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Review Article

REVIEW OF THE BASIC COMPONENTS OF CLINICAL PHARMACEUTICAL CARE IN PAKISTAN

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Abstract

The current clinical and pharmaceutical care in developing countries needs special attention of international health care organizations. The poor health care facilities are potentially hurting the overall quality of life and health standards. So, we have to control the drug interactions, clinical errors, self/ wrong medications and therapeutical problem to achieve the Millennium Development Goals described by World Health Organization. Thus, we have aimed this study to point out the components, potentially hurting the health care system in Pakistan. The control of irrational drug usage or poor pharmaceutical care will help to improve the indigenous health standards. Whereas, the drug jurisprudence, licensing, inventory control and supply also need a comprehensive revision and enforcement throughout the country. The channel through which the drugs supplied without appropriate examination should also be checked at each step. The quality tests, therapeutical monitoring, bio-safety and prescription review are additional safety valves to control the avoidable health hazards. Therefore the drugs experts and qualified pharmacists should be assigned their real clinical and patient oriented responsibilities instead of clerical, administrative or inventory control task. This is also noticed that the prospective bureaucracy, district health authorities and medical superintendents of public sector hospitals may intentionally work collectively to keep the real custodian of drugs (pharmacists) away from his real work. That may help them to obtain the maximum corporate, monetary and/ or political benefits. Thus, in current practice the missing roles of drug experts and omission of internationally recognized components of pharmaceutical care lead to malpractice in health care system. We may need additional legal restrictions to assure the safety of patients. The health administration, political leadership, corporate businesses and pharmaceutical institutions should work collectively to assure the quality and safety of patients.

Key words: Clinical services, Pharmaceutical care, Tertiary health care

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There are eight (8) basic components of clinical pharmacy practice; Prescribing drugs, Administering drugs, Documenting professional services, Reviewing drug use, Communication, Counseling, Consulting and Preventing Medication Errors (Betty, 2010). While the scope of clinical pharmacy comprised of: Drug Information, Drug Utilization, Drug Evaluation and Selection, Medication Therapy Management, Formal Education and Training Program, Disease State Management and Application of Electronic Data Processing (EDP). The major segments of this discipline are; pharmcovigilance, pharmaco-economics, therapeutical monitoring, bio-safety, drug informations, and aseptic dispensary.

Health care providers are negligent if they fail to provide the standard of care that a reasonable expert supposed to give in similar circumstances. If the negligence causes injuries or illness, then the health care provider is liable. There is no excuse to say: "I did my best, I just didn't know any better". If he know better, he is liable. If the doctor is clearly wrong, patient can sue for malpractice (CBA, 2010). Healthcare professionals are required to stay current in their knowledge of treatment methods and to meet a reasonable standard of care. According to medical malpractice law doctors have a duty to conduct their practice in accordance with the conduct of a prudent and diligent physician in the same circumstances (Medical Malpractice, 2010). Standards and regulations for medical malpractice vary by country and jurisdiction within countries. Medical professionals are required to maintain professional liability insurance to offset the risk and costs of lawsuits based on local medical malpractice (The Four Elements of Medical Malpractice, (1997).

Thus; we have aimed to point out the professional negligencies usually committed in developing countries. It's not unenthusiastic critics, professional revenge or commercially biased outlook but an optimistic manuscript to encourage the implementation of standard clinical regulations in the developing parts of the world. We also have tried to interpret the professional aspects of therapeutical care and clinical services to steer clear the reasons of malpractice. We wish to establish a "check" through medication supplied for patient use. Therapeutical drug monitoring, bio-safety, prescription reviewing, clinical evaluation and pharmaceutical services carry their meanings in medical and pharmaceutical sciences. Definitely; we are missing someone important in between the physician and patient if we are not successful to correct medication usage.

In another way, the serious outcomes clinical discrepancies insist us to explain the clinical issues and scientific reasons, permissible apprehension and professional concerns. The therapeutical requirements are not been fulfilled throughout the Pakistan (with the exception of Shaukat Khanum Cancer Hospital & Research Centre and Agha Khan Hospital). Scientifically the prescription is considered as health-care program to implement and governs the plan of care for an individual patient (Belknap et. al., 2008). The procedure of prescription and dispensing is used to avoid ambiguities or misinterpretation in clinical practice (Teichman & Caffee, 2002). The probability of wrong medication can be reduced if the prescription are be reviewed properly, the clinical plan evaluated correctly and pharmaceutical services provided with all of their formalities. Particularly, the drugs are not in control of qualified pharmacists. The community pharmacy practice does not follow the proper procedure. The information of patient, physician and drugs not properly collected and maintained during dispensing process. Especially the patient's data i.e. medical history, social background, personal profile etc is much important to understand and manipulate to assure rational drug usage.

Figure 1. World Health System Resources; Number of physicians and pharmacists vs population and hospital beds.

Country	Physician		Pharmaceutical personnel		Hospital beds ^A
	Number	Density ^A	Number	Density ^A	
Pakistan	126 350	8	8 102	<1	12
Bangladesh	42 881	3	9 411	<1	3
Bosnia and Herzegovina	5 540	14	308	<1	30
Fiji	380	5	90	1	21
Malaysia	17 020	7	2 880	1	19
Mexico	195 897	20	3 189	<1	10
Nepal	5 384	2	358	<1	2
Romania	41 455	19	901	<1	65
Russian Federation	614 183	43	11 521 <1	<1	97
Sri Lanka	10 479	6	990	<1	29
Sudan	11 083	3	1 531	<1	7
Swaziland	171	2	70	<1	
Syrian Arab Republic	10 342	5	89	<1	14
United States of America	730 801	26	249 642	9	39
United Kingdom	133 641	23i	29 726	5	32
Yemen	44 960	6	24 080	3	39
Zambia	1 264	1	1 039	1	32
Global	8 413 147	13	2 338950	4	30

^A per 10 000 Population
< Less than

(WHO, 2011)

Figure 2. Health Facilities in Pakistan 2006-07

Type	Number
Hospitals	965
Dispensaries	4,916
Basic Health Units	4,872
Rural Health Centers	595
Maternity care hospitals	1,138
TB Centers	371
First Aid Centers	1,080
Beds in hospitals & dispensaries	105,005
Population ion per bed	1,515
Population to health facility ratio	11,413

Source; Ministry of Health

Figure 3. Utilization of Health Facilities of public and private sectors 2004-05

Type	In percent		
	Overall	Rural	Urban
Private sector (total)	77.25	75.48	79.02
Dispensaries/; hospital	67.91	64.31	71.50
Hakeem/ Herbalist	2.04	2.32	1.76
Homeopathic	1.07	0.60	1.54
Chemist/ pharmacy	4.99	6.89	3.10
Siana/ Siani	1.19	1.36	1.01
Public Sector	22.58	24.18	20.99
Dispensary/ hospital	20.57	20.68	20.47
RHC/ BHC	2.01	3.50	0.52

Note: definition used: Number of sick or injured persons who consulted public versus private facilities/ providers for treatment, expressed as percentage of the total population that fell sick or was injured during the last 2 weeks before the PSLM interview.

Source: Government of Pakistan, PSLM survey, 2004-05. Federal Bureau of Statistics Division, 2005.

Therapeutic drug monitoring is an effective safety valve in clinical practice. The blood levels of potent drugs with a narrow therapeutic index are measured periodically to assure the safety of patients life (Marshall & Bangert, 2008). The health care workers are supposed to provide necessary arrangements of therapeutical drug monitoring in special cases.

Pharmacovigilance is another useful constraint to minimize the therapeutical complications. It is applied for the purpose of detection, assessment, understanding and prevention of adverse effects of medicines (WHO, 2002). ADRs (adverse drug reactions) are the noxious and unintended effects which may occurs at normal dose used for the prophylaxis, diagnosis or treatment of disease, or for the modification of physiological function (WHO, 1972).

The International Pharmaceutical Federation (2010) has emphasized the six major elements to contribute to an overall strategic thrust of the board of pharmacy practice in hospital pharmacy section (http://www.fip.org/hospital_pharmacy). The six elements; the partnership with patients, enhancing pharmacy practice, better financial models, evidence-based practices, assuring competency and sufficient workforce are designed with the collaboration of World Health Organization, UNESCO, World Health Professions Alliance, Regional Pharmaceutical Forums and All other partners (FIP, 2010). They have a key role to assure the safe clinical therapeutical practice. Disregarding the recommendation of such international organization by medical staff may become major reason of causalities.

The patient's critics, complaint, views or resentment are another important feature of therapeutical care. Which are the expressions of displeasure or grievance (Lee (2010). In the civil law, the complaint is the formal pleading that starts the lawsuit in the plaintiff sets of facts and makes a claim for damages. Often the patient complaints correlate positively with malpractice risk. In a study at Vanderbilt University School of Medicine; the researchers found a strong link between doctors with a high number of patient complaints and doctors with a high number of risk management events. The communication problems, humaneness, clinical care, billing, access, and availability are considered as unsolicited complaints while the adverse reactions, potential liability and actual lawsuits are management events complaints (Lee, 2010).

The government officials, society and judiciary should have to consider the pharmaceutical services, drug rules, therapeutical drug monitoring, phramcovigilance, prescription review and

clinical evaluation. The clinical setup of hospital pharmacy of third world countries need the bio-safety, drug informations, and aseptic dispensary as accomplished in the developed part of the world. We must have to build up awareness about the pharmaceutical services. We have to place a “check” between the physician and patient to make sure the correct medication, right dose, proper route in exact time. That will reduce the casualties occurred every day and everywhere because of the wrong medications. It needs a collective effort to change the policies, regulations and system to assure the safety of precious live of innocent patients.

RECOMMENDATIONS

1. Make sure the availability of clinical pharmaceutical services round the clock. The pharmacist must have to collect the medical, social, personal and professional data of patient to figure out any possible potential of drug related health hazard.
2. Enforcement of drugs rules to assure the standard drug monitoring system including prescription review, dose calculation and therapeutical evaluation.
3. Instigation of procedure to uncover the patient’s complaints i.e. suggestion box, patient satisfaction surveys etc. The patient or guardian should be briefed about the illness, treatment protocol, and possible outcomes if professional ethics have not any restriction to do so.
4. Implementation of the six major contributing elements of hospital pharmacy section designed by international pharmaceutical federation (FIP) with the collaboration of World Health Organization, UNESCO, World Health Professions Alliance, Regional Pharmaceutical Forums and all other partners (http://www.fip.org/hospital_pharmacy).
5. A process should be developed for handling patient complaints; that will help to create a long-term effect of reducing malpractice risks. Most patients are willing to forgive occasional annoyances or disappointments if they perceive that medical professional and the office staff care about their needs and are trying to satisfy them. Therefore; the verbal, nonwritten policy and unofficial procedure could help to develop good values and understanding.
6. The physician should keep the patients well treated and happy. They should be vigilant about the inevitable complaints and how to tackle them. Furthermore; in staff meetings the problems and complaints should be discussed strictly.
7. Any kind of patient’s letter, phone call, e-mail or text message should be considered and arrange/ invite for free consultation. He should be replied promptly with an expression of taking good care of his case that will mitigate the grumbles and improve level of satisfaction.
8. The patient should be addressed directly in case of clinical grievance. The physicians have to involve him more seriously to assure the quality of care concerns. The bad result is not necessarily the result of any human failures/ error.
9. The physician should be investigated for his mistake. Threatens of lawsuit is an excellent reason of quality services. But he could be helped by insurance coverage. The insurer should be notified. Notice is a requirement of all policies and it may authorize a quick settlement.

10. The problems related to the irregular visit, nonprofessional behavior, inadequate diagnostic facilities and non healthy condition in the hospital setting can only be resolved by designing certain rules and regulations.
11. The conversation with the patient should be documented in the patient's chart. This may later become evidence of the statute of limitations. At the same time the conversation with insurer or lawyer should be filed separately to assure the rule of justice.

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