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THE ROLE OF THE PHARMACIST IN ACHIEVING THERAPEUTIC EFFICACY AND COST EFFECTIVENESS IN THE MANAGEMENT OF ALLERGIC RHINITIS

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Abstract

Introduction: The explosive growth in the number and variety of drugs has proven the pressing need for health professionals who can provide both physicians and patients with medical advice on the drugs available and on the potential adverse drug reactions (ADRs). Therefore, counseling and consultation have become a key component of pharmacist-provided patient care activities. Pharmaceutical care as a new direction in pharmacy practice has evolved over the years. Pharmaceutical care is focused on promoting patient-centered health care that should supplement rather than supplant the care provided by physicians and other health professionals. Pharmaceutical care has risen to the challenges of the increased prescription volume, the wide variety of new drugs, and the need for comprehensive drug-related information. (2)

Objectives: To outline the role of the pharmacist in the responsible provision of therapeutically appropriate and cost-effective disease management

Methods and materials: We examined the therapeutic algorithm in the management of allergic rhinitis in order to define the pharmacist's role in providing both medical advice on a self-medication programme, and professional assessment of health conditions that require physician supervision to guarantee patient safety.

Results: Pharmacists play a key role in providing professional advice on a self-medication programme for the treatment of intermittent and mild persistent allergic rhinitis. In these cases, appropriate management with OTC antihistamines can ensure good disease control and reduce healthcare spending for individuals and health insurance funds alike.

Keywords: ADR, Antihistamines, GPP (Good Pharmacy Practice), Pharmaceutical Care, Self-Medication.

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INTRODUCTION

The NDP (National drug policy) is a component of the National health policy designed to meet patients' needs, to provide patient access to safe and affordable medications, and to ensure good therapeutic outcome. The NDP is implemented by various institutions such as the Parliament health committee, the Ministry of Health, The national Health Insurance Fund, the Bulgarian drug agency, and the National Council on Prices and Reimbursement of Medicinal Products, (www.parliament.bg). Inefficiently incurred treatment costs may result from inadequate drug dispensing and inappropriate dosage regimen, unclear instructions in the patient information leaflet, and packing that fails to ensure drug quality. Pharmacists' active participation can prevent the irrational use of drugs. Pharmacist-delivered patient counseling is the final checking process for ensuring the correct administration of drugs. Therefore, pharmacists should have the necessary skills

and competence that ensure an errorless dispensing process and adequate treatment control, (weruditabg.com/?pid=9&NewsID=130). Major health-related social issues, such as reducing the level of morbidity and mortality resulting from drug abuse, are within the scope of pharmaceutical care. Therefore, the duties and responsibilities of pharmacy practitioners should be clearly defined, (Petkova et al., 2007). To add value to society, each profession should meet specific needs. Through the application of pharmaceutical knowledge, including the use of medicines, pharmacists play a key role in the provision of healthcare services to the public. The concept of pharmaceutical care shifts the focus from the drug to the patient, without disregarding the value of pharmaceuticals. (Petkova et al., 2005 and Petkova et al., 2006). Although the pharmacotherapy prescribed by the physicians often includes both prescription drugs and OTC drugs, the responsibility for the treatment with OTC drugs is primarily borne by pharmacists. Thus, pharmaceutical care can be implemented to

a full extent in the process of OTC drug treatment, (Petkova *et al.*, 2005). The implementation of pharmaceutical care requires compliance with the guidelines on good pharmacy practice (GPP). GPP includes standards for pharmacists' professional attitude towards patients, as well as standards for pharmacists' professional self-assessment and self-monitoring, thus ensuring the high quality of pharmaceutical services. The compliance with GPP standards is supported and controlled by the Quality Committee of the Bulgarian Pharmaceutical Union (BPU) and by the Ethics and quality committees at the regional pharmaceutical associations of the BPU. The compliance with GPP standards benefits the pharmacists in performing their professional duties, but above all it benefits the society guaranteeing rational and safe drug use. Healthcare systems in Central and Eastern Europe face serious challenges in terms of patient access to healthcare services and medications:

- The average GDP percapitain Central and Eastern Europe is 5 time slower than the average GDP in the EU member states
- Personal health care expenditures per capita in Central and Eastern Europe are less than EUR 400, whereas they are as high as EUR 1600 in the rest of the EU member states. (9)

In the developed countries, the role of the pharmacist in the dispensing of drugs takes on greater importance. Pharmacists contribute to the safe and effective use of medications. They play a substantial role in the promotion of rational drug use by providing patients with drug information, by promoting the substitution of brand-name products with appropriate generic products, and by participating in drug use researches. (8) In collaboration with physicians and other healthcare providers, pharmacists take part in government programs for disease prevention and health promotion by optimizing and monitoring the prescribed drug therapies. The pharmacist is a reliable source of medical information and an intermediary between the physician and the patient in delivering adequate therapy.

Various researches have proven that generics not only reduce the treatment costs but also prevent the potential spending growth. Furthermore, the increased use of generics improves the access to drug therapy. Generic substitution promoted by pharmacists creates high potential for cost savings.

OTC drugs and prescription drugs that are excluded from the reimbursement lists do not affect the spending of public healthcare funds. This is a feasible control mechanism, provided that there are well established legislation rules and regulations. Rational drug policy is a prerequisite for good patient access to prescribed drug therapies that are reimbursed by public funds. The legislative and executive government institutions, professional organizations, patients, and the pharmaceutical industry have their relevant role in this process. Over the past 5 years, the use of generics in the Bulgarian pharmaceutical market has driven down the average daily cost of treatment by 23%, and the access to treatment has increased by 80% for seven therapeutic main groups (Angiotensin II antagonists, anti-depressants, anti-epileptics, anti-psychotics, anti-ulcerants, cholesterol regulators and oral anti-diabetics), (<http://www.bgpharma.bg/bg/za-lekari-i-farmacevti.html>). Bulgarian patients need a modern and realistic government strategy for pharmaceutical care, which can identify their needs, promote the collaboration among health

professionals, and enhance the shared responsibility for safe and effective drug use.

Pharmacists are an essential factor for the improvement of public health and a key component in the successful implementation of the national health strategy.

The national drug policy defines the following guidelines for improving public health:

- Improving patient access to safe medications with high quality
- Optimization and coherence of the registration and pricing regulations of drugs
- Introducing an integrated information system for drug prescribing and dispensing
- Improved control over the distribution
- Maintaining control over the distribution practice of medicinal products
- Training of health professionals in rational drug use
- Raising the awareness of patients about the rational drug use of medicines
- Provision of medicinal products and medical devices
- Introducing a methodology for the reimbursement of medicinal products and medical devices to ensures better patient access
- Introducing modern systems for medical information and control over the process of prescribing and dispensing of medicinal products and medical devices
- Educational intervention in improving health professionals' competence on rational drug use
- Independent drug information services

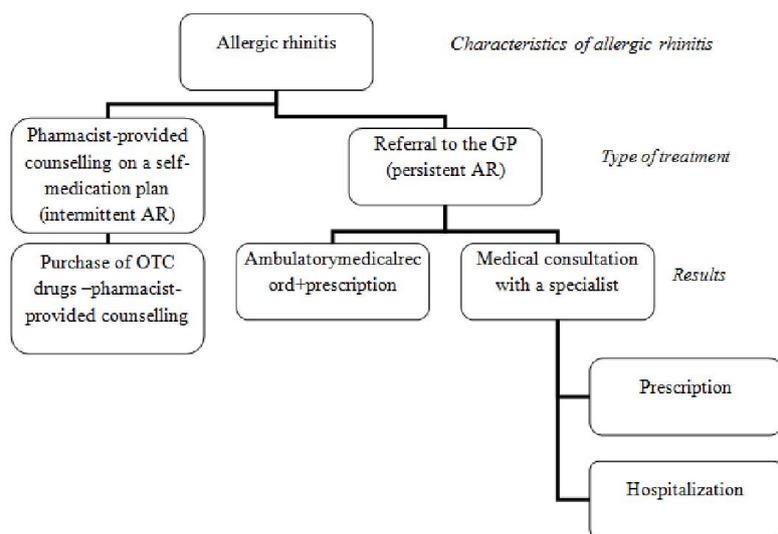
There is an inextricable mutual linkage between the profession of pharmacy and the implementation of these guidelines.

RESULTS AND DISCUSSION

We will support our argument with the evidence-based pharmacy model for implementing a therapeutic algorithm in the management of allergic rhinitis. Responsible self-medication is "the practice where by individuals treat their conditions with medicines which are approved and available without prescription, and which are safe and effective when used as directed." The community pharmacies are the most appropriate setting for advising and counselling on a self-medication programme. Community pharmacists are the health professionals most accessible to the public. They can offer professional medical information and counselling that meets patients' needs for an appropriate self-medication plan and tailor-made healthcare services, (Petkova *et al.*, 2005; Petkova *et al.*, 2007). According to ARIA guidelines, the first-line treatment for all types of allergic rhinitis, regardless of the symptom severity, are the topical or oral non-sedating H1-receptor antagonists. Second generation oral antihistamines (Cetirizine, Levocetirizine, Loratadine, Desloratadine, Fexofenadine) are favoured in the management of all types of allergic rhinitis for two main reasons: firstly, they do not cause central nervous system side effects such as drowsiness and fatigue, and secondly, they have higher H1-receptor affinity. (Zyrtec *et al.*, 2007) However, the OTC status of antihistamines underlies their indiscriminate administration without professional supervision. (Dykewicz *et al.*, 1998) This focuses the attention on the role of the pharmacist as a source

of counselling and advice on the management of intermittent and mild persistent rhinitis, where good disease control can be achieved and maintained. The pharmacist has to identify the type of allergic rhinitis and decide whether to recommend an appropriate treatment with OTC drugs, or to refer the patient to a physician in cases of poorly controlled severe persistent rhinitis. Figure 1 below shows the therapeutic algorithm of pharmaceutical care and the two potential alternatives for allergic rhinitis management – either a pharmacist-guided self-medication plan, or a consultation with a medical specialist when the condition necessitates it.

Therapeutic algorithm in the management of allergic rhinitis



Once the allergic rhinitis has been identified as intermittent or mild persistent and the patient's choice is self-medication, the therapeutic algorithm recommends pharmacist-provided counselling and advice on appropriate drug therapy at an affordable price. This alternative suggests the purchase of OTC drugs (antihistamines) as the final stage. The treatment cost includes only the OTC drug price set in accordance with retailers' price caps. There are no treatment costs incurred by sick leaves or hospitalization charges. Table 1 below includes several potential alternatives for generic substitution, which the pharmacist can recommend in accordance with patient's condition and financial abilities. The four medicines are intended for the treatment of AR and have an OTC status.

Table 1. Alternative choices for self-medication of AR with OTC antihistamines

Medication	Patient expenditures, BGN per pack
Allergosantabl. (chloropyramine hydrochloride 25 mg)	3,06
Loranotabl. (loratidine)	4,63
Zirtectabl. (cetirizine dihydrochloride)	13,52
Claritin tabl. (loratidine)	11,60

The pharmacist can recommend alternatives for generic substitution, and the purchase decision depends on patient's preferences and financial abilities. Patients' out-of-pocket payments affect the decision making process, since OTC drugs are not reimbursed by public health funds and patients face additional access barriers. The concept of pharmaceutical care

shifts the focus from the drug to the patient, without disregarding the value of pharmaceuticals. (2) In the short run, the benefit for the patient is the low price of the drug. In the long run, however, the appropriate drug choice, the optimal dosage regimen and the reasonable drug price will generate substantial savings not only for the individuals, but for the health insurance funds as well. Thus, unnecessary medical consultations and hospitalizations, high rates of sickness absence, and poor quality of life can be successfully avoided. Pharmacists are able to assist, counsel and facilitate the correct choice of drugs, since they have a direct contact with patients and very often are the only health professionals that can monitor the treatment process.

Many patients face financial constraints, others have below basic or basic health literacy skills, and others simply demonstrate their discontent with the provided health care services. Each separate case requires an adequate approach and proactive attitude to stimulate the demand in accordance with the concept of pharmaceutical care and professional conduct standards. When the recommended therapy fails to provide a good therapeutic outcome, the pharmacist should refer the patient to the GP or to a medical specialist. This is the decisive key role of the pharmacist as the health professional who can objectively assess patient's condition and prescribe the optimal therapy, thus ensuring a good therapeutic outcome. The results from the collaboration among different health professionals strongly exceed the results of the separate efforts of physicians, pharmacists, other healthcare professionals, patients, legislators, and regulatory bodies.

Conclusion

Being at the end of the drug supply chain, pharmacists provide drug manufacturers and distributors with professional feedback on the quality, efficacy and safety of the drugs available in the pharmaceutical market. They provide counselling to patients who have chosen an appropriate self-medication plan on the basis of sufficient information and objective assessment of the specific symptoms. (7) Playing the role of the intermediary between physicians and patients, pharmacists face increasing expectations and are challenged to meet stringent professional requirements.

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