

Abstract

Analysis of enquiries from Drug Information Centre focused on pharmacotherapy of pregnant and breastfeeding women

Author: Mgr. Eliška Rožníčková

Consultant: PharmDr. Kateřina Malá, Ph.D.

Department of Social and Clinical Pharmacy, Faculty of Pharmacy in Hradec Králové, Charles University, Czech Republic

Introduction: The Drug Information Centre (DIC) of the Faculty of Pharmacy in Hradec Králové, Charles University, and the University Hospital Hradec Králové (FAF UK and FN HK), established in 1994, has been providing, among other services, safety evaluations of pharmacotherapy used during pregnancy and breastfeeding via answers to drug enquiries from healthcare professionals.

Aim: This study aimed to analyse drug enquiries from the DIC FAF UK and FN HK focused on pharmacotherapy of pregnant and breastfeeding women from 2012 to 2021.

Methods: In the observed period, the retrospective analysis of enquiries registered in the DIC database was focused on the enquirers' profession, the region of the workplace, the urgency and the character of enquiries, the anatomical-therapeutical-chemical classification of drugs included in enquiries, used information resources, time required for solving enquiries and feedback of enquirers. Reasons of contacting the DIC, factors affecting the risk of drugs (e.g. diseases, trimester, the age of infants and the ability of drugs to transfer through the placenta or into breast milk) were analysed in full texts of answers to the enquiries. Furthermore, conclusions of recommendations of the DIC members were analysed and compared with common risk classification systems for drugs. In case of identical drugs solved by different DIC members, the solutions were compared. Data were processed using descriptive statistics.

Results: Out of 398 enquiries, almost 10% were focused on pharmacotherapy used during pregnancy (14 enquiries) and breastfeeding (24 enquiries). Enquirers were mostly asked by pharmacists (8; 57.1% for pregnancy; 19; 79.2% for breastfeeding). Enquirers mostly worked in region of Hradec Králové (3; 21.4% for pregnancy; 6; 25.0% for breastfeeding). The most frequently asked drugs in pregnancy were antiepileptics levetiracetam, lamotrigine and pregabalin and the antipsychotic aripiprazole in breastfeeding. The most used drug information resources were the Automated Information System of Medicinal Products (12; 85.7% in pregnancy; 19; 79.2% in breastfeeding), Medline/PubMed (11; 78.6% in pregnancy; 15; 62.5% in breastfeeding) and Micromedex (9; 64.3% in pregnancy; 17; 70.8% in breastfeeding). The most common reason for contacting the DIC was the evaluation of drug safety intended to be administered during pregnancy and breastfeeding. The most frequent diagnoses were endocrine and metabolic diseases during pregnancy and mental disorders during breastfeeding. Largely, drugs in enquiries were evaluated as safe. The consistency rate of conclusions in case of identical drugs was high (4 of 5, 80.0%).

Conclusions: Healthcare professionals had great interest in evaluations of drug safety during pregnancy and breastfeeding, especially for chronic diseases. A wide range of drugs was analysed, while the analysis showed imperfections of the most widely used risk classification systems for drugs as well as frequent incompleteness of information gave by enquirers, which is necessary for exact determination of drug safety, especially in potentially risky medications.

Key words: drug information centre, pharmacotherapy, pregnancy, breastfeeding