

## Role of pharmacist in health care system

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### ABSTRACT

Pharmacists are society's experts on drugs. They have been at the interface between prescribers and patients for Centuries in the community particularly they have long provided a direct service to the public. For most of this time they have made medicines and advised on their use, but the growth of the pharmaceutical companies - under increasingly stringent legislation - has removed much of the need for local manufacturing and quality control. Pharmacists' traditional roles of compounding medicines and dispensing prescriptions have been replaced with activities requiring the full range of their training and skills, ranging from avoiding drug interactions and detecting adverse reactions to giving advice and monitoring drug treatment. Pharmacists now have many varied new roles, sometimes called pharmaceutical care, to respond to the changing needs of the public, to changes in health care objectives, and to changes in health service delivery.

It is their responsibility to make sure that the plan they design provides individual patients with appropriate drugs and drug therapies, conveniently and cost effectively. It is a complex job, involving the expert skills of clinically trained pharmacists at every step in the patient-care process. As with pharmacists who practice in other settings, pharmacists in managed care environments are committed to ensuring that medications are available and used appropriately in order to improve patient's health.

### WHERE DO HEALTH-SYSTEM PHARMACIST'S PRACTICE?

- Hospitals
- Ambulatory Care Clinics
- Home Care
- Long-term Care Facilities
- Health Maintenance Organizations
- Universities and Academic Health Centers
- Government and Uniformed Services
- Other components of the health-system

The most common setting is a traditional hospital, but this could be in a rural setting or a large academic medical center, and anything in between.

Another growing area is ambulatory care clinics. Here, pharmacists directly interact with patients seeking treatment for conditions such as diabetes, hypertension, and hypercholesterolemia [1-3].

Pharmacists working in home care and long term care focus mainly on the elderly population. They perform drug regimen reviews and monitor for medication-related problems and inappropriate therapy while interacting directly with patients and other health care professionals [4-6].

Another setting that pharmacists play an important role in is that of health maintenance organizations. Here, pharmacists are involved in formulary and disease state management as well as claims processing and adjudication.

As faculty members at universities and academic health centers, pharmacists play an active role in the education and training of future pharmacists and may also contribute to clinical research and drug development.

Government positions are also available for pharmacists with opportunities in the Air Force, Army, Navy etc.

Although pharmacists working in hospitals and in the community is committed to ensuring the safe, effective, and economic use of medicines, the activities of the two groups differ in style and emphasis. Two of the key differences are access to the prescriber and degree of professional isolation [7-10].

### **What do Health-System Pharmacist's do?**

- Recommend safe and effective therapy
- Assist in the management and prevention of medication errors
- Advise physicians and other health care practitioners
- Counsel patients and caregivers on proper medication use
- Supervise medication storage, dispensing and distribution
- Maintain medication supplies

### **There are two wings of health care Pharmacist**

#### **Hospital pharmacist**

Hospital pharmacist work in close proximity to medical staff, which is normally readily accessible. They have an important role in advising junior doctors on prescribing and on writing prescriptions. Most hospital pharmacists also have the benefit of working along side colleagues who can advise and support them.

**Community pharmacist** contact with the prescriber is not always easy, and many work in relative professional isolation. A third role for pharmacists is developing in scope and importance - that of adviser to commissioning agencies (district health authorities and family health services authorities).

### **The care functions of hospital pharmacy services**

- Economical and efficient procurement and supply of medicines
- Preparation and assembly of medicines as needed Safe and secure storage and efficient distribution of medicines
- Facilitating the safe, effective, and economic use of medicines, including advice to doctors in relation to the selection and dosage of medicines
- Monitoring the quality of medicines
- Providing comprehensive and continuous pharmaceutical care, including the interface with general practitioners and community pharmacists
- Controlling the medicine's budget

The extended role of community pharmacists has been outlined by the Royal Pharmaceutical Society

### **Extended role of community pharmacist's**

- Delivery services to household patients
- Services for groups with special needs
- Services for residential homes
- Out of hour's services
- Domiciliary visits
- Hospital discharge and admission procedures
- Health promotion activities
- Needle and syringe exchange schemes
- Distribution of welfare food
- Disposal of unwanted medicines
- Sale of prepayment certificates
- Health screening
- Patient referrals to general practitioners and other health professionals
- Development of local formularies
- Provision of professional advice
- Advice on palliative care
- Supply of disability aids
- Reporting adverse drug reactions
- Provision of quiet area for confidential conversations
- Supply of complementary medicines
- Advice on over the counter medicines
- Training of other health professionals

### **Role of Pharmacist in Health care system**

1. Drug Distribution and Dispensing
2. Patient Safety
3. Clinical Program Development

4. Communication with Patients, Prescribers and Pharmacists
5. Drug Benefit Design
6. Business Management
7. Cost Management

## **DRUG DISTRIBUTION PROCESS IN THE MANAGED CARE SETTING**

The pharmacist in the managed care setting manages the drug distribution process through one of four approaches:

### **Through the managed care organization's pharmacies**

Some managed care organizations operate their own pharmacies. These in-house pharmacies often provide enhanced pharmaceutical services because they are members of a fully integrated patient care system. Managed care pharmacists ensure that the services delivered by in-house pharmacies are of the highest quality.

### **Through community pharmacies**

Managed care organizations contract with broad-based networks of participating pharmacies to fill the prescriptions of their members. Managed care pharmacists manage the pharmacy network, perform drug utilization reviews, minimize fraud and abuse and initiate quality assurance programs to ensure that the organization's members have local access to high quality, affordable pharmacy services.

### **Through mail order or online services**

Some managed care organizations own or contract with mail order and/or online pharmacies. Managed care pharmacists manage these services to ensure quality.

### **Through collaboration with physicians and other health care professionals**

Managed care organizations have access to several databases of information that lead to a coordinated and safe drug distribution process. Pharmacists within managed care organizations review patients' medications to help safeguard against unintended side effects in new and existing prescriptions. They work with prescribers and other health care professionals to ensure that the medications prescribed are: eligible for coverage, of high quality, affordable and projected to do no harm.

## **PATIENT SAFETY**

Managed care pharmacists help ensure patient safety by analyzing prescription claims data to identify problematic prescription use patterns, intervening with prescribers and patients to help correct such problems and educating prescribers about best practices associated With the use of prescription medications. They design and administer:

### **Drug Utilization Review (DUR) programs**

This process can identify potential prescription-related problems such as drug/drug interactions, duplication of drugs, known allergies, under- or overdosing or inappropriate therapy.

### **Fraud and Abuse programs**

Programs that review key drug classes, monitoring for patterns of inappropriate use.

### **Prior Authorization (PA or "Prior Auth") programs**

An approval process that encourages proper use of medications and discourages inappropriate prescribing of medications.

### **Monitoring programs**

Some medications require lab-based monitoring or genomic testing (i.e. personalized medicine) for product selection or dosing Monitoring programs ensure that medications are prescribed safely and used appropriately. Programs also involve monitoring patient regimens for drug interactions and medication adherence. Monitoring programs ensure that medications are prescribed safely, used appropriately, and that patients receive the best possible outcome.

### **Quality Assurance (QA) programs**

Standard of care programs that enhance patient safety, improve the ways in which patients use medications and ensure delivery of high quality service.

## **CLINICAL PROGRAM DEVELOPMENT**

In order to enhance patient care, particularly for patients with chronic conditions whose quality of life depends on prescription drugs, managed care pharmacists design clinical programs that:

**Evaluate scientific evidence** in order to select appropriate medications for a patient population. A thorough evaluation of the scientific and clinical data regarding new medications must be made by a panel of clinical experts within managed care organizations. Called pharmacy and therapeutic (P&T) committees, these panels generally include pharmacists, physicians and other medical professionals.

**Assess the effectiveness** of new treatments for diseases compared to standards of care.

**Use evidence-based clinical and research data to create disease management and medication therapy management programs** that help patients live more successfully with their medical conditions and manage their drug therapies. Pharmacists support physicians in the management of chronic and complex diseases by monitoring regimens, assisting with cost saving strategies, and counseling patients to improve adherence and help minimize wastes and reduce costs.

Increase understanding of the way in which clinical therapies affect quality of life, and implement programs that help ensure such quality is achieved.

**Explore ways of managing patients** with chronic conditions who are dependent on comprehensive drug therapies.

**Design and conduct outcomes-based research** in order to help patients achieve the desired results from their drug therapy, and enhance their ability to make quality-of-life decisions.

**Encourage appropriate prescribing and proper use of medications** through utilization management (UM) programs such as prior authorization (PA or Prior Auth) and quantity limit (QL) programs.

Pharmacists who practice in a managed care environment are committed to ensuring that medications are used appropriately.

## COMMUNICATIONS WITH PATIENTS, PRESCRIBERS AND PHARMACISTS

Managed care pharmacists design and use communication protocols, such as those used within a call center or medication therapy management program, to ensure that there is an exchange of necessary information between patients, their

physicians and their pharmacists. Communications are required to:

**Notify physicians and other prescribers of drug safety alerts** and clinical updates to assist them in their evaluation of patients' therapies.

**Help physicians and other prescribers choose medications** that will meet patients' needs and be eligible for coverage.

**Provide patients with information** on their individual prescription history through personalized reports.

**Educate patients on their disease state and on the medications they are taking or those being suggested by their physicians.** Provide the point of care pharmacist with a more complete patient profile and guidance on coverage issues to aid them in their delivery of patient care.

**Help patients manage their health care** and help physicians address complex medication therapy questions.

## PLAN BENEFIT DESIGN

Managed care pharmacists collaborate with other health care professionals to design effective benefit structures that will service a specific population's needs. The pharmacist uses clinical knowledge and practical experience to address such design matters as:

**How to structure a formulary:** (The approved list of medications that a plan will cover).

To encourage appropriate and cost-effective therapy it must decide whether the formulary should be "restricted" or "open." The level of patient cost-sharing for generic, preferred brand-name medications, and non-formulary medications must also be established.

**Whether a "participating" pharmacy network should be established** and, if so, how expansive should the network of community, mail order and online pharmacies be to service the population properly; what criteria for quality assurance should participating pharmacies be expected to meet.

**What criteria and procedures for drug utilization should be established** to help safeguard that (1) patient safety and best outcomes are maximized, and (2) that patients receive the correct drug at the correct dosage, understand why they are being asked to take the drug and are compliant in taking the drug.

**Whether to establish a specific plan design for specialty medications** (i.e. high-cost medications that may require special handling, administration or monitoring and are used to treat chronic, complex disease states). Plan designs may include limiting distribution, establishing specific patient cost-shares and implementing utilization management requirements.

## BUSINESS MANAGEMENT

Managed care pharmacists contract with employer and health plan clients, pharmacies and manufacturers to structure business arrangements that:

Allow their clients to customize clinical and reporting requirements to meet their individual population needs.

**Negotiate with manufacturers for discounts on drug prices** for clients in exchange for moving market share when clinically appropriate.

**Assist clients** in assessing the appropriateness of new medications compared to existing therapeutic options.

**Establish networks of pharmacies** to provide accessibility for patient populations and assure participating pharmacy compliance with patient safety and quality programs and audit requirements.

## COST MANAGEMENT

Managed care pharmacists help their clients (employers, HMOs, trust funds, Medicaid, etc.) evaluate and improve their pharmacy benefit by:

**Encouraging prescribers** to make cost effective drug choices that are clinically appropriate.

**Integrating improvements** so that costs are actually saved, not merely shifted.

**Introducing system interventions** that enhance the quality of patient care and save costs.

**Using data to identify adherence and no adherence** with prescribing guidelines, and, by creating measures for assessing physician performance, identifying prescribing patterns and determining opportunities for improvement.

**Ensuring a scientific evaluation of cost** for new medications by applying pharmacoeconomics.

## CONCLUSION

Health-system pharmacy encompasses many practice settings and specializations allowing for a collaborative approach to medication management with direct patient care and Health-system pharmacists lead the way in the advancement of the pharmacy profession. Pharmacists have responded positively to health service changes and to developments in drug treatment. They make a substantial contribution to the overall quality of health care by ensuring that the prescriber's intentions are translated into the safe, effective, and economic use of medicines; that the prescribers themselves have the information necessary to make such decisions; and that patients have the information they need to obtain maximum benefit from their treatment. Although there are clearly ways in which improvements can be made, the profession of pharmacy can move forward in the knowledge that the benefits of a pharmaceutical service provided by highly educated, motivated, and accessible professional people is well recognized, not only by its clients but also by doctors and by those making policy decisions. Pharmacists have expanded their roles in practice settings and now serve as integral members of an interdisciplinary health care system. It will now be important to determine how the public will respond to a more patient-centered pharmacy practice. It can grasp the many opportunities available to it in the future, including the new roles of the commissioning agencies, with confidence and enthusiasm.

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