



Medication Errors Special Interest Group of the International Society of Pharmacovigilance and the Trends in International Collaboration for Patient Safety

Mohamed A. Elhawary^{1,2} · Hadir Rostom^{3,4} · Brian Edwards⁵ · Angela Caro⁶

Accepted: 23 December 2021

© The Author(s), under exclusive licence to Springer Nature Switzerland AG 2022

1 Introduction

Errors accompanying the use of medicinal products pose a considerable economic as well as clinical burden. Fortunately, many medication errors are potentially preventable. They could be minimized or avoided through better design of medication safety systems with a focus on the ordering, prescription, preparation, and administration of medicines.

The main purpose of the International Society of Pharmacovigilance (ISoP) is to promote the safer use of medicines through contributing to better and more education in pharmacovigilance (PV) and training activities worldwide. Therefore, ISoP members are regularly invited and encouraged to be involved in a wide range of activities, either as individual experts or as representatives of their organizations [1]. In order to aid and optimize members' involvement in prompting patient safety culture in their communities, it is essential that they receive adequate training that could contribute in their professional development.

International Society of Pharmacovigilance (ISoP) have strived to develop continuing good-quality educational programs internationally, including a mid-year training program, pre-conference courses during the annual meetings, and joint training courses with the World Health

Organization–Uppsala Monitoring Centre (WHO-UMC) curriculum.

2 The ISoP Special Interest Group on Medication Errors (SIG-ME)

Medication without harm is an obvious top priority for all in ISoP; the intention to prevent as much as possible is a main goal. As preventing medication errors requires innovative strategies and sharing of knowledge and experience, ISoP established the Special Interest Group on Medication Errors (SIG-ME) in 2017 under the leadership of Dr. Brian Edwards and Dr. Angela Caro. The SIG acts as a forum for the exchange of knowledge, technology, and experience between countries and regions, particularly through the organization of workshops and symposiums [2].

Now well-established, SIG-ME has developed training courses and promoted new research and dissemination of best practices to strengthen PV systems to support members involved in implementing best medication safety practices around the world.

These training courses aim to raise attention to the problem of medication errors, highlighting the factors that may lead to them as well as the collaborative measures that should be taken to mitigate the risk of medication errors. The courses cover the following topics:

- 1- Introduction to medication safety, definitions, economic burden of and classification of medication errors
- 2- Culture of safety, human factors, and medication errors
- 3- Reactive and proactive identification of medication risk
- 4- Investigation and analysis of medication errors
- 5- Analyzing and reducing risk of system-based causes of medication error
- 6- Risk-reduction strategies implementation and measuring effectiveness

✉ Mohamed A. Elhawary
mohamedmetwally.alhawary@pharma.asu.edu.eg

¹ Egyptian Ministry of Health and Population, Cairo, Egypt

² Faculty of Pharmacy, Ain Shams University, Cairo, Egypt

³ International Society of Pharmacovigilance (ISoP), Egypt Chapter, Cairo, Egypt

⁴ Faculty of Pharmacy, MSA University, 6th of October City, Giza, Egypt

⁵ Pharmacovigilance and Drug Safety, NDA Regulatory Science Ltd, Leatherhead, Surrey, UK

⁶ Pontificia Universidad Javeriana, Bogotá, Colombia

- 7- Roles and responsibilities of medication safety officers
- 8- Recording and reporting adverse drug reactions and medication errors
- 9- Medication errors: risk minimization and prevention as a part of medicinal product risk management plans
- 10- Considering medication errors during the development phase and after authorization, with case studies.

3 Coordinating ISoP SIG-ME Global Activities in Pharmacovigilance with Those of the International Committee of the Red Cross (ICRC)

Good international collaboration can positively affect the delivery of health services and patient care where fresh ideas and new leadership can promote interventions that address medication error problems by improving professional practices and healthcare outcomes. The medication error training course that was held in January 2020 in joint cooperation with SIG-ME and the Egyptian Chapter had a tangible impact on participants. Some of those participants work in the Palestine Red Crescent Society (PRCS), which is part of the International Committee of the Red Cross (ICRC) in Geneva.

Those trainees decided to put the lessons they had learned into practice to minimize medication errors faced by Palestinian refugees because of medicine shortages.

This led to an ambitious initiative aiming to save lives and minimize the medication-related harm caused by unsafe practices and errors by creating an executable framework and a well-defined therapeutic management strategy. Indeed, contact was made with the ISoP Egypt Chapter to implement the project in the PRCS Egypt branch, which operates one hospital in Cairo, and then the action plan was adopted by the PRCS branches in Jordan, Lebanon, West Bank, Gaza Strip, and Syria to improve patient safety, aiming to facilitate improvements in ordering, receiving, dispensing, and supplying medicines [3].

The framework includes six strategic activities based on the training participants received via the SIG-ME:

1. Identifying and addressing gaps in the development of information technology (IT) infrastructure to support and leverage electronic health record (EHR) utilization
2. Determining effective data collection and processing techniques
3. Deciding on different types of coding schemes to represent data
4. Evaluating a cluster of individual case safety reports (ICSRs) in a particular database and integrating the drug safety information obtained
5. Promoting systems-based drug safety

6. Involving patients in treatment-related decision-making to improve health outcomes through the development and implementation of educational programs geared towards stakeholder engagement.

All these activities help to amend the workflow by addressing the defects of service delivery and developing more effective healthcare systems. In addition, the Egyptian Chapter of ISoP engaged in developing streamlined EHR software that renders patient medical information (including medical history, previous surgeries, treatment plans, and other data) and minimizes the barriers to reporting by replacing paper forms with electronic methods of reporting wherever feasible.

4 Support Global Training in Pharmacovigilance and Risk Minimization Strategies

ISoP continues to collaborate with and/or support other scientific organizations around the world by working with international experts, partners, and interested stakeholders. This will allow the development of the guidelines, tools, technologies, and materials needed, and ISoP will work in close collaboration with countries to implement medication safety.

Acknowledgements The authors acknowledge the assistance of Dr. Katarina Ilic, ISoP Comms Leader, for reviewing the manuscript, and thank all the international experts who collaborated in the ISoP SIG-ME medication errors training.

Declarations

Funding The authors received no specific funding for this work.

Conflict of interests The authors have declared that no conflicts of interest exist.

Availability of data and material Data sharing is not applicable to this article.

Code availability Not applicable.

Consent to participate Not applicable.

Consent for publication Not applicable.

Ethics approval Not applicable, because this article does not contain any studies with human or animal subjects.

Author contributions Conception: BE and HR. Drafting, writing, review, and editing of the manuscript: BE, AC, and MAE. Critical revision: BE, AC, HR, and MAE. All authors read and approved the final version.

References

1. Rostom H, Elhawary MA, Ali IN. A multidisciplinary approach in pharmacovigilance awareness: ISoP Egypt Chapter's MedSafety-Week experience. *Drug Saf.* 2021;44:1017–20. <https://doi.org/10.1007/s40264-021-01112-9>.
2. McCarthy D, Bahri P, Barnes J, et al. An update on ISoP Special Interest Groups (SIGs). *Drug Saf.* 2018;41:1–6. <https://doi.org/10.1007/s40264-017-0603-5>.
3. Elhawary MA, Ali IN, Rostom H. Egypt addresses safety issues faced by refugee community. *Uppsala reports* [Internet]. 2021. www.uppsalareports.org/articles/egypt-addresses-safety-issues-faced-by-refugee-community/. Accessed 22 Oct 2021.