



Under the Patronage of Prof. Nouria Al-Awadhi

Director General

National Bureau for Academic Accreditation & Education Quality Assurance, Kuwait

6TH KUWAIT INTERNATIONAL PHARMACY CONFERENCE (KIPC 2017)

Theme: The 2nd Forum on Advancing Pharmacy Education in the GCC and Middle-East

9-11 February, 2017

Venue: Abdul Husain Marafie Grand Ballroom, Radisson Blu Hotel, Kuwait

Abstract book





His Highness
Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah
Amir of the State of Kuwait



His Highness
Sheikh Jaber Al-Mubarak Al-Hamad Al-Sabah
The Prime Minister of the State of Kuwait



His Highness
Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah
The Crown Prince of the State of Kuwait

INDEX

General Information	7
Committee's Message	8
Organizing Committee	12
Faculty	14
Program at a Glance	17
Scientific Program Day 1	20
Scientific Program Day 2	22
Scientific Program Day 3	24
Plenary Abstracts	26
List of Presentations	34
Abstracts- Poster Presentations	38
Author index	64
Keyword Index	65
Participants & Acknowledgements	66
Accreditation & Endorsement	67
Sponsors	68

Conference Date & Venue

9-11 February, 2017 at Abdul Husain Marafie Grand Ballroom, Radisson Blu Kuwait, Kuwait

Inaugural Ceremony

9th February, 2017: 9.00 am by the Honourable Prof. Nouria Al-Awadhi

Plenary Lectures, Workshops & Exhibitions

9 to 11 February, 2017 at Abdul Husain Marafie Grand Ballroom, Radisson Blu Kuwait

Gala Dinner

10th February, 2017, Dasman Ball room, Radisson Blu Kuwait

Conference Closing Ceremony

11th February, 2017 – 3:15 – 4:00PM: Closing Ceremony - Radisson Blu Kuwait

Registration Desk

For registration and any enquiries or assistance, please proceed to the Registration Desk near the Abdul Husain Marafie Grand Ballroom, Radisson Blu Kuwait

CME/CEPD Credits

Registration Number: 000501/MED5/Feb17

Title of Activity: 6th Kuwait International Pharmacy Conference

Scheduling: February 1-3, 2015

CME Organizer: Dr. Jamshaid Iqbal

CME/CPD Credits:

Lectures: Category 1: 10 Credits

Poster Presentations: Presenting Author: 1 credit
Co-author: 0.5 credit

Message from Dean



Dear Colleagues,

It is my pleasure to welcome you to Kuwait. The sixth international congress of our Faculty of pharmacy is aligned with the second forum on the advancement of pharmacy education in the gulf and middle east. The goal of the forum is to bring dedicated pharmacy educators from the region in an effort to share best practices and discuss together the challenges that we face regarding this core aspect of our respective mission. Most of the schools invited are seeking international accreditation, and this creates a great opportunity to advance pharmacy education synergistically. After the huge success of the first forum in Qatar in December 2015, we surely hope that the format of keynote lectures together with participative workshops will achieve our goal again this year. The workshop themes were selected by the Deans of the seven Faculties from the region involved in preparing the workshop program. Then, dedicated academic staff members from the schools devised the workshop sessions to make them as interactive as possible. This level of participation before the meeting ensures that the content is both relevant and stimulating. To foster collaborations even further and feel a bit remote from traditional hotel meeting rooms, we chose a venue that is unique in Kuwait and that should create a friendly atmosphere that relates to the traditions of the middle east. I wish all participants a great congress and I hope that the social activities will continue to bring us closer together and improve our international collaborations as we tackle similar challenges to advance pharmacy practice in our respective countries.

Pierre Moreau, B.Pharm., Ph.D.

Professor and Dean; Faculty of Pharmacy
Health Sciences Center; Kuwait University

Chairman's Message

Dear Colleagues,

It is my great pleasure to welcome you to the 6th Kuwait International Pharmacy Conference taking place from February 9-11, 2017 at the Radisson Blu Hotel. This year's meeting is converging with the "2nd Forum on Advancing Pharmacy Education in the GCC and Middle-East," where a group of passionate pharmacy educators in the region joined in partnership to improve their educational standards. The Conference sessions will include keynote lectures, given by distinguished scholars from North America and Europe, along with workshops designed and delivered by dedicated faculty members from the participating pharmacy schools in the region. This program will be complemented by poster presentations and several social activities aimed at facilitating interactive networking.

I hope this conference exceeds your expectations; this is exactly what we are striving for! Please let us know how we can make your stay enjoyable and productive.

With best wishes on behalf of the organizers.

Dr. Mohammad Waheedi

Chair of the Organizing Committee





Organizing Committee



Organizing Committee

Chairpersons

- Dr. Mohammed Waheedi, Chairman of Organizing Committee
- Prof. Pierre Moreau, Dean, Faculty of Pharmacy

Scientific Committee

- Dr. Nada Al-Hasawi, Chair, Scientific Committee
- Dr. Jacinthe Lemay
- Dr. Yaqoub Al-Basarah
- Dr. Altaf Al-Romaiyan
- Dr. Salah Waheedi

CME Officer

- Dr. Jamshaid R Iqbal, Director, Centre for Medical Education

Logistics Committee

- Ms. Nouria Al-Adwani
- Mrs. Sanaa Akroof
- Ph. Shaimaa Elmetennawy
- Mrs. Asmaa Badawy
- Ms. Teena Sadan
- Ms. Mariam Al Najadah
- Ms. Abhaya Nair K
- Mr. Ali Bouzid

Chairpersons

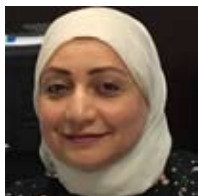


Dr. Mohammed Waheedi
Chairman of Organizing
Committee



Prof. Pierre Moreau
Dean, Faculty of Pharmacy

Scientific Committee



Dr. Nada Al-Hasawi,
Chair



Dr. Jacinthe Lemay



Dr. Yaqoub Al-Basarah



Dr. Altaf Al-Romaiyan



Dr. Salah Waheedi,
Chair of Social Committee



Dr. Jamshaid R Iqbal
CME Officer

Faculty



Professor Wayne Hindmarsh;
Keynote Speaker
Dean, University of Toronto



Prof. Arijana Mestrovic
Biomedical Sciences, Pharma Expert, Zagreb,
Croatia



Dr. Barbara Gobis
The University of British Columbia



Dr. Michael J. Rouse, BPharm (Hons), MPS
Assistant Executive Director, Professional Affairs,
and Director, International Services, Accreditation
Council for Pharmacy Education, Chicago,
Illinois, USA

Workshop
Coordinators



Prof. Pierre Moreau
*Dean, Faculty of Pharmacy
Kuwait University*



Dr. Kyle Wilby
Qatar University



Dr. Aline Saad
Lebanese American University



Dr. Ahmad A. Nahi Alghamdi
King Saud University (SA)



Dr. Michelle Cherfan
Lebanese International University



Dr. Shane Pawluk
Qatar University



Dr. Salah Waheedi
*Faculty of Pharmacy,
Kuwait University*



Bander Al-Balkhi
King Saud University



Dr. Lamis Karaoui
Lebanese International University

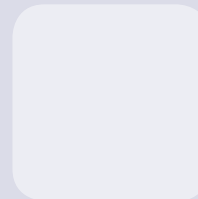
Workshop
Coordinators



Dr. Dalal Hammoudi
Lebanese International University



Dr. Maryam Alowayesh
*Faculty of Pharmacy,
Kuwait University*



Dr. Abdullah Alhammad
King Saud University



Dr. Bridget Javed
Qatar University



Dr. Lama Soubra
Beirut Arab University



Dr. Bedoor Qabazard
*Faculty of Pharmacy,
Kuwait University*



Dr. Khalid A. Alburikan
King Saud University



Dr. Shankar Munu Samy
Qatar University



Dr. Mohamed Issa
Beirut Arab University

Program at
a glance

Thursday February 9 th , 2017	Friday February 10 th , 2017	Saturday February 11 th , 2017
08:00 am – 4.00 pm	Registration	
09.00 am – 9.45 am Opening Ceremony	09.00 am – 11.00 am Workshop 2	09.00 am – 11.45 Workshop 4
9.45 am - 10.00 am Opening of Poster Exhibitions & Coffee Break		
10.00 am – 11.45 am Keynote Addresses 1, 2	11.00 am – 11.45 am Keynote Address 3	
11.45 – 1.00 Lunch Break & Moderated Posters (Education and Research)		
1.00 pm – 4.30 pm Workshop 1	1.00 pm – 4.30 pm Workshop 3	1.00 pm – 1.45 pm Keynote Address 4
		1:45-3:15 Discussion and Conclusion; Planning for next meeting
		3:15-4:00 Closing Ceremony



Scientific Program



Scientific Program Day 1

Thursday, February 9, 2017

9:00 - 9:05	National Anthem	
9:05 - 9:10	Introductory Remarks	Dr. Mohammed Waheedi; Conference Chairman
9:10 - 9:15	Patronage Speech	Prof. Nouria Al Awadhi; Director General, National Bureau for Academic Accreditation & Education Quality Assurance, Kuwait
9:15 – 9:30	Welcome Address	Prof. Pierre Moreau; Dean, Faculty of Pharmacy
9:30 – 9:45	Welcome Speech	Dr. Zahra A Hussein Ali; National Bureau for Academic Accreditation & Education Quality Assurance, Kuwait
9:45 – 10:00	Opening of Poster Exhibitions	
Competencies in Education		
10:00-10:45	Keynote Speech 1: Importance of competencies in education	Dr. Arijana Mestrovic CEO of Pharma Expert, Croatia
11:00-11:45	Keynote Speech 2: Life-Long Learning education for pharmacy students	Dr. Mike Rouse Director of International Services Accreditation Council for Pharmacy Education; (ACPE)
11:45-1:30	<i>Lunch Break & Prayers</i>	
1:30-4:30	Session 1 – Workshop: Development of competency-based curriculum <i>Dr. K Wilby, Prof. P Moreau, Prof. Ahmad AN Alghamdi, Dr. A Saad, Dr. M Cherfan</i>	

1:30-3:00	Customizing a competency framework
1:30-2:00	Presentation: Critical appraisal of 3 frameworks <i>Prof. P Moreau, Prof. A Alghamdi, Dr. A Saad</i>
2:00-2:30	Small group discussion: How to locally adapt a framework from an existing model?
2:30-3:00	Large group discussion (small group reporting): Ways of adapting a framework for local needs
3:00-4:30	Using the framework to guide education: <i>Dr. K Wilby, Dr. M Cherfan</i>
3:00-3:30	Small group discussion: What type of learning activities can allow students to develop professional or transversal competencies? How can these be assessed? (distribute competency domains throughout the groups)
3:30-4:00	Large group discussion (small group reporting): Examples of learning activities/assessment per competency domain
4:00-4:20	Presentation; Prof. P Moreau: Service-based competency profiles as a means of enabling CBE both in terms of learning activities and assessment
4:20-4:30	General discussion and conclusion

Scientific
Program
Day 2

Friday, February 10, 2017:
Educational Challenges

9:00-11:00	Session 2- Workshop: Educational activities to prepare students for Life-long learning <i>Dr. S Pawluk, Dr. J Lemay, Dr. S Waheedi, Dr. B Balki, Dr. L Karaoui, Dr. D Hammoudi</i>
9:00 – 10:15	Phase 1: Aspects of the pharmacy curriculum that address preparing students to be life-long learners
09:00 – 09:25	<ul style="list-style-type: none"> • Overview of how certain approaches encourage life-long learning Small group activity: <ul style="list-style-type: none"> • Definition of life-long learning • Approaches to life-long learning Large group Discussion
09:25 – 09:50 <i>Coffee will be available</i>	Presentation: <ul style="list-style-type: none"> • What skills/attitudes/attributes of a student lead to a proficient life-long learner? • How do you prepare students to be life-long learners? Group Activity/Discussion: <ul style="list-style-type: none"> • Identifying skills/attitudes/attributes associated with life-long learning • Prioritize these skills and match them to an overall theme • Identify courses within the pharmacy curriculum that could impact these attributes
09:50 – 10:15	Presentation/Small group activity <ul style="list-style-type: none"> • Barriers and facilitators to preparing students to be life-long learners
10:15 – 11:00	Phase 2: The effect of life-long learning on pharmacy practice Presentation: <ul style="list-style-type: none"> • Influence of life-long learning on pharmacy practice Small group activity: <ul style="list-style-type: none"> • How does a practitioner maintain an ability to be a life-long learner • Role of the regulator in pharmacy life-long learning

10:50 – 11:00	Workshop Conclusion and Recommendations	
11:00-11:45	Keynote Speech 3 CCAPP standards and examples of evidence: how much is enough?	Prof. Wayne Hindmarsh Dean, University of Toronto
11:45-1:00	Lunch Break & Moderated Posters (Education and Research)	
1:00-4:00	Session 3 – Workshop: Assessment of student performance during active learning activities <i>Dr. M Cherfan, Dr. L Soubra, Dr. M Alowayesh, Dr. A Alhammad, Dr. B Javed,</i>	
1:00 – 1:15	Introduction of contributors: All presenters	
1:15 – 1:30	Introduction to assessment of active learning activities	Dr. Bridget Javed
1:30 – 2:15	Assessment tools used in different contexts of active learning activities	Dr. Michelle Cherfan & Dr. Lama Soubra
2:15 – 2:45	Competency demonstration assessment (CDA) – A novel assessment tool	Dr. Maryam Alowayesh
2:45 – 3:15	Barriers and challenges in assessing active learning activities – Small group discussion	Dr. Abdullah Alhammad
3:15 – 3:30	<i>Coffee and prayer break</i>	
3:30 – 4:00	Closing remarks, solutions, and Q&A - open panel discussion	All presenters

Saturday, February 11, 2017:
Future in education

9:00-11:45	Session 4 – Workshop: Team teaching in integrated courses <i>Dr. B Qabazard, Dr. S. Munusamy, Dr. M Issa, Dr. D Hammoudi</i>	
9:00 – 9:15	Philosophy & Characteristics of Team Teaching	Dr. Mohammed Issa, BAU
9:25 – 9:40	Developing a Successful Team	Dr. Dalal Hammoudi, LIU
9:50 – 10:30	Group activity, discussion and reporting	Dr. Mohammed Issa Dr. Dalal Hammoudi
<i>Coffee & Refreshments will be available</i>		
10:35 – 10:50	Integrating Instructions	Dr. Shankar Munusamy, QU
11:00 – 11:45	Group activity, discussion and reporting Addressing Challenges Reflection, Evaluation & Recommendations	Dr. Bedoor Qabazard, KU Dr. Shankar Munusamy, QU
11:45-1:00	Lunch Break & Moderated Posters (Education and Research)	
1:00-1:45	Keynote speech 4 A pharmacy consultation clinic: Integrating education with practice	Dr. Barbara Gobis University of British Columbia, Canada
1:45-3:15	Panel discussion and Conclusion; Planning for next meeting	Prof. P Moreau, Dr. M Waheedi
3:15-4:00	Closing Ceremony	

Plenary Lectures



Plenary Lectures



*Professor Wayne Hindmarsh; Keynote Speaker
Dean, University of Toronto*

CCAPP standards and examples of evidence: how much is enough?

During this session, we will discuss the upcoming changes in the International CCAPP Standards for the First Professional Degree in Pharmacy Programs. Why the changes were considered and when might be the opportune time for their implementation.

We will be taking a look at some specific examples of the more challenging Standards and providing some examples of what might be required in addressing them.

CCAPP Standards have changed to being more “outcomes based” and will be asking the Institutions for evidence of how they know their students demonstrate the competencies in their practice-based courses. When students graduate are they “ready to practice”?



***Dr. Arijana Mestrovic**
Assistant Professor, Biomedical Sciences, Pharma Expert,
Zagreb, Croatia*

Importance of competencies in education

Context, structure and process of educational activities in pharmacy have been transformed in dynamic continuum of changes in pharmacy profession. New generations are learning in more interactive environment, where scientific data is easy accessible and widely thought, but there is a tremendous need for sharing practical examples, application reasoning and clear guidance, how to apply their knowledge into everyday practice. Both in continuing education and undergraduate learning, there is emerging need to define the desired competencies that learners should achieve as the result of learning.

Competencies in pharmacy profession are more than outcomes of learning, they are ability of students and healthcare professionals to use and engage all resources of their knowledge, skills, attitudes and values to perform on desired level, professionally. The “willing” aspect of learning is often result of self-motivation, but not so rarely required by employers or regulators, to assure that level of competence will serve the needs of organisation or nation. Competency based education therefore must address not only knowledge and skills, but also motivation and ethical aspects of learning, to achieve desired impact on the future practice.

Regulatory requirements are not necessarily created to assess performance and evaluate competencies, but more just to assure the participation in educational activities. They are not always advanced, or in line with national or organizational needs. Application parts of

Plenary Lectures

continuing professional development cycles are rarely evaluated, but this should be part of professional responsibility in pharmacy profession. Quality of education leads to quality of services and patient care if competencies are well defined and developed.

International initiatives resulted in development of globally adopted tools for competency evaluation and development, as well as quality of education which is competency based. Many initiatives tried to promote competency based educational model both for undergraduate and life-long learning education in pharmacy, but it is still in development and growth. Many countries are changing the teaching and learning strategies and using those tools in their specific contexts. Change management, assessment as a part of competency development, lack of commitment is some of the challenges occurring in this process. Thinking about education from aspects of achieving competencies is philosophy to be promoted in forthcoming years. Despite the differences in educational activities, teaching methods and pharmacy programs internationally, there should have the same goal – to develop pharmacists' competencies.

Sources:

1. International Pharmaceutical Federation. Continuing Professional Development/Continuing Education in Pharmacy: Global Report. The Hague, Netherlands: International Pharmaceutical Federation; 2014.
2. Accreditation Council for Pharmacy Education. Accreditation Standards for Continuing Pharmacy Education. Chicago, Illinois. 2007.
3. Meštrović A, Rouse JM. Ensuring quality of pharmacists' continuing education - pillars of quality based on science, practice and ethics; *Am J Pharm Educ* 2015; 79 (3)
4. Rouse MJ. Continuing professional development in pharmacy. *Am J Health-Syst Pharm*. 2004; 61:2069-2076.
5. International Pharmaceutical Federation A Global Competency Framework. The Hague, The Netherlands: International Pharmaceutical Federation (FIP); 2012.
6. International Pharmaceutical Federation. Quality Assurance of Pharmacy Education: the FIP Global Framework. 2nd Ed. The Hague, The Netherlands: International Pharmaceutical Federation (FIP); 2014.
7. Tofade T, Khandoobhai A, Leadon K. Use of SMART learning objectives to introduce continuing professional development into the pharmacy curriculum. *Am J Pharm Educ*. 2012;76(4): Article 68.



Dr. Barbara Gobis BSc(Pharm), ACPR, MScPhm, PCC
Director, Pharmacists Clinic, Faculty of Pharmaceutical
Sciences, University of British Columbia
Vancouver, British Columbia, Canada

A pharmacy consultation clinic: Integrating education with practice

As the practice of pharmacy changes, so must the approaches to educate pharmacy students and pharmacists. In 2013, the Faculty of Pharmaceutical Sciences at the University of British Columbia established the Pharmacists Clinic. This patient care clinic models the best practice care of patients, supports the skill development of learners and is a living lab where practice innovation occurs.

This presentation provides context on the pharmacy environment in Canada and British Columbia. The structure and function of the clinic are described. The presenter will share insights on the ways the clinic is being utilized to achieve academic goals for learners and advancement of the pharmacy profession for the benefit of society.

Plenary
Lectures***Dr. Michael J. Rouse***

*Assistant Executive Director, Professional Affairs, and
Director, International Services, Accreditation Council for
Pharmacy Education, Chicago, Illinois, USA*

Life-Long Learning education for pharmacy students

Maintaining competence throughout a career, during which new and challenging professional responsibilities will be encountered, is a fundamental ethical requirement for all health professionals. ⁽¹⁾Pharmacists acknowledge this need and evidence suggests that most pharmacists are willing and committed to maintaining their competence. Many countries require - in one form or another - participation in lifelong learning (LLL), continuing education (CE) or continuing professional development (CPD) to provide a level of assurance to the public that pharmacists are competent.

However, away from the structured, directed learning environment of pharmacy school, a commitment to life-long learning requires a different approach and more self-direction by the learner. After graduation, learning must be ongoing, systematic, outcomes-focused, relevant to daily practice and needs-based to ensure that it achieves its objectives of practitioner development, enhanced professional performance and practice, and ultimately improved patient care. The strategies included in the CPD model have been shown to be more effective

1 International Pharmaceutical Federation. Statement of Professional Standards on Continuing Professional Development (2002).

than traditional approaches when it comes to sustained learning and bringing about changes in practitioner behavior.

In the educational programs that prepare students for practice as pharmacists, teaching and learning methods are changing to help current and future generations of students assume greater responsibility for their own learning and develop the required life-long learning skills and attitudes. Teaching methods are more student-centered and less teacher-driven. Developing the required competence to self-direct one's learning is often included in the desired educational outcomes of pharmacy degree programs at schools of pharmacy, but what are the competencies (knowledge, skills, attitudes and values) that are needed, and how can their development be facilitated and assessed?

This presentation discusses the CPD approach to life-long learning, how CPD concepts and principles apply throughout the continuum of learning for students and pharmacists, what specific skills and attitudes must be developed in students, and how these skills and attitudes can be fostered and assessed in a contemporary pharmacy degree program.



Poster Presentations



Poster Presentations

1

*Buresli L, Lemay J, AlSaleh F, Abahussain E, Bayoud T: Knowledge, Attitudes and Practices on Pharmacovigilance and Adverse Drug Reactions of Primary Care physicians in Kuwait

2

AlGhaihab AA, Mancy WH: Perception and evaluation of Drug Information courses by pharmacy students, King Saud University

3

*Al-Mutairi M, Lemay J, AlSaleh F, Abahussain EA, Bayoud T: Knowledge, Attitudes and Practices on Pharmacovigilance and Adverse Drug Reactions of Pharmacists Care Pharmacists in Kuwait

4

Al-Hasawi N, Novotny L, Phillips O, Luqmani Y, Abdul-Hamid M, Orabi K, Al Tannak N: Students' performance in courses of Department of Pharmaceutical Chemistry

5

*AlSharqawi S, Lemay J, Abahussain E, Bayoud T, Waheedi M: Beliefs about Medications: A Kuwait Perspective

6

*Katoue MG, Baghdady M, Rassafiani M, Al-Jafar E, Bouzubar F, Moreau P: Development of Competency-based Interprofessional Education Curriculum at the Health Sciences Centre of Kuwait University

7

ElHajj M, Awaisu A, *Saleh R, *AL-Hamad N, Kheir A, Zeeny R, Fathelrahman A: Tobacco-related Education in Schools of Pharmacy in the Middle East: a multinational cross-sectional study

8

Alhawassi TM, Orfali R, Alkofaidi H, Alburikan KA, Alruwais I, Alghamdi A.: Pharmacy Education Unit: A future Vision for Innovative Pharmacists

9

*AlRuthia Y, Alodaibi F, Alhawas S, Mansy W, Alrabiah H, Balkhi B: The use of active learning strategies among faculty members in healthcare colleges in the Middle East

10

Wilby KJ, Nasr ZG: Introducing problem-based learning into a Canadian-accredited Middle Eastern educational setting

11

*Zidan A, Awaisu A, Kheir N: The Impact of Long-term Medicines Use: Validation of an Arabic version of the Living with Medicines Questionnaire

12

*Eldeeb AM, Muir F, Waheedi M: Barriers to pharmacists counselling patients with diabetes in primary health care sector in Kuwait

13

*Al-Dhafeeri RR, Alsaleh FM, Abahussain EA, Lemay J, Bayoud T: Knowledge and awareness of pharmacovigilance and adverse drug reactions (ADRs) among physicians in Kuwait

14

*AlAjmi SH, Alsaleh FM, Abahussain EA, Lemay J, Bayoud T: Knowledge, Attitude and Practice toward Pharmacovigilance and Adverse Drug Reactions Reporting among Private Hospital Physicians in Kuwait.

Poster Presentations

15

*Alzaid SW, AlSaleh FM, Abahussain EA: Knowledge, Attitude and Practices of Pharmacovigilance and Adverse Drug Reaction Reporting among Pharmacists Working in Secondary and Tertiary Governmental Hospitals in Kuwait

16

Afrah Aladwani, Helen Lindsay, Jenny Stirton, Alexander Mullen: The Influence of Reduced Paracetamol Doses on the Co-prescribing of Other Analgesics in Elderly

17

Abu Farha R, *Alefishat E, Suyagh M, Elayeh E, Mayyas A.: Evidence-based medicine use in pharmacy practice: a cross-sectional survey.

18

Peterson S, Paiva M, *Wilby KJ: A systematic meta-ethnographic review of the beneficial outcomes of international internships to student pharmacists

19

*Deema Jaber, Nailya Bulatova, Maysa Suyagh, Al-Motassem Yousef, Mayyada Wazaify: Knowledge, Attitude and Opinion of Drug Misuse and Abuse by Pharmacy Students: A Cross-Sectional Study in Jordan

20

Almaghaslah DA: Students' perceptions towards the implementation of active learning methods in a Therapeutics course

21

*Wilbur K, Mahmoud O, Hassaballa N: Describing student performance: a comparison between clinical preceptors across cultural contexts

22

Wilbur K: How does faculty development influence the quality of in-training evaluation reports in pharmacy?

23

*Pawluk SA, Zolezzi M, Rainkie D: Evaluating global communication in a structured educational module: A comparison of student self-assessments with trained faculty and standardized patient assessments

24

Alqahtani SK, Balkhi BS, Alrasheed MM, Mahmoud MA, Alhawassi TM: Patients' Willingness and Impacting Factors to Receive Vaccination in Community Pharmacies in Saudi Arabia: A Qualitative Study

Poster Presentations

1

Knowledge, Attitudes and Practices on Pharmacovigilance and Adverse Drug Reactions of Primary Care physicians in Kuwait

*Buresli L¹, Lemay J¹, AlSaleh F², Abahussain E², Bayoud T²

¹Department of Pharmacology & Therapeutics, Faculty of Pharmacy, Kuwait University, Kuwait; ² Department of Pharmacy Practice, Faculty of Pharmacy, Kuwait University,

Introduction:

Adverse drug reactions (ADRs) are a significant cause of morbidity, mortality and economic burden. Appropriate ADR reporting is essential for the development of a reliable pharmacovigilance (PV) program. Objective: This study aims to determine the current status of knowledge, attitude and practices (KAP) towards ADR reporting and PV among primary healthcare physicians in Kuwait.

Methods:

A descriptive, cross sectional study was carried out among primary healthcare physicians. A validated self-administered questionnaire consisting of 33 questions was distributed randomly to 386 physicians working in 34 primary care clinics across the five health regions Kuwait of Kuwait.

Results:

Out of 386 physicians, 318 completed the questionnaire giving a response rate of 82.4%. A total of 47.5% and 55.7% of physicians were knowledgeable about PV and its purpose, respectively. Almost two thirds (66.7%) knew the definition of ADRs. The majority (96.5%) thought it was necessary to report ADRs; however, only 78% felt that ADR reporting was a professional obligation. When evaluating practice, a total of 80.8% reported having previously identified ADRs but only 30.8% had reported them. Two major factors were cited as discouraging factors to reporting ADRs, which included not knowing how to report (75.2%) and what information to report (43.7%).

Conclusions:

Despite the good attitudes and perception, the findings of this study indicated inadequate knowledge and practice among primary care physicians with regards to ADR reporting and PV. Based on this, it is imperative to not only offer physicians targeted training on ADR reporting but also to collaborate with regulatory bodies and administrators to facilitate a better ADR reporting culture and practices in government hospitals in Kuwait.

Key Words: Knowledge, attitudes and practices; Adverse drug reactions;

Poster Presentations

2

Perception and evaluation of Drug Information courses by pharmacy students, King Saud University

AlGhaihab AA, Mancy WH

Department of Clinical Pharmacy, College of Pharmacy, King Saud University

Introduction:

Background: Drug information services have evolved as a result of enormous information explosion over the past decades. The importance of drugs in clinical therapy promoted the development of drug information centers to assist the healthcare team and keep them well informed with the modern trend in drug therapy.

Methods:

Self-administered questionair containing 12 items was distributed to 43 students at college of pharmacy, KSU. About their perception and evaluation of drug information courses

Results:

All respondents agreed that the drug information courses are useful and their skills in searching various drug information resources were increased after they finished the Kuwait of Kuwait.

Conclusions:

The attitude and evaluation of the students for drug information courses that had been taught to them was good, but there is need for further studying this subject by exploring the opinion of graduate pharmacists in the work field.

Key Words: drug; pharmacy; students;

Poster Presentations

3

Knowledge, Attitudes and Practices on Pharmacovigilance and Adverse Drug Reactions of Pharmacists Care Pharmacists in Kuwait

*Al-Mutairi M ¹, Lemay J ¹, AlSaleh F ², Abahussain EA ², Bayoud T ²

¹ Department of Pharmacology & Therapeutics, Faculty of Pharmacy, Kuwait University, Kuwait; ² Department of Pharmacy Practice, Faculty of Pharmacy, Kuwait University,

Introduction:

Background: Adverse drug reactions (ADRs) are a significant cause of morbidity and mortality worldwide. Despite these observations, ADR are consistently underreported by healthcare professionals. Pharmacovigilance (PV) is pivotal to ensure collection, detection, assessment, monitoring and prevention of ADRs and ultimately to promote rational and safe use of medicines.

Objective: The objective of the study is to assess the knowledge, attitude and practices of pharmacists in primary health care towards ADRs and PV.

Methods:

This is a cross-sectional study using a self-administered questionnaire distributed to pharmacists in 38 primary care polyclinics across the five health regions in Kuwait.

Results:

A total of 167 pharmacists completed the questionnaire, which provided a response rate of 85%. Results show that 62.9% and 77.7% of participants could correctly define PV and ADR, respectively, while about three quarters (74.1%) knew the purpose of PV. However, the majority of participants (85.7%) were not aware of an ADR reporting center in Kuwait. Pharmacists in the study showed a positive attitude towards PV and ADRs; all believed it is necessary to report ADR and most (88%) believe that ADR reporting is a professional obligation. Although 81% of participants reported being willing to implement ADR reporting in their practice, 70% had ever identified ADRs and only 22% have ever reported any ADRs. The major barrier reported by 65% of participants for underreporting is not knowing how to report ADRs.

Conclusions:

Overall, participants in our study have an adequate knowledge regarding PV and ADRs and positive attitudes towards reporting but this is not reflected in their practice. Based on the barriers identified in the study, ADR reporting could be improved by implementing targeted training sessions that are supported by a formal national PV center in Kuwait.

Key Words: Pharmacist knowledge, attitudes and practices; Adverse drug reactions;

Poster Presentations

4

Students' performance in courses of Department of Pharmaceutical Chemistry

Al-Hasawi N, Novotny L, Phillips O, Luqmani Y, Abdul-Hamid M, Orabi K, Al Tannak N
Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Kuwait University

Introduction:

The Department of Pharmaceutical Chemistry is one of four making up the Faculty of Pharmacy (FoP) and is responsible for teaching various courses starting from organic chemistry, pharmaceutical chemistry, biochemistry and biotechnology to elective courses of pharmaceutical quality control and chemistry of natural products. Eight courses are provided during the 5 year BPharm program by the department. We have analyzed the available examination results in these courses over the past 15 years to look at their trends.

Methods:

Outcomes of examinations (mean +/- standard deviation) for all courses taught by the Department of Pharmaceutical Chemistry were graphically analyzed. The periods are subject to data availability and course being offered.

Results:

The data for the 8 courses are presented. Overall, all courses show good consistency from year to year with a wide range of scores in each year. There is a weak trend of improved students' performance in courses taught later in the BPharm program. This may be due to several reasons: 1) The poorly performing students either leave the program or repeat some of pharmaceutical chemistry courses and improve their understanding and knowledge of the taught content. 2) Students who were not keen on studying pharmacy after Common Year courses identify themselves with the program and put more effort in their study. 3) Students' general scientific base and professional knowledge improve as they progress through the BPharm program and this enables them to better cope with their studies. There is a discernible elevation in marks for the two 5th year elective courses.

Conclusions:

A similar trend is seen in all 2nd, 3rd and 4th year courses with an average score of C+ grade. The higher scores of courses in 5th year is probably due to these being electives with smaller class numbers and possibly higher level of interest.

Key Words: Pharmaceutical Chemistry; BPharm program; Students' performance;

Poster Presentations

5

Beliefs about Medications: A Kuwait Perspective

*AlSharqawi S¹, Lemay J¹, Abahussain E², Bayoud T², Waheedi M²

¹Department of Pharmacology & Therapeutics, Faculty of Pharmacy, Kuwait University, Kuwait;

² Department of Pharmacy Practice, Faculty of Pharmacy, Kuwait University,

Introduction:

Background: According to WHO, the average adherence to long term regimens is about 50% among patients. Lack of adherence to medication regimens is associated with disease complexity and presence of multiple comorbidities, resulting in increased morbidity, mortality and healthcare costs. Objectives: To investigate beliefs about medications and self-reported adherence among chronically ill patients in Kuwait and to assess the association between beliefs and adherence.

Methods:

This is a cross sectional study conducted in 23 polyclinics across the five major health regions in Kuwait. Data were collected using the Beliefs about Medication Questionnaire (BMQ) that measured the patient's perceptions about overuse, harm and benefit of medications. Self-reported adherence was measured by the Medication Adherence Report Scale (MARS-5).

Results:

A total of 541 patients completed the questionnaire yielding an 86% response rate. Results show that over 50% of participants did not report intentional non-adherence to their medications but rather, over 80% reported unintentional lack of adherence by forgetting to take their medication. More than half of the study population believed that physicians overuse medications. About 40% to 50% of participants did not believe medications are harmful and in fact, most participants believed that medications are beneficial for their health. Correlation analysis showed that there is an association between general beliefs and Kuwait adherence among patients.

Conclusions:

Healthcare providers must acknowledge that patient's beliefs about medications influence their adherence to their therapy and as such, patients should be given the opportunity to express their beliefs. Further investigations must be done in the future for a better understanding of the strategies that should be developed and implemented to improve adherence to medications for patients in Kuwait.

Key Words: Chronic disease; Beliefs; Medication adherence;

Poster Presentations

6

Development of Competency-based Interprofessional Education Curriculum at the Health Sciences Centre of Kuwait University

*Katoue MG ¹, Baghdady M ², Rassafiani M ³, Al-Jafar E ⁴, Bouzubar F ⁵, Moreau P ¹

¹ Department of Pharmacology and Therapeutics, Faculty of Pharmacy, Kuwait University; ² Department of Diagnostic Sciences, Faculty of Dentistry, Kuwait University; ³ Department of Occupational Therapy, Faculty of Allied Health Sciences, Kuwait University; ⁴ Department of Health Information Administration, Faculty of Allied Health Sciences, Kuwait University; ⁵ Department of Physical Therapy, Faculty of Allied Health Sciences, Kuwait University.

Introduction:

Interprofessional education (IPE) of healthcare students can foster the development of collaborative working relationships among future healthcare providers. Faculties of Medicine, Allied Health Sciences, Dentistry and Pharmacy at Kuwait University established a working group to develop a competency-based IPE curriculum. The group initially explored the competencies needed for the development of this curriculum and used them to design the IPE courses.

Methods:

Five focus groups interviews were conducted with practicing healthcare professionals to explore their views on the necessary competencies for the development of the IPE curriculum. The interviews were audio-recorded, transcribed verbatim and analysed using thematic analysis. The emerged competencies were refined by comparing them with the competencies of international IPE frameworks and elements of these competencies (sub-domains) were identified. An IPE curriculum consisting of three courses that will span three professional years of each program was then developed to allow the students attain these competencies.

Results:

Three main IPE competencies were identified. These included communication, roles and responsibilities, and teamwork skills and leadership. These competencies aligned with those of several international IPE curricula. The identified competencies were used to guide selection of interactive teaching/learning activities to be used in the IPE courses such as guided discovery, e-learning, small group learning, role playing and simulated rounds, as well as proper assessment methods.

Conclusions:

A competency framework that is based on a local needs assessment and comparison with international IPE curricula formed the basis of the IPE curriculum. In turn, these competencies were used as a basis for the development of the IPE program and guided the selection of interactive learning activities and assessment methods that would foster students' acquisition of these competencies.

Key Words: Competency-based curriculum; Interprofessional education; Interprofessional

Poster Presentations

7

Tobacco-related Education in Schools of Pharmacy in the Middle East: a multinational cross-sectional studyElHajj M¹, Awaisu A¹, *Saleh R¹, *AL-Hamad N¹, Kheir A¹, Zeeny R², Fathelrahman A³¹ College of Pharmacy, Qatar University, Doha, Qatar; ² School of Pharmacy, Lebanese American University, Byblos, Lebanon; ³ College of Pharmacy, Qassim University, Buraidh, Saudi Arabia**Introduction:**

Lack of adequate tobacco-related content in pharmacy curricula can interfere with pharmacist's ability to provide tobacco cessation interventions. This study aims to determine the extent of tobacco-related content in pharmacy schools' curricula across the Middle East region, instructional methods used, perceived adequacy and importance of tobacco education, and barriers for inclusion of tobacco-related content in pharmacy curricula.

Methods:

A web-based survey was sent to 120 schools of pharmacy in 13 Middle Eastern countries. Key faculty members were identified and sent an e-mail with an online link to the survey. Data was descriptively analyzed using Statistical Package for Social Sciences version 22.

Results:

Of the 120 pharmacy schools contacted, 59 schools completed the survey (49.2% response rate). Of this, 44 (74.6%) reported including tobacco-related content in their undergraduate curricula. Nicotine pharmacology and principles of addiction (86.4%), pharmacologic aids for tobacco cessation (81.8%), and health effects of tobacco (81.8%) were the most commonly reported topics. The topics that were least covered were monitoring outcomes of tobacco cessation interventions (5.9%) and epidemiology of tobacco use (15.4%). The top barriers to inclusion of tobacco-related topics in the curriculum were lack of time (75.9%), lack of experiential training sites focusing on tobacco cessation interventions (72.2%), lack of faculty expertise (66.6%), and perceived lack of priority of tobacco related content in pharmacy schools (66%).

Conclusions:

The current findings suggest that more efforts should be geared towards increasing content for tobacco education in schools of pharmacy across the Middle East and towards overcoming the identified barriers.

Key Words: Tobacco; Pharmacy Education; Curriculum;

Poster Presentations

8

Pharmacy Education Unit: A future Vision for Innovative

Alhawassi TM, Orfali R, Alkofaidi H, Alburikan KA, Alruwais I, Alghamdi A.

¹ College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

Introduction:

Background and objectives: Pharmacy is one of the important fields in the delivery of health services where pharmacists are key health professionals who are equipped with knowledge of medications and pharmacy practice. With the innovation in all fields of medical education in general and pharmacy in particular, along with the need to enable the College of Pharmacy at King Saud University (KSU) to develop and update teaching methodologies, assessment, and training in order to serve future pharmacy students, the idea of creating a Pharmacy Education and Unit (PEU) has surfaced. PEU aims at amplifying the different innovative pharmacy education activities in order to successfully raise the quality of pharmacy education and simulation, contributing to the continuous improvement of the different pharmacy education programs, and continuing education programs for students and pharmacists. In addition, the unit will be supporting research conducted in the field of pharmacy education.

Methods:

Methods and unit's structure: PEU was developed at College of Pharmacy and led by the college's dean in addition to chairs of curriculum, exams, assessment and training committees. Other faculty members with experts in pharmacy education also part of PEU.

Results:

Discussion: The PEU together with other units in the College of Pharmacy will provide an oversight of the Doctor of Pharmacy and Bachelor of Pharmacy programs. Experiential education, and simulation are examples of innovative educating programs that need to be improved and achieved. Moreover, continuing education programs and pharmacy education research conducted by the unit to improve the faculty teaching and mentoring skills are considered lacking in the region where the PEU may act as the nucleus for future pharmacy education.

Conclusions:

Consequently, College of Pharmacy at KSU is putting all its efforts in achieving and pursuing its vision for better pharmacy education in all aspects of teaching methodologies, assessment, and training.

Key Words: Pharmacy Education Unit; Innovation; King Saud University;

Poster Presentations

9

The use of active learning strategies among faculty members in healthcare colleges in the Middle East

*AlRuthia Y¹, Alodaibi F², Alhawas S¹, Mansy W³, Alrabiah H¹, Balkhi B¹

¹Department of Clinical Pharmacy, Faculty of Pharmacy, King Saud University, Saudi Arabia; ²Department of Physiotherapy, Faculty of Applied Medical Sciences, King Saud University, Saudi Arabia; ³ Department of Medicinal Chemistry, Faculty of Pharmacy, King Saud University, Saudi Arabia.

Introduction:

Many studies have looked at the use of active learning strategies among faculty members in different healthcare colleges worldwide, however, very few have described the use of these strategies in the Middle East. The aim of this study was to describe the utilization of active learning strategies as well as the difficulties that hinder their use among faculty members in healthcare colleges in the Middle East.

Methods:

A web-based questionnaire was designed and sent to faculty members' institutional emails in multiple Middle Eastern countries to collect data on their sociodemographics, country where they teach, used active learning strategies and difficulties encountered in teaching using such strategies.

Results:

Five hundred and fifty eight faculty members from 13 Middle Eastern countries have participated in this survey in which the majority were male (57%) and from Saudi Arabia (59%). The respondents were from the colleges of pharmacy (28%), medicine (24%), applied medical sciences (19%), dentistry (14%), nursing (11%), and public health (4%). Most of the respondents reported using class discussions (88%), followed by small group discussions (63%), role playing (52%), learning by teaching (47%), collaborative learning groups (42%), reaction to a video (40%), online quizzes (37%), student debates (30%), class games (12%), and flipped classrooms (10%). Approximately 46% reported time constraints as the main reason behind not using active learning in some courses followed by lack of technical (42%) and administrative (25%) support.

Conclusions:

Although active learning strategies are very effective tools to advance healthcare education, many faculty members in the Middle East are still lagging behind their Western counterparts in the use of such strategies. Therefore, Middle Eastern healthcare education policymakers should incentivize the use of these strategies among their healthcare faculty members to improve the educational outcomes.

Key Words: Active learning; Healthcare; Middle East;

Poster Presentations

10

Introducing problem-based learning into a Canadian-accredited Middle Eastern educational setting

Wilby KJ¹, Nasr ZG¹

¹Clinical Pharmacy and Practice, College of Pharmacy, Qatar University, Qatar

Introduction:

Adaption of active learning strategies into new cultures and contexts requires careful consideration to maximize effectiveness and meet intended objectives. The aim of this study was to describe the adaption and implementation of problem-based learning (PBL) within a pharmacy curriculum in a Middle Eastern context.

Methods:

PBL was implemented into the curriculum at Qatar university in 2014 and expanded in subsequent years to include differing courses and contexts. The process was blueprinted to align with international accreditation standards. A SWOC (Strengths Weaknesses Opportunities Challenges) analysis was completed to identify cultural and contextual facilitators and barriers regarding implementation and achievement of target outcomes.

Results:

Strengths included novelty, enhancement of learning, engagement, and accreditation alignment. Weaknesses included student preparation and buy in, facilitation inconsistency, and logistical support. Opportunities included expansion, departmental support, timing, and congruency with practice skills. Challenges included student resistance, departmental engagement, assessment, expansion, and cultural norms in teaching and learning.

Conclusions:

PBL provided benefit but also presented many cultural and contextual challenges of adaption from Western settings. Future work should focus addressing these cultural factors, in order to promote effectiveness of PBL as an active learning strategy.

Key Words: Pharmacy; Education; Problem-based learning;

Poster Presentations

11

The Impact of Long-term Medicines Use: Validation of an Arabic version of the Living with Medicines Questionnaire

*Zidan A¹, Awaisu A¹, Kheir N¹¹College of Pharmacy, Qatar University, Doha, Qatar

Introduction:

Background: Polypharmacy (or the use of multiple medications at the same time by the same patient) could expose the patient to health risks and add an extra burden on the life of the patients. The Living with Medicines Questionnaire (LMQ) is a multidimensional instrument, developed in English, to assess the burden of medication use from the patient's perspective. Our study reports the psychometric properties (validity and reliability) of an Arabic version that we developed recently of the LMQ.

Methods:

An Arabic version of the LMQ was developed using guidelines developed by the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Psychometric properties of the Arabic version were tested among diabetic patients (with or without co-morbidities) attending Non-communicable Diseases (NCD) clinics in Qatar. Construct validity of the LMQ-Arabic version was evaluated by associating the overall LMQ score as well as the score of each of the eight domains with adherence, measured by the Adherence to Refills and Medications Scale (ARMS), and with medication global burden assessed by Visual Analogue Scale (VAS). Internal consistency of the LMQ domains was assessed using Cronbach's Alpha.

Results:

A total of 138 diabetic patients, from different nationalities, ages, and educational levels completed the LMQ. The domains of the Arabic LMQ showed acceptable internal consistency with Cronbach's alpha of 0.60 to 0.80. LMQ score was positively correlated with ARMS score ($r_s=0.400$, $P<0.0001$), and VAS ($r_s=0.335$, $P<0.0001$). Domains measuring practical difficulties, side effects, attitudes, impact of using medicines achieved moderate positive correlation with the scores of both ARMS and VAS ($P<0.005$). Control of varying regimen domain had negative correlation with ARMS ($r_s=-0.268$, $P<0.0001$), and VAS ($r_s=-0.225$, $P<0.0001$).

Conclusions:

The Arabic version of the LMQ is a reliable and valid instrument that can be used to assess medication burden among patients with chronic conditions in the Arabic context.

Key Words: Polypharmacy; Medication burden; Questionnaire validation;

Poster Presentations

12

Barriers to pharmacists counselling patients with diabetes in primary health care sector in Kuwait

*Eldeeb AM, Muir F, Waheedi M
University of Dundee, Scotland

Introduction:

Pharmacists play a vital role in the healthcare team by providing quality healthcare and pharmaceutical care to the public. Anecdotal evidence suggests pharmacists in primary care in Kuwait want to increase their visibility as a healthcare provider and improve cooperation with other healthcare providers. This research aims to explore the pharmacists' barriers to counselling patients with diabetes in the primary healthcare sector in capital health area in Kuwait and suggests solutions or strategies that could help improve the pharmacist's role in counselling these patients. A qualitative approach was carried out to explore the views of the participants to address the research questions. Three focus groups were conducted with 15 pharmacists in primary healthcare in capital health area in Kuwait. The results were triangulated with semi-structured interviews with 3 pharmacists' supervisors.

Methods:

A core category was uncovered from the analysis of the data that related to the participants' data. This core category was informed by four main themes that emerged from the focus groups: 1) pharmacist related barriers, 2) negative attitude towards the pharmacist's role, 3) organizational barriers, and 4) lack of government support.

Results:

Strategies or solutions identified by participants that could be achieved considering the barriers identified in this study were: 1) organize continuous training courses about diabetes and communication skills for pharmacists; 2) provide privileges, financial incentives, and moral support to pharmacists; 3) improve the pharmacists' communication skills with patients; 4) issue policies that regulate the relation between the pharmacist and the physician; 5) issue policies that organize the tasks inside the pharmacy to facilitate the workflow; 6) implement an appointment system for counselling, and 7) counsel the patient in private and comfortable area.

Conclusions:

In the light of the findings, it may be suitable to reduce the counselling barriers and promote an effective counselling system for patients with diabetes in the primary healthcare sector.

Key Words: Pharmacist counselling; Primary care; patient with diabetes counselling;

Poster Presentations

13

Knowledge and awareness of pharmacovigilance and adverse drug reactions (ADRs) among physicians in Kuwait*Al-Dhafeeri RR¹, Alsaleh FM¹, Abahussain EA¹, Lemay J², Bayoud T¹¹Department of Pharmacy Practice, Faculty of Pharmacy, Kuwait University, Kuwait; ²Department of Pharmacology and Therapeutics, Faculty of Pharmacy, Kuwait University, Kuwait**Introduction:**

Adverse drug reactions (ADRs) have been associated with major threats towards patients safety. Therefore, there is a need for a system to assess, detect and prevent these ADRs which is called pharmacovigilance. Due to the lack of data about the practice of ADRs reporting, this study was conducted to assess the knowledge, attitude and practice (KAP) of pharmacovigilance and ADRs reporting among physicians working in Governmental Hospitals in Kuwait.

Methods:

A descriptive, cross-sectional study was conducted using a questionnaire. A total of 653 questionnaires were distributed to physicians working in 7 Governmental Hospitals in Kuwait (Al-Amiri Hospital, Mubarak Al-Kabeer Hospital, Al-Farwaniyah Hospital, Al-Adan Hospital, Al-Jahra Hospital, Al-Sabah General Hospital and National Bank of Kuwait Children's Hospital). Descriptive statistics were carried out for data analysis.

Results:

The response rate was 84.2%. Physicians' awareness of pharmacovigilance was inadequate, however, they correctly identified the purpose of pharmacovigilance and the definition of ADRs. Most of the participants (n= 423, 76.9%) recognized the types of ADRs that should be reported and similarly the majority (n= 489, 88.9%) agreed that physicians are the most qualified healthcare professionals to report ADRs. However, the majority of physicians (71.4%) were unsure whether there is a center or system in Kuwait to report ADRs or not. The overall willingness of the physicians towards pharmacovigilance and reporting ADRs was good. The most reported factors for underreporting among physicians were lack of the effective communication between all healthcare professionals, lack of awareness of pharmacovigilance and the importance of ADRs reporting, lack of simple, standard forms for ADRs reporting and the poor managing systems.

Conclusions:

Results from the current study emphasized on the need for a standard ADRs reporting process, an effective educational intervention and the necessity to establish an independent center for ADRs reporting and monitoring in Kuwait.

Key Words: Adverse drug reactions; Awareness; Drug surveillance program;

Poster Presentations

14

Knowledge, Attitude and Practice toward Pharmacovigilance and Adverse Drug Reactions Reporting among Private Hospital Physicians in Kuwait.*AlAjmi SH ¹, Alsaleh FM ¹, Abahussain EA ¹, Lemay J ², Bayoud T¹¹Department of Pharmacy Practice, Faculty of Pharmacy, Kuwait University, Kuwait; ²Department of Pharmacology and Therapeutics, Faculty of Pharmacy, Kuwait University, Kuwait.**Introduction:**

Adverse drug reactions (ADRs) may not be detected until a very large number of patients have received the drug over long time periods. From this comes the importance of the science of pharmacovigilance (PV) which involves the detection, assessment, understanding and prevention of (ADRs) or any other drug related problems. This study aims to explore KAP of physicians, who work in the private hospitals in Kuwait, with regard to PV and ADRs reporting.

Methods:

A descriptive cross-sectional study was conducted using a questionnaire; 33 questions comprising closed- and open-ended questions. Physicians who work in private hospitals in Kuwait were invited to take part. The data were analyzed using the statistical package for social science (SPSS), version 23.

Results:

A total of 302 physicians (out of 364) agreed to take part, giving a response rate of 80.7%. The median age was 46 years (min 28, max 73). Although the majority identified the purpose of PV (75.2%) and the correct definition of ADRs (76%), less than half of physicians (48.7%) gave the correct response regarding the PV definition. The majority of physicians had good attitude regarding reporting ADRs, reflected by their agreement that that ADR reporting is necessary and it is a professional obligation and. Although the majority of physicians have identified at least one ADR incident during their practice, only minority (42.2%) did have reported it.

Conclusions:

Physicians in this study had mixed results regarding knowledge of PV and ADRs, however, they showed good attitude toward reporting ADRs. Underreporting of ADRs and poor knowledge about the existence of any reporting system in Kuwait were clearly evident and were reasoned by the lack of knowledge on where and how to reports any identified ADRs. This calls for the need to raise the awareness of physicians in Kuwait within this regard.

Key Words: KAP; PV; ADRs

Poster Presentations

15

Knowledge, Attitude and Practices of Pharmacovigilance and Adverse Drug Reaction Reporting among Pharmacists Working in Secondary and Tertiary Governmental Hospitals in Kuwait*Alzaid SW¹, AlSaleh FM¹, Abahussain EA¹¹Department of Pharmacy Practice, Faculty of Pharmacy, Kuwait University, Kuwait**Introduction:**

Background: Pharmacovigilance (PV) is essential to detect and prevent adverse drug reactions (ADR) after a drug is marketed. However, ADRs are significantly underreported worldwide.

Methods:

A descriptive cross-sectional study was conducted using a questionnaire. The questionnaire was devised following literature review of similar studies. All pharmacists working at Governmental Hospitals (general and specialized) in Kuwait were eligible to take part in the study. Descriptive statistics were used to analyze the data.

Results:

A total of 414 pharmacists were invited to take part in the study, of whom, 342 agreed to participate, giving a response rate of 82.6%. The majority of pharmacists were aware of the correct definition of PV (61.5%, n=209) and ADRs (72.6%, n=246). The pharmacists also had positive attitude towards PV and ADRs reporting and (88.6%, n=302) showed their willingness to implement ADRs reporting during their clinical practice. Despite the positive attitude, the actual practice of reporting was minimal (26.8%, n=91). The main reason for underreporting was “not knowing how to report” (68.9%, n=235). Many barriers were reported to hinder the establishment of a PV Center in Kuwait: lack of cooperation and communication by healthcare professionals and patients (n=62), lack of time and proper management (n=57), lack of awareness of staff and patients (n=48) and lack of qualified staff (n=35). Some pharmacists gave suggestions on how to enhance commitment in ADRs reporting, these were increasing awareness among healthcare professionals and patients about PV and initiate a PV Center as soon as possible.

Conclusions:

Pharmacists in Kuwait had good knowledge and positive attitude towards PV and ADRs reporting. However, the majority had never reported any identified ADRs. This suggests that the stakeholders should apply a well defined policy for ADRs reporting as an initial stage for later on development of an independent PV Center in Kuwait.

Key Words: Pharmacovigilance; Adverse drug reactions; Pharmacists;

Poster Presentations

16

The Influence of Reduced Paracetamol Doses on the Co-prescribing of Other Analgesics in ElderlyAfrah Aladwani¹, Helen Lindsay², Jenny Stirton², Alexander Mullen¹¹Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde; ²Glasgow Royal Infirmary, Greater Glasgow and Clyde**Introduction:**

There is an increase in reporting of unintentional paracetamol overdose resulting in acute liver failure. Consideration should be given to reducing the paracetamol dose in patients who are under 50kg in weight. However, it is unknown if reducing the paracetamol dose drives prescribing of other analgesics to control pain. This study compares post-operative analgesics between low-body weight and normal/over-body weight elderly patients.

Methods:

In a comparative study, 70 postoperative patients aged 65 years and over were recruited to different types of orthopaedic surgeries, and divided into two groups (≤ 50 kg or >50 kg). The number of patients ≤ 50 kg who had their paracetamol dose modified was recorded. Their subsequent pain scores, additional analgesic co-prescribed other and their side effects profiles to treatment were documented and compared to patients >50 kg who received four gram of daily paracetamol.

Results:

Morphine equivalent doses were significantly higher in patients >50 kg primarily because they had different type of orthopaedic surgeries that resulted in a higher severity rating of pain (p -value <0.05). Adding an NSAID to post-operative orthopaedic analgesia did not reduce the need of prescribing opioids (p -value is >0.05) in patients >50 kg. Despite the difference in opioid doses between the two groups; results did not show any statistical differences in the prevalence of opioid-related side effects such as constipation and itching between the two groups.

Conclusions:

Post-operative orthopaedic patients usually experience a moderate-severe pain during the first two days, which cannot be relieved by paracetamol alone. Pain perception rapidly de-escalated and with mild pain, a reduced paracetamol dose (2g/day) provided optimal pain control. The need for the co-prescribing of other analgesics or adversely impact upon the length of hospital stay is not significantly related to the paracetamol dose.

Key Words: Elderly; Paracetamol; Post-operative pain;

Poster Presentations

17

Evidence-based medicine use in pharmacy practice: a cross-sectional survey.

Abu Farha R, *Alefshat E, Suyagh M, Elayeh E, Mayyas A.

Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, University of Jordan, Amman, Jordan

Introduction:

This study aimed to evaluate the awareness, attitude, knowledge and use of evidence-based medicine (EBM) among pharmacists in Jordan.

Methods:

A cross-sectional self-reported survey was conducted on 122 pharmacists (both hospital and community) who were asked to fill a validated structured questionnaire.

Results:

The participants showed a positive attitude towards EBM; more than 80% thought that EBM improves patient care, improves quick knowledge update, helps to unify the quality of care provided, is a good educational tool and a convenient source of advice. But despite this positive attitude, pharmacists showed partial understanding of the technical terms used in EBM; also they relied on their own judgment, medical representatives and standard textbooks in making their decision, resources that can no longer be considered sufficiently updated and/or evidence based. Patient overload, lack of personal time and limited access to EBM sources were the most commonly identified barrier to practicing EBM. Also, this study suggest that pharmacist's experience is negatively associated with EBM knowledge score (Spearman's rho value -0.187, P-value 0.04).

Conclusions:

In spite of the positive attitude towards EBM, this study showed numerous personal and institutional barriers towards implementing EBM in Jordan, which necessitate immediate action by all health care decision makers to formulate a national plan to overcome such barriers, and to further investigate the evidence that teaching, learning and daily application of EBM in practice can improve the quality of care and reduce the cost.

Key Words: attitude, awareness; evidence-based medicine; knowledge; pharmacy;

Poster Presentations

18

A systematic meta-ethnographic review of the beneficial outcomes of international internships to student pharmacists

Peterson S¹, Paiva M², *Wilby KJ³

¹ Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, Canada; ² Sidra Medical & Research Center, Doha, Qatar; ³ College of Pharmacy, Qatar University, Doha, Qatar

Introduction:

Background. International opportunities for pharmacy students are becoming more frequent as the need for internships increases. These experiences typically occur in diverse world regions, such as Africa, the Middle East, and South America. It is currently unclear what benefits are gained from such experiences. The objective of this meta-ethnographic systematic review was to describe the benefits that pharmacy learners obtain by completing international internships (outside the country of the educational institution) as a part of their pharmacy education.

Methods:

A systematic literature search was completed up to May 2016. Internships or experiences occurring outside the student's home country were included. Articles were analyzed if any measure of outcome or impact on student learning was documented. Outcomes were not restricted to positive findings (i.e. benefits). A meta-ethnographic approach was used to translate and synthesize findings.

Results:

Ten articles were included in the review. Analysis of the reported outcomes produced nine distinct themes relating to student benefits: cultural awareness, collaboration, communication, clinical skills, knowledge, adaptability, compassion, confidence and personal growth. The most commonly reported themes were development of clinical skills and compassion, each being reported in 7/10 articles. All themes were identified in at least 3 articles. No negative outcomes were reported in any article.

Conclusions:

Pharmacy students experienced multiple beneficial outcomes that align with program competencies. International experiences are also likely to promote student personal growth and development outside of designed learning activities.

Key Words: Experiential Training; Internship; Pharmacy

Poster Presentations

19

Knowledge, Attitude and Opinion of Drug Misuse and Abuse by Pharmacy Students: A Cross-Sectional Study in Jordan

*Deema Jaber, Nailya Bulatova, Maysa Suyagh, Al-Motassem Yousef, Mayyada Wazaify
Department of Biopharmaceutics and Clinical Pharmacy, School of Pharmacy, University of Jordan, Amman,
Jordan

Introduction:

Background and Objectives: Inappropriate use of drugs of all kinds and by different age groups is a growing public health problem worldwide. The main objective of this study is to assess the knowledge, attitude and opinion of final-year undergraduate and postgraduate pharmacy students regarding inappropriate drug use in a university campus, Amman, Jordan.

Methods:

A cross-sectional survey using a self-completed validated anonymous questionnaire that consisted of two parts was adopted. The first part of the questionnaire pertained to respondents' demographic details, education level and any experience they might have had with drug misuse or abuse. The second part described students' knowledge, attitude and practice regarding the identification, prevention and management of drug misuse and abuse.

Results:

A total number of 198 pharmacy students filled the questionnaire (N = 131 undergraduate, and N = 67 postgraduate students). A majority of the students strongly agreed/agreed that all pharmacy staff must be trained on recognizing drug abusers (92.0 %), informed of the kinds of drugs abused in the local area of the pharmacy (93.4 %) and trained on methods of dealing with drug abusers (92.6 %).

Conclusions:

There is a need to implement a well-structured training on the identification, prevention and management of prescription and OTC drug misuse and abuse in undergraduate pharmacy curricula in Jordan. Modules should be updated regularly and tailored to meet the needs of pharmacy practice.

Key Words: Drug abuse and misuse; Knowledge; Pharmacy curriculum;

Poster Presentations

20

Students' perceptions towards the implementation of active learning methods in a Therapeutics course

Almaghaslah DA

Department of Clinical Pharmacy, College of Pharmacy, King Khalid University.

Introduction:

Background: The traditional lecture-based method has been predominant in the College of Pharmacy at King Khalid University (KKU) classrooms. Pharmacy graduates had not being exposed to active learning methods. These active learning techniques were found to be critical in developing the essential skills required for pharmacy graduates. These skills include the following: problem-solving, critical thinking, patient counselling, self-directed learning, leadership, and teamwork.

Objectives: To evaluate students' perceptions towards the implementation of and participation in role-playing face- to – face patient counselling method in order to promote patient counseling skills, teamwork skills, and communication skills in therapeutics course. To assess students' views on the implementation of problem-based learning method to improve decision-making skills, problem solving skills, teamwork skills, leadership skills and critical thinking in therapeutics course. To assess students' perspectives on using games for developing critical thinking skills, teamwork skills, and communication skills. To evaluate students' views on the implementation of flipped classroom method. Also, to assess whether this method promoted the development of self-directed learning skills and self-evaluation skills.

Methods:

Study design: prospective qualitative study Setting: Therapeutics -4 course, Clinical Pharmacy Department, College of Pharmacy, KKU. Study population: level 10 students who are enrolled in therapeutics 4 course. Interventions: active learning methods such as flipped classroom, problem-based learning, patient counselling through role-playing, group discussions, and games. Sampling method: purposive sampling. Data collection tool: focus groups. Data analysis methods: thematic analysis. The study was conducted in two phases:

Phase I (field work) Field work, where students were exposed to the different active learning methods.

Phase II (feedback) Students were interviewed through conducting focus groups, to assess their preference for each learning method.

Results & Conclusions:

Phase I of the study was successfully completed during the second term of 2016. Students showed general preference for active learning methods. They suggested implementing these methods to other therapeutic courses.

Key Words: Pharmacy education; Active learning; Students perceptions;

Poster Presentations

21

Describing student performance: a comparison between clinical preceptors across cultural contexts

*Wilbur K, Mahmoud O, Hassaballa N
College of Pharmacy, Qatar University, Doha, Qatar

Introduction:

Background: Health professional student evaluation during experiential training is notably subjective and assessor judgments may be affected by socio-cultural influences. Understanding how perceptions of student performance may vary in different countries is essential quality assurance for programs transplanted or sharing curriculums, such as those CCAPP-accredited internationally. We sought to explore how clinical preceptors in pharmacy conceptualize varying levels of student performance and what contextual differences may exist across different countries.

Methods:

The qualitative research design employed semi-structured interviews. A sample of twenty clinical preceptors for post-baccalaureate Doctor of Pharmacy programs in Canada and the Middle East gave personal accounts of students they supervised who fell below, met, or exceeded their expectations. Discussions were analyzed following constructivist grounded theory principles.

Results:

Seven major themes encompassing how clinical pharmacy preceptors categorize levels of student performance and behaviour were identified: knowledge; team interaction; motivation; skills; patient care; communication; and professionalism. Expectations were outlined using both positive and negative descriptions. Pharmacists typically described supervisory experiences representing a series of these categories, but arrived at concluding judgments in a holistic fashion; if valued traits of motivation and positive attitude were present, overall favourable impressions of a student could be maintained despite few observed deficiencies. Some prioritized dimensions could not be mapped to defined existing educational outcomes. We found no difference in thresholds for how student performance was distinguished by participants in the two regions.

Conclusions:

Doctor of Pharmacy preceptor experiences, values, and subsequent interpretations of student performance and behavior were largely consistent among Canadian and Middle East clinical pharmacists we interviewed. Our research findings are congruent with current literature related to the subjectivity of health professional student assessment by clinical supervisors during experiential training and the first to grant insight into cross-national perspectives. As previously determined in social work and medicine, study of how evaluation instruments and associated processes can integrate these judgements should also be pursued in pharmacy.

Key Words: cross cultural medical education; experiential learning; workplace-based

Poster Presentations

22

How does faculty development influence the quality of in-training evaluation reports in pharmacy?

Wilbur K

College of Pharmacy, Qatar University, Doha, Qatar

Introduction:

Background: The Canadian-accredited College of Pharmacy at Qatar University offers a post-baccalaureate Doctor of Pharmacy (PharmD) degree whose curriculum includes 32-weeks of experiential training. Internship evaluations are completed by practice-based supervisors and consist of a rating scale accompanied by written comments. Quality narrative feedback is an important assessment component to guide support for student learning progress.

Methods:

We adopted the Completed Clinical Evaluation Reporting Rating (CCERR) instrument originally developed for assessment of the quality of written clinical internship evaluations reports (ITERS) of medical students. Evaluations were characterized according to nine items, each rated on 5-point scale where a score of 1 is described as “not at all”; 3 as “acceptable”; and 5 as “exemplary”. A random sample (30%) of ITERS stratified across the first four program years (2010-2014) were blinded and scored by 2 independent raters group (control 1). Following a professional development workshop in 2015-2016, subsequent ITERS completed by participants (intervention) were compared with a random sample of those submitted by non-participants (control 2) and the retrospective baseline group.

Results:

Fifty-four ITERS were reviewed in control group 1. Overall ability to clearly understand the student’s performance on the internship was rated acceptable for 37 (68.5%). Mean item CCERR scores were below acceptable for 5 of the 9 items, and the aggregate CCERR score was 37.9+8.21. Nine pharmacists participated in the faculty development workshop and 10 ITERS subsequently reviewed with 14 ITERS of non-participants and mean item CCERR scores were below acceptable for 7 and 6 of the 9 items, respectively. While there was no difference in aggregate CCERR scores between intervention (22.9+3.4) and control 2 groups (22.7+3.6), both were significantly lower than control 1 ($p<0.0001$)

Conclusions:

A faculty development workshop did not improve the quality of written internship reports in our pharmacy program, as measured by the CCERR tool. Exploration of how ITER quality may be otherwise identified, such as the quality of verbal student feedback not documented on the ITERS, is warranted.

Key Words: faculty development; experiential learning; workplace-based assessment;

Poster Presentations

23

Evaluating global communication in a structured educational module: A comparison of student self-assessments with trained faculty and standardized patient assessments

*Pawluk SA, Zolezzi M, Rainkie D

Department of Clinical Pharmacy and Practice, College of Pharmacy, Qatar University,

Introduction:

Skills of effective communication can be improved with education, practice, assessment and response to feedback. This study assessed the reliability of first year pharmacy student assessments completed by faculty members in comparison with a standardized patient (SP), and student self-assessments during a structured educational module on communication.

Methods:

Pharmacy students completed four stations focused on communication with an SP. During each encounter, students completed a self-assessment and were evaluated by a faculty member and a trained SP. A five point Likert scale was used to evaluate student performance. Faculty assessments were compared against all others. A Pearson correlation coefficient for total scores was used and a Cohen's kappa was used to compare inter-rater reliability. Agreement and correlation was performed with student results categorized into poor, adequate and exceptional performance based on faculty evaluation.

Results:

24 students took part in the study. In all stations, student self-assessments were graded higher than corresponding faculty and SP assessments. Agreement between faculty, SP and self-assessment was fair to slight ($k < 0.4$) for all comparisons but only significant ($p < 0.05$) between the faculty and self-assessment. After categorization, there was a small, non-significant correlation between faculty and self-assessment ($r = 0.13$, $p = 0.21$) and moderate and significant correlation between faculty and SP ($r = 0.32$, $p = 0.001$). Categorized inter-rater agreement was fair for all comparisons ($k < 0.2$) and only significant ($p < 0.05$) between faculty and SP assessment.

Conclusions:

There is high incongruity between student self-assessment and faculty appraisal. With appropriate training, evaluations made by SPs may provide relevant feedback for students. Further instruction for students and reflection is required to build understanding of global assessment in communication.

Key Words: Assessment; Communication; Standardized Patient;

Poster Presentations

24

Patients' Willingness and Impacting Factors to Receive Vaccination in Community Pharmacies in Saudi Arabia: A Qualitative Study

Alqahtani SK, Balkhi BS, Alrasheed MM, Mahmoud MA, Alhawassi TM.

College of Pharmacy, King Saud University, Riyadh, Saudi Arabia; Medication Safety Research Chair, King Saud University, Riyadh, Saudi Arabia.

Introduction:

Vaccinations significantly contribute to individuals' good health and longer survival. However, adults' immunization rates globally including Saudi Arabia are considered below the expected target levels. In Saudi Arabia, approximately 12,506 registered pharmacists are working in more than 7000 pharmacies working in 7500 community pharmacies. Community pharmacists are in a unique place and appealing alternative for providing vaccination services to the community. Implementation of community pharmacy vaccination service may create an upsurge in the number of people vaccinated and a consequent reduction in vaccine-preventable infectious diseases. Future research on the feasibility and attainability of providing vaccination service to society through community pharmacists in Saudi Arabia is necessary. Objective: To assess patients' willingness to receive vaccination through community pharmacies and to identify factors associated with administering vaccines in a community pharmacy setting.

Methods:

A semi-structured interview using a purposefully designed questionnaire was carried out at a large teaching hospital in Saudi Arabia.

Results:

16 participants aged 18 to 54 years were interviewed (saturation was reached). The majority of participants encourage implementing vaccination through community pharmacy since it will save their time, as many offerings extended opening hours and they are accessible without an appointment. Participants indicated that the community pharmacy immunization based service would increase the immunization level as well. Most common identified barriers to using this service were: worries about the privacy of the area; pharmacists' skills and qualification to provide vaccine; and the presence of clear regulations and policy for such service.

Conclusions:

This study assessed patient's willingness, the encouraging factor and the barriers to receiving the vaccine among adults in a community pharmacy. It has been demonstrated that implementing of such service is commanded by patients. While several barriers were identified, yet encouraging factors identified by patients worth any further research that can explore the implementation of this service is warranted.

Key Words: Community Pharmacy; Vaccine services; Saudi Arabia;



Author Index



Author Index

Abahussain EA 1, 3, 5, 13, 14, 15	Al-Motassem Yousef 19	ElHajj M 7	Nasr ZG 10
Abdul-Hamid M 4	Al-Mutairi M 3	Fathelrahman A 7	Novotny L 4
Abu Farha R 17	Alodaibi F 9	Hassaballa N 21	Orabi K 4
Afrah Aladwani 16	Alrabiah H 9	Helen Lindsay 16	Orfali R 8
Al Tannak N 4	AlRuthia Y 9	Jenny Stirton 16	Paiva M 18
AlAjmi SH 14	Alruwais I 8	Katoue MG 6	Pawluk SA 23
Alburikan KA 8	AlSaleh F 1, 3	Kheir A 7	Peterson S 18
Al-Dhafeeri RR 13	Alsaleh FM 13, 14, 15	Kheir N 11	Phillips O 4
Alefishat E 17	AlSharqawi S 5	Lemay J 1, 3, 5, 13, 14	Rainkie D 23
Alexander Mullen 16	Alzaid SW 15	Luqmani Y 4	Rassafiani M 6
AlGhaihab AA 2	Awaisu A 7, 11	Mahmoud O 21	Saleh R 7
Alghamdi A 8	Baghdady M 6	Mancy WH 2	Suyagh M 17
AL-Hamad N 7	Balkhi B 9	Mansy W 9	Waheedi M 5, 12
Al-Hasawi N 4	Bayoud T 1, 3, 5, 13, 14	Maysa Suyagh 19	Wilbur K 21, 22
Alhawas S 9,	Bouzubar F 6	Mayyada Wazaify 19	Wilby KJ 10, 18
Alhawassi TM 8	Buresli L 1	Mayyas A 17	Zeeny R 7
Al-Jafar E 6	Deema Jaber 19	Moreau P 6	Zidan A 11
Alkofaidi H 8	Elayeh E 17	Muir F 12	Zolezzi M 23
Almaghaslah DA 20	Eldeeb AM 12	Nailya Bulatova 19	

Keyword Index

- Active learning 9, 20
 ADRs 14
 Adverse drug reactions 1, 3, 13, 15
 Assessment 23
 Attitude 17
 Awareness 13, 17
 Belief 3,5
 BPharm program 4
 Community Pharmacy 24
 Chronic disease 5
 Communication 23
 Competency-based curriculum 6
 cross cultural medical education 21
 Curriculum 7
 drug 2
 Drug abuse and misuse 19
 Drug surveillance program 13
 Education 10
 Elderly 16
 Evidence-based medicine 17
 Experiential learning 21, 22
 Experiential Training 18
 Faculty development 22
 Healthcare 9
 Innovation 8
 Internship 18
 Interprofessional collaborative practice 6
 Interprofessional education 6
 KAP 14
 King Saud University 8
 Knowledge 19
 Knowledge, attitudes and practices 1, 17
 Pharmacy 17
 Medication adherence 5
 Medication burden 11
 Middle East 9
 Paracetamol 16
 Patient with diabetes counselling 12
 Pharmaceutical Chemistry 4
 Pharmacist counselling, 12
 Pharmacist knowledge, practices 3
 Pharmacists 15
 Pharmacovigilance 1, 3, 15
 Pharmacy 2, 10, 18
 Pharmacy curriculum 19
 Pharmacy Education 7, 20
 Pharmacy Education Unit 8
 Polypharmacy 11
 Post-operative pain 16
 Primary care 12
 Problem-based learning 10, PV 14
 Questionnaire validation 11
 Standardized Patient 23
 Students 2
 Students' perceptions 20
 Students' performance 4
 Saudi Arabia 24
 Tobacco 7
 Vaccine services 24
 Workplace-based assessment 21, 22

Participants & Acknowledgements

Major Sponsors

- *Kuwait University*
- *The Kuwait Foundation for the Advancement of Sciences*

Gold Sponsor

- *Ali Abdulwahab Al Mutawa*
- *Safwan Co*

Bronze Sponsor

- *LSA*
- *Al Essa Co*

The Organising Committee would like to thank the following for their support

- Centre for Research Support and Conferences, Vice Dean Research Office, Faculty of Medicine
- Administration of Faculty of Pharmacy
- Administration of Faculty of Medicine

Special thanks to the following staff for their contribution

- Mrs. Teena Sadan
- Ms. Shaima Abdel Magid
- Mr. Waleed Abduh
- Mrs. Abhaya Krishnan
- Mrs. Mariam Al-Najadah

Accreditation & Endorsement

CME/CEPD Credits ***KIPC 2017***

Registration Number: **000501/MED5/Feb17**

Title of Activity: 6th Kuwait International Pharmacy Conference

Scheduling: February 1-3, 2015

CME Organizer: Dr. Jamshaid Iqbal

CME/CPD Credits: **10 Credits, Category 1**

Major Sponsors



Kuwait University



Introduction and Background

Kuwait Foundation for the Advancement of Sciences (KFAS) has a 40 year history of supporting the advancement of science and technology in Kuwait. In 1976, a visionary call by the late Amir of Kuwait, Sheikh Jaber Al- Ahmad Al-Jaber Al-Sabah, then Crown Prince and Prime Minister of Kuwait, was favourably embraced by the Chamber of Commerce and leaders of the economic sector in the country. It resulted in the establishment of the Kuwait Foundation for the Advancement of Sciences by an Amiri Decree on 12th December 1976; stating its mandate as a private non-profit organization devoted to supporting scientific research today. The Foundation's work is overseen by a Board of Directors, chaired by H.H. the Amir, Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah. It is financially supported by Kuwaiti private sector companies who have made generous contributions throughout the years, the contribution is currently set at 1% of their net annual profit.

One of the foremost goals of KFAS is to promote scientific development in the State of Kuwait by supporting scientific projects, the scientific community, and the country's scientific infrastructure.

While much has been accomplished by KFAS and related scientific institutions in Kuwait, there is much still to be sought after. The State of Kuwait has grown rapidly in terms of population and economy, the latter as a result of steadily increasing oil revenues. Today, the public sector accounts for more than 70% of the GDP and employs more than 85% of the national workforce. The consensus among the majority of stakeholders is that this growth is not structurally sustainable in the long run and that alternative national development strategies, based on building a complimentary, efficient and competitive private sector economy, are urgently needed.

Recognizing this need, H.H. the Amir of Kuwait, Sheikh Sabah Al-Ahmad Al Jaber Al-Sabah, commissioned in 2007 a "blue-ribbon panel"; the Kuwait Research Review Panel (KRRP), which

was tasked to review the organization and the performance of Research and Development and make recommendations for restructuring and advancing Science, Technology and Innovation (STI) in Kuwait.

The panel presented a number of recommendations aimed at strengthening the overall STI system and culture throughout Kuwait, i.e. improving the capabilities and in some cases redirecting the activities of several STI institutions including KFAS, Kuwait University (KU), Kuwait Institute for Scientific Research (KISR), Public Authority for Applied Education and Training (PAAET), National Technology Enterprises Company (NTEC), and the Kuwait Science Club (KSC).

Recognizing its unique role within the national STI system in Kuwait and responding to the recommendations in the panel's report, KFAS conducted an extensive assessment of its historical performance by benchmarking itself against similar institutions in the region and on a global level. KFAS consulted with representatives from its key stakeholders and worked closely with recognized leading international and domestic experts in Research and Development (R&D), policy, and STI evaluation to support this assessment.

Based on the KRRP's recommendations and external assessment and findings in 2009, KFAS management embarked on developing a new strategic plan that would help meet the future needs of Kuwait's STI system. The preparatory steps were carefully designed.

The first step was the evaluation of current situation (status quo), followed by numerous steps like the determination of the basic requisites, identification of the targeted sectors, revision of vision and mission, defining the primary goals of the strategy and the expected results. An examination of the on-going and proposed programs and activities were then made.

Problem and solution trees for each program were carefully prepared and analysed, and the institutional requirements and arrangements to achieve the goals of the strategic plan were identified. The last step was to come up with a set of key performance indicators to measure the degree of success over the years at all levels.

KFAS Strategy (2012 – 2016)

The strategy is a result of intensive consultation through numerous meetings lead by the management team at KFAS and its centers. It reflects the latest thinking on the STI needs of Kuwait, the proper role of KFAS and its centers in meeting part of those needs, and a more systematic approach to formulating and selecting programs for KFAS funding.

KFAS programs in the strategy are directed towards contributing tangibly to the development of an effective STI system and culture in Kuwait.

In addition to supporting R&D capacity and activities in priority fields, such as water, energy, the environment, and the development and the dissemination of STI culture, the plan puts further emphasis on STI capacity building of the private sector and strengthening of innovation system.

Vision:

“An Effective Science, Technology and Innovation System and Culture, to which KFAS has contributed, that underpins the sustainable development of the State of Kuwait”

This vision statement reflects several important concepts based on the Foundation’s past experience and current philosophy. It is nationally-focused and draws on valuable resources to successfully position Kuwait to compete in a knowledge-based economy in the future.

Mission:

Stimulate, support, and invest in initiatives and human resources that contribute to the building of a strong STI system and culture and fostering an enabling environment. The initiatives include improving public understanding of science; strengthening innovation and research capacity and enhancing the enabling cultural environment; supporting the gifted and talented; translating knowledge into innovation; and encouraging private technology capabilities.

This mission statement defines KFAS' role and ambitions driving the strategy outlined below. It primarily redefines KFAS as a funding institution. Given its modest annual resources, when compared to the overall STI funding by public institutions at the national level; KFAS will need to effectively leverage its targeted investments and efficiently execute its role as a catalyst to achieve its goals.

Strategic Thrust Areas

In developing the strategy, four thrust areas were identified. They address the development and human resource needs of the Science, Technology and Innovation System by leveraging the resources of KFAS and other stakeholders. Distribution of KFAS' available resources was given great consideration to ensure maximum impact.

Strategic Thrust 1 – Advocacy of Scientific Culture:

Contribute to the development of a strong advocacy for science including science education, support the gifted and talented, and to help advance scientific culture and the enabling environment in Kuwait

Strategic Thrust 2 – Scientific Research:

Enhance and integrate Research and Development capacity in and among Kuwaiti Scientific Institutions to address national development priorities

Strategic Thrust 3 – Innovation in Science and Technology:

Support innovation and assist in developing the required links to commercialization within a framework of an integrated Science, Technology and Innovation (STI) system

Strategic Thrust 4 – Innovation and Enterprise:

Supporting the development of the Private Sector's scientific and technological capacities and participate in building a knowledge economy



شركة علي عبدالوهاب المطوع

التجارية ش.م.ك.م.

ALI ABDULWAHAB AL MUTAWA
COMMERCIAL CO. K.S.C.C.

AAW Pharmaceuticals

A Kuwait Legacy



Ali Abdulwahab Al Mutawa Commercial Co. (AAW) is one of the leading and largest trading and commercial companies in Kuwait. Our 100 year legacy has allowed us to institute 24 pharmacy branches in the nation with our products being available in every supermarket and household in Kuwait.

AAW's pharmaceuticals portfolio is impressive. We are the agent and distributor for global pharmaceutical companies such as Roche, Takeda & Amgen, and for skin & beauty products like Bioderma, Nuxe, Caudalie & Bio-Oil. We also distribute medical equipment brands such as Biotronik and Mavig, as well as many more brands in each respected field.

AAW has a distinct advantages in Kuwait and the Middle East region because of our strong regulatory compliance, assertiveness and polished communication skills with region specificity, our strict upholding of confidentiality for all our business partners, and our leading experience, analytical frame of mind and ability to evaluate the strengths and weaknesses of technical and legal options open to any company.

AAW is the strongest choice for any pharmaceutical company interested in expanding in the Middle East region. We are fully committed to bringing your brand into the market with professionalism, exceptionalism and commitment.

www.aaw.com

 AL Mutawa Pharmacies

 @almutawapharmacies

إحتياجاتك على بعد مكالمة هاتفية!
Your needs are a phone call away!

1800 229



شركة علي عبدالوهاب المطوع
التجارية ش.م.ك.م.
ALI ABDULWAHAB AL MUTAWA
COMMERCIAL CO. K.S.C.C.

هل لديك سؤال عن علاج أو دواء؟

إسألنا! لنصائح صحية
و استفسر عن خدماتنا المجانية

1800 229

MEDICATION OR TREATMENT QUESTIONS?

ASK US! for health advice &
check our FREE Services


صيدليات المطوع
Al-Mutawa Pharmacies

www.aaw.com



شركة علي عبدالوهاب المطوع
التجارية
ALJ ABDULWAHAB AL MUTAWA
COMMERCIAL CO. K.S.C.C.

 AL Mutawa Pharmacies

 @almutawapharmacies

S A F W A N®
TRADING & CONT. CO. KSC



مؤسسة الكويت للتقدم العلمي
Kuwait Foundation for the Advancement of Sciences

Sponsors



شركة علي عبد الوهاب المطوع
التجارية
ALI ABDULWAHAB AL MUTAWA
COMMERCIAL CO. K.S.C.C.

SAFWAN[®]
TRADING & CONT. CO. K.S.C.

LSA | LIFE
SCIENCES
ACADEMY
أكاديمية العلوم الحياتية



AL ESSA
Group



KIPC 2017 Organizing Committee,
Faculty of Pharmacy, Kuwait University
www.KIPC2017.net; Tel: +965 24636418 / +965 24636494
Email: KIPC2017@ku.edu.kw