

BACKGROUND

Saudi Arabia (SA) healthcare system is facing unprecedented challenges of healthcare expenditure that warrants healthcare reform and cost cut. The pharmacy and therapeutic committees (PTCs) in hospitals play a pivotal role in hospital formulary management system to ensure cost containment and to improve quality of care.^{1,2,3}

OBJECTIVES

Our study investigates the PTCs structures, activities, variations and potential factors that might influence the decision-making of these committees within SA hospitals. The findings will allow augmenting future PTCs activities, increase efficiency, and reduce drug cost that congruent with the 2030 SA's vision.

METHODS:

- A sequential explanatory, mixed-methods approach, consisting of a quantitative study followed by qualitative study. It was conducted from May to July 2018 and included PTCs from governmental and private hospitals in SA.
- The quantitative study was in the form of questionnaire-based study (**validated**). It consisted of 13 questions to collect data on PTCs' structure, activities, objectives, and medication selection process.
- The qualitative study was performed with two data collection methods (**triangulation technique**) to generate more robust findings. The data collection methods included:
 - non-participatory observation with notes taking of PTCs meetings; &
 - in-depth semi-structured interviews using a validated interview topic guide with nine questions in addition to props and prompts questions to explore participants' perceptions, roles, challenges encountering PTCs and factors that might influence PTCs functions and decisions.
- IBM®SPSS® Version 24.0 was used to analyze the quantitative data and NVivo® Version 11.0 was used to sort and organize data from qualitative study.
- Ethical approval for the study was obtained from the participating hospitals.

RESULTS:

- The quantitative study was conducted in **7** hospitals in SA.
- A total of **109** PTCs' members were invited to complete the survey with a response rate of (51,47%).
- For the qualitative study, **28** members were required to reach data saturation. And Five out of seven PTCs were observed.
- **Figure 1** illustrates the different hospitals level of care involved in the study. **Figure 2** describes the percentage of participants respondents from each hospital.

PTCs Meetings & structures:

- Most of the PTCs (**45, 88.2%**) conduct their meeting every month.
- The mean duration of PTC members serving on the committees was **2.7 years ± 3.1** with no significant difference between the private and governmental hospitals (**p = 0.716**).
- All PTCs had policies and procedures outlining the committee's activities and an approved committee formation order (CFO).
- Physicians chaired all PTCs; and co-chaired by either clinical pharmacist (**5 of 7, 71.4%**) or by pharmacy director (**2 of 7, 28.57%**).
- Three committees included a pharmacoeconomist representative as a member (**3 of 7, 42.9%**).
- Quality department representative (**3 of 7, 42.9%**).

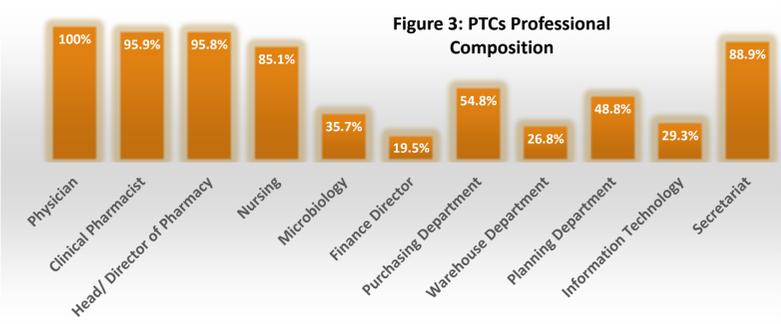
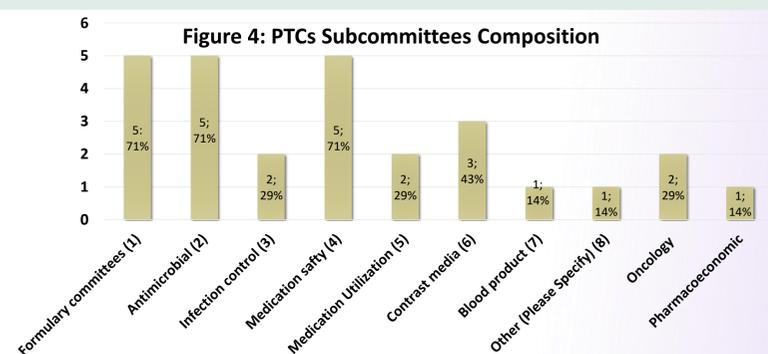
- **Figure 3** demonstrates the categories of professionals represented based on the survey feedback
- Only one committee did not include nursing representation.

Subcommittees:

- **Figure 4** represents the subcommittees distribution among different PTCs.

PTCs Activities:

- PTCs most common activities were: developing formularies (**89.4%**), reviewing treatment protocols and overseeing and ensuring availability of policies and guidelines pertaining to the use of drugs within the hospital (**90%**), preparation of new standard treatment protocols where applicable (**85.7%**), drafting and coordinating the implementation of the treatment guidelines (**86%**), dissemination of PTC decisions (**98%**), monitoring drug expenditure (**96.1%**), and carrying out drug utilization reviews (**88.2%**).



- The least performed activities were the development and enforcement of guidelines for pharmaceutical company representatives (**60.8%**) and advising about educational programs in matters relating to drug therapy (**76.5%**).
- Majority of hospitals had a closed formulary (governmental **14 (63.6)** Private **3 (25.0)** **P = 0.051**).

Challenges:

- The greatest challenges reported by **28** PTC members interviewed, were:
 - Time restraint on PTC activities. This was evident in one of the committees meetings that discussion was not focussed with lots of side discussion and the overall agenda was not completed during the meeting.
 - Members unawareness of their function in committee/evidence-based evaluation and budget restraint. The most important task they are performing is that they are trying to facilitate the requests of physicians.
 - Lack of stock monitoring system which was evident in the way stock monitoring topics was addressed during the meeting.
 - Lack of expertise in pharmacoeconomics. In the only committee that had a pharmacoeconomist among the members, the role of the pharmacoeconomist was not fully seen on the decision of addition and deletion which discussed during that meeting.
 - Weaknesses in evidence-based knowledge which was evident by the lack of systemized approach in drug evaluation addressed especially in the private sector, or being inconsistent with the format and did include some company sponsored advertising material as it was noticed in one PTC meeting observation in one governmental hospital.
 - An open voting system and lack of multidisciplinary representation of physicians in the PTC were identified as one of the structural limitations.

FIGURE 1: LEVEL OF CARE

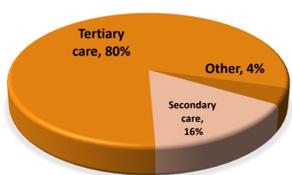
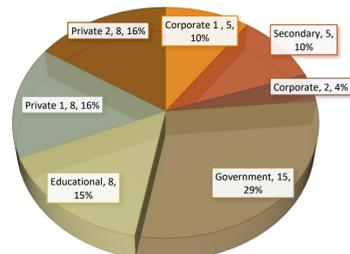


FIGURE 2: # SURVEY RESPONDENT (% TOTAL)



CONCLUSIONS:

Based on our study findings, PTCs in SA health sector needs to invest in standardizing the functions and processes of PTCs, developing training programs to support PTCs members in specialized aspects of formulary management, setting minimum standards for committee members selection, and investing in stock monitoring IT solutions. Such Changes may improve PTCs efficiency and cost cuts to align with the 2030 vision.

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