

Evaluation of Libyan Community Pharmacists' Counseling Capability on dispensing of Asthma Inhaler Devices

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INTRODUCTION

Asthma is a chronic disease resulting from widespread narrowing of the airways within the lungs and obstruction to airflow [1]. It affects millions of people of all ages in all parts of the world and causes of substantial burden, often causing a reduced quality of life [2]. The mainstay of treatment is by inhalation of medication to the site of the disease process which can be achieved by a number of different device types [3]. In Libya asthma is the nineteenth leading cause of death and, despite advances in treatment, mortality remains high. Many international studies have shown the pivotal engagement of community pharmacists in a range of disease and patient-centered management services for adults, in improvement asthma outcomes and reductions in health care costs. These services range from patient education and counselling, medication management and review, disease monitoring, health promotion, self-management education, pharmaceutical care and disease-state management.

OBJECTIVES

To evaluate community pharmacists' practical knowledge of demonstrating different clinical steps of asthma inhaler devices available in Tripoli market.

METHODS

Participants

Random sample of 100 community pharmacists.
Work Experience: 1-7 years

Location

60 private pharmacies located in different areas of Tripoli city.

Study Period

4 months from October 2013 to January 2014.

Asthma inhaler devices

Four asthma devices were assessed. Metered-dose inhaler (MDI) of salbutamol 100mcg (Ventolin®), MDI with Spacer (Aero-chamber®, Trudell Medical, Ontario, Canada), Turbuhaler of budesonide (Pulmicort®, AstraZeneca Limited, UK), and Diskus of 50mcg salmeterol xinafoate/ 100 mcg fluticasone propionate (Seretide®, GlaxoSmithKline, Limited, Ireland).

Scenario

Four investigators (fourth year pharmacy students) were well instructed about the correct use of asthma device before conducting the study. Each investigator selected one type of asthma device, acted as a mystery patient and asked the community pharmacist to demonstrate how to use the device. The investigator completed a checklist of 9 steps of inhaler device use immediately after leaving the pharmacy. The checklists used in this study are based on previously published checklists [4].

RESULTS

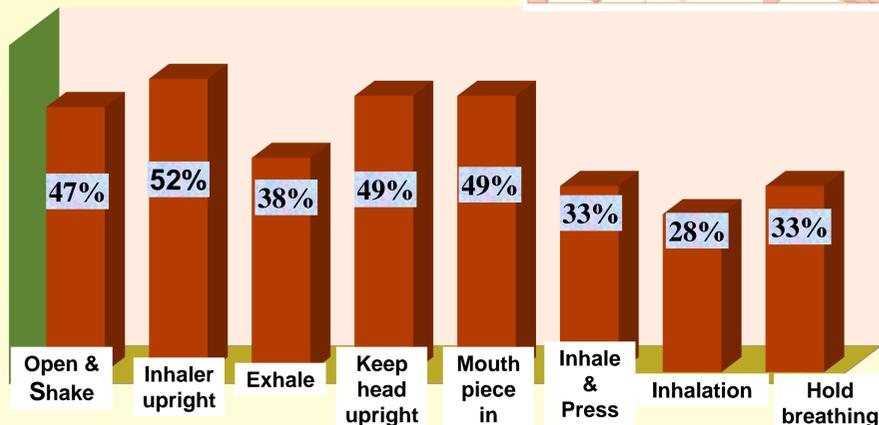
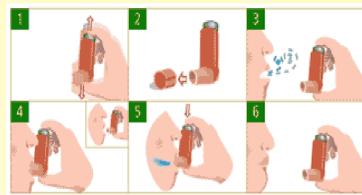


Figure 1: shows percentage of community Pharmacists demonstration of clinical steps of metered-dose inhalers (MDI).

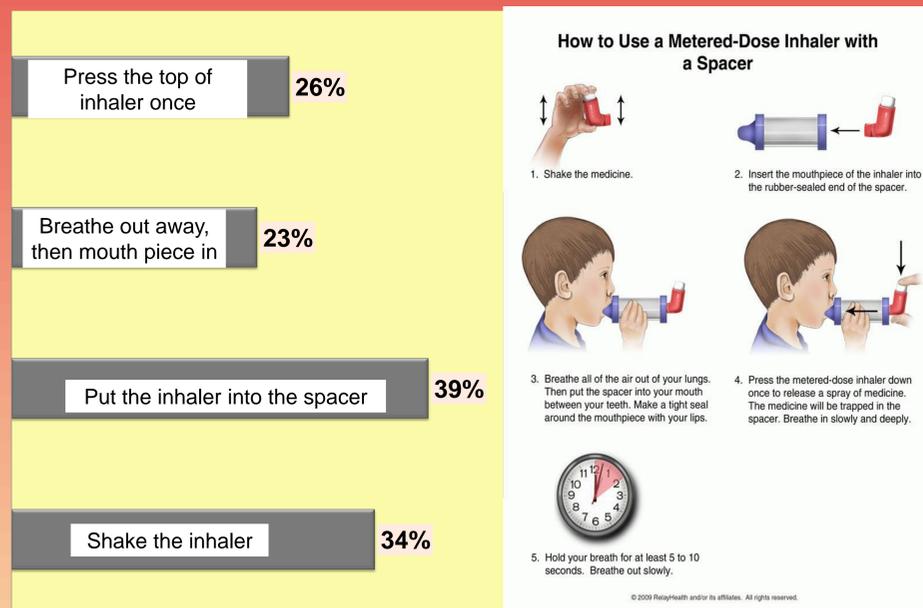


Figure 2: Proportion of pharmacists who demonstrated correctly each of the steps in the MDI with a spacer technique checklist.

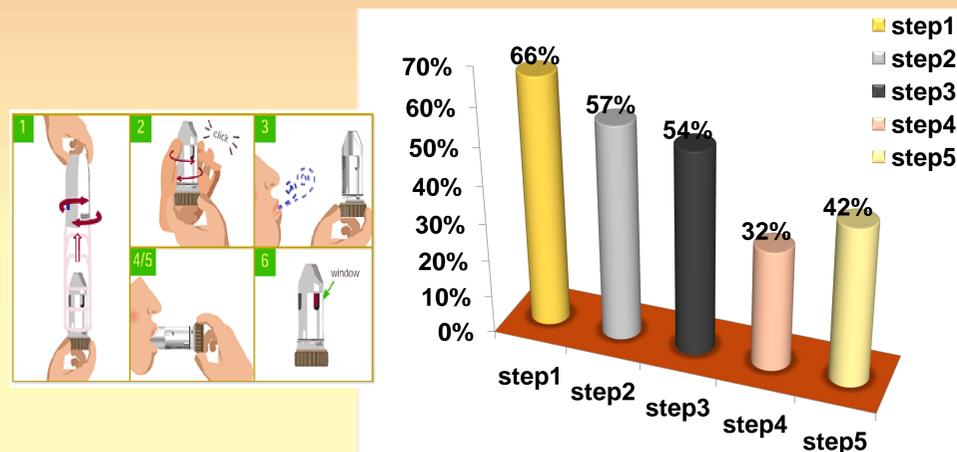


Figure 3: Percentage of community Pharmacists demonstration of clinical steps of Turbuhaler.

- Open and Hold horizontally
- Click
- Inhale
- Remove and Close

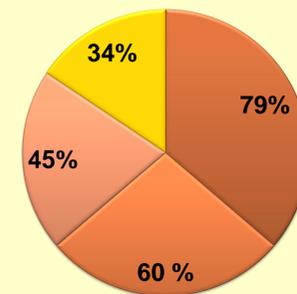


Figure 4: Proportion of pharmacists who demonstrated correctly each of the steps in the Diskus technique checklist.

CONCLUSIONS

- The findings suggest that 100% of community pharmacists who participated in this study were not able to use and demonstrate optimally the essential steps for proper use of asthma devices, and no one of pharmacists was totally unfamiliar with using of asthmatic devices (0%).
- This pointing to the importance of educational and training programs to build up pharmacists' interpersonal skills and to ensure that pharmacists have the most up-to-date knowledge about asthma inhaler devices and other techniques.

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