

## PHARM D STUDENTS' GRADUATION RESEARCH PROJECTS 2019/2020



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### OBSERVATIONAL RESEARCH

#### Medication Utilization Data Obtained by the Emerging Electronic Prescribing System (Wasfaty) in Riyadh First Health Cluster

**Background:** The dissemination of health information systems is expanding worldwide. In light of the 2030 vision of Saudi Arabia, the National Unified Procurement Company (NUPCO) has recently introduced an electronic prescribing program called Wasfaty, which allows patients to dispense their medicines from different geographical locations around the Kingdom free of charge, and to have a trusted source of medical information.

**Aims:** This study aimed to assess Wasfaty program in the primary healthcare clinics of Riyadh's first health cluster, Saudi Arabia 2019–2020 in relation to different variables including medication utilization, healthcare providers' experience, and overall patients' experience.

**Methods:** Data on the total quantity of dispensed medications with its corresponding costs were exported from Wasfaty program. Variables were then categorized based on their therapeutic classification. A descriptive analysis was performed and results were presented as absolute numbers (n) and percentages (%). An online survey was used to rate both healthcare providers' and patients' experiences.

**Results:** A total of 331 types of medications were dispensed and these were categorized into 25 therapeutic classes. Anti-hyperglycemic agents (16%), followed by analgesics (15%) and cardiovascular drugs (14%) were the most commonly dispensed classes of medications. A total of 34 healthcare providers and 10,005 patients rated their experience with Wasfaty. Approximately 65% of healthcare providers indicated that Wasfaty reduced the likelihood of prescribing errors while 62% stated that the program lowered the number of dispensing errors. Patients primarily valued the clarity of medication use instructions (89%), followed by the satisfaction with the healthcare service provided by the pharmacists (86%). Problems reported included unavailability of medications at the retail pharmacy or in the Wasfaty formulary, system shutdown, and poor internet connectivity.

**Conclusions:** Prescribing patterns and quality control measures of medication utilization in primary care clinics need to be further assessed. The majority of healthcare providers and patients reported a positive impact of e-prescribing system on safety and efficiency. Problems faced with Wasfaty have to be resolved in the future. This research is a leading step toward designing further studies in the pharmacy practice field aimed at better assessing the quality of e-prescribing in Saudi Arabia.