Transforming Pharmaceutical Care in the Gulf

Nadir M Kheir, PhD MPS FNZCP
Associate Professor & Coordinator of Continuing Professional Pharmacy Development
College of Pharmacy, Qatar University, Doha, Qatar

Disclaimer:
PRESENTING AUTHOR HAS NO RELATIONSHIPS TO DISCLOSE
The Status of Pharmacy Practice in the Gulf

- Hospital Pharmacy
- Community Pharmacy


INTERNATIONAL PHARMACY EDUCATION SUPPLEMENT

Pharmacy Education and Practice in 13 Middle Eastern Countries

Nadir Kheir, PhD, a Manal Zaidan, BSc (Pharm), b Husam Younes, PhD, a Maguy El Hajj, PharmD, a Kerry Wilbur PharmD, a and Peter J. Jewesson, PhD a

aCollege of Pharmacy, Qatar University, Doha
bPharmacy Department, Al Amal Cancer Centre, Doha, Qatar

The Arab world has influenced the art and science of pharmacy for centuries. Pharmacy education and practice is continuing to evolve in the Arabic-speaking traditional Middle East countries, although relatively little information has been published in the English press. Our goal was to provide a high-level synopsis of conditions in this region.

We selected 13 countries for review. Information was obtained by reviewing the available published literature and individual university and program web sites, as well as contacting program or country representatives. Seventy-eight active pharmacy schools in 12 countries were identified. At least 14,000 students (over 75% from Egypt) are admitted into baccalaureate degree programs every year. The 5-year baccalaureate degree remains the first professional degree to practice.

While changes in pharmacy education have been relatively rapid over the past decade, the advancement of pharmacy practice, particularly in the private sector, appears to be slower. Hospital pharmacists often possess an advanced degree and tend to have a higher level of practice compared to that of community pharmacists. Despite the adversities that face academics and practitioners alike, there is a strong desire to advance the science and practice of pharmacy in the Middle East.

Keywords: pharmacy education, Middle East
In many respects, pharmacy education and practice in the Middle East is a mirror of the status of the region itself. Some countries are quite stable and pharmacy as an academic discipline has enjoyed growth and maturation that resembles that in other parts of the world. In contrast, in those Middle East countries burdened by war, military occupation, and/or a poor economy, pharmacy academics has stalled or even regressed. Advancements in pharmacy practice lag behind the improvements to pharmacy education in this region, and the overall level of services provided is low, particularly in the community sector.
Drug regulations vary by country within this region, as does adherence and enforcement to these regulations. All countries have prescription and nonprescription drugs, however, the characteristics differ by country. In general, more products are available without a prescription in the Middle East region than in the western world. With these “relaxed” regulations comes a greater responsibility for community pharmacists to function in a “triage” role to ensure safe and effective medication use, and to ensure patients seek medical attention when appropriate. The extent to which pharmacists are meeting these responsibilities is unknown and beyond the scope of this paper.
Points of Agreement in the Hilton Head Conference (1985):

1. Pharmacy is the profession concerned with drugs and their application
2. The purpose of the profession is to serve the society by being responsible about the safe and appropriate drug use
3. A main goal of pharmacy is to promote health
4. Pharmacists should promoting rational drug use and not to only react to treatment decisions made by others
Dr. Charles Douglas Hepler

- Principal Investigator of the Therapeutic Outcomes Monitoring Project (TOM Project), which developed a practical system for pharmaceutical care in community pharmacy.
- He was co-recipient of the 1997 Remington Medal, the highest award in pharmacy.
- In 1997, he also received the ASHP award for Sustained Contributions to the Literature of Pharmacy Practice in Health Systems and the FIP Pharmaceutical Practitioner of the Year.
- He, along with co-authors, received the 1999 best published paper award for the ESAS section of APhA
Dr. Linda Strand

- Dr. Strand received her Bachelor of Science Degree, Doctor of Pharmacy Degree and Doctor of Philosophy Degree in Pharmacy Administration from the University of Minnesota. In 1990 her work was integrated with the work of Dr. Charles D. Hepler in the landmark paper entitled “Opportunities and Responsibilities in Pharmaceutical Care.” Dr. Strand and Dr. Hepler received the Remington Medal in 1997 from the American Pharmacists Association.

- Dr. Strand presently holds the position of Distinguished Professor in the College of Pharmacy at the University of Minnesota in Minneapolis, Minnesota.
The Mission of Pharmacy Practice

To help patients make the best use of their medicines


This mission is facilitated only by providing Pharmaceutical care
Pharmaceutical Care Defined

Hepler & Strand (1990)
[The Responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient’s quality of life]

Cipolle, Strand, Morley (1998)
[PC is a patient-centered practice in which the practitioner assumes responsibility for a patient’s drug-related needs and is held accountable for this commitment]
A Need for a New Pharmacy Practice?

- Factors forcing change in healthcare: national, & international
- A need to re-focus, re-evaluate, re-define roles
- Traditional outcomes of care changed: from quality of care, cost, and access, to clinical, economical, humanistic outcomes
- Optimum healthcare outcomes hampered by problems associated with drug therapy
A Need for a New Pharmacy Practice?

- The incidence of DRMM should lead to dramatic changes in the way pharmacy was practiced
- Literature on preventable DRMM justify new mandate
- Pharmacists are responsible for the patient
- Change of Focus required (from superficial tasks to addressing DRMM)
- Pharmaceutical Care is key

Contribution of DRP to Drainage of Healthcare Resources

- Patients given sub-optimal therapy (inadequate dose, regimen, or form) leading to TF & inappropriate therapy
- Drug interactions, therapeutic duplication etc are commonplace
- Up to 40% of hospital admission due to DRPs
- Non-compliance with therapy estimated to be in 50% of cases

SCH Qatar Community Pharmacy (CP) Strategy—NHS Project 1.6
<table>
<thead>
<tr>
<th>Article</th>
<th>Issue</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>“The license shall be valid for one year, to be renewed annually…”</td>
<td>Re-licensure: Attend the Continuing Pharmacy Education program as prescribed by the Designated Department; 10–15 hours of CPPD credits every year and renewal every 12 years</td>
</tr>
<tr>
<td>7</td>
<td>“…a pharmacist may not combine between the pharmacy profession and the profession of medicine”</td>
<td>Include language: “it is not considered practicing medicine in such cases where a pharmacist provides pharmaceutical care including monitoring and care planning, conducting health and wellness programs, screening for diseases, medication management services, patient counseling on drug therapy, teaching the use of drug delivery technologies and self-monitoring devices, advising on self care, first aid, or any such services that are considered central to good pharmacy practice.”</td>
</tr>
</tbody>
</table>
Recommendation 2: Provide input into and promote policies and standards that ensure privacy and confidentiality of patient information

<table>
<thead>
<tr>
<th>Activities</th>
<th>Indicators</th>
<th>Responsible Parties</th>
<th>Institutional Readiness</th>
</tr>
</thead>
</table>
| • Develop a manual of standards, codes, technologies and specifications to govern the physical infrastructure setup and IT environment in community pharmacies | • Laws, policies, standards and controls that ensure privacy and confidentiality of patient information developed | • SCH Pharmacy & Drug Control Department  
• SCH IT Department  
• Ministry of Information and Communication Technology (ictQatar)  
• Ministry of Interior | • Knowledge of patient medical record security, privacy and confidentiality requirements  
• Knowledge of existing data protection laws and regulations  
• Expertise in Information Security Management |
| • Work closely with ictQatar, MoI and other regulatory bodies to develop an IT architecture, standards and security policies governing health data exchange | • Manual of architecture, standards, policies, codes, technologies and specifications developed |                                                                     |                                                                                         |
| • Develop an Information Security Management System to provide the operational guidelines for security management | • ISMS developed and instantiated |                                                                     |                                                                                         |
### Recommendation 3: Develop a Unified and Enhanced National Medications Registry

<table>
<thead>
<tr>
<th>Activities</th>
<th>Indicators</th>
<th>Responsible Parties</th>
<th>Institutional Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develop an enhanced list of private sector medications for Qatar</td>
<td>• Enhanced list of private sector medications developed</td>
<td>• SCH Pharmacy &amp; Drug Control Department</td>
<td>• Knowledge of medication safety and effectiveness</td>
</tr>
<tr>
<td>• Establish a Joint Medications Registration Committee</td>
<td>• Joint Medications Registration Committee established</td>
<td>• SCH Permanent Registration Committee</td>
<td>• Pharmacy Benefit Management expertise</td>
</tr>
<tr>
<td>• Standardize processes and criteria for registration of medications in Qatar</td>
<td>• Processes and criteria for registration standardized</td>
<td>• HMC Therapeutics and Drug Control Committee</td>
<td></td>
</tr>
<tr>
<td>• Clearly define and limit exceptions to the general registration process</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recommendation 5: Establish a National Drug Information Center

Recommendation 6: Develop Minimum Competency Standards and update the Scope of Practice to support patient-centered pharmacy care

Recommendation 7: Develop a Continuing Professional Pharmacy Development Program

Recommendation 8: Create a professional organization to advocate for pharmacists

Recommendation 9: Define and implement a schedule of services to be provided in community pharmacies

Recommendation 10: Develop a certification and accreditation framework for community pharmacists and pharmacies
A three-level competency standard framework is suggested for pharmacy service specifications*
The Service Specifications for Foundation Services standardizes the core offerings at all pharmacy practice settings

<table>
<thead>
<tr>
<th>Foundational Services</th>
<th>Skill Best Practice / Benchmark:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patient counseling</td>
</tr>
<tr>
<td></td>
<td>Patient information leaflet (PIL) distribution</td>
</tr>
<tr>
<td></td>
<td>Medication history</td>
</tr>
<tr>
<td></td>
<td>Prescriptions and resolve issues with prescribers</td>
</tr>
<tr>
<td></td>
<td>The use of devices</td>
</tr>
<tr>
<td></td>
<td>Awareness campaigns</td>
</tr>
<tr>
<td></td>
<td>Advice on self-care and referral (&quot;signposting&quot;)</td>
</tr>
</tbody>
</table>

Skill Recommendations:
- Patient counseling
- Patient information leaflet (PIL) distribution
- Medication history and documentation
  - First fills: Patient name, DOB, gender, contact information, address, allergies/intolerances, medical conditions, current medications including OTCs and herbal medicines, insurance information
  - Refills: Retrieve and update information
- Prescription evaluation for clinical safety and appropriateness with appropriate communication with physician
  - Drug, strength, dosing, dosage form, duplicative therapy, allergies, drug-drug interactions, drug-food interactions, length of therapy, pregnancy/breast-feeding contraindications, storage
- Use of devices, such as inhalers, auto-injectors, glucose meters, blood pressure machines
- Awareness campaigns
- Advice on self-care and referral (or "signposting") based on evidence-based medicine
The Service Specifications for Advanced Services standardizes the Medication-related skills for episodic patient care*

**Advanced Services**

Skill Best Practice / Benchmark:
- Medication Use Review (MUR)
- Patient medication profile
- Medication management services (MMS)
- Home medicines reviews
- Dispensing Methadone
- Hypertension management
- Drug Information Service for other healthcare providers
- Some times includes self-care advice and referral ("signposting")

**Skill Recommendations:**
- Health screenings (hypertension, diabetes, asthma)
- Health and wellness programs
- Basic medication management services**
  - Medication adherence counseling
  - Medication reviews and consultations
  - Medication reconciliation***
- Home medication reviews
- Drug Information Service for other healthcare providers

Note: *Advanced Medication-related Services – working with a patient during a discrete event, not typically following the individual’s care over time

Note: **Medication management service optimizes therapeutic outcomes for individual patients. MMS includes therapy reviews, pharmacotherapy consults, health and wellness programs and many other clinical services. Pharmacists provide MMS to help patients actively manage drug therapy and identify, resolve, and prevent medication-related problems to optimize patient outcomes and safety. Called Medication Use Reviews by PHCC.

Note: ***Medication reconciliation is a systematic and comprehensive review of all the medications across transitions of care
The Service Specifications for Advanced Services standardizes the Medication-related skills for episodic patient care*

<table>
<thead>
<tr>
<th>Advanced Services</th>
<th>Skill Best Practice / Benchmark:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medication Use Review (MUR)</td>
</tr>
<tr>
<td></td>
<td>Patient medication profile</td>
</tr>
<tr>
<td></td>
<td>Medication management services (MMS)</td>
</tr>
<tr>
<td></td>
<td>Home medicines reviews</td>
</tr>
<tr>
<td></td>
<td>Dispensing Methadone</td>
</tr>
<tr>
<td></td>
<td>Hypertension management</td>
</tr>
<tr>
<td></td>
<td>Drug Information Service for other healthcare providers</td>
</tr>
<tr>
<td></td>
<td>Some times includes self-care advice and referral (“signposting”)</td>
</tr>
</tbody>
</table>

**Skill Recommendations:**
- Health screenings (hypertension, diabetes, asthma)
- Health and wellness programs
- Basic medication management services**
  - Medication adherence counseling
  - Medication reviews and consultations
  - Medication reconciliation***
- Home medication reviews
- Drug Information Service for other healthcare providers

*Advanced Medication-related Services – working with a patient during a discrete event, not typically following the individual’s care over time

**Medication management service optimizes therapeutic outcomes for individual patients. MMS includes therapy reviews, pharmacotherapy consults, health and wellness programs and many other clinical services. Pharmacists provide MMS to help patients actively manage drug therapy and identify, resolve, and prevent medication-related problems to optimize patient outcomes and safety. Called Medication Use Reviews by PHCC.

***Medication reconciliation is a systematic and comprehensive review of all the medications across transitions of care.
In summary

- Pharmacy remains to have the potential of playing crucial role in the health care delivery in the region
- Challenges are faced by all countries in the GCC region especially the community pharmacy which is so far disadvantaged
- There is need for implementation of plans to alter the path of community pharmacy: comp standards, pharmacy association, CPD, different lisensing process
- PC is key to shifting the focus and role of pharmacy practice into a patient-centered, outcome-oriented practice