

Abstract

Drug Information Centre service analysis V. – Adverse drug reactions

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Introduction: Drug information centre (DIC) of the Faculty of Pharmacy of Charles University and University Hospital Hradec Králové was established in 1994. Its activities include among others information provision for healthcare professionals by answering drug related enquiries. One of the main subjects of enquiries in practice are adverse drug reactions.

Aim: Aim of this study is analysis of drug-related enquiries focused on adverse drug reactions processed by DIC in a period of 2015–2021. This study also includes complete answers to two drug-related enquiries that deal with adverse drug reactions.

Methods: Drug related enquiries focused on adverse reactions were analysed according to factors including but not limited to the type of enquirer, age and gender of patient affected by adverse drug reactions, presence of ATC (Anatomical Therapeutic Chemical) codes, types of adverse drug reactions according to SOC (Subject Organ Class) classification, utilisation of drug information resources and recommended procedures as proposed by the answered enquiry. Two of the drug-related enquires included in this study were processed by the author while using wide range of available drug information resources.

Results: In total, 75 (out of 274) drug-related enquires were identified. These included 391 drugs and were oriented on manifested adverse drug reactions or prevention of those that have not yet been manifested in a particular patient. The most common enquirers were hospital physicians and community pharmacists, and the most common region of origin was Královehradecký region. The most common patients were of female gender and age group of 18–64 years. The most distributed ATC codes in first level were drugs C (Cardiovascular system) and N (Nervous system) and three most common drugs dealt with in the enquiries were furosemide, levothyroxine sodium and allopurinol. The most frequent type of adverse drug reactions were gastrointestinal disorders. The most frequently used Information resources were SPC (Summary of product characteristics) utilized in 67 enquires, followed by PubMed/Medline (64), Micromedex (46) and UpToDate (45). The most frequent recommendations were drug substitution or drug monitoring. The number of 26 enquiries were only analysed without recommendation of taking any action due to the lack of information or context provided by the enquirer or in cases of general type of enquiry with no manifested adverse drug reaction or specific patient. The first of the enquiries solved by the author focused on the patient's pharmacotherapy in terms of gastrointestinal and sleep disorders. The second enquiry dealt with elevation of creatine kinase and myoglobin as a potential consequence of the pharmacotherapy.

Conclusion: Adverse drug reactions related enquiries accounted for 27.37% of all enquiries for an observed period. Enquiries processed in a study were analysed based on a variety of

different factors. Although the enquiries embraced large range of different adverse reaction problems, their solutions were mostly carried out in consistently.