

## **Collection and responsible under-used redistribution in the city of Palmas-TO**

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**Introduction:** Medicines are important therapeutic tools used for treating and preventing diseases. However, medicines which were not completely consumed and consequently household stored are sources of domestic intoxication and self-medication, besides the environmental impacts of the wrong disposal of these products. The withdrawal and responsible redistribution of these medicines to nongovernmental organizations can be considered a social action once they can be reutilized by others. Medicines considered inappropriate can be sent to Municipal Sanitary Surveillance in order to incinerate, which can cooperate to the removal of chemicals from the trash and / or sewer. These actions may contribute to an evaluation of the amount of the obsolete medicines, as well as to lead to considerations for future actions instituted by pharmacists. **Objective:** The aim of this work was to promote the removal of obsolete medicines in residences by spontaneous donation as well as to evaluate medicines for shelf life, quality of the packaging, therapeutic class and global appearance. **Methods:** Social actions about correct use and household storage of medications were performed in order to provide information in the Palmas Lutheran University Center, schools and pharmacies in the city of Palmas-Tocantins, Brazil. Academics and professors of pharmacy school were responsible for the collection of obsolete medicines during these social actions. Evaluation and destination of medicines collected were accomplished according to their pharmaceutical classes (analgesics, NSAIDs, etc.), shelf life, quality of packaging and appearance of the medicine. The medicines classified as appropriate for administration were donated to non-governmental institutions; medicines inappropriate for use were sent for incineration. Data were analyzed using Excel®. **Results:** In the first semester of 2011 (March-May) were raised 360 medicines in schools and University Center, which, 287 (79.73%) had shelf life expired and / or inappropriate for use and 73 (20.27%) suitable for use. In the second semester (August-November) 253 medicines were collected at municipal pharmacies, which 183 (72.33%) had shelf life expired and / or inappropriate and 70 (27.67%) suitable for use. Throughout the period there was a prevalence of anti-inflammatory, analgesic, antipyretic and antibiotic medicines. **Conclusion:** Data allows concluding that the minority of medicines collected could be redistributed. Inappropriate medicines could be sent to incineration, decreasing environmental impacts. It is important to conduct actions with public and private pharmacies in implementation of a project for collection of medicines, once in these places there are full-time pharmacists, which are responsible for medication dispensing (Law 5991) avoiding accumulation, self-medication and intoxication.

**Keywords:** medicines; collection; redistribution; self-medication.

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