



Clinical activities and implication of hospital pharmacists in solid organ transplant programs: A province-wide survey

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Introduction

- The involvement of pharmacists in the solid organ transplantation (SOT) team may improve patient therapeutic outcomes.
- The American Society of Health-System Pharmacists (ASHP) published guidelines on pharmacy practice in SOT in 2019.
- According to the Association des Pharmaciens des Établissements de Santé du Québec (A.P.E.S.), pharmacy practice revolves around five key domains.
- In a Canadian survey conducted in 2020–21, four Quebec hospital centers (66.7%) had a pharmacist working in outpatient SOT clinics, and five centers (83.3%) had a pharmacist providing care to hospitalized SOT patients.
- No data are available on the activities performed by pharmacists in Quebec healthcare institutions in the field of SOT.

Aims

- To describe the clinical activities and involvement of hospital pharmacists in the healthcare team of SOT recipients in the province of Quebec

Method

- A 39-question online survey was distributed in February 2025 through an A.P.E.S. communication to pharmacy department heads of Quebec hospital centers with a solid organ transplantation (SOT) program identified by Transplant Québec.
- Thematic questions were based on the five practice domains defined by A.P.E.S. and the recommendations of the ASHP.

Results

Respondants : 8 hospital centers, for 17 programs

(response rate of 100 %)

- 1 excluded questionnaire (inexistent program), total = 16 programs
- Transplanted organ : kidney : 6; heart : 4; liver: 3; pancreas : 2; lung : 1

Pharmaceutical care

- 88% (7/8) of hospital centers provide pharmaceutical care to SOT recipients
 - 94 % (15/16) of programs
 - 1 program (kidney transplantation) without specific pharmaceutical care to SOT recipients
 - 87 % (14/16) on a regular basis, 6 % (1/16, heart) on a consultation-only basis
 - 75 % (12/16) offer outpatient care, either on a regular basis (6/16) or on a consultation-only basis (6/16)
- 69 % (11/16) of programs have a collaborative advanced practice agreement (CPA) including SOT patients; 4 of these 11 programs have a CPA specific to SOT recipients

Pharmaceutical services

- 1 program (6 %) performs order verification on the wards

Teaching

- 63% (5/8) of centers hosted at least one undergraduate (Pharm.D.) student in the previous year
- 75% (6/8) hosted at least one pharmacy resident for an SOT rotation in the past year

Research

- 63% (5/8) of centers have an SOT pharmacist who has published at least one article related to SOT, and 50% (4/8) have a pharmacist who has presented a research abstract related to SOT at a conference in the past 5 years

Management and professional activities

- Pharmacists in 94% (15/16) of programs are involved in the development and revision of tools, order sets, and protocols for the SOT program

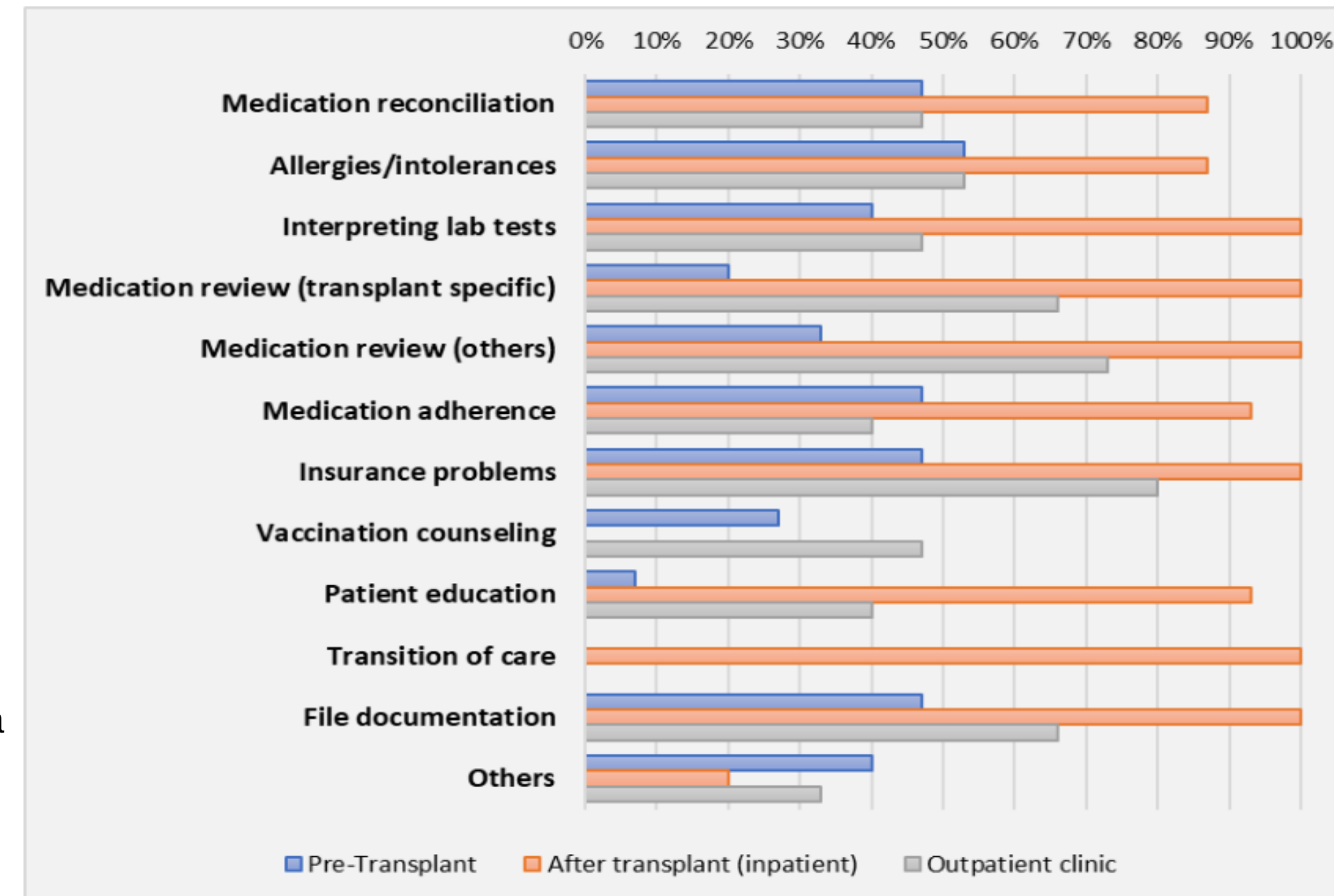


Figure 1. Proportion of programs where specific pharmaceutical activities are accomplished by transplant pharmacists, before and after transplant and in outpatient clinics (n=15 programs)

Additional training for SOT pharmacists

- No pharmacists with additional training in SOT or with a BCTXP certification
- 75% (6/8) of centers have sent at least one pharmacist to an SOT conference in the past 5 years

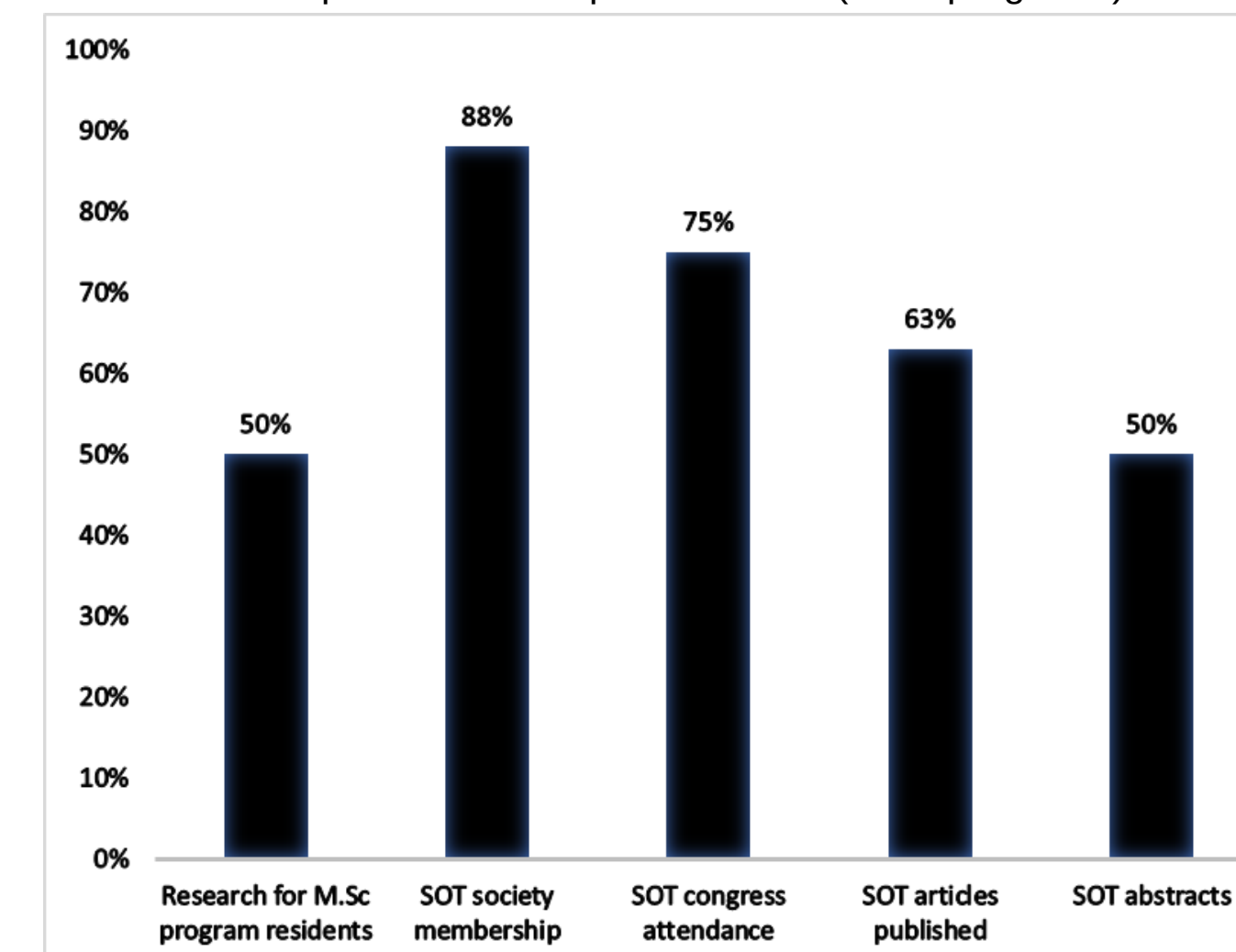


Figure 2. Hospital centers' research contribution by at least one solid organ transplant pharmacist in the last 5 years (n = 8 centers)

Discussion

- With the exception of a single transplant program, Quebec patients who have undergone SOT receive pharmaceutical care and services from pharmacists practicing in SOT
- Pharmaceutical care and services are provided at different stages of the patient care trajectory (pre-SOT, post-SOT, and in outpatient settings)
 - The scope of services varies depending on the program and the hospital center
 - Post-SOT care is the most commonly provided
- Pharmacists' activities in SOT primarily involve four of the five domains of pharmacy practice

Conclusion

- The survey conducted provides data on the activities performed by Quebec pharmacists practicing in SOT
- These data will serve as a basis for comparing the activities of Quebec pharmacists with those of SOT pharmacists elsewhere

Acknowledgments

- The authors thank the A.P.E.S. for its support in distributing the survey and analyzing the results