

KNOWLEDGE AND APPLICATION OF THE SAFETY PROTOCOL FOR MEDICATION PRESCRIPTION AMONG MEDICAL STUDENTS

Isadora Rodrigues Bezerra¹
Dr^a. Elisângela Rodrigues Boeira²
Me. Clery Mariano da Silva Alves²
Universidade Evangélica de Goiás – UniEVANGÉLICA^{1 2}

ABSTRACT

The study aimed to evaluate the knowledge and application of the Safety Protocol for the Prescription, Use, and Administration of Medications among clinical cycle and internship medical students at the Universidade Evangélica de Goiás. This is a cross-sectional observational study with a sample of 98 students. Data were collected through an online questionnaire and analyzed quantitatively. The results revealed that 82 (83.7%) of the participants know the protocol; however, of these, 43 (52.4%) do not apply it in their prescriptions. Most students include essential information in their prescriptions, but there are gaps in the correct completion of some data, such as the use of inappropriate abbreviations and the failure to include all mandatory information. It is concluded that, despite knowledge of the protocol, its practical application still faces significant challenges, such as a lack of guidance and support in clinical environments. The effective integration of this protocol into academic training is essential to improve patient safety, as highlighted by recent studies on the importance of medical education in preventing medication errors.

Keywords: Medical Education; Drug Prescribing; Patient Safety.

INTRODUCTION:

The Safety Protocol for the Prescription, Use, and Administration of Medications is a standardized norm that plays a fundamental role in ensuring patient safety in hospital and outpatient settings. This protocol establishes clear guidelines aimed at minimizing errors in medication prescription and administration, promoting the legibility and clarity of prescriptions.

The relevance of this protocol is particularly evident in the context of the Brazilian Unified Health System (SUS), which advocates for equity in access to health services and the humanization of care. Although Collegiate Board Resolution No. 36 of July 25, 2013, issued by ANVISA, makes the application of the protocol mandatory in health institutions, a significant gap is observed in the knowledge and training of medical students regarding safe medication prescription. This gap can compromise the effective implementation of the protocol, increasing the risks associated with patient safety.

Adequate training of students, especially during the clinical cycle and internship, is crucial to ensure that these future professionals are prepared to perform safe medication prescriptions, which, in turn, can contribute to improved clinical outcomes.

In this context, the present study's main objective is to evaluate the knowledge and preparedness of medical students at the Universidade Evangélica de Goiás

(UniEVANGÉLICA) regarding the application of the Safety Protocol for the Prescription, Use, and Administration of Medications. The specific objectives include verifying the students' knowledge of the protocol in preparing prescriptions, surveying the information filled in prescriptions by these students, and identifying the main difficulties faced in applying the protocol in outpatient and hospital environments.

METHODOLOGY

This study is observational, cross-sectional, and analytical. It was conducted at the Universidade Evangélica de Goiás, an institution recognized for its academic excellence that houses a community of approximately 10,000 students. The research focused on medical students in the clinical cycle and internship, as these students have direct contact with prescription practice in outpatient and hospital settings, always under the supervision of professors and preceptors. The sample was one of convenience, totaling 98 participants, distributed from the fifth to the twelfth period. Inclusion criteria included signing the Free and Informed Consent Form (FICF) and active enrollment at the university. Incomplete responses or responses from unenrolled students were excluded from the analysis.

Data collection occurred through invitations sent via Instagram and WhatsApp, where participants were informed about the research objectives and ethical aspects. The questionnaire was made available through *Google Forms* and addressed students' practical experiences in preparing medical prescriptions. The questions were adapted and validated from a document by the Federal Public Service, Regional Council of Pharmacy of Rio Grande do Sul, and included criteria for completing common and special control prescriptions. Participation was anonymous, ensuring data confidentiality, in compliance with national and international ethical guidelines. The collected results will be used exclusively for scientific publication purposes, and participants contributed to the advancement of scientific knowledge, receiving an informational booklet on safe medication prescription. All collected data will be stored for five years and, after this period, will be destroyed to guarantee participant privacy.

RESULTS

Data analysis revealed that the majority of participants (68) were between 20 and 24 years old. Regarding sex, 75 (76.5%) of the participants were female and 24 (24.5%) were male. The distribution of participants by academic period was diverse, as shown in Table 1.

Tabela 1. Distribuição dos participantes por período acadêmico (N=98). Anápolis, GO, 2024.

Período	5º	6º	7º	8º	9º	10º	11º	12º
fi	9	10	16	23	12	7	7	14
fr	9,2%	10,2%	16,3%	23,5%	12,2%	7,1%	7,1%	14,3%

Fonte: autoria própria (2024).

fi: frequência simples.

fr: frequência relativa.

When questioned about their knowledge and application of the Safety Protocol for the Prescription, Use, and Administration of Medications, 82 (83.7%) of the participants stated they knew the protocol, while 16 (16.3%) did not. However, of the 82 participants who knew the protocol, only 39 (47.6%) reported applying it during medication prescription, as shown in Table 2.

Tabela 2. Relação entre conhecimento do protocolo de prescrição, uso e administração de medicamentos, aplicação do protocolo e dificuldade na aplicação do protocolo entre acadêmicos de medicina (N=82). Anápolis, GO, 2024.

Sabem o que é o protocolo	Aplicam o protocolo em todas as prescrições		Têm dificuldade acerca da aplicação do protocolo	
	Sim	Não	Sim	Não
Sim 82 (83,7%)	39 (47,6%)	43 (52,4%)	70 (85,4%)	12 (14,6%)
Não 16 (16,3%)	3 (18,8%)	13 (81,2%)	14 (87,5%)	2 (12,5%)

Fonte: autoria própria (2024).

The analysis of prescriber data inserted by the students in common and control prescriptions revealed relevant information, as well as regarding patient data recorded by the students. In both common and control prescriptions, consistency was not observed except for the insertion of the patient's full name, as evidenced in Table 3.

Tabela 2. Dados inseridos pelos acadêmicos de medicina nos receituários comuns e de controle (N=98). Anápolis, GO, 2024.

Dados inseridos como emitentes	Receituário comum		Receituário de controle	
Pessoa jurídica	15	15,3%	22	22,4%
Pessoa física	38	38,8%	41	41,8%
Nome completo	73	74,5%	76	77,6%
Endereço	33	33,7%	49	50,0%
Número de inscrição e sigla do conselho profissional	70	71,4%	71	72,4%
Dados inseridos do paciente	Receituário comum		Receituário de controle	
Nome completo	97	99,0%	96	98,0%
Endereço	12	12,2%	52	53,1%
Data de nascimento	46	46,9%	66	67,3%
Idade	11	11,2%	21	21,4%
Documento de identidade	7	7,1%	45	45,9%

Sexo	6	6,1%	17	17,3%
Telefone	8	8,2%	26	26,5%
CID	20	20,4%	37	37,8%

Fonte: autoria própria (2024).

Regarding the difficulties encountered in applying the protocol, 84 (85.7%) of the participants reported facing them. The main difficulties were: lack of knowledge 50 (51.0%), lack of time during care 33 (33.7%), lack of guidance 34 (34.7%), lack of data in hospital and outpatient environments 34 (34.7%), and lack of tangible support 27 (27.6%).

CONCLUSION:

The analytical cross-sectional observational study conducted with medical students at UniEVANGÉLICA brought to light important insights regarding the knowledge and application of the Safety Protocol for the Prescription, Use, and Administration of Medications. The analysis demonstrated that, although the majority of participants know the protocol, practical application is still limited, with only 47.6% reporting following the guidelines during prescription. This finding is concerning, as safe medication prescription is an essential competency for future physicians, directly contributing to the reduction of errors and to patient safety. The discrepancy between knowledge and practical application suggests the need for a more robust and integrated educational approach that emphasizes not only theory but also the effective practice of prescription safety.

Furthermore, the difficulties pointed out by the students, such as lack of detailed knowledge, limited time during patient care, and structural deficiencies in practice environments, reflect common challenges faced in health institutions worldwide. These obstacles need to be addressed systematically through improvements in teaching conditions and infrastructure, as well as through continuous training that reinforces the importance of the protocol in clinical routine.

To achieve medical training that truly prepares future professionals for the safe and effective practice of medicine, it is imperative that universities strengthen the integration between theory and practice, providing learning environments that faithfully simulate real work conditions. Only in this way will it be possible to minimize the gaps identified in this study and ensure medication prescribing that meets the highest standards of safety and efficacy. The implementation of strategies to improve adherence to the safety prescription protocol, in addition to guaranteeing adequate support for students, is crucial for training competent health professionals prepared to face the challenges of the hospital and outpatient setting.

Therefore, future studies should continue to investigate the barriers to the protocol's application, aiming to propose effective solutions that contribute to patient safety and excellence in care.

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