Utrecht WHO Winter Meeting 2015

12 - 13 January 2015

Utrecht - WHO Collaborating Centre
for Pharmaceutical Policy and Regulation
Utrecht, The Netherlands

Venues: Faculty Club Helios & University museum, Utrecht

Programme Meeting report

WHO Collaborating Centre for Pharmaceutical Policy and Regulation

Universiteit Utrecht

Programme Meeting report

Utrecht - WHO Winter Meeting 2015

Monday 12 January - Tuesday 13 January 2015

Programme

Utrecht - WHO Collaborating Centre for Pharmaceutical Policy and Regulation
Utrecht, The Netherlands

WHO Collaborating Centre for Pharmaceutical Policy and Regulation

Universiteit Utrecht

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Welcome

We are very pleased to welcome all of you to the 2015 edition of the UU-WHO Collaborating Centre for Pharmaceutical Policy and Regulation winter meeting. We look forward to meeting many old, but also new faces of friends and colleagues from all over the world with different professional backgrounds and (research) interests.

The first, plenary day of the meeting is dedicated to the concept of social marketing and its (potential) role in access to medicines. We are proud that another of the Centre's professional PhD students, Peter Stephens from IMS Health, will defend his thesis entitled "Access to medicines: Common problems, Common solutions" during this day. We hope you will enjoy participation in this public ceremony.

Before the thesis defense, the plenary day will start with an introduction of the concept of social marketing. Thereafter, several speakers will share practical experiences from the field of medicines, including from Francophone Africa and in relation to early access to innovative medicines. The day will provide ample opportunities to discuss the value of social marketing and share more (country) experiences during the moderated discussion sections.

During the second day of the meeting, a total of 33 abstracts of planned and ongoing pharmaceutical policy analyses will be presented and discussed. Topics range from drug regulatory science and drug safety to health systems research and medicines use across countries around the globe. We sincerely hope that these discussions will lead to better research and evidence-based policies, improved research methods, and will inspire others to try new approaches and undertake research in this important field!

We would like to thank all of you in advance for your contributions and hope that you will enjoy the 7th edition of this event as much as we have enjoyed the previous winter meetings!

On behalf of the Organizing Committee,

Bert Leufkens and Aukje Mantel

General Information

Venue 12 January 2015
Faculty club 'Helios'
Kanunnikenzaal
Achter de Dom 7a
3512 JN Utrecht
Phone: +31 30 253 9911

Venue 13 January 2015
University museum
Lange Nieuwstraat 106
3512 PN Utrecht
Phone: +31 30 253 8008

Date

Monday 12 January – Tuesday 13 January, 2015

For all practical matters during the meeting, please contact:

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Organizing Committee

Utrecht - WHO Collaborating Centre for Pharmaceutical Policy and Regulation

- Bert Leufkens
- Aukje Mantel
- Rianne van den Ham
- Winnie de Bruijn

Department of Essential Medicines and Health Products

- Gilles Forte

Time schedule

Monday 12 January 2015

Venue: Faculty club 'Helios', Kanunnikenzaal, Achter de Dom 7a, Utrecht

Social marketing in public health

09:30 - 10:00	Registration, coffee
10:00-10:20	Welcome and introduction to the meeting **Bert Leufkens (UU, MEB)** and **Gilles Forte (WHO, tbc)**
10:20-11:00	The value of social marketing **Julie Huibregtsen (Huibregtsen Sociale marketing)**
11:00-12:15	Social marketing in Francophone Africa: synergy or substitution? **Peter Stephens (IMS Health)** Early access to novel medicines - implications for social media **Sir Alasdair Breckenridge (MHRA)**
12:15-13:30	Lunch break
13:30-14:00	Social marketing and its role in achieving societal change - the example of compassionate use **Amrit Ray and Ramana Sonty (Janssen Pharmaceutical Companies of Johnson & Johnson)**
14:00-15:15	Moderated discussion session
15:15-15:30	Wrap up and day closure **Bert Leufkens (UU, MEB)**
15:30-16:15	Tea break
16:15-17:30	Public thesis defense by **Peter Stephens (Senaatszaal)**
17:30 -	Drinks

Social Marketing and Its Role in Achieving Societal Change - The Example of Compassionate Use

Dr. Amrit Ray, Chief Medical Officer,
Janssen Pharmaceutical Companies of Johnson & Johnson
Dr. Ramana Sonty, Pre-approval Access Leader,
Janssen Pharmaceutical Companies of Johnson & Johnson

The voice of patients in desperate need for treatment options to combat life-threatening conditions is growing louder as they seek Compassionate Use access to unapproved investigational medicines. Individual patient appeals for Compassionate Use are usually very powerful given the personal stories and the urgency of the need. Increasingly, patients are taking their appeals to the public via sophisticated social media campaigns with the help of family, friends, advocates and publicly elected officials. This is changing the dynamics of Compassionate Use from private requests to an increasing number of public conversations.

The key drivers of change include the increasing empowerment of patients, heightened transparency and public availability of scientific information including on clinical trials, and the significant growth of social media channels and usage. The number of Compassionate Use campaigns has increased many-fold over the last five years. As a result, a public health debate is currently underway on how to most effectively resolve the significant challenges surfaced through patient appeals for Compassionate Use. Stakeholders across the healthcare landscape are taking notice and trying to find solutions to lower the barriers to access where possible and appropriate. In the US, Right-to-Try laws have been passed in some states and federal legislation is being considered to address Compassionate Use.

There is a burning need for solutions. These need to address a multitude of considerations, such as the ethical challenges of balancing the interests of individual patients in dire need versus the benefit accorded to large populations through well-designed clinical programs and systematic evidence generation.

Compassionate Use exemplifies the importance of patient voices in both evolving the scientific research process and in driving societal change. There are no simple answers and currently no agreed upon framework that can be adapted to meet the needs of patients in varying circumstances, by all sizes of research enterprises, across diverse geographies and regulatory frameworks, in a way that can reliably deliver consistency, equity and transparency to patients. Multiple efforts are underway, from think tanks, legislators, regulators, industry groups and others, to define a set of ultimate solutions. We share our direct experiences and outline the key criteria for consideration to develop effective solutions for patients both individually and as a society.

Time schedule

Tuesday 13 January 2015

Venue: **University museum, Lange Nieuwstraat 106, Utrecht**

Presentations of ongoing pharmaceutical policy analyses

From 8:30	Coffee
09:00-09:15	Welcome; introduction and overview **Aukje Mantel (UU)**
09:15-10:45	Paper discussion - 2 parallel sessions 1a: Drug Regulatory Science (I) 1b: Drug Safety
10:45-11:15	Coffee break
11:15-12:45	Paper discussion - 2 parallel sessions 2a: Pharmaceutical Policy Analysis 2b: Drug Regulatory Science (II)
12:45-13:30	Lunch break
13:30-14:15	Moderated poster presentations
14:15-16:15	Paper discussion - 2 parallel sessions 3a: Drug Use for Infectious Diseases 3b: Access to Medicines
16:15-16:30	Wrap up and meeting closure **Gilles Forte (WHO, tbc) and Bert Leufkens (UU, MEB)**

Presentations of ongoing pharmaceutical policy analyses

Session 1a - Tuesday 13 January 2015
9:15 – 10:45 - parallel session -

Drug Regulatory Science (I)

Session Chairs: Jarno Hoekman (UU)

Nr	Author	Title
1	Kleijnen	Applicability of EUnetHTA relative effectiveness assessment of pazopanib for national assessments
2	Van Hunnik	Publication of clinical drug trials: interim results of a pilot cohort study
3	Klamer	Characteristics and follow up of post marketing obligations of drugs with a conditional marketing authorisation in Europe, 2006 – 2014
4	Schneider	Assessing the 'best point of service' for high-cost and specialized medicines in Austria

Session 1b - Tuesday 13 January 2015
9:15 – 10:45 - parallel session -

Drug Safety

Session Chairs: Alex Dodoo (WHO CC for Advocacy and Training in Pharmacovigilance)

Nr	Author	Title
5	Stergiopoulos	Identifying and quantifying the accuracy of product name attribution of US-sourced adverse event reports in MedWatch of somatropins and insulins
6	Ferreira	Characterization of the spontaneous reporting profile associated with antineoplastic and immunomodulators agents, received by Southern Pharmacovigilance Center from 2009 to 2013
7	Tetteh	Factors associated with renal impairment in HIV positive patients: a retrospective cohort study at the Korle Bu Teaching Hospital in Accra
8	Sagwa	Comparative risk of amikacin and kanamycin-induced hearing loss in a cohort of multidrug-resistant tuberculosis patients

Session 2a - Tuesday 13 January 2015
11:15 – 12:45 - parallel session -

Pharmaceutical Policy Analysis

Session Chairs: Priya Bahri (EMA) + Geert Frederix (UU)

Nr	Author	Title
9	Achoki	A systematic comparison of the evolving burden of disease in Africa and the pharmaceutical drug and material availability within the health systems
10	Kibira	Cost and pricing: an assessment of private health facilities in Uganda
11	Danenberg	Are the substance lists of the international drug conventions legitimate?
12	Perehudoff	The right to health and essential medicines in national constitutions: A global inventory

Session 2b - Tuesday 13 January 2015
11:15 – 12:45 - parallel session -

Drug Regulatory Science (II)

Session Chairs: Anke Hövels (UU) + Marieke de Bruin (UU)

Nr	Author	Title
13	Lipska	Differences in health technology assessment outcomes between conditional and standard marketing authorization for new oncology drugs in Europe.
14	Makady	Review of policies and perspectives on real-world data for drug development and assessment (IMI-GetReal Deliverable)
15	Ribeiro-Vaz	Bayesian network model to support causality assessment of adverse drug reaction reports: a regional pharmacovigilance centre experience
16	Ampadu	Pharmacovigilance in Africa – Where are we now? Where are we going

Poster Session - Tuesday 13 January 2015
13:30 - 14:15

Moderator: Aukje Mantel (UU)

Nr	Author	Title
17	Neres	Profile of spontaneous reports of adverse reaction following immunization from 2009 to 2011 in Portugal
18	Chitan	Pharmaceutical assistance with reimbursed cardiovascular and diabetes medicines in Republic of Moldova
19	Leonardo Alves	Perception of potential benefits and harmful effects among contraceptive pill users after reports of safety problems: study protocol
20	Sun	Impacts on utilization, costs, and quality of a new insurance benefit for treating common primary care conditions in Zhuhai, China
21	Achoki	Reduction of under 5 mortality in Zambia; the investment case for further action
22	Ugurlu	Selection of essential medicines for cardiovascular diseases in low- and middle income countries
23	Liberti	Adaptive licencing and facilitated regulatory pathways: a stakeholder perception survey

Session 3a - Tuesday 13 January 2015
14:15 - 16:15 - parallel session

Drug Use for Infectious Diseases

Session Chair: Aukje Mantel (UU)

Nr	Author	Title
24	Sun	Changes of antibiotic use patterns in public hospitals: a Chinese-Swedish comparison
25	Ankrah	Facilitators and barriers to antiretroviral therapy adherence among adolescents in Ghana
26	Santa-Ana-Tellez	Unintended effects in the use of over-the-counter medicines after the over-the-counter sales restriction of antibiotics in Mexico and Brazil
27	Ivanovska	Antibiotic prescribing for children in general practice and adherence to treatment guidelines 2010-2012
28	Lescure	The use of antibiotics as self-medication in Europe; a systematic review

Session 3b - Tuesday 13 January 2015
14:15 - 16:15 - parallel session

Access to medicines

Session Chair: Bert Leufkens (UU, MEB)

Nr	Author	Title
29	Ferrario	Determinants of differences in utilisation of antineoplastic and immunomodulating medicines in Belgium, Scotland and Sweden
30	Ismail	Developing summary country pharmaceutical profiles for the WHO Eastern Mediterranean using traffic light indicators
31	Hoxha	Price regulation of medicines in Albania after '90s, an ongoing process
32	Moye Holz	Access to innovative essential medicines in Mexico
33	Bazargani	Change in access to medicines in low- and middle income countries

List of participants UU-WHO winter meeting 12 + 13 January 2015

Name	Institution	Country
Admir Malaj	University of Medicine Tirana	Albania
Ailbhe Byrne	Pathwell	Ireland
Agnes Kijo	Tanzania Food and Drugs Authority	Tanzania
Alasdair Breckenridge	MHRA	United Kingdom
Alessandra Ferrario	London School of Economics and Political Science	United Kingdom
Amr Makady	Zorginstituut Nederland	The Netherlands
Amrit Ray	Janssen Pharmaceutical Companies of Johnson & Johnson	USA
Alena Banser	RIVM	The Netherlands
Alexander Dodoo	WHO Collaborating Centre for Advocacy and Training in Pharmacovigilance	Ghana
Ana Tereza Neres	South Pharmacovigilance Center	Portugal
Anke Hövels	Utrecht University	The Netherlands
Anouk Eikendal	University Medical Center Utrecht	The Netherlands
Aukje Mantel	Utrecht University	The Netherlands
Bert Leufkens	Utrecht University/ MEB	The Netherlands
Birte van Elk	MEB	The Netherlands
Daniel Ankrah	Universiteit Utrecht	The Netherlands
Daniela Moye	University of Groningen	The Netherlands
David Byrne	Pathwell	Ireland
Denis Kibira	Coalition for Health Promotion and Social Development	Uganda
Deirdre Dimencesco	WHO	Switzerland
Dominique Lescure	NIVEL	The Netherlands
Elena Chitan	State University of Medicine and Pharmacy “Nicolae Testemitanu”	Moldova
Evans Sagwa	UIPS	The Netherlands
Geert Frederix	Utrecht University	The Netherlands
Haggar Ampadu	WHO Collaborating Centre for Advocacy and Training in Pharmacovigilance	Ghana
Iga Lipska	Center for Innovation in Regulatory Science	Poland
Inês Ribeiro-Vaz	Northern Pharmacovigilance Centre	Portugal
Iris Hoxja	University of Medicine Tirana	Albania
Jarno Hoekman	Utrecht University	The Netherlands

Jing Sun	P.R. China	China
Julie Huibregsten	Huibregtsen Sociale marketing	The Netherlands
Junhee Pyo	Tufts	USA
Katrina Perehudoff	Ghent University/Groningen University	Belgium
Kees van Schagen	Foundation EGV	The Netherlands
Kim Notenboom	RIVM	The Netherlands
Mohamed Ramzy Ismail	WHO EMRO	Egypt
Manon van Hunnik	RIVM, UU	The Netherlands
Marieke De Bruin	Utrecht University	The Netherlands
Marieke van Dijk	ResultsinHealth	The Netherlands
Marjolein Vranken	Utrecht University	The Netherlands
Munish Duvedi	iBMG, Erasmus University	The Netherlands
Nina Fuentes de Tienda	Utrecht University	The Netherlands
Paula Ferreira	South Pharmacovigilance Center	Portugal
Peter Schneider	Austrian Health Institute	Austria
Peter Stephens	IMS health	United Kingdom
Priya Bahri	EMA	United Kingdom
Quirine Fillekes	Medicines Evaluation Board	The Netherlands
Ramana Sonty	Janssen Pharmaceutical Companies of Johnson & Johnson	USA
Raymond Tetteh	Universiteit Utrecht, Korle Bu Teaching Hospital	Ghana
Sarah Downing	Freelance	
Sarah Kleijnen	Zorginstituut Nederland, University of Utrecht	The Netherlands
Saskia Juenger	Department of General Medicine, Hannover Medical School	Germany
Soulmaz Fazeli Farsani	Utrecht University	The Netherlands
Teresa Leonardo Alves	UU, Prescrire	The Netherlands
Therese Klamer	Utrecht University	The Netherlands
Tom Achoki	WHO Collaborating Centre for Pharmaceutical Policy and Regulation	Botswana
Verica Ivanovska	Utrecht University	The Netherlands
Wilbert Bannenberg	HERA Foundation	Belgium
Willem Scholten	Independent Consultant	The Netherlands
Wim Goetsch	Zorginstituut Nederland	The Netherlands
Yared Santa-Ana-Tellez	Utrecht University	The Netherlands
Yaser Bazargani	Utrecht University	The Netherlands
Yvonne Noteboom	Utrecht University	The Netherlands

Overview abstracts 12 January 2015

1

Applicability of EUnetHTA relative effectiveness assessment of pazopanib for national assessments

Kleijnen S[1,2], Fathallah M[2], De Boer A[2], Leufkens B[2], Goettsch W[1,2]

[1.] National Health Care Institute (Zorginstituut Nederland), Diemen, The Netherlands;
[2.] Division of Pharmacoepidemiology and Clinical Pharmacology, University of Utrecht

Objective

In many European jurisdictions relative effectiveness assessments (REAs) of pharmaceuticals are performed as part of the reimbursement decision making process. Collaboration in the production of these assessments across jurisdictions prevents duplication of information in various jurisdictions and save resources accordingly. A first pilot of a joint REA of pharmaceutical (pazopanib for the treatment of renal cell carcinoma) was published in 2011. The aim of this study is to verify how informative the joint REA is for national assessments by comparing the joint REA of pazopanib with nationally produced assessments on the same topic.

Method

National assessments from European countries were identified through a literature search and an email request to health technology assessment (HTA) organisations. Data were abstracted from the assessments using a structured data abstraction form including questions about the criteria assessed, the scope, the evidence included, the assessment of the evidence and the outcome of the assessment. The abstracted data were validated by representatives from the authoring organisations

Results

In total five jurisdiction specific HTA reports, available in English language, were included (Belgium, England/ Wales, France, Netherlands and Scotland). Four out of five reports included a positive recommendation on pazopanib. Although the general methods (indication, main comparator, main endpoints, main trial) were similar the details of the assessment (e.g exact wording of indication, additional comparators, additional trials included, method of indirect comparison) varied. The joint REA included nearly all comparators, endpoints, trials and methods of analysis that were used in the jurisdiction specific REA reports.

Conclusions

Although there is some variety in the number of comparators and methods for analysis for the included jurisdiction specific REA reports on pazopanib, it seems feasible to capture most of these in an extensive joint REA that includes most of the comparators, trials and methods for analysis. This suggests that joint REAs may serve their role as a basis for national REAs.

2

Publication of clinical drug trials: interim results of a pilot cohort study

M. van Hunnik[1,2], C.A. van den Bogert[1,2,3], P.C. Souverein[1], C.T.M. Brekelmans[3], S.W.J. Janssen[2], G.H. Koëter[3], H.G.M. Leufkens[1], L.M. Bouter[4]

[1] Utrecht Institute of Pharmaceutical Sciences, Utrecht University, Utrecht, The Netherlands
[2] National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands
[3] Central Committee on Research involving Human Subjects (CCMO), The Hague, The Netherlands
[4] Department of Epidemiology and Biostatistics, VU University Medical Center, Amsterdam, The Netherlands

Background

Complete publication of trial results is an important aspect of the responsible conduct of research. Only if trial results are published, they contribute to evidence-based care provision. We will investigate the occurrence and determinants of non-publication in a cohort of clinical drug trials and present preliminary results of the pilot study of oncology trials.

Methods: For this pilot study, we used all oncology drug trials approved by the Institutional Review Boards in the Netherlands in 2007 (n=116). Study characteristics were extracted from the Toetsing Online database, including study phase, single/multicenter, therapeutic (yes/no), industry/investigator-driven, contract research organization (CRO) involved (yes/no), marketing authorization for product investigated (yes/no), and registration on clinicaltrials.gov (yes/no). We searched for publications in Medline and Embase using a validated search algorithm. Only full journal articles were considered as publications. We compared publication rates among the extracted trial characteristics.

Results

Among the 116 approved oncology drug trials in the 2007 cohort, we found that 57 trials were published before November 2014 (49.1%). Multicenter trials (vs single center; 55% vs. 33%), industry-driven trials (vs. investigator-driven; 60% vs. 37%), and trials with no CRO applicant (vs. trials with a CRO as applicant; 55% vs. 33%), and trials registered on clinicaltrials.gov (vs. not registered on clinicaltrials.gov; 63% vs. 23%) seem to have a higher publication rate.

Conclusions

We found that less than half of the oncology drug trials resulted in at least one full article within 7 years after ethical approval. This low percentage needs further research. Our further steps will include per-trial verification by contacting the investigators of the trials, identification of the end of trial date and time to publication, and multivariate models using Cox-regression analysis to adjust for interaction between the trial characteristics.

3

Characteristics and follow up of post marketing obligations of drugs with a conditional marketing authorisation in Europe, 2006 – 2014

T.T. Klamer[1], J. Hoekman[1], A.K. Mantel-Teeuwisse[1]

[1] Utrecht Institute for Pharmaceutical Sciences, division Pharmacoepidemiology & Clinical Pharmacology, Utrecht University, Utrecht, The Netherlands

Background

The European Medicine Agency (EMA) has created the conditional marketing authorisation (CMA) in order to grant early market access to drugs that fill an unmet medical need. The marketing authorisation holder (MAH) is then obliged to perform specific post marketing obligations (PMOs). PMOs are requested with the intention to confirm the positive benefit-risk balance of the product, before a due date. Prior studies examining compliance in the United States, demonstrated that specific requests by regulators are often completed with a delay, or not performed at all. However, the situation in Europe with respect to CMA is unknown. Therefore, the aim of this study was to provide insight in the characteristics and follow up of requested studies for drugs with a CMA.

Methods

PMOs for drugs with a CMA granted between July 2006 and April 2014, were retrieved from Annex II documents (present in Summary of Product Characteristics (SmPCs)) and European Public Assessment Reports (EPARs). Requested PMOs were matched with registrations on publically available websites, with clinicaltrials.gov as primary source of information. If not matched on CT.gov, Eudract, ISCRTIN and Google were searched. Matched studies were classified as interventional, observational, safety/efficacy review, PK/PD or 'other'.

Preliminary results

21 drugs with a CMA were included and 61 PMOs were requested for these drugs. Of the 61 PMOs, there were 44 (72.1%) requests for interventional studies, 5 (8.2%) for observational studies, 6 (9.8%) for safety/ efficacy reviews, 3 (4.9%) for PK/PD studies and 3 (4.9%) PMOs were characterised as 'other'. Of 44 interventional studies, 30 (66,7 %) had a due date before June 2014. Preliminary analysis demonstrates that 23 (76,7 %) of the 30 interventional studies completed before June 2014 and 6 (25%) before their due date (1 missing). These 6 studies completed on average 8.8 months before the due date. The 17 (70,8 %) delayed studies had an average delay of 19 months.

Conclusions

Compliance to PMOs in Europe seems to be better than was demonstrated in the United States. Nevertheless, a vast majority is delayed, necessitating further research into the reasons for this delay.

4

Assessing the 'best point of service' for high-cost and specialized medicines in Austria

Peter Schneider[1], Sabine Vogler[1]

[1] WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement, Health Economics Department, Gesundheit Österreich GmbH (GÖG, Austrian Health Institute), Vienna, Austria

Background

Dual financing (i.e. different public payers for the out-patient and the in-patient sectors) creates an incentive to shift medicines, treatments and patients between sectors. This may be particularly relevant for high-cost and specialised medicines. A starting point to enhance the interface management of such medicines could be to identify the 'best point of service' of a pharmaceutical treatment in a given health care system, i.e. as to whether, and under which conditions, defined medicines should be administered in the out-patient and/or in-patient sectors. This study aims to assess the 'best point of service' through a case study of Eculizumab, Alglucosidase Alfa and Infliximab in Austria.

Methods

Criteria for assessing the best point of service include the state-of-the art regarding (a) the diagnostic of the indication, (b) reconstitution and dilution of the medicine, (c) dosing and method of administration, (d) patient monitoring and (e) adverse reactions of the medicine as well as experience on the use of the medicines in out-patient and in-patient care in other European countries. The information will be surveyed based (1) on a literature review, (2) a questionnaire survey with the respective medical societies in Austria and (3) a brief written survey with competent authorities for pharmaceutical pricing and reimbursement in other European countries. The described procedure has already been piloted for Eculizumab.

Results

The pilot for Eculizumab showed that the best point of service depends to a high degree on the different indications a pharmaceutical is authorised for and the institutional structure of the health system.

Conclusions

The scientific evaluation of the 'best point of service' can be seen as a first step to support policy-makers to take informed decision on funding models and define more patient-oriented treatment packages.

5

Identifying and Quantifying the Accuracy of Product Name Attribution of US-Sourced Adverse Event Reports in MedWatch of Somatropins and Insulins

Stella Stergiopoulos BA[1], Carrie A. Brown MS[1], Gustavo Grampp PhD[2], Thomas Felix MD[2], Kenneth A. Getz MBA[1]

[1] Tufts Centre for the Study of Drug Development, Tufts University School of Medicine, Boston, MA USA
[2] Amgen, Inc., Thousand Oaks, CA, USA

Background

Strong pharmacovigilance is required to evaluate the post-approval safety profile of biologics made by more than one manufacturer. Voluntary reporting systems such as the FDA's Adverse Event Reporting System (i.e. Medwatch) are currently in place for pharmacovigilance monitoring, yet these voluntary systems may have considerable limitations.

Methods

Tufts CSDD analysed all primary suspect reports that were received by the Medwatch for human growth hormone (HGH; Somatropin) and human insulin (insulin) between the fourth quarter of 2005 and the third quarter in 2013 (Q4 2005 – Q3 2013). Insulin and HGH were chosen because they are examples of biologics with multiple manufacturers. Biologic traceability were measured by the drug name as reported in Medwatch: Drug names were stratified by whether the drug name reported was an accurate brand name, a name that can be attributed to a manufacturer, or if the name was ambiguous (e.g. contained no brand name information). Lot number completion rates were also assessed.

Results

The rates of 'Accurate' brand (i.e. identifiable) drug names were generally high; with a higher prevalence for HGH drugs than for insulin drugs (92% of HGH primary suspect reports vs. 84% of insulin primary suspect reports). Lot number completion rates were generally low; with a higher prevalence for insulin drugs than for HGH drugs (37% of insulin primary suspect reports vs. 13% of HGH primary suspect reports). 13.5% of insulin reports could not be linked to manufacturers, while 7.5% of HGH reports could not be linked to a manufacturer.

Conclusions

The completion and accuracy rates of Medwatch data on biologics observed in this study are consistent with those observed in earlier studies and suggest that naming conventions for biosimilars might be best served by capturing lot numbers to ensure higher levels of traceability.

6

Characterization of the spontaneous reporting profile associated with antineoplastic and immunomodulators agents, received by Southern Pharmacovigilance Center from 2009 to 2013

P.S. Ferreira[1], M. Geadas[2], M.A. Soares[1]

[1] Pharmacovigilance South Center, Faculty of Pharmacy, University of Lisbon, Portugal
[2] Faculty of Pharmacy, University of Lisbon, Portugal

Background

Drug safety monitoring after marketing, through Pharmacovigilance, presents an increasing relevance assuming the clinical trials external validity limitations and the paradigm of purchase drug marketing authorization earlier but even with high standards of security.
Spontaneous reporting has an added advantage allowing monitoring all drugs in the market throughout their whole life cycle, in large populations and in the real world. It enables early signs generation, however, low sensitivity is its major limitation due to underreporting. Due to its pharmacological properties, Antineoplastic and Immunomodulators drugs are frequently associated with ADR.

Methods

A cross sectional study aiming to analyze data concerning antineoplastic and immunomodulators ADR, reported by both healthcare professionals and consumers to the Pharmacovigilance South Center from 1st January of 2009 to 31st of December of 2013. Drugs were classified by Anatomic Therapeutical Chemical (ATC) and ADR according to MedDRA dictionary.

Results

During the period under review 1,236 reports regarding ADR were received, 332 of which (26.9%) regarding the target therapeutic group, being the majority of ADR reported by pharmacists (84.1%). The reported cases involved patients from both adult and elderly age groups, in which females were the most frequent (77.4%). The most frequently reported medicines belonged to the aromatase inhibitors (36.8%), taxanes (26.7%) and platinum derivate (15.3%) subgroups. From the reported ADR 32.2% were classified as serious. The main adverse events reported were general disorders and administration site conditions followed by skin and subcutaneous disorders and gastrointestinal disorders.

Conclusions

The antineoplastic and immunomodulators group is responsible for approximately a quarter of all reported ADR in the South region of Portugal.
Enlarging the ADR spontaneous reporting analysis to a national and European level is considered relevant regarding the increased use of these drugs due to the growing neoplastic and autoimmune diseases incidences and also the significant quality of life impact and the high health systems efforts associated.

7

Factors associated with renal impairment in HIV positive patients: A retrospective cohort study at the Korle Bu Teaching Hospital in Accra

Raymond A. Tetteh[1, 2], Edmund T. Nartey[3], Margaret Lartey[4], Aukje K. Mantel-Teeuwisse[1], Hubert G. M. Leufkens[1], Alexander N. O. Dodoo[3]

[1]Utrecht Institute for Pharmaceutical Sciences, Utrecht University, The Netherlands
[2]Pharmacy Department, Korle-Bu Teaching Hospital, Accra, Ghana
[3]World Health Organisation Collaborating Centre for Advocacy and Training in Pharmacovigilance, Centre for Tropical Clinical Pharmacology & Therapeutics, School of Medicine and Dentistry, University of Ghana.
[4]Department of Medicine, School of Medicine and Dentistry, University of Ghana.

Background

Although initial evidence supported the renal safety of tenofovir (a nucleotide reverse transcriptase inhibitor) used in the management of People Living with HIV/AIDS (PLWHA), its post market surveillance monitoring indicates a low, albeit significant risk of kidney injury. Results from studies on the association between tenofovir use and renal impairment have been at variance especially in black populations.

Study Aim

To determine the factors associated with renal toxicity in patients using tenofovir in a retrospective cohort of HIV infected individuals in Korle-Bu Teaching hospital between September 2005 and December 2012.

Method

The study will involve a retrospective analysis of sampled patients on antiretroviral regimen between September 2005 and December 2012. Data will be collected from review of medical reports with renal toxicity as the primary outcome and tenofovir use as primary exposure. Patients using other anti-retroviral medicines other than tenofovir will be considered as controls. Data collected will include basic demography, clinical variables, co-morbidities, and use of other medications. Assuming an incidence of 10% in the control group (patients not on tenofovir), expected relative risk of 2.0, a power of 80% and a ratio of control to exposed of 2:1, the minimum calculated sample size is 432 patients.

Data Analysis

Creatinine clearance using the Cockcroft-Gault formula will be calculated for study patients. Creatinine clearance values less than 50 mL/min will be considered as renal impairment Patients' demography will be described using medians and interquartile ranges. Factors associated with renal impairment will be determined using Cox proportional hazards regression. Subgroup analysis will also be done to determine the association between degree of renal impairment (severe or moderate) and the duration on tenofovir-based regimen.

Results

To be presented in tables, graphs and charts. Statistical significance of differences between groups will be tested using appropriate parameters to compare and measure associations.

8

Comparative risk of amikacin and kanamycin-induced hearing loss in a cohort of multidrug-resistant tuberculosis patients

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Introduction

In 2008, Namibia changed the preferred aminoglycoside for multidrug-resistant tuberculosis (MDR-TB) treatment from amikacin to kanamycin and introduced capreomycin as an option for patients prone to hearing loss (HL). From late 2008, some of the MDR-treatment sites commenced the systematic audiometric monitoring of patients on MDR-TB treatment for early detection of hearing loss and intervention. We aimed at comparing the risk of hearing loss of amikacin-based and kanamycin-based MDR-TB regimens, and to assess the effects of other risk-factors.

Design and Methods

Retrospective cohort study of MDR-TB patients treated between June 2004 and March 2014 and audiologically assessed at clinics in Katutura, Oshakati, Rundu, and Walvisbay, Namibia. Hearing loss (defined as a loss of 15 dB at two or more frequencies, or a minimum of 20 dB loss of at least one frequency between 0.25 and 8 kHz), was the main study outcome. Other covariates were baseline age and weight, gender, HIV status, year of treatment initiation and the treatment site. Data were summarized using descriptive analyses and risk-factor associations demonstrated with logistic regression analysis.

Results

All the 443 patients whose records were retrieved had normal baseline hearing; 280 (63%) subsequently developed HL (Rundu 43.3%, Walvisbay 59.9%, Katutura and Oshakati 80%), graded as mild (27.9%), moderate (25%), moderate-severe (13.2%), severe (11.1%), and profound (20.4%). The mean baseline patient age and weight were 36.3±11.8 years and 50.6±11.6 kg respectively, 56.9% were males and 46.8% HIV co-infected. These were comparable across the amikacin and kanamycin-exposed groups.
Amikacin had a higher risk of causing HL compared to kanamycin (crude OR=2.33; 95% CI 1.19- 4.56). When adjusted for age group, weight band, gender, HIV status, year of treatment initiation and treatment site, the risk remained similar (aOR=2.50; 95% CI 1.02-6.10). The risk of developing HL increased with advancing age, weighing ‹40kg, initiating treatment earlier than 2010 and being treated at clinics other than Walvis Bay.
Discussion/Conclusion: Amikacin had a two-fold risk than kanamycin of inducing HL. Audiometric monitoring practices influenced the site-level risk of HL. Patients weighing ‹40 kg were prone to developing HL; possibility due to poor dose titration, being sicker or co-infected with HIV. Clinicians and DR-TB treatment programmes should invest in resources and skills for routine audiometric monitoring; and consider using kanamycin instead of amikacin.

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A systematic comparison of the evolving burden of disease in Africa and the pharmaceutical drug and material availability within the health systems

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Background

Over the past two decades a number of African countries have reported steady progress in tackling the major health challenges that ravaged the region. Tremendous resources have been invested to implement comprehensive strategies particularly in improving access to medicines and health technologies. Many countries are striving to consolidate the recent gains against communicable diseases, but are also faced with an emerging epidemic of non-communicable diseases and injuries.

Setting

The study was conducted in a middle-income country in the southern African region
Objective: To systematically assess how the pharmaceutical drug and material availability matches with the burden of disease profile in the country

Methods

The Global Burden of Disease Study has generated comprehensive disease burden estimates for over 188 countries; covering the period 1990-2013. Using the reported drug and material availability from a national central medical store, we made a systematic comparison on how the availability of drugs in the year 2012 met the prevailing health needs emerging from the burden of disease study.
Results: The burden of disease profile reveals a picture of an emerging epidemic of non-communicable diseases and injuries, compounded by the unfinished agenda of communicable diseases. Diseases like HIV/AIDS and Tuberculosis are still top of the list as causes of mortality and morbidity. However, non-communicable conditions like cerebral vascular and ischemic heart diseases are on the rise, with the latter showing a median increase of 42% from the 1990 levels in comparison to 2013 estimates. Similarly, injuries attributable to self-harm and road accidents have all shown an exponential increase, at a median of 137% and 124% respectively. On the other hand availability of drugs across programmatic areas reveals a lagged response to the emerging picture. Vaccines availability averaged, 90%; antimalarial drugs at 91%; and anti-tuberculosis drugs at 94%. In contrast anticancer drugs averaged, 50% and antihypertensive drugs at 67%.

Conclusion

African countries are facing a dual epidemic of disease characterized by an emerging epidemic of non-communicable diseases and an unfinished agenda of communicable diseases. Therefore, health systems will need a firmer handle in aligning the essential resources such as medicines and other technologies with the emerging population health needs.

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Cost and Pricing: An assessment of private health facilities in Uganda

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Background

Most people in the third world first visit private health practitioners (PHP) when sick. It is estimated that PHPs, who are considered more responsive to demand, contribute up to 46% of health care provision in Uganda (MoH, 2011); but the expansion of PHPs has largely been unregulated and chaotic (MOH 2009). Charges for consultation, investigatory tests, hospitalization and pharmaceuticals tend to discourage some households from seeking care when it is needed (Russell S & Gilson L, 1997).
The study was commissioned by USAID/Uganda Private Health Support Program to determine factors that influence the costing and pricing of selected health services in the private sector.

Methods

The study was conducted in 36 private health facilities in four districts. Data was collected using a structured questionnaire, personal interviews and focus group discussions. The cost of services and commodities was based on micro-costing (ingredients approach), step down costing and the provider's perspective. The WHO/HAI methodology was used for determining medicine price components.

Results

Personnel and drugs were the major cost drivers in the private facilities, irrespective of level. Results showed that PHPs do not have a systematic method of determining mark-ups. Service prices were set arbitrarily based of prevailing market prices within the locality and clients' ability to pay. The majority of the facilities surveyed did not have adequate income and expenditure records. Retail mark-ups of medicines were found to vary between 50% and 600%. Majority of patients interviewed incurred out-of-pocket payments to access healthcare in PHP facilities.

Conclusions

Health services in the private sector were reported to be expensive and unaffordable to many health consumers.

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Are the substance lists of the international drug conventions legitimate?

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Background

The World Health Organization is responsible for the assessment of psychoactive substances and advising the United Nations whether these substances should be controlled as dependence-producing substances. Aside from other aspects outside the control of WHO, their control can only be justified if there has been a sufficiently recent scientific evaluation.

Methods

Using reports from WHO and its predecessor the League of Nations, we investigated whether the substances included in the international drug control conventions were scientifically evaluated and when their most recent evaluation was.

Results

We found that some substances under international control were never reviewed; other substances were reviewed decades ago.

Conclusions

We argue that assessments do not have unlimited validity, and therefore, substances need to be re-assessed periodically, as already recommended by the Expert Committee on Drug Dependence in 1982.
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The right to health and essential medicines in national constitutions: A global inventory

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Background

The right to health and access to essential medicines is recognised by international law and many governments may include these rights in their national constitutions. Recently, several national constitutions were newly drafted or amended following the global financial crisis and a wave of political and social changes across the Middle East. To understand how State commitments to health and essential medicines are evolving globally, constitutional health rights need to be monitored and measured.

Objectives

This study investigates how the scope of the constitutional right to health and essential medicines has changed in WHO Member States since our previous study in 2008. This study also quantifies how many constitutions currently enshrine essential health goods or medicines.

Methods

Constitutional texts were studied for all WHO Member States using five online law databases. Countries with retrievable constitutions in English, Spanish or French from 'baseline' (2007 or earlier) and 'follow-up' (2008 or later) were included. Health rights were located using the search terms ' health', 'wellbeing', 'medicines', 'medication' and 'pharmaceutical'. Search results outside the scope of health goods and services (i.e. workers' health, healthy environment) were excluded. Health rights at the two time points were compared.

Results

Of the 186 WHO Member States, 92 had a constitutional change between baseline and follow-up. Health rights increased in scope (n=18), regressed in scope (n=4), or were unchanged (n=70) by legislative changes in 2008 or thereafter. The right to access medicines was introduced in three constitutions (Bolivia, Dominican Republic, Ecuador) that increased in scope. Essential medicines provisions were unaffected by the regression of health rights.
At least 10 constitutions currently enshrine essential goods and/or medicines as part of the right to health.

Conclusions

Nearly half of all WHO Member States have changed their constitutional commitments since 2008. Of the countries that changed, one in five countries have used this opportunity to expand citizens' right to health, notably by including access to medicines. These positive constitutional commitments guide the scope of national health policies, and therefore, they can contribute to improving access to medicines.

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Differences in Health Technology Assessment outcomes between conditional and standard Marketing Authorization for new oncology drugs in Europe

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Background

The CMA procedure was implemented by European Medicines Agency (EMA) in 2006 (Commission Regulation No 507/2006) for certain categories of medicinal products (including anti-cancer drugs) in order to meet unmet medical needs of patients. CMA can be granted on the basis of less complete data than is normally required based on the condition that sponsors conduct specific obligations during the post-marketing phase. However, given the availability of less clinical data for conditionally authorized products, chances that these products are recommended for reimbursement by national Health Technology Assessment (HTA) bodies may be lower.

Objective

To investigate whether there are differences in HTA recommendations by national HTA agencies in Europe between oncology drugs that received a conditional Marketing Authorizations (CMA) and standard Marketing Authorizations (SMA).

Methods

All NASs with an oncology indication that were granted CMA and SMA by EMA during 2006-2012 were analyzed. We collected data on first HTA recommendation (positive, positive with restrictions, negative, not assessed) in 6 EU countries (Scotland, Poland, The Netherlands, France; UK, Portugal) based on public information. Medications were compared between groups (CMA and SMA). Analyses were performed per country as EMA decisions are centralized but HTA recommendations are taken independently by countries.

Results

25 NASs were included in our study: 8 received CMA , 17 received SMA. As 6 European jurisdictions were analyzed we expected 150 HTA recommendations (48 for CMA and 102 for SMA).In the CMA versus SMA group we found in total 8 (17%) v. 18 (18%) positive HTA recommendations, 11 (23%) v. 28 (27%) positive with restriction recmomendations, 16 (33%) v. 33 (32%) negative recommendations and 13 (27%) v. 23 (23%) “not assessed drugs”.

Conclusion

Our research indicates no differences in HTA outcome between anti-cancer drugs with CMA and SMA status. However some minor differences exist between these two groups of drugs within particular countries (e.g. Poland or France). Based on our research the availability of less complete clinical data is not an obstacle for HTA organizations to recommend the drug.

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Review of Policies and Perspectives on Real-World Data for Drug Development and Assessment (IMI-GetReal Deliverable)

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Background

Real-world data (RWD) (i.e. health data generated outside the context of RCT's) and real-world evidence (RWE) (evidence generated by RWD analysis and/or synthesis) offer many advantages to drug developers and decision-makers alike. However, the incorporation of RWD in a pre-authorisation environment is fraught with ideological, political and methodological problems. Bearing this in mind, this project aimed to conduct a review of different stakeholders' policies and perspectives on using RWD for early drug development and clinical effectiveness assessment in order to shed light on the possibilities for the incorporation of RWD and RWE in both aspects.

Methods

A qualitative methodology was selected that combines semi-structured interviews with a literature review. 19 stakeholders from 8 different stakeholder groups were interviewed. Meanwhile, a review of academic and grey literature was performed. Transcripts of interviews and data from review articles were subjected to coding analysis. Analysis focused on: definitions for RWD provided, current policies on RWD, context (actual & perceived) for RWD use, advantages and disadvantages of RWD, practical obstacles to using RWD, and political and procedural implications for RWD incorporation.

Results

Consensus regarding the definition of RWD and types of RWD was lacking among stakeholders. A current gap in policies addressing RWD also exists. Despite this, RWD is currently used for reimbursement, regulatory and drug development processes. RWD has high external validity & generalisability and can provide valuable data on long-term outcomes. Yet bias, poor data quality (incomplete, missing) and lack of standardisation entice scepticism for its use. Ambiguity still remains on governance of RWD/RWE as well as a cultural barrier among stakeholders against the use of RWD/RWE.

Conclusions

Increased stakeholder collaboration is needed to harmonise definitions and evidence needs of RWD, reach consensus on the relevance of RWD for addressing specific questions, and to standardise RWD data collection and analysis methods.

NOTE: This work was conducted in the context of Work Stream 1 of Work Package 1 of the IMI-GetReal Project. For more information, please see: www.imi-getreal.eu.

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Bayesian network model to support causality assessment of adverse drug reaction reports: a regional pharmacovigilance centre experience

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Background

In pharmacovigilance, reported cases are considered suspected adverse drug reactions (ADR). Health authorities have thus adopted structured causality assessment methods, allowing the evaluation of the likelihood that a medicine was the causal agent of an adverse reaction. The aim of this work is to develop a new causality assessment support system to be used in pharmacovigilance centres.

Methods

A Bayesian network was developed based on completely-filled ADR reports, evaluated by the Portuguese Northern Pharmacovigilance Centre expert over 12 years, and compared with global introspection on an independent validation cohort for sensitivity, positive predictive value (PPV) and time to causality assessment (TTA). Causality was classified as Definite, Probable, Possible or Conditional, according to the WHO causality assessment.

Preliminary results

Derivation cohort included 593 ADR reports (10.1% Definite, 58.4% Probable, 25.6% Possible, 5.9% Conditional) with validation cohort including 463 reports (7.5%, 79.5%, 9.5%, 2.8%). High accuracy was reached for reports with Definite causality (69.4% sensitivity, 71.4% PPV) and Probable causality (91.1%, 87.3%), being lower for reports with Possible (25%, 28.9%) and Conditional (15.4%, 50%) degrees. The network tends to overrate causality (96.9% of errors on Possible cases classified as Probable) or give the immediately below level (90.8% of errors on Definite cases classified as Probable; 69.7% of errors on Probable cases classified as Possible). The median (Q1:Q3) TTA was 4 (2:8) days using the network and 8 (5:14) days using global introspection.

Conclusions

The network allowed a faster time to assessment, which has a procedural deadline of 25 days, improving daily activities in the centre. Moreover, the model was accurate on most cases, with a slight causality overrate on Possible cases, which is nevertheless a good quality in the context of use. The exception was the Conditional degree, which complexity is probably too high to be accurately modeled with formal methods.

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Pharmacovigilance in Africa-Where are we now? Where are we going?

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Background

Since 2000 there have been significant improvements in pharmacovigilance (PV) in Africa due to several factors including rapidly enhanced access to life-saving medicines for priority conditions and focused efforts by technical and donor agencies including the World Health Organisation, UNICEF, Gates Foundation etc. Thus whilst there were only 5 National PV Centres in Africa in 2000, that number increased to 24 in 2009 and currently stands at 34. Despite this rapid increase in African countries participating in the WHO Programme for International Drug Monitoring, the overall number of Individual Case Safety Reports (ICSRs) submitted from Africa to the WHO-ICSR database, Vigibase, is extremely disappointing standing at ‹0.9% of the 10 million+ reports in database as of December 2014. This work was therefore undertaken to explore the factors underlying low reporting from Africa examining in detail the features of high reporting countries.

Method

A quantitative analysis of data in Vigibase was conducted followed by questionnaire survey of the top 10 reporting countries in terms of products and ADRs reported. The unique features of the top reporting countries were noted as well as the regulatory processes and decisions undertaken.

Results

The top 10 reporting countries to Vigibase in absolute numbers of cumulative reports are South Africa, Morocco, Nigeria, Kenya, Egypt, Democratic Republic of Congo, Tunisia, Ghana, Zimbabwe and Ghana. Whilst the picture changes slightly if normalized of number of reports/year/million inhabitants are expressed, the low number of reports shows the poor provenance of African ICSRs in Vigibase. The main products implicated are those for diseases of public health importance including HIV/AIDS, malaria, tuberculosis as well as vaccines.

Conclusions

The top 10 ICSR reporting countries in Africa contribute very little (‹0.5%) to Vigibase calling into question the basis and data sources relied upon for drug safety regulatory decision making on the continent.

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Profile of spontaneous reports of Adverse Reaction Following Immunization from 2009 to 2011 in Portugal

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Background

The study of adverse reactions following vaccination is a valuable tool for the maintenance of credibility of the government vaccination programs, to establish measures for risks minimization and for public health protection. In Portugal there is no study on vaccination safety therefore, identifying risks and disseminating this relevant matter is of main importance, essentially due the public opinion mistrust on the risk of vaccination.
The aim of this study was to characterize the adverse reactions following vaccination (ARFV) by analyzing the spontaneous reports registered in the database of the National Pharmacovigilance System (NPS) of Portuguese Authority Agency (Infarmed) from 2009 to 2011.

Methods

Observational descriptive and cross sectional study, based on the Individual Case Safety Report (ICSR) submitted to the NPS. The ICSR were selected based on the reception date, between January 1st of 2009 and December 31st of 2011, with at least, one vaccine (J07) as suspected medicinal products, classified by Anatomic Therapeutical Chemical (ATC). ARFV were classified by the MedDRA dictionary.

Results

During the studied period, 702 reports of ARFV were analyzed out of 6,622 of total reports, 32% of the cases were to individuals aged from 15 to 44 years, 67% were females. From 702 reports, 51.0% ARFV were serious, there were no deaths. The most commonly reported cases were general disorders and administration site conditions (43%), neurological (15%) and skin and subcutaneous disorders (9%). A total of 739 vaccines were reported, 38.7% of which were influenza vaccine and 17% papillomavirus vaccine.

Conclusions

The results showed that Portugal has a similar frequency of ARFV as those described in the literature.
This study showed that influenza vaccination is highly responsible for the occurrence of ARFV and the papillomavirus vaccine as well. The results suggest that Portugal should give special attention to the safety of vaccines, specially these two.

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*Pharmaceutical assistance with reimbursed cardiovascular and diabetes medicines in Republic of Moldova

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Background

Medicines are an essential component of the health system, but access to patients is often hindered by a number of structural, financial and regulatory barriers, especially in low and middle income countries. The effect of these barriers is amplified for chronic non-communicable diseases which require the presence of an effective pharmaceutical system to ensure continuity of supply throughout the patient's life.

Methods

Was investigated the affordability of reimbursed medicines, effectiveness coverage with this medicines, Drug utilization 90% for cardiovascular and diabetes medicines. Data used in this research were obtained through collaboration of the Department of Social Pharmacy "Vasile Procopisin" and National Health Insurance Company (NHIC).

Results

The financial resources allocated from public sources and health insurance cover only 27.9% of total drug expenditures. The reimbursed drugs list contains a limited number of medicines. Number of International Nonproprietary Name (INN) listed has been increased from 51 in 2006 to 89 in 2013. The largest share belongs to the nervous system, cardiovascular and alimentary tract drugs. The proportion of compensation for different categories of patients and medicines ranges from 50% to 100% (depending on the medicines and in the group of patients) and is a fixed amount for each INN. Analyzing coverage with cardiovascular and diabetes medicines have been determined that for antidiabetic drugs the bottlenecks are in availability, accessibility and acceptability of service. The higher growth rate is for contact coverage, and the lowest is for accessibility coverage; for cardiovascular medicines the bottlenecks are in accessibility, acceptability and contact coverage. The growth rate has the highest value for acceptability and effectiveness coverage, and lowest for availability. According to the DU 90% analysis for 2011-2013 year, for cardiovascular medicines most dispensing was ATC: C09 Ramipril, Enalapril, Lisinopril, C03 Indapamid,C08 Amlodipin, B01 Acetylsalicylic acid, C07 Bisoprolol, C08 Amlodipinum, C01 Digoxin; for diabetes medicines most used was Metformin ~ 70%, Glibenclamid ~ 15% , Glimepirid ~5%.

Conclusions

Pharmaceutical assistance with reimbursed medicines has a positive evolution in recent years. However, more efforts are needed to improve financial protection of individual patients and to increase access to reimbursed medicines service through improved availability, accessibility and acceptability of the in RM.

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Perceptions of potential benefits and harmful effects among contraceptive pill users after reports of safety problems: study protocol

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Background

Women's attitudes to a particular contraceptive method are mainly influenced by the perceived risk-benefit ratio. In 2013, pharmacovigilance signals linked the use of third and fourth generation pills and Diane 35 to venous thromboembolism events (VTE), some of which fatal. This issue was largely covered in Dutch broadcast media and triggered two safety reviews by the European Medicines Agency. Following the reports of safety problems, the use of Diane 35 (or its generics) decreased in the Netherlands and a rise in first prescriptions for 2nd generation contraceptive pills was observed. Interestingly, the use of 3rd and 4th generation contraceptives remained relatively stable. We hypothesize that there are differences in the perceptions of potential benefits and harmful effects between users of Diane 35 (or its generics) and women taking 3rd and 4th generation contraceptive pills, even though the risk of VTE harm is similar in both user groups.

Objectives

The study's objective is two-fold:

- To compare perceptions of potential benefits and harmful effects (VTE and other drug adverse events) among users of second, third and fourth generation contraceptive pills, as well as users of Diane 35 (or its generics);
- To identify triggers of contraceptive choice among pill users and to map their information sources.

Methods

Retrospective cohort study. A survey instrument will be developed combining validated and purposely designed scales, and administered by pharmacy students at community pharmacy level, either through face-to-face or telephone interviews. Pill users will be purposefully sampled from the pharmacies' database and could include any woman who has, in the previous 30 months, filled in a prescription for a combined oral contraceptive pill containing progestogens and estrogens, or for cyproterone acetate and ethinylestradiol.

Results

(not applicable, since abstract concerns protocol only)

Conclusions

(not applicable, since abstract concerns protocol only)

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Impacts on Utilization, Costs, and Quality of Care of a New Insurance Benefit for Treating Common Primary Care Conditions in Zhuhai, China

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Background

In 2009, China started to implement its most important health reform of the last decade. Many local innovative reforms have been implemented. Few were comprehensive conducted with impact assessments using routinely collected data and with appropriate method.

Methods

This paper presents the first study in China in which complementary sources of routinely collected data were systematically collected and analysed to assess the effect of a local health insurance reform. We used longitudinal health insurance, health bureau, and primary care facility data (August 2008-July 2012) to assess trajectories in outpatient visits, inpatient admissions, cost per common disease outpatient visit, and prescribing indicators over time. We conducted segmented regression analyses of interrupted time series data to measure changes in level and trend overtime, and cross-sectional comparisons of the 2012 values against external standards.

Results

After introduction of a new outpatient benefit for common diseases in Zhuhai, the average number of common disease outpatient visits reached 1.84/year/enrolee in 2012; monthly inpatient admissions dropped from 6.4 (2009) to 4.3 (2012) per 1,000 enrolees; median total cost per common disease outpatient visit dropped from CNY 93 to 78 (US$ 15.5 to 13, exchange rate=6, p=0.16, 95% CI: -36.95 ~ 6.15); the use of injectables use dropped from 46% to 39% of prescriptions (p=0.03, 95% CI: -14.08% ~ -0.68%); and antibiotic use did not change significantly.

Conclusions

Zhuhai's new benefit has expanded access to primary care, which may have led to a reduction in expensive specialist inpatient services for common disease outpatient benefit enrollees. Cost awareness was raised, and rapidly growing expenditures were contained. Inappropriate prescribing of antibiotics and injectables remained prevalent. The results prove that existing data from different sources can be used to monitor the impact of health policies in China. Other policy measures are now needed to improve the quality of care.

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Reduction of under 5 mortality in Zambia; the investment case for further action

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Background

Zambia has been at the forefront in scaling up various health interventions in response to the prevailing health challenges. In the march towards the millennium development goals (MDG), different stakeholders are keen to find cost effective interventions that have impact.

Objective

To explore the impact of different plausible scenarios covering a range of socioeconomic factors and health interventions on the survival of children under five in Zambia

Methods

We used a dataset that comprises of a 21 year time series (1990-2010) of under 5 mortality rates, health intervention coverage and socioeconomic characteristics for the 72 districts in Zambia, to fit a mixed effects model. The dependent variable was under 5 mortality rates, with covariates being; insecticide treated net ownership; intermittent preventive therapy for malaria; children exclusively breastfed; children under 5 who were underweight; households with improved sanitation; and average years of schooling for women of the reproductive age. We explored the marginal effects of the different covariates within a plausible range.

Results

Across the 72 districts, the average under 5 mortality rate was 148.8 deaths per 100,000 live births (95%CI: 82.5- 275.5). Increasing the proportion of households with ownership of insecticide treated nets from a mean of 60% to 100% translated to a decline in under 5 mortality from 135.5 deaths/100000 live births (95%CI: 130.8-140.2) to 123.7 deaths/100000 live births (95%CI: 118.0- 129.5) respectively. Alternatively, an increase of skilled birth attendance to 100% (from a mean of 40%) would result in a marginal decline in mortality from 147.3 deaths/100000 live births (95%CI: 143.1-151.6) to 144.4 deaths/100000 live births (95%CI: 139.4-149.5). Meanwhile a similar increase in exclusive breastfeeding would result in a dramatic decline to 127.1 deaths/100000 live births (95%CI: 122.2-132.0). Increases in education for mothers and improvements in household sanitation only had minor improvements.

Conclusion

As countries aspire to meet the ambitious population health goals outlined in the MDGs, high impact cost effective interventions would be key to make fast gains. Low cost interventions such as exclusive breast feeding and malaria prevention are worth the attention of decision makers in Africa.

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Selection of essential medicines for cardiovascular diseases in low- and middle income countries

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Background

Cardiovascular diseases (CVDs) are the most common cause of death worldwide. The ongoing socio-economic and lifestyle changes in low and middle income countries (LMICs) together with the ageing population, has increased the prevalence of non-communicable diseases such as CVDs . A significant part of CVD deaths in LMICs is due to lack of access to healthcare including medicines. We assessed which medicines are selected for the treatment of CVDs in national essential medicines lists (NEMLs) of LMICs, the extent of alignment of the selections with clinical guidelines and factors which might have influenced this selection.

Method

The obtained NEMLs were assessed to ensure that only dynamic lists were considered. Medicines were only included if they were categorized as "cardiovascular medicines" or "blood related medicines and blood products". The medicines were classified according to the ATC classification method. Countries' income level and GDP were classified according to the World Bank.

The burden of cardiovascular disease was expressed as the Years of Life Lost (YLL) and Years Lived with Disabilities (YLD) for mortality and morbidity respectively. The consulted guidelines were mainly from international resources.

Data analysis was done using different methods such as univariate linear regression and non-parametric tests (Mann-Whitney U, Kruskal Wallis tests).

Results

From the total of 34 countries studied, all had at least one essential medicine from different classes of cardiovascular medicines with the exception of "lipid modifying agents" (76,5%), "peripheral vasodilators" (29,4%) and "vasoprotectives" (17,6%). The most frequent classes on the NEMLs included were "cardiac therapy", "diuretics" and "calcium channel blockers" for cardiovascular medicines and "antithrombotic agents", "antianemic preparations" and "antihemorrhagics" for blood and blood forming organs. An increase in GDP per capita seemed to have a significantly positive linear association only with the number of "antihemorrhagics" medicines(P= 0,027). Income level has a significant effect on the total number of medicines acting on the cardiovascular system (p=0,007), but not significant for medicines acting on blood and blood forming organs (p=0,874).

Conclusion

The most frequently used medicine classes for the management of CVDs are very well represented in the LMICs (with the exception of "lipid modifying agents"), however there are insufficiencies in covering all the aspects of medical therapy for CVDs. Income level of the countries showed to be positively associated with the inclusion of CVD medicines to the NEMLS which was not the case for Blood related products.

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Adaptive Licensing and Facilitated Regulatory Pathways: A stakeholder perception survey

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Background

New pathways to medicine development and regulatory review can potentially provide a streamlined, more cost- and time-effective approach to accelerate patient access to innovative, safe and efficacious medicines. However, the perception of the benefits, barriers, and likelihood of these novel approaches appears to be highly variable. This survey was conducted to: gain insights into personal opinions of currently available facilitated regulatory pathways (FRPs); characterize the foundational building blocks for adaptive licensing (AL)(i.e., stakeholder and environmental elements that need to be in place for an AL approach to be implemented effectively); understand the barriers and solutions to implementation of ALs.

Methods

Definitions: FRP- currently available regulatory and/or HTA/payer pathways that have been designed to accelerate submissions, reviews and patient access to medicines; AL-novel pathways to transforming the medicines development process. The survey was organised into sections on AL (9 questions) and FRPs (3 questions) and was sent to diverse stakeholder institutions worldwide drawn from the CIRS contact list.

Results

80 surveys (representing 56% of institutions surveyed) were returned from pharma regulatory departments (35), pharma HEOR (11), regulatory agencies (11), HTA agencies (7), other pharma departments (5), patient groups (3), and academic/others (8). FRPs at FDA were generally considered fit-for-purpose (63%) when compared to EMA (13%) and PMDA (7%); 74% felt it of high importance for EMA to develop new transformative accelerated registration pathways. However, only 53% believed it unlikely that an AL pathway would be implemented within the next five years. 89% indicated early approval/early access as a key benefit of AL. Key foundational building blocks were: agreement on common evidentiary requirements; stakeholder alignment to accepting balance between early access and uncertainty; the need to integrate patient voice throughout the process. Main barriers were: insufficient legislative/regulatory frameworks; IP protection limitations; lack of stakeholder alignment. A perceived lack of commitment on the part of some regulatory and HTA agencies to implementing AL was observed as a barrier.

Conclusions

Respondents perceived accelerated pathways at the EMA and PMDA as less fit-for-purpose than those at FDA; nevertheless, more than half of the respondents did not believe an alternative AL pathway would be successfully implemented in the near future. Although key foundational building blocks have been identified, barriers to implementation exist. These findings support the need for further research into the key elements of successful FRP and AL pathways, and to determine solutions to overcome barriers to implementation.

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Changes of antibiotic use patterns in public hospitals: A Chinese–Swedish comparison

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Background

This paper analyzes changes in the patterns of antibiotic use in Chinese hospitals compared with Chinese national targets and with antibiotic use in Swedish hospitals.

Methods

Data from 15 Chinese hospitals were collected quarterly from sample prescriptions and medical records (March 2005-December 2012) and yearly from the hospitals' medicines inventory control systems (2005-2012). Annual Swedish data were extracted from 2010 Strama Point Prevalence Surveys and sales data from seven university hospitals (2009-2012). An interrupted time series design with segmented regression analysis was used to measure changes in the patterns of antibiotic use in Chinese hospitals after the intensive nationwide interventions that took place in 2011. Anatomical Therapeutic Chemical/Defined Daily Dose (ATC/DDD) system was used for the comparison.

Results

The 2011 interventions significantly reduced antibiotic use in Chinese hospitals. The proportion of outpatient prescriptions with antibiotics dropped from 18% to 13% (p=0.03, 95% CI [–8.91%, –0.56%]), and the proportion of inpatient medical records with antibiotics dropped from 66% to 59% (p=0.04, 95% CI [–14.19%, –0.37%]). However, the proportions of prescriptions and medical records with antibiotic in Chinese hospitals in 2012 (10% for outpatients prescriptions and 50% for inpatient medical records) are still much higher than in Swedish hospitals (1.1% in DDDs for outpatients and 34% in number of patients for inpatients). Inpatient consumption pressure in Chinese hospitals also significantly dropped to 473 DDD/1,000 inpatient days in 2012 compared to 910 in 2008 and 588 in Swedish hospitals in 2012.

Conclusions

Antibiotics are being used less frequently in Chinese hospitals, but broad spectrum antibiotics are still preferred, and gaps are still huge. From the evidence of this study, it is not possible to tell whether the changes in China result less inappropriate antibiotic use, further studies are needed. Sophisticated policies are needed to guide wise use rather than simple restriction of use.

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Facilitators and barriers to antiretroviral therapy adherence among adolescents in Ghana

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Background

Reports show that more than half of young adults living with HIV/AIDS in non-industrialized countries come from sub-Saharan Africa. This calls for an urgent intervention to provide treatment to those affected and implement preventive measures to halt the spread of the disease. If only such youngsters will follow and maintain optimal adherence to treatment the outcomes will be beneficial to them in particular, and to society at large.

Objective

The aim of this study was to identify the facilitators of and barriers to antiretroviral treatment adherence among adolescents in Ghana.

Methods

In this qualitative study 19 semi-structured interviews were carried out among adolescents (aged 12-19 years) at the adolescents HIV clinic at the Korle-Bu Teaching Hospital in Ghana.

Results

Six main facilitators of adherence (knowledge of the nature of HIV/AIDS disease, improvement in well-being, a tablet formulation, self-motivation, parental support and support from health care workers) emerged from the interviews and four main barriers to adherence (forgetfulness, lack of financial support, adverse drug events especially dizziness and non-disclosure to peers and school mates) were identified.

Conclusion

Continuous information provision in addition to improved parental support and interventions to reduce patient forgetfulness may improve adherence. A multi-sectorial approach is needed to address adolescent disclosure of HIV/AIDS status.

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Unintended effects in the use of over-the-counter medicines after the over-the-counter sales restriction of antibiotics in Mexico and Brazil.

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Background

In Mexico and Brazil, as an unintended effect of the regulation to reduce the inappropriate use of antibiotics, the use of other medicines perceived as substitutes of antibiotics might have changed. Our objective was to explore changes in the use of these medicines.

Methods

IMS Health provided retail quarterly sales data from the private sectors in Mexico and Brazil from the first quarter of 2007 to the first quarter of 2013. The data of each active substance of: antibiotics, medicines perceived as substitutes (cough and cold preparations, analgesics, anti-inflammatories), and medicines to control for external factors affecting the consumption (antihypertensives) were converted from kilograms to defined-daily-doses per 1,000 inhabitants days DDD/TID. Existence of structural breaks was evaluated using the Clemente-Montañez-Reyes test; relation between use of antibiotics and groups perceived as substitutes was explored using the Gregory-Hansen cointegration test; quantification of changes in trend and level of use was assessed using interrupted time series analysis. All analyses were adjusted using antihypertensives as reference.

Results

In both countries, we found structural changes in use of anti-inflammatories and analgesics before and after the regulation took place. Only in Brazil we found structural changes in anti-inflammatories at the same time of the policy change. The use of antibiotics and anti-inflammatories and analgesics was significant related. Although the same seasonality pattern was found, there was no relation between use of antibiotics and cough and cold medications. In Mexico, immediately after the policy change, anti-inflammatories had an increase in trend (0.14 DDD/TID per quarter). In Brazil, one quarter before the regulation, anti-inflammatories had an increase in level of use (2.9 DDD/TID) and trend (0.53 DDD/TID per quarter), at the same time, the analgesics had an increase in level (0.45 DDD/TID) and increase in trend (0.11 DDD/TID per quarter).

Conclusion

The increase in the use of analgesics and anti-inflammatories in both countries showed that regulations to improve the use of antibiotics should be followed by an overall assessment of the use of OTC medicines.

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Antibiotic prescribing for children in general practice and adherence to treatment guidelines 2010-2012

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Background

Over 80% of antibiotics are prescribed in general practice, mainly for viral RTIs in children. In response, numerous efforts to improve antibiotic prescribing have been ongoing for decades. Treatment guidelines are developed to support GP decision-making on which RTIs require antibiotics. Yet, detailed information on adherence to RTI treatment guidelines for antibiotic prescribing in children is scarce.
Trends in antibiotic use suggest an overall reduction in antibiotic rates for children since the late 1990s. On the other hand, antibiotics continue to be prescribed for non-specific URTIs diagnosis, and quite often as broad-spectrum products.
The Netherlands has maintained low and stable antibiotic use in primary care. Even though, national guidelines for RTIs are generally accepted by Dutch GPs, antibiotic prescribing is not always in accordance with recommendations. Few studies have assessed adherence to RTI guidelines for children.
Our study explores antibiotic prescribing patterns for fever, ear and respiratory infections in Dutch children 2010 - 2012. Our objective is to determine guideline adherence in antibiotic prescribing for different paediatric RTIs and choice of antibiotics. We also aim to examine potential variations in guideline adherence among GPs.

Methods

We use prescribing data and children' diagnoses (ICPC-1) from NIVEL Primary Care Database. GP prescriptions include information on drug name (ATC), prescribing date and amount prescribed. Antibiotics are defined as antibacterial for systemic use (ATC code J01).
We matched ICPC with clinical conditions from national guidelines. Different consultations concerning same health problem within a pre-set time frame are linked to one disease episode. First set of outcomes measure GP adherence to recommendations on whether or not to prescribe antibiotics for the diagnosis, while second one evaluate antibiotic types prescribed. Outcomes are defined by disease-specific indicators for outpatient antibiotic prescribing.

Analysis

SPSS is used to obtain overall incidence rates for each ICPC and % of disease episodes with prescribed antibiotics. We will calculate 95% CIs for overall figures and value range for each indicator at practice level. We will present the data by year and age groups. Multilevel analysis will be done for variability in antibiotic prescribing quality among general practices.

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The use of antibiotics as self-medication in Europe; a systematic review

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Background

Self-medication with antibiotics is one of the causes for antibiotic resistance as it often happens in a non-prudent manner. People can treat themselves with antibiotics they obtained at the pharmacy or through the internet without medical prescription. Moreover, they can use leftover drugs from treatment courses prescribed earlier or drugs obtained from relatives or friends. Several studies already showed high variation between European countries in the prevalence of self-medication and offered different individual and country factors to explain this variation. However, to date, there is no systematic overview available about the variation in the use of antibiotics as self-medication and its determinants. This article aims to answer the following research question; 'How can the variation in antibiotic use as self-medication (OTC) be explained, on a micro, meso and macro level?'

Methods

A comprehensive literature search on self-medication with antibiotics was conducted in PubMed, Scopus and Embase from January 2000 to September 2014. There was no limitation on the language, nor the kind of study. The search was restricted to European and other western countries.

Results

The search in the electronic databases identified 2,456 unique records. Two researchers are screening the abstracts of studies and, until now, about 50 publications are eligible for inclusion. The first preliminary results show that self-medication with antibiotics can be explained by factors on the micro level (e.g. patient knowledge), the meso level (e.g. position of the pharmacist in the health care system) and the macro level (e.g. reimbursement system). Further results will be presented in January.

Conclusions

The preliminary conclusion is that self-medication is a complex phenomenon as it is driven by factors at different levels in the healthcare system.

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Determinants of differences in utilisation of antineoplastic and immunomodulating medicines in Belgium, Scotland and Sweden

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Background

Disparities in the use of high cost medicines in Europe have been highlighted in various pan-European studies. However, a fully quantitative approach using statistical methods to explore possible determinants of these differences across European countries is currently missing. The aim of this study is therefore to develop a statistical model to explore the possible impact of financial, policy and health system determinants on utilisation of medicine in selected European countries.

Methods

Data on medicines utilisation (dependent variable) were obtained from national health authorities in Belgium (INAMI), Sweden (TLV) and Scotland (NHS) for the period 2008/9 to 2013. Data on the independent variables were extracted from national HTA reports and ministerial decisions complemented by personal contacts with competent authorities.

A statistical model for panel data was fitted in Stata using country specific fixed effects. Medicines utilisation was expressed as the number of smallest units of a particular brand consumed per year and country. The variable included were the number of years since the medicine obtained a positive recommendation for reimbursement/use, the number of therapeutic indications recommended, the implementation of a managed entry agreement and the type, payment mechanism (DRGs vs. retrospective reimbursement), setting in which the medicine is delivered (outpatient vs. inpatient vs. both) and prevalence of the condition treated.

Results

Preliminary results suggest that the main determinant of medicines utilisation is the number of years since the medicine obtained a positive reimbursement decision. This was particularly the case in Belgium and Scotland where there is hardly any utilisation before a medicine received a positive recommendation for reimbursement. Results are still significant in Sweden but the magnitude of the coefficient is smaller. This reflects the fact that for most medicines analysed, utilisation started already before a national recommendation is issued.

Conclusions

The final conclusions will be presented at the meeting in January.

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Developing summary country pharmaceutical profiles for the WHO Eastern Mediterranean using traffic light indicators

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Background

A series of 22 summary documents were prepared with the objective of providing a "quick snapshot" of the pharmaceutical situation in countries of the WHO Eastern Mediterranean Region. "Traffic light" indicators were used to highlight to policy makers and other stakeholders whether selected elements of the pharmaceutical sector are "on track", "require attention" or "action needed". For each country, data were extracted from 174 WHO indicators to assign the traffic lights.

Methods

The data used originates mainly from country pharmaceutical profiles endorsed by most Member States of the EMR in 2011-12, websites of ministries of health and/or medicines regulatory authorities, and assessments undertaken by the WHO Good Governance for Medicines Programme. Prefilled two-pagers were sent to relevant authorities for review, citing the data source(s). An annotated legend sheet was prepared to show the benchmarks used. Feedback from countries was incorporated, where consistent with the methodology, and reported back to the relevant authorities. A communication was sent to Ministers of Health with the final draft requesting their final review and endorsement.

Where applicable, a scoring system was applied where elements were labelled green for scores higher than 80%, yellow for scores from 50 to 80 % and red for scores lower than 50%. Where the indicator measured existence of documents, presence of an updated document was labelled green, a dated document yellow, and non-existence of the document was labelled red. For human resources and pharmaceutical services, the global or regional mean was used where below half, half to equal and above the global mean were used to assign red, yellow or green colours, respectively.

Conclusions

Analysis of the results highlighted the following key areas where a high number of countries scored red on the traffic-light indicators: Functionality of medicines regulatory authorities including organizational structure and technical capacity; Implementation and monitoring of national medicines policies; Transparency and accountability in regulation and supply of medical products; Strategies, surveillance and reporting mechanisms to contain antimicrobial resistance; Control of promotion/advertising of medical products; and Access to controlled medicines, including medicines for pain management.

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Price regulation of medicines in Albania after '90s, an ongoing process

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Background

In Albania, the medicines' price is controlled by the state through laws and bylaws on drugs. Until the nineties the production, import and distribution of medicines was made by public enterprises. After the nineties this sector was liberalized, enterprises were privatized and private investors entered in the market. Price regulations have changed constantly, in order to make them more affordable. Studies performed by partners, have concluded that there is still potential to decrease medicines' prices. Individual expenditures on medicines remains high compared with the average wages. This can represent one of the biggest barriers for patients' medication. The aim of the study is to analyze the process of medicines' price regulation in Albania.

Methods

A review on the medicines' price regulation was made in Albania, to better place it in the international context. Bylaws which regulate profits margins and regulations on how specific bodies are work were analyzed. A paper review was made in PubMed and other generic search engines. The key word were "medicines price", "government regulation", "drugs, essential", "commerce", "price control", "developing country", "OECD countries".

Results

20 bylaws were taken in consideration during this review. The approval of medicines' price is made by a specific commission, which was established in 1996. From its establishment the bylaw was amended 9 times.

Conclusion

The type of medicines price regulation in Albania is common as those used in other OECD countries. The process of producers' margins control is recent in comparison with the process of distributors' margin control, where generally margins are lower/equal to other countries in the region. Continuous improvement of control of profit margins for manufacturers can be the most efficient mechanism for further reducing the medicines price in the country. A closer cooperation between stakeholders should be done in order to increase the quality of decision making.

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Access to Innovative Essential Medicines in Mexico

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Background

In Mexico, although health access has improved, access to innovative and expensive essential medicines continues to be out of reach for many patients, as more than 80% of medicines expenditure comes from the private sector where prices are considerably higher than in the public sector. There are still many barriers to overcome to guarantee equitable access to new essential medicines in Mexico.

Objective

To assess the approaches and strategies that Mexico is following to provide and improve access to innovative medicines.

Methods

data collection on drug prices, availability and market needs will be obtained using HAI's tool, WHO's guidelines and IMS data, to assess the accessibility of innovative medicines. Pharmaceutical policies and IPR policies will be assessed to identify barriers on new essential medicines access.

Expected results

through an updated pharmaceutical profile and the analysis of the pharmaceutical sector, exhibit existent gaps and challenges to be faced by stakeholders to address accessibility issues on innovative and expensive medicines. Explain if the approaches that have been used by the government and the industry have improved accessibility of expensive medicines. Demonstrate if innovative medicines continue to be inaccessible to payers.

Conclusions

Addressing the existent gaps on new essential medicines accessibility - that result in high expenditures by payers - is imperative to guarantee universal health access and thus the right to health.

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Change in access to medicines in low- and middle income countries

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Background

Different policies have been implemented in low- and middle income countries (LMICs) to improve suboptimal level of access to medicines as one of the targets of the millennium development goal. However, little is known about the efficiency of these efforts. As a first step we studied longitudinal changes in availability, affordability and prices of medicines in LMICs.

Method

Countries were included if a WHO/HAI survey of medicines availability, price components and affordability has been conducted and published at least two times in the country. Only identical medicines (same INN name, same dosage form and same dose) were studied in all different sectors (public, private and other) for different medicine types (originator brand (OB) and lowest priced generic (LPG)) for which data was available. For price comparisons both US$ (adjusted) price and median price ratio (MPR) was considered. Median difference of medicine's availability, median price and median affordability between the two surveys was calculated. Wilcoxon signed rank test was used to compare statistical difference between the paired measurements at significance level of 0.05.

Results

12 countries were found eligible for this study of which 5 countries conducted both surveys between 2001-2005 and 5 countries between 2004-2012. Major increase in availability of LPGs was observed in Lebanon (public sector; (median difference=) 66%) and Cameroon (all sectors; 40-60%) where as a major decrease in availability was observed in Mongolia (public sector; 29%). A decrease in median procurement price (US$) of LPGs in the public sector was found in all the countries, which was substantial in Kenya, the Philippines and Indonesia (78-42%). Patient prices (US$) of LPGs have experienced an overall decline which was substantial in Indonesia and Peru (all sectors; 71-58%) as well as Mongolia and the Philippines (public sector; 31-32%). In nearly all the countries affordability of OBs was improved except in Ghana (38%). In case of LPGs, affordability was improved subsequent to decline in patient prices ranging from (63-33%) in the mentioned countries.

Conclusion

There have been significant but inconsistent changes in many aspects of access to medicines over the past 15 years across the studied countries . A detailed review of policies implemented meanwhile is necessary to try to partly explain the observed patterns.

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