



ENVIRONMENTAL IMPACT OF PHARMACEUTICALS: A SURVEY ON KNOWLEDGE OF PATIENTS ATTENDING A HOSPITAL PHARMACY DISPENSING SERVICE

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Background and importance

The increasing presence of pharmaceuticals in the environment and, consequently, long-term drug exposure, even at low doses, can have a significant impact on safety and health of human beings and animals.

Customers' improper disposal (by trashing or flushing) represents one of the possible ways of access to ecosystems for wasted pharmaceutical products, emphasizing the importance of awareness activities, in which hospital pharmacist could play a key role.

Aim and objectives

The aim of this study was to investigate knowledge and habits, concerning disposal of households pharmaceutical waste, of users of hospital pharmacy dispensing service in an Italian hospital in order to develop a proper system for raising consciousness about drug pollution.

Materials and methods

Data were collected by means of anonymous and voluntary survey, consisting of 5 multiple choice-items, in a 2-months period. A total of 120 users (34 people of 18-40 years; 60 of 40-65 years; 26 of 65 years and more) answered the questionnaire; the responses were analyzed using a spreadsheet and expressed as weighted average of the 3 age-categories.

Results

According to the survey, 112/120 of users understand the environmental impact of an incorrect disposal of expired/unused drugs; however, the concept of ecopharmacovigilance is not widespread (only 53/120 of respondents has knowledge of it).

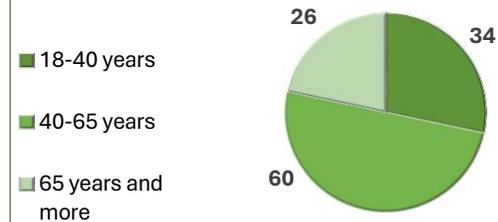
The role of digital media (website, social network) in sharing these informations resulted essential in "18-40 years" group (24/34); the same role was played by traditional media, like television, in "40-65 years" and "65 years and more" groups (37/60 and 19/26, respectively).

The survey also indicates that 104/120 of respondents pay close attention to proper disposal of pharmaceutical waste, dropping them off at designed location, like community pharmacies (19/34 of "18-40 years" group, 53/60 of "40-65 years" group and 18/26 of "65 years and more" group).

Conclusion and relevance

Although a relevant percentage of respondents understands the importance of a proper use and disposal of pharmaceutical products, awareness activities, involving hospital pharmacists, are essential in promoting correct behaviours. For this purpose, simplified guidelines on the proper disposal of households pharmaceutical waste (drugs, medical device) were developed and made available through QR code to all users of direct hospital pharmacy dispensing service.

Users by age group



Proper disposal of pharmaceutical waste by age group

