.

Priority 2: Important activity for which funding is recommended

Priority 3: Desirable activity that should be part of a full GSVI work plan.

Activities proposed in the portfolio reflect the work of their initiators, managers and donors regardless of the source of funding. They do not reflect WHO activities but have been identified by WHO as valuable contributions towards the shared goal of implementing the Blueprint.



Madhava Balakrishnan (WHO), Alex Dodoo (Chair), and Patrick Zuber (WHO) at GVSI

GVSI portfolio

One of the tasks of the GVSI planning group is to maintain a portfolio of activities to enhance vaccine pharmacovigilance capabilities in lowand middle-income countries. This was the first physical meeting after the first version of the GVSI portfolio was published on the WHO web site in April 2013: www.who.int/ vaccine_safety/news/highlight_3/en/.

At the Bangkok meeting participants discussed definitions of criteria for the assessment of priorities of portfolio activities. Once agreement was reached, the criteria were used for ranking the priority of suggested activities that had still not been included in the first version of the portfolio.

A three-level scale was used: Priority 1: Key activity for which funding is immediately needed

Causality assessment of AEFIs

WHO has also recently published on its website a new manual for causality classification of Adverse Events Following Immunization. The manual commissioned and later approved by the Global Advisory Committee for Vaccine Safety (GACVS). The intention was to develop a systematic and user-friendly method to assist in reviewing and interpreting data, and to assess causality after an individual AEFI. This manual incorporates recent definitions and recommended by the CIOMS/WHO Working Group on Vaccine Pharmacovigilance.

www.who.int/vaccine_safety/publications/ gvs_aefi/en/index.htmlS/WHO Working Group on Vaccine Pharmacovigilance

50 years on...

It is 50 years since the 16th World Health Assembly in 1963 adopted a resolution (WHA 16.36 'Clinical and Pharmacological Evaluation of Drugs') that invited Member States to arrange for a systematic collection of information on serious adverse drug reactions observed during the development

of a drug, and, in particular, after its release for general use. This led to the creation of the WHO Pilot Research Project for International Drug Monitoring in 1968. In 1970, the 23rd WHA reaffirmed the request with a provision for alerting Member States in cases of urgency (resolution 23.13).

The 1963 WHA resolution is thus the formal starting point of the WHO Programme for International Drug Monitoring that currently has 112 countries as full members and a further 32 associate members.

ACSoMP at 10

Sten Olsson

This year the WHO Advisory Committee on Safety of Medicinal Products (ACSoMP) celebrated its 10th meeting. The anniversary took place at WHO headquarters, Geneva, from 17-19 April. Lembit Rägo, Coordinator, Quality Assurance and Safety of Medicines (QSM) gave the opening remarks and welcomed the committee members. Two new members had joined, Dr Peter Arlett, European Medicines Agency and Dr Ananda Amarasinghe, Sri Lanka (not present at the current meeting). Gerald Dal Pan, US FDA and June Raine, MHRA, UK shared the burden of chairing the meeting. UMC was represented at the meeting by Marie Lindquist, Sten Olsson and Pia Caduff-Janosa.

Brief progress reports were given by Shanthi Pal, manager of the WHO Medicines Safety Programme and by the directors of the WHO Collaborating Centres in Uppsala, Ghana and Morocco.

The agenda for the three days of deliberations included the following subjects:

- Pharmacovigilance of medicines in the elderly. How can WHO prepare for this challenge?
- Pilot testing the WHO pharmacovigilance indicators
- Safety monitoring of medicines in malaria treatment
 - This subject was given major attention, and speakers from the WHO disease programme and outside of WHO were invited
- How can we use ATC/ DDD* methodology in pharmacovigilance and promote its use in low-and middle income countries?

- Update on the Global Vaccine Safety Initiative
- Attention to pharmacovigilance in various regional regulatory harmonization projects
- Process for making information in VigiBase accessible to the public
- Impact of the new EU pharmacovigilance legislation and quidelines
- Pharmacovigilance of similar biotherapeutics
- Adverse event reporting for medical devices
- Strategies for monitoring the safety of new medicines against multi-resistant tuberculosis
- Update of the WHO project on substandard and falsified medicines
- How pharmacovigilance centres can contribute to drug quality surveillance systems
- Implementation of pharmacovigilance of medicines for children
- Progress with the Pharmacovigilance Toolkit and the general curriculum to support pharmacovigilance training and capacity-building.

A report of the ACSoMP meeting will be published in a future issue of the WHO Pharmaceuticals Newsletter.

One of the members of the Committee, Gunilla Sjölin-Forsberg of CIOMS, had organized for a special anniversary cake that was enjoyed by all participants before Lembit Rägo closed the meeting. A proposal was



Celebration champagne..



...and a cake!

to write a summary of the made achievements of ACSoMP since its first meeting. The proposal was not followed by any actionable decision however.

* Anatomical Therapeutic Chemical/defined daily dose



CIOMS vaccine safety

Marie Lindquist

A meeting of a new CIOMS (Council for International Organizations of Medical Sciences) vaccines working group was hosted by the European Medicines Agency (EMA) in London on 29-30 May 2013. The CIOMS Secretary-General, Gunilla Siölin-Forsberg welcomed the 21 participants, from vaccines manufacturers, epidemiologists, medicines regulators and WHO.

Reasoning behind new group

The group has been set up to deal with the increased need of global vaccines safety coordination and to address areas of improvement of benefit-risk communication. Possible outcomes for the group include new definitions for the conduct of vaccine pharmacovigilance activities and information exchange mechanisms between public and private sector on the monitoring of AEFI, as well as approaches to capacity-building for low- and middle-income countries (LMIC).

The group will also have the opportunity to elaborate systems for the early exchange of data on serious AEFI and sharing of causality assessments.

Reflections from stakeholders

All members of the group had the chance to explain their current involvement in vaccines safety initiatives and where they see a need for more co-ordinated action. Patrick Zuber (WHO) gave the perspective on the background, outline and scope of Global Vaccine Safety Blueprint.

Others reflected on the status of collection and exchange of information about vaccine safety concerns and signals between national regulatory authorities, vaccine manufacturers and multilateral agencies. National centre staff from Ghana and Morocco set out their experiences of AEFI monitoring and FDA representatives presented their current work.

Scope of the Working Group

The working group divided into three smaller groups who spent some time discussing the priorities for, and scope of, the new working group, its needs and opportunities. Openness, transparency, better quality information and building trust among partners were key.

Pharmacovigilance activities that lead to good decision-making were also mentioned, rather than activities that just 'tick the regulatory boxes'.

Summary so far

Members of the group are now going to explore the issues raised and gather more information, so as to be in a position to start producing a business plan at the next meeting in September. None of the issues and concepts in themselves are necessarily vaccine specific - but for all, there may need to be specific considerations set down for when the product is a vaccine. However, vaccine specific issues include: mass vaccination campaign safety surveillance rumour-mongering destroying confidence in vaccination.

New Guidance and Consultation from the EU

Priya Bahri

Good Pharmacovigilance Practices (GVP) came into force in July last year as the new set of pharmacovigilance quidelines in the European Union (EU), implementing new legislation (see UR56 p21). GVP is organised by key processes described in its various modules, and by now 11 modules have been finalised.

Consultation open

The latest module on risk minimisation measures has been released as a draft for public consultation until 5 August 2013, open to individuals and organisations from Europe and beyond. At the same time, a revision of the module on adverse reaction case reporting is under consultation with further guidance on some aspects, including case reporting from post-authorisation studies.

Vaccines

Earlier this year a second series of GVP chapters was opened, namely product- and population-type specific considerations, which provide regulatory and scientific quidance applicable in conjunction with the modules. The first one, numbered GVP P.I covers pharmacovigilance for vaccines, and supersedes the previous EU guideline. EU regulators took into account the CIOMS-WHO Report on vaccine pharmacovigilance and invited comments from CIOMS and WHO, that will contribute to the finalisation of this GVP chapter and related definitions. Public consultation ended in June and final guidance should be available in the autumn.

New developments

Further modules are currently under development, one on continuous pharmacovigilance and decision-making upon safety action and another one on international collaboration. Further chapters are already planned in relation to biologicals, medicines used in pregnancy and geriatric medicines. GVP comes with a number of annexes, in particular annex I is kept up to date with definitions, annex II with templates and annex III and IV with other relevant EU and ICH guidelines.

Keep in touch

The space to watch at the website of the European Medicines Agency is here: www. ema.eu > Regulatory > Human Medicines > Pharmacovigilance > Good pharmacovigilance practices! Comments on drafts are welcome under gvp@ema.europa.eu, using the templates provided, and questions may be sent to p-pv-helpdesk@ema.europa.eu.

Joint Action project

Under the European Commission 2013 Health Programme a Joint Action project has been unveiled to achieve more effective collaboration across EU member states and improved operation of systems to achieve key health aims. Marie Lindquist (UMC Director) has been appointed as a member of its Advisory Board.

For more information: http://ec.europa.eu/ eahc/health/JA 2013 pharmacovigilance. html

Another record year for UMC course

Geoffrey Bowring

The UMC Pharmacovigilance continues to be a highlight of the training calendar. This year some 48 participants from 29 countries took part, many attending both modules on offer. Clearly the mix of keen pharmacovigilantes, representing both regulatory authorities, pharmaceutical companies and other institutions proves the demand for face-to-face training is still there.



UMC staff help students during practical sessions

The primary aim of the course is to support the development of programmes for spontaneous adverse reaction reporting and to give an introduction to other methodologies.

Distinguished faculty

As well as regular speakers Pia Caduff-Janosa, Bruce Hugman, Marie Lindquist and Sten Olsson, many other UMC staff helped on the teaching side. An impressive faculty also descended on Uppsala to provide their expertise: Ruth Savage (New Zealand), Souad Skalli (Morocco), Linda Härmark and Hubert Leufkens (Netherlands), Deirdre McCarthy (Ireland), David Martin and Wambui Chege (United States) and Michael Deats and Shanthi Pal (WHO).

Student feedback

Naturally with a diverse group of participants, each student had different aspirations and highlights. Training staff Anna Hegerius, Johanna Stenlund and Elki Sollenbring spoke to some of them about their hopes and ambitions.

The recent upgrading of work at his agency was cited by Anthony I. Obianonwo from Nigeria as the reason for his coming on the course, in particular changes to data management in his work area. He also hoped to gain ideas to strengthen the feedback

capacity to stakeholders. However, he was especially pleased with the pharmacoepidemiology sessions.

A way to learn about UMC services, such as VigiFlow, particularly in a hands-on setting, was the motivation of Maytham H. Alwan Al-Amiry (Iraq), who also found much to help her in the terminologies for coding ADRs, signal detection and causality assessment sessions.

Mayra Carvalho Ribiero (Brazil) saw the course as not only a way to learn more about the subjects but also to meet people who share the same interests, including teachers and classmates. She singled out the patient reporting as really interesting.

Further building capacity to provide more efficient services to the national centre where he works and the teaching institution where he gives classes spurred Hasipha Tarpeh of Liberia to apply. He found the topic of incorporating pharmacovigilance in public health programmes to be outstanding, as well the lecture on 'How to help others learn'. But he also mentioned the time visiting Stockholm and the walking tour of the University of Uppsala.

Alvaro Muñoz (Spain) was seeking to improve knowledge in pharmacovigilance and increasing possibilities of getting a job after training in clinical pharmacology.

Social activities

The course dinner was held at the Orangery, in the Linneaus garden in Uppsala, and on



Relaxing before the conference dinner

another evening the participants either ran or walked the annual Blodomloppet, a charity event around central Uppsala, which enabled the participants to explore the Swedish nature.

The website with the UMC training recorded during videos pharmacovigilance courses (2009-2013) has received a facelift! There are 43 video files on offer, including some new presentations from 2013. Go to http://media.medfarm.uu.se/play/ kanal/4



Course students about to run or walk the Blodomloppet

Electronic reporting launched in Kenya

Paper takes a back seat in green reforms

Jayesh Pandit and Ndinda Kusu

On 23rd April 2013, the Kenya Pharmacy and Poisons Board (PPB) launched the Pharmacovigilance Electronic Reporting System (PV-ERS) - a suite of four software applications based on an open-share Linux platform. These enable anyone to report suspected ADRs and poor quality medicinal products through online and offline access via mobile and fixed devices.

The launch was attended by top officials from the health ministries and officially presented to the public by the Permanent Secretary, Ministry of Information and Communication, Dr. Bitange Ndemo. Also present were key stakeholders and partners in pharmacovigilance.

E2B compliant

This system makes reporting simple and accessible and

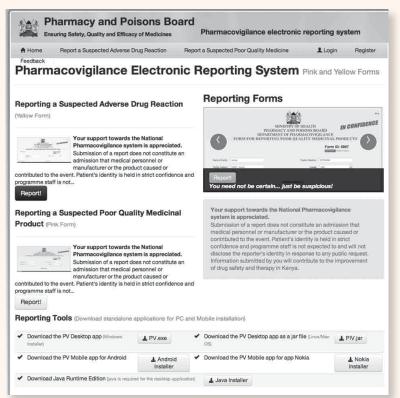
speeds up the review of reports submitted. Information required for timely decisionmaking by healthcare providers and public health programmes is available more quickly. Paper is eliminated and we are proud to claim that pharmacovigilance goes green in Kenya. PV-ERS is E2B compliant, so Kenya can fulfil its international obligations by committing reports to VigiBase at UMC directly after electronic review.



Jayesh Pandit showing the kind of statistics possible to obtain with the PV-ERS

Old system under pressure

The national PV programme in Kenya was launched in 2009. Since then, the Pharmacovigilance Centre at the PPB has received over 6,300 reports of suspected ADRs and over 375 reports of poor quality medicines, all paper-based. However, the pressures of time and cost for all involved -



printing and distributing blank forms, completing reports of ADRs, providing feedback, recording data in various institutional files, multiple data entry and copying, as well as the need for adequate filing and storage capacity - continued to increase to unacceptable levels.

The needs of the Pharmacovigilance Centre for efficient operation and the preferences of health professionals expressed in training and other consultations across the country, made the benefits and acceptability of an electronic system clear.

Home-grown solutions

The birth of the system has demonstrated that through collaboration (and some 'outof-the box' thinking) it is possible to develop cost-effective home-grown solutions that address local priorities. It is a locallydeveloped Information and Communications Technology solution, with seed support from USAID (United States Agency for International Development) through the Management Sciences for Health/Health Commodities and Services Management programme.

The new system is easily accessible at www. pv.pharmacyboardkenya.org and its stand-alone applications for computers and mobile phones can be downloaded through the links provided at the foot of the web-page. As well as providing a platform both online and offline, PV-ERS manages power cuts (frequent in this part of the world) with an auto-back-up capability. It also provides a cumulative log of all the reports an individual has submitted to the PPB, as well as allowing follow-up reports and submission of pictures of symptoms and of poor quality medicinal products.

PV-ERS is expected to boost reporting and tracking of suspected ADRs and poor quality medicinal products. This should ultimately improve assessment and communication of safety and quality information of medicines in the market and lead to enhanced patient safety. It will also help

medicines and therapeutic committees monitor PV activities in their hospitals and keep patient safety high on their agendas.



VIPs, Partners and some PPB staff

Onward!

Next steps will involve sensitizing health care providers on the use of the system and its roll-out alongside integration with other existing electronic medical record systems: 'Digital Kenya, here we come!'. We'll be reporting to you on progress through these pages in the future.

Jayesh Pandit, Head of Pharmacovigilance, Pharmacy and Poisons Board, Kenya

Ndinda Kusu, Management Sciences for Health/ Health Commodities and Services Management Welcome to the new member in the Vigi family...

VigiLyze

Why only search and analyze your national data when you have access to more than 8 million cases from over 100 countries in VigiBase[™]—the WHO Global Database of Individual Case Safety Reports (ICSRs)

> VigiLyze is a powerful search and analysis tool designed and developed by Uppsala Monitoring Centre (UMC) that provides access to VigiBase[™]—the world's largest collection of spontaneous ICSRs. VigiBase includes drug safety data on conventional medicines, traditional medicines (herbals) as well as biological medicines.

> The preceding tools VigiSearch and VigiMine will be replaced by VigiLyze. If there is a search request that VigiLyze is not capable of fulfilling, please direct your query to adrinfo@whoumc.org.

> VigiLyze has simple graphic outputs and is easy to learn, with an extensive Help section, including short videos with instructions.

Search focussed or broad

VigiLyze searches start broad, where all VigiBase data are displayed to the user in aggregated form. When using filters or clicking on charts, you can progressively narrow down the scope of the search.

VigiLyze is available for pharmacovigilance work for the WHO Programme member countries, and

"A very important thing that makes our life easier - Participant in the UMC PV course May 2013

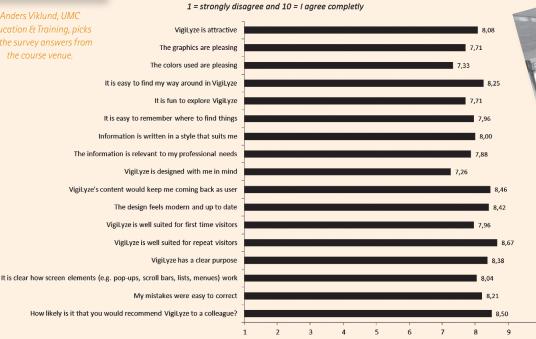
in return the WHO Programme expects to receive all ICSRs from the countries. Access can be given to staff members in both national and regional centres free of charge.

In the VigiLyze project we have put lots of effort into the design and usability. An IT consultant from Evry, interaction designer Ellen Ekerling has taken the development team through the necessary steps to create a tool for the targeted users and their needs instead of our in house assumptions. This model has also been adopted by other development teams at the UMC.

Name	Definition		
VigiLyze	The novel ICSR search engine		
VigiBase	The WHO Global ICSR Database		
VigiFlow	Complete ICSR management system		
VigiSearch	ICSR search engine (will be phased out)		
VigiMine	Statistics on drug – ADR combinations (will be phased out)		
Vigimed	Closed discussion forum		

The Vigis. It is not always easy to remember all the different Vigis and what they do. Here they are in full.

Anders Viklund, UMC Education & Training, picks up the survey answers from



Rate the following statements (n= 24)

User impressions from the hands-on workshop.

Antonio Mastroianni, Head of the Pharmacovigilance Department, the ribbon and declare the succes release of VigiLyze.

International launch

VigiLyze was released on May 21st. A celebration took place in the UMC office that evening. A speech was held, a ribbon was cut, digital fireworks went off, real strawberries were consumed and not least around 40 international guests participating in the annual UMC Pharmacovigilance training course were there.

VigiLyze training was of course in the course agenda. Anders Viklund from UMC Education & Training led a 11/2 hours hands-on workshop giving the students the possibility to use the tool themselves. Their first impressions were captured in a VigiLyze user survey. The answers from the survey indicated that the new tool was well received (see bar chart on page 12).

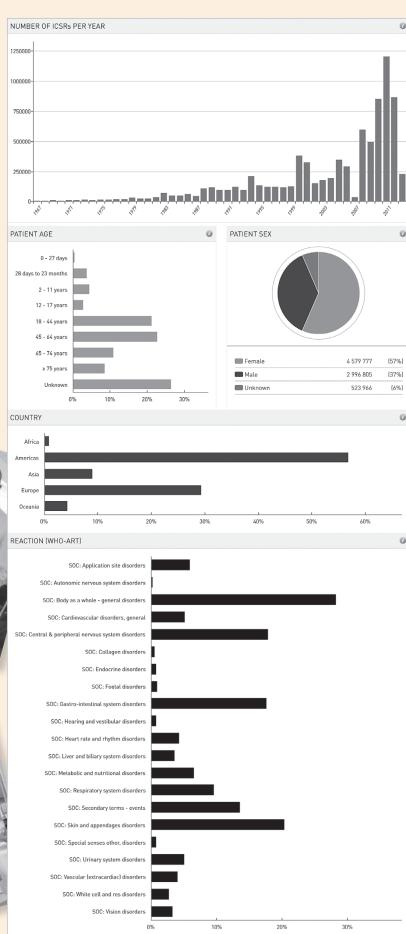
At the time of writing the rolling out process was in full swing. Around 100 users from 14 different countries already had access. Before a new user can be added each NC/RC appoints a VigiLyze contact person who collects and submits information about the individuals who should be invited as users.

User forum and e-learning

Along with access to VigiLyze the users can join a VigiLyze User forum where they can communicate with each other and UMC. They will also have access to online help and e-learning. When the roll out process is completed a series of VigiLyze webinars will be provided. If you have questions about VigiLyze please do contact us at viglyze@who-umc.org.



the VigiLyze storyboard



Doubling up in Africa

Antonio Mastroianni, Anki Hagström and Haggar Hilda Ampadu

During the 2013 Annual Pharmacovigilance Course in Uppsala Haggar Hilda Ampadu (UMC-Africa), Antonio Mastroianni (UMC), and Anki Hagström (UMC) hosted a lunch with the African participants to discuss the state of pharmacovigilance in Africa, what UMC-Africa (UMC-A) can do to further promote awareness, and how together African reports can be doubled this year, while still retaining high quality.

Enthusiasm

The participants expressed great enthusiasm and immediately began to share experiences and successes with each other.

importance of political will was a common theme. One way to promote the benefits of pharmacovigilance to national decision makers was to utilize the power of VigiLyze to show them important information on adverse reactions to medicine and how this evidence can help improve healthcare for the public and increase confidence in the national healthcare system.

Diverse backgrounds

The participants represented all parts of Africa and not only came from national regulatory authorities or national pharmacovigilance centres, but also from public health programmes. During this lunch we heard from public health programmes on the desire to report adverse reactions to the regulatory authority or pharmacovigilance centre consistently to further improve the national policy on the rational use of medicines.

Future goals

At the conclusion of the lunch the participants were motivated and enthused to bring this challenge back to their countries and begin to push for more reports from Africa. In addition, the participants pointed out some key aspects they would like to see in the future from UMC-A and UMC:

- African-specific pharmacovigilance Course (first UMC-A course was held 6-10 May 2013)
- More regional support and in-person training
- How to present pharmacovigilance to management and decision makers
- How to present pharmacovigilance to local and international funding organizations
- An annual pharmacovigilance training meeting for the WHO Programme members in Africa, held in Africa to provide Africa specific training, networking, knowledge sharing and discuss Africa specific issues.

We at the UMC and UMC-A are excited about this effort. We feel that the increase in high quality reports will improve the impact and usefulness of VigiLyze within Africa and help improve pharmacovigilance and further the rational use of medicine for all Africans.

In following editions of Uppsala Reports we will follow the progress with anticipation!

At the very back, Anthony Obianonwo from Nigeria, Didier Nzolo Bomene from DR Congo and Arsène

Ouedraogo from Burkina Faso. Second row from back: Akosua Boahemaa Adjei from Ghana, Iyassu Bahta Mebrathu from Eritrea, Caroline Olwande from Kenya and Anita Naa Anang from UMC-A Third row from the back: Netsanet Behabtu from Ethiopia, Mulugeta Russom Ghebremedhin from Eritrea and James D.K. Goteh from Liberia. Front row: Abena Ahwianfoa Yawson from Ghana, Christine Awour from Kenya, Hasipha C. Tarpeh from Liberia, Mary Gituri from Kenya and Haggar Hilda Ampadu from UMC-A

First African Congress of Pharmacovigilance

Pharmacovigilance in Africa, situation and perspectives

Rabat, Morocco, 12-13 December 2013

Pharmacovigilance and public health programmes

Impact of partnership in the development of pharmacovigilance in Africa

Phytovigilance and traditional medicine

Internet: www.smpv.ma E-mail: smpvmaroc@gmail.com

Who attended the 2013 Uppsala course from Africa?

- 8 African countries were represented
- 15 participants
- 11 represented national centres or Ministry of Health
- 2 represented UMC-Africa
- 2 represented a public health programme organization (NASCOP in Kenya)

Kids at risk

Are we paying enough attention to paediatric medication?

Kristina Star reports on her recent PhD research

If we consider how precious our children are and how meticulous we are about so many aspects of their care, it is surprising to find that paediatric medication is an area in which there are serious loopholes and problems.

Some of these were clearly exposed in one of the four studies that formed the basis of my thesis. In interviews with paediatric nurses, several strong themes emerged:

- Medication complexity on paedriatic wards is a threat to safe practice
- Clear instructions, guidelines and routines are often absent, variable or changeable
- Unusual or exceptional circumstances (such as unfamiliar medication, generic substitutes, emergencies) are critical challenges for maintaining patient safety
- Medicines information systems do not take adequate account of the particular needs of nurses working on paediatric wards

It was clear that anxiety about paediatric medication and the possibility of errors or near misses caused nurses considerable stress and that it was often necessary for them to seek the support and advice of others before administering drugs.

Paediatric ADRs and errors

The three further studies in my thesis suggested that the nurses' concerns were well founded. A comprehensive review of reports on children, 0-17 years, representing 7.7% of the VigiBase total, revealed that skin reactions and anti-infectives were proportionately more frequently reported than for adults, and that such reports were twice as high in Latin America, Africa and Asia than in the rest of the world.

In recent years there had been a noticeable escalation in problems and errors associated with medicines used for ADHD. Different age groups of young people displayed differing patterns of ADRs across different medicines. In another study, seeking to understand rare events, reports on children and adolescents treated with antipsychotics who developed rhabdomyolosis were examined. This case series of twenty included all such reports in VigiBase and those published elsewhere. The results highlighted the increased risk posed by changes in therapy, such as increased dose and addition or switching of products. Alertness for early symptoms of rhabdomyolosis (within the first two months of treatment), easily mistaken for common childhood ailments (abdominal pain or tiredness, for example), emerged as an important duty for health professionals and parents. The study showed that such analyses of rare events, possible only with UMC's access to global data, could yield clinically useful information.

Getting the dose right

In the UK IMS Disease Analyzer, 21,473 NSAID prescriptions for children between 2 and 11 years were examined to detect any association between prescribed doses and age, indication, dosage form, type of NSAID, or year of prescription. Dose variations were associated with type of dosage form. Tablets and capsules were noted to be prescribed at higher doses than liquid forms, especially for pre-school children. It was clear that access to ageappropriate dosage forms was important not only to facilitate administration of medicines but also for prescribing a suitable dose.

What are the lessons?

Prescribing, administering and monitoring medicines in children is a complex project. Most medicines are designed and tested for use in adults, leading to a lack of information on dosing, contraindications and ADRs for children. Age-appropriate dosage forms are often not available. The high level term 'paediatric' encompasses enormous biological



Kristina Star

and psycho-social variations across age as well as individual idiosyncrasy within age groups. These issues all highlight the importance of careful monitoring of medicines in clinical paediatric practice and the usefulness of pharmacovigilance in revealing adverse effects in this population.

There is a good argument for developing a special focus on paediatric ADRs and a separate signal detection process for them. UMC is currently working to define clinical focus areas in which the unique VigiBase global data is reviewed for problems when there are few reports from individual countries.

These four areas of study for the thesis highlighted a number of important issues relating to the safety of young patients. Some of the serious concerns raised by the group of paediatric nurses were borne out in the examination of global data and point the way for further research and action.

Kristina Star works in the Research Department at the UMC and defended her PhD thesis Safety of medication in paediatrics on 16th May 2013 at Uppsala University.

Two more theses from Sweden

Sten Olsson

Birgitta Grundmark of the Department of Pharmacovigilance, Medical Products Agency, Sweden, successfully defended her PhD thesis 'Prostate Cancer; Metabolic Risk Factors, Drug Utilization, Adverse Drug Reactions' on 25 April at Uppsala University. The thesis studies cover aspects of prostate cancer from causative risk factors and factors influencing treatment to an improved methodology for the detection of treatment side effects. The article with most pharmacovigilance relevance is 'Reducing the noise in signal detection of adverse drug reactions by standardizing the background: Analyses of Proportional Reporting Ratios by therapeutic area'

Elisabet Ekman has served Swedish pharmacovigilance for many years, mainly in the Lund regional centre. In May she defended her PhD

thesis 'Pharmacovigilance - spontaneous reporting in healthcare. She has studied the attitudes of physicians and nurses towards ADR reporting and the effect of training interventions on reporting behaviour. The thesis also includes studies of the reporting of drug-induced torsades de pointes in Sweden, and erectile dysfunction with antihypertensive medicines.

Training campaign for Mauritius

Situation analysis

In March 2011 Alex Dodoo of the Collaborating Centre, Ghana, was commissioned by WHO to do a 9-day consultancy to review conditions for setting up a pharmacovigilance system in Mauritius. Mauritius is an island nation in the Indian Ocean, off the cost of Madagascar, with 1.2 million inhabitants. One of the recommendations in Alex Dodoo's report was to carry out basic pharmacovigilance training for health administrators, health care professionals and pharmaceutical establishments. Since then the WHO Country Office has tried to accomplish such training activities

WHO-HQ, UMC and involving Collaborating Centre in Ghana. The Ministry of Health & Quality of Life has also applied for membership of the WHO Programme, in



Health officials and visiting lecturers for training in Mauritius

which the country has been awarded the status of Associate Member.

A week of training

The Ministry of Health and WHO organized pharmacovigilance training workshops in the capital Port Luis on 2-5 April 2013, with Shanthi Pal, WHO-HQ, Sten Olsson, UMC, and Alex Dodoo, providing the external faculty. The opening speeches were given by Lormus Bundhoo, Minister of Health and Quality of Life and Sheesha Jankee, Director of Pharmaceutical Services. The WHO Country Office was represented by Ajoy Nundoochan. The course programme for healthcare professionals in the public sector had to be given twice, since the healthcare system could not be drained from all key professionals at the same time. The training included both formal lectures, working group sessions and open discussions.

Lessons learned

During discussions it became apparent that healthcare professionals in both the public and private sectors had major concerns about both the quality and safety of many medicinal products available on the market pharmaceutical Mauritius. Collaboration between various sectors of the Ministry, e.g. those responsible for quality control and regulation seemed not to be functioning optimally.

Although a reporting form for adverse reaction reporting does exists and completed reports have been submitted to the Ministry of Health they have not been recorded or properly analyzed with feed-back given to reporters. This is due to priority setting and lack of resources at the Ministry. On the request of the Minister a team was identified to manage ICSR reports and to ensure that they are entered in VigiFlow. Basic training on the ICSR management tool was provided to the team by Alex Dodoo. It was then realized that the national reporting form does not ask for some of the critical data elements and should be revised. As a consequence of the visit Mauritius made a self-assessment of its pharmacovigilance system using the draft WHO pharmacovigilance indicators.



Alex Dodoo demonstrates data entry in VigiFlow for Mauritian health professionals

Paediatrics in Salzburg

Kristina Star

The European Society for Developmental Perinatal and Paediatric Pharmacology (ESDPPP) held its 14th bi-annual congress in Salzburg, Austria between the 4th and 7th of June (www.esdppp.org/site/). I attended to lecture on 'Can the risk of fatal outcome from valproic acid be reduced in children?'.

The focus of the conference was to discuss novelties within pharmacotherapy in neonates and children, aiming for better use of medicines in this population. The attendees were clinical researchers, pharmacists and clinicians, from industry and regulators from around the world. Lectures covered novel therapies for children; innovative dose finding methods aiming to include as few children as possible but still generating robust findings; international initiatives and legislation; and linking research to clinical practice.

The most ground-breaking lecture was by Gregory L. Kearns on a new method to estimate weight developed by a team at the Children's Mercy Hospitals and Clinics in Kansas City in the US. Weight is important in dosing for children but can be difficult to obtain in emergency situations or when calibrated scales are not available. Kearns described the Mercy Method where measuring humeral length and mid-upper arm circumference were more accurate than previous methods. The new technique uses the Mercy TAPE ('TAking the guesswork out of Pediatric weight Estimation'), which looks like a measuring tape with 1 cm increments matching a fractional weight value. The method has been validated on patients aged 2 months to 16 years.1

The conference programme showed that activity in dose finding studies, particularly for the very young, is increasing. However, there is a need to develop ways to increase the knowledge of safety, especially in prenatal and neonatal care, and to know how to monitor for potential adverse drug reactions in these patients.

Abdel-Rahman SM, Paul IM, James LP, Lewandowski A. Evaluation of the Mercy TAPE: Performance Against the Standard for Pediatric Weight Estimation. Ann Emerg

Indonesia industry course

Siti Asfijah Abdoellah

Indonesia has approximately pharmaceutical companies, comprising 24 multinational pharmaceutical companies and the rest made up of local industry. This can be a great challenge for the Indonesian regulatory authority (National Agency of Drug and Food Control, NADFC) in its attempts to improve the capacity of pharmacovigilance. NADFC has taken steps to ensure the implementation of pharmacovigilance by pharmaceutical companies, especially by pharmacovigilance training.

On 5 -7 December 2012 NADFC conducted its second training event, following one in 2010. NADFC were honoured by the presence of Professor Kees van Grootheest, as the main trainer. Alongside him were local academic speakers Dr Jarir At Thobari (Gadjah Mada Unversity), Dr Suharti K. Suherman and Dr Nafrialdi (University of Indonesia).

The objective was to increase the knowledge of NADFC staff and those in the pharmaceutical industry who are pharmacovigilance responsible persons, especially

local firms. The meeting covered new regulations enacted in early 2012, regarding implementation of pharmacovigilance by pharmaceutical industry.

Local pharmaceutical companies are a NADFC priority because for them pharmacovigilance is a new regulatory issue. For a long time, pharmacovigilance has relied on the voluntary interest of healthcare professionals, and pharma was not involved before the new regulation was launched.

NADFC will continuously encourage and put efforts towards improving the capacity of NADFC itself as drug regulatory authority, and pharmacovigilance in the pharmaceutical industries.



Kees van Grootheest (centre); Acting Director of Directorate Distribution Control of Therapeutic Products, Dra Agustine Zaini, (to his left), participants and organizing committees

Clinical trials and new technology

Jenny Bate

The 7th DSRU (Drug Safety Research Unit) biennial conference on Signal Detection took place in London, UK in mid-June. A first-day workshop was followed by two days of presentations and discussions. Delegates from academia, regulatory bodies and industry were attracted by a programme with talks ranging from the new EU legislation and recent initiatives on signal detection in large observational datasets, to paediatric pharmacovigilance and signal detection using mobile apps and social media.

UMC research represented was presentations by Dr Niklas Norèn throughout the conference. Niklas talked about the PROTECT highlights of (Pharmacoepidemiological Research on Outcomes of Therapeutics by a European Consortium), an EU-funded project in which UMC participates in areas such as duplicate and interaction detection, signal detection in electronic health records and better use of existing terminologies. Niklas also presented the UMC work on stratification and subsets in signal detection, to better make use of the quality of the reports, rather than focusing solely on the quantity.



Niklas Norèn, Saad Shakir (DSRU) and Jeanette Johansson (UMC) discussing Twitter and signalling.

Thought-provoking

Perhaps the most thought-provoking presentation was that from Dr Ben Goldacre, author of Bad Pharma. Dr Goldacre is a strong advocate for openness of results and studies from clinical trials, and gave the impression that he thought it to be research misconduct that half of all clinical trials are never published. Steve Tomlin (Evelina London Children's Hospital) on paediatric medicine safety explained the problems and challenges that doctors, nurses and caregivers are faced with giving medical treatment to this extremely diverse group of patients. With a huge proportion of the medicines being unregulated and untested in children, he urged for better reporting.

The 80-strong audience also got to hear about the latest findings regarding ADR detection in longitudinal healthcare databases from OMOP (Observational Medical Outcomes Partnership), EU-ADR and Mini-Sentinel.

New technology

Other presentations included vaccine signal detection, statistical modelling of time-toonset data and signal detection within a large pharmaceutical company. The last presentation shone new light on how the world of pharmacovigilance can and should embrace modern technology - such as mobile apps (eg, the Health Map funded by WHO*) and social media such as Twitter and Facebook, to improve patient drug safety.

* Health Map (www.healthmap.org) is a tool and free mobile app that gives information on disease outbreaks around the world based on data from various sources in real time. Something similar could be developed for drug safety - an interesting thought.

Making tracks in Malaysia

The National Pharmaceutical Control Bureau at the Ministry of Health in Malaysia organized a National Regulatory Conference in collaboration with several stakeholders from the pharmaceutical and cosmetic industry well as the Malaysian Pharmaceutical Society. Under the motto 'Regulatory innovation towards transformation', 500 participants from industry, academia, primary health care and regulatory authorities met in Kuala Lumpur from 7th to 9th May to discuss regulatory and scientific developments in the region.

The plenary session held in the morning provided an overview and an introduction for the in-depth sessions in the afternoon that were held on three different tracks: medicines traditional and health supplements, pharmaceuticals, and biologic and cosmetic products.



After work in Kuala Lumpur

Among the broad panel of national and international speakers, the UMC was represented by Pia Caduff-Janosa with presentations in the plenary as well as in the afternoon session on the topics 'Current global landscape of pharmacovigilance' and 'Risk benefit assessment and risk management'.

The post-conference seminar on 'Signal detection' and 'Pharmacovigilance of vaccines' hosted by the National Pharmacovigilance Centre of the National Pharmaceutical Bureau was very well attended with health care professionals from hospitals joining the conference participants. We had an intense and fruitful afternoon that rounded off an outstanding conference.

I would like to thank my hosts for their kind invitation to share and exchange knowledge and experience,

for the excellent organization, their warm welcome and hospitality. A particularly heartfelt 'Thank You' goes to Ms Sameerah Shaikh Abd Rahman, Ms Rokiah Isahak and their team of pharmacovigilantes for the valuable professional exchange and their precious, delightful company.

Canaries celebrate transparency

Mariano Madurga

The 'Jornadas de Farmacovigilancia' are organized annually by autonomous pharmacovigilance centres and the Spanish Agency of Medicines and Health Products, AEMPS. This year was the twelfth such meeting to share advances, progress, challenges and developments pharmacovigilance. As from July 2012 a number of new EU rules came into force, assuming an increase in the activities of the Regional Centres and the AEMPS. They will require further efforts for pharmacovigilance, as embodied in the Action Plan on Spanish Pharmacovigilance of Human Medicines



The Spanish Pharmacovigilance Team in Santa Cruz de Tenerife

System (SEFV-H), 2012-2015, adopted at the plenary session of the Spanish Inter-territorial Board of Health in April 2012. All of this takes place in an environment conducive to reward initiatives and people – individually and from institutions - distinguished by their contribution and commitment to pharmacovigilance: the 'AEMPS Awards on Pharmacovigilance', awarded at each Jornadas de Farmacovigilancia since 2009.

The XII Jornadas de Farmacovigilancia in Santa Cruz de Tenerife, Canary Islands, on 9 and 10 May, was organized by the Canary Islands Pharmacovigilance Centre. It was attended by the Director of the Canary Islands Health Service, Juana Maria Reyes, and the Director of AEMPS, Belén Sánchez-Crespo Eznarriaga.

This twelfth meeting had as its main theme 'Transparency and Health 2.0'. Recently regulatory changes at European Union level include the empowerment of patient medication safety. Areas of discussion reviewing the main aspects of this new field of pharmacovigilance were:

Incorporation of the patient in the pharmacovigilance system: validity and implications

- Health 2.0: empowering citizens and transparency
- Critical points of health care in drug safety: mainstreaming.

The scientific committee selected attractive speakers in each subject, and discussions took the topics further in interesting ways. With a turnout of over 220 health professionals from different medical and industrial fields, from all corners of Spain, experiences and initiatives were shared: 103 communications were made, both oral and in video or electronic poster. Participation was also encouraged through a web portal designed for the conference: http://www. jornadasdefarmacovigilancia2013.org/. This was reinforced by messages through Twitter and Facebook, an example of new technologies for communication transparency.

The AEMPS Awards on Pharmacovigilance 2013 went to: 'Pharmacovigilance Centre of the Asturias Region 1999-2012', Hospital University Puerta del Mar, Cadiz', and to Professor José N Boada (University of La Laguna, Canary Islands). For more information: http://www.aemps.gob.es/ eventosCongresos/Farmacovigilancia/2013/ XII-Jornadas-Farmacovigilancia.htm.

China collaboration strengthened

Anna Hegerius

In mid-May when the long winter finally released its chilly grip of Sweden, a UMC delegation of five travelled to China. There were several reasons for the trip and the delegation split up to engage in different activities.

Training and development

First port-of-call was the China Food and Drugs Administration (CFDA) - Institute of Development (CFDAIED). A Executive training institute founded in 1985, it is responsible for carrying out all the training activities of CFDA, establishing a teaching system and conducting policy research for food and drug regulation. The Institute has developed a wide range of programmes for CFDA staff in different positions; it also conducts propaganda programmes, develops collaborates quidelines and international partners. The huge population of China is a challenge: CFDAIED trains 20,000 people every year. It is demanding to manage the large faculty needed and to ensure that all topics are covered.



The delicious Peking Duck served at CFDAIED.

Expansion

The UMC delegation was given a tour of the Institute, but since the current premises can only take 100 trainees at the same time (with lecture capacity of 300 trainees), a much bigger venue is planned and will be built within five years. The new 200,000m2 campus will accommodate 1,000 trainees, increasing to 1,800 in the long-term!

While visiting the Institute, Madeleine Krieg, Zhurong Liu, Sten Olsson and myself from the UMC gave presentations on various topics on a training course for city-level Heads of ADR Monitoring Centres. An official meeting between the management of CFDAIED and the UMC delegation also took place and CFDAIED was represented by Jiang Deyuan (President), Liao Shenhan (Vice President), Liao Binshi (Training manager) and Zhao Yang (Interpreter). Liao Shenhan gave an informative presentation of the Institute and the CFDAIED-UMC collaboration was discussed. After the meeting, Sten was appointed quest professor



From left to right: Zhurong Liu, Anna Hegerius, Sten Olsson, Jiang Deyuan, Liao Shenhan, Liao Binshi and Zhao Yang at the entrance of CFDAIED.

of CFDAIED and received a certificate and a very nice gift. The visit was rounded off with a mouth-watering lunch of more than 20 dishes including the famous Peking duck in the Institute's own impressive restaurant.

Sharing activities

Sten and I also paid a visit to the Chinese Centre for Disease Control and Prevention (CDC). We were invited by Dr Liu Dawei and his friendly team. Dr Liu is the Director of the Division of Adverse Event Following Immunization Surveillance at CDC. One of his team members, Dr Wu Wendi, gave an overview of CDC and their activities and I gave a similar UMC overview. Then Dr Liu demonstrated their online AEFI reporting system. In the evening we were invited to another delicious feast at a traditional Chinese restaurant.

Project updating

In addition to the CFDAIED and CDC visits, Madeleine and Zhurong visited the Chinese National Centre for ADR Monitoring (NCADRM) to discuss the status of the NCADRM-UMC collaboration projects.

Together with Mats Persson they also took the opportunity to attend the DIA China 5th annual meeting. Discussions were focused on the main theme: 'Patient Safety - A Sustained Focus from Scientific Ideas to Innovative Medicines', alongside a vast array of hot topics, including better public health protection, patient benefits, best practices, and compliance in alignment with science and regulations.

All in all, the stay in Beijing was very fruitful and when the UMC delegation returned to Uppsala the city had already been transformed from dull grey to lush green. Although it was a pity to miss the most beautiful week of the year, the very hospitable hosts in Beijing had made it really worthwhile.



From left to right: Liu Dawei, Li Keli, Xu Disha, Wu Wendi, Anna Hegerius and Sten Olsson at the CDC office.

Linking patient data

Hanna Lindroos

Scalable, Standard based Interoperability Framework for Sustainable Proactive Post Market Safety Studies – SALUS for short – is an international research effort funded by the EU. Participants from eight European countries are collaborating to connect the information found in electronic health records with that from existing spontaneous reporting systems.

both electronic health record and spontaneous reporting systems. This can be done by tracing case reports to their corresponding patient records to allow absolute reporting rates to be computed

 Enable secondary use of electronic health record data by using a common safety analysis can give a more detailed safety profile of the drug. Spontaneous case reports are the main source of information for current post-market safety studies, but due to under-reporting they do not provide enough information to verify drug safety. Although electronic health records are primarily used for patient care, they contain a broad range of clinical information relevant for safety analysis. Effective integration and utilization of electronic health record data with already existing spontaneous reporting systems can complement and strengthen existing post-marketing safety activities.



In June UMC hosted a three-day meeting with 18 SALUS collaborators. The first two days were devoted to resolving the technical aspects of the project. The different applications and systems that are being produced within the project were demonstrated and discussed in great detail. Two productive days of intense discussions were ended at the Biztron restaurant where the participants enjoyed a meal to the strains of a jazz ensemble.

On Wednesday the participants met to review several of the project tasks and issues concerning the whole consortium were raised and discussed.



The project partners are Software Research and Development and Consultancy Ltd (SRDC, Turkey), the European Institute for Health Records (EuroRec, France), the UMC

(Sweden), the Oldenburg Research and Development Institute for Information Technology Tools Systems (OFFIS, Germany), Agfa (Belgium), Electronic Record Services (Netherlands), Lombardia Informatica (LISPA, Italy), the Institut National de la Santé et de la Recherche Médicale (INSERM, France), the Dresden Institute of Technology (Germany), and F. La Roche Hoffmann -(Switzerland).

For more info about the SALUS project, see http://salusproject.eu/.



The SALUS partners ready for action

The grand plan

The SALUS project seeks to create the necessary infrastructure to enable use of electronic health records to reinforce the existing post-market safety studies.

In particular, the project aims to:

Strengthen the spontaneous reporting process by automated

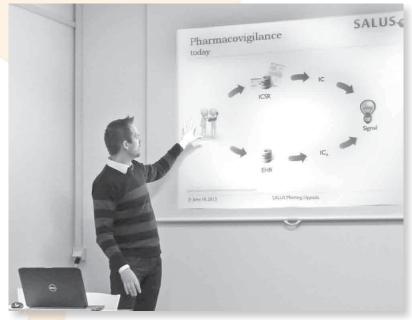
process by automated adverse drug event (ADE) detection tools screening electronic health records in a hospital to alert physicians of potential safety problems

- Enable ADE reporting by extracting available information from the electronic health records into an individual case safety report to avoid double data entry
- Strengthen the current signal detection processes by leveraging the strengths of

semantic architecture for all data sources

Why use electronic health records?

Pre-approval clinical trials are not sufficient to ensure that a drug will be safe to use once it arrives on the market. Post-marketing



Tomas Bergvall presents to the SALUS group

Research and Innovation in Brussels

Sten Olsson

According to Màire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science, the World Research and Innovation Congress (WRIC) aimed to bring together key stakeholders in healthcare research to discuss the most important issues impacting our efforts to address the 'grand challenges' of tomorrow. The congress was held in Brussels, Belgium 5 - 6 June 2013 with the theme 'Pioneers in Healthcare'.

Monitoring Medicines

The organizers of the invited congress the Monitoring Medicines project to contribute in a

session named 'Research and innovation to transform lives: Health in low- to middleincome countries (LMIC)! Shanthi Pal, manager of the WHO Medicines Safety Programme made a presentation on 'Addressing the innovation gap – strategies to inform treatment policies in LMIC countries'. During her thirty minutes she presented the challenges facing LMIC in building capacity and collecting adequate



Shanthi Pal about to be interviewed at the World Research and Innovation Congress

information in the local setting to support benefit/harm decisions regarding medicines used in public health programmes and in general healthcare. She explained the consistent WHO strategy of building capacity through creation of regional and global networks, establishment of training centres, development of best practice guidance documents, reference sources and practical tools for country implementation. The

Monitoring Medicines project, supported financially by the EU FP-7 Programme, has contributed in a major way to the development, field-testing and implementation of innovative methods for collection and analysis of data related to the use of medicines in LMIC. The project has successfully established models suitable for wider use to support policy makers and to empower the involvement of patients in their own safety. Shanthi's full presentation is available as a video recording online at https://www. annotag.tv/wric; her slides can be viewed at this site.

In connection with the presentation at the congress the Monitoring Medicines project issued a press release. www.paneuropeannetworks.com/detail/ news/eu-funded-patient-safety-project-toshare-best-practice-at-the-wric.html. As a consequence both Shanthi Pal and Sten Olsson, representing UMC at the congress, were interviewed by several media persons covering the congress.

Kees van Grootheest retires

Linda Härmark

In March this year Kees van Grootheest retired as director of the Netherlands Pharmacovigilance Centre Lareb. On March 28, a farewell symposium was held in his honour with the theme 'Being a medical doctor for 40 years'. During the symposium, four speakers representing the different aspects of Kees's professional life made a presentation. It began with the time Kees spent in Africa – at the start of his career he worked for a few years as a doctor in the Democratic Republic of Congo. His passion for Africa has remained a constant in his life and during the genocide in Rwanda he went there to provide emergency help. Upon his return from Africa, Kees trained to be a general practitioner and had his own general practice until he joined Lareb in 1996.

Lareb has developed from small, regional initiatives to a national organisation with responsibility for the spontaneous reporting system in the Netherlands. During his time as director, Lareb has been an innovative organization, being one of the first countries to introduce patient reporting in the early 2000s, the development of Lareb Intensive transparency Monitoring and pharmacovigilance data.

Kees also took a keen interest in international collaboration and was active both in the International Society of Pharmacovigilance and the WHO Programme for International Drug Monitoring. In 2008 he was appointed professor of pharmacovigilance at the University of Groningen, the Netherlands, a position he will continue to hold after his retirement. From 1 April 2013, Dr Agnes Kant is the new director of Lareb.



During the farewell symposium Kees van Grootheest was appointed Officer in the Order of Oranje-Nassau by the mayor of 's-Hertogenbosch.

New staff

Therése Lundin

I was born and raised in Örebro in central Sweden, but moved to Uppsala to study molecular biology at the University, where I took extra clinical classes in trials. communication and psychology, and I also met my husband.

I joined the UMC as a consultant in early 2012, and I am now happy to be a permanent staff member since February this year. I work in the Country Support team, liaising with member countries of the WHO Programme, especially in the South-East Asia region.

After graduating with an MSc Pharm in 2000, I worked for 10 years in the pharma industry, mainly with clinical trials. More recently, I worked as a senior CRA (Clinical Research Associate) at Quintiles, before I decided I wanted to shift gears and do something different. I was lucky to find this position



where I can combine my experience in drug development and adverse event reporting pre-marketing with my interest communication and ways of communicating efficiently with various groups/roles/cultures.

Outside work, I try to spend as much time as possible with my two kids, a 3-year-old girl and a 5-year-old boy. Singing in my choir is another important part of my life, and I love baking cakes of all shapes, colours and sizes.

Marcus Börling

I was born and raised in Uppsala and since 2007 I have lived in a suburb nearby - Sunnersta - with my wife and three kids.

I started at the UMC working in the VIPS (VigiBase ICSR Processing System) team, but will be focusing on database development and also take on responsibility of internal development platforms and environments, such Team Foundation Server.

For the five years before I joined UMC I worked in the R&D software department at GE Healthcare.

In my spare time I'm a trainer for Sunnersta AIF P99 boys' soccer team, where my oldest son is playing.

I play soccer, floorball and tennis in the 'Korpen' amateur league.

Publications news

Japanese Expecting the Worst

A Japanese translation of the UMC's powerful guide to crisis management 'Expecting the Worst' has just been published.

The retail price is 4,500 Yen, and it may be obtained from good booksellers and from the publishers, JIHO, Inc. Their website is http://www.jiho.co.jp/shop/list/detail/ tabid/272/pdid/44553/Default.aspx



Malin Jakobsson, Therése Lundin and Elki Sollenbring admire the new Japanese version of Expecting the Worst

The Dawn of Drug Safety

Dr Myles Stephens's comprehensive account of the adverse effects of medicines was first published in May 2010. We are delighted to now offer it (in pdf format) for download from the UMC website (Publications > Other books). The book consists of:

- a chronological account of the discovery, reporting and management of adverse reactions to medicines in the context of important contemporary medical events, from the beginning of time until the thalidomide disaster.
- an analysis of six marker drugs representing typical medicines covering a period of over 3,000 years.
- an analysis of the fifty drugs that had been on the market prior to 1960 and which have been either withdrawn or restricted.
- a discussion, and lessons from this experience.

Books received

Safety in pregnancy book

A book in Spanish by Francisco Appiani on safe use of medicines in pregnancy and in infants, published by JAI Editorial. The author attended the 2011 UMC training course.

ADR Monitoring and Regulations

One of the series of text books published by the Institute of Training and Education, CFDA, edited by Dr. Du Xiaoxi, director and contributions by senior staff of the China ADR Centre. Published in January 2013, the book covers basic knowledge of ADRs, ADRs of commonly-used medicines and special ADR monitoring populations, management, technology in ADR monitoring, risk management, pharmacoepidemiology, international monitoring and an appendix on how to fill in ADR-reporting forms.



DATES	TITLE	PLACE	ORGANISER/CONTACT
17-19 July 2013	Medical Aspects of Adverse Drug Reactions	Southampton, UK	Drug Safety Research Unit Tel: +44 (0)23 8040 8621 E-mail: jan.phillips@dsru.org www.dsru.org/trainingcourses
25-28 August 2013	29 th International Conference on Pharmacoepidemiology and Therapeutic Risk Management	Montréal, Canada	ISPE www.pharmacoepi.org/meetings E-mail: ISPE@paimgmt.com
4-5 September 2013	Back to Basics in Pharmacovigilance	Winchester, UK	Drug Safety Research Unit (Details as above)
10-12 September 2013	7 th annual World Drug Safety Congress (Europe 2013)	London, UK	Health Network Communications Tel: +44 (0)20 7608 7054 www.healthnetworkcommunications.com/
16-17 September 2013	Geriatric Safe Medicines Summit	London, UK	SMi Group Ltd Tel: +44 (0)870 9090 711 E-mail: events@smi-online.co.uk www.geriatricsummit.com
22-23 September 2013	Pharmacovigilance Training Course	Muscat, Sultanate of Oman	DIA Europe Tel. +41 61 225 51 51 E-mail: diaeurope@diaeurope.org www.diaeurope.org
30 September-2 October 2013	Advanced Pharmacovigilance	London, UK	Management Forum Ltd Tel: +44 (0)1483 730008 E-mail: registrations@management-forum.co.uk www.management-forum.co.uk
1-4 October 2013	13 th Annual ISoP Meeting 'The Renaissance of Pharmacovigilance'	Pisa, Italy	International Society of Pharmacovigilance www.isop2013pisa.org/
9-10 October 2013	Critical Appraisal of Medical and Scientific Papers: How to read between the lines	Fareham, UK	Drug Safety Research Unit (Details as above)
16-17 October 2013	Risk Benefit Assessment in Pharmacovigilance	Fareham, UK	Drug Safety Research Unit (Details as above)
21-25 October 2013	20mo Congreso Latinoamericano de Farmacología y Terapéutica (5to Congreso Iberoamericano de Farmacología 5to Congreso Internacional y 11no Congreso)	Havana, Cuba	Nacional de Sociedad Cubana de Farmacología - Asociación Latinoamericana de Farmacología E-mail: rdelgado@infomed.sld.cu or eventosfarmacologia@finlay.edu.cu www.latinfarma.com
26-27 October 2013 (workshops on 25 th)	8 th Asian Conference on Pharmacoepidemiology	Hong Kong	ISPE E-mail: info@acpe-hongkong.org www.acpe-hongkong.org
30-31 October 2013	Case Narrative Writing for Reporting Adverse Events	Winchester, UK	Drug Safety Research Unit (Details as above)
6–7 November 2013	Signal Management in Pharmacovigilance	Paris, France	DIA Europe Tel.: +41 61 225 51 51 Fax: +41 61 225 51 52 E-mail: diaeurope@diaeurope.org www.diahome.org/en-GB/Meetings-and-Training.aspx
13-15 January 2014 (tutorials on 12 th)	Annual DIA Pharmacovigilance and Risk Management Strategies	Washington DC, USA	DIA Clinical Safety and Pharmacovigilance Community Tel.: +1 215 293 5810 Fax: +1 215 442 6199 E-mail: Ellen.Diegel@diahome.org www.diahome.org/
4-7 April 2014	ISPE Mid-Year Meeting	Rotterdam, The Netherlands	ISPE E-mail: ISPE@paimgmt.com www.pharmacoepi.org/meetings
21-22 May 2014	Uppsala Monitoring Centre Research Conference 2014 Risk! What risk? Whose risk?	Uppsala, Sweden	UMC www.who-umc.org



The Uppsala Monitoring Centre (UMC) is a not-for-profit foundation and an independent centre of scientific excellence in the area of pharmacovigilance and patient safety. We provide essential research, reference, data resources and know-how for national pharmacovigilance centres, regulatory agencies, health professionals, researchers and the pharmaceutical industry round the world.

Many of our services and products have been developed as a result of our responsibility – as a World Health Organization Collaborating Centre – for managing the WHO pharmacovigilance network of over 100 countries and the WHO global individual case safety report database, VigiBase™. A core function is the screening and analysis of data with the aim of detecting potential issues of public health importance in relation to the use and safety of medicines. Other services include technical and scientific support to WHO and its member countries, and provision of tools, such as VigiSearch™ and VigiFlow™, for data entry, management, retrieval and analysis.

international WHO Drug Dictionaries, used by most major pharmaceutical companies and CROs.

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A list of UMC staff may be found via -About UMC > UMC staff - on our website.

Internet: www.who-umc.org

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