Patient impact of transferring hospital-only medicines dispensing to community pharmacies: a longitudinal prospective study

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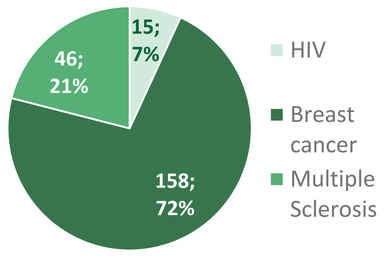
BACKGROUND

- In Portugal, the dispensing of most outpatient specialty medicines was carried out exclusively through hospital pharmacies, totally financed by the National Health Service (NHS)[1,2].
- A collaborative program - Farma2Care - was implemented in December 2019, between a public hospital (*Centro Hospitalar Universitário de São João*), the Portuguese National Association of Pharmacies (ANF), the Portuguese Association of Pharmaceutical Distributors (ADIFA) and the Portuguese Pharmaceutical Society.
- This study aims to assess the impact of transferring the dispensing of medicines for human immunodeficiency virus (HIV), multiple sclerosis (MS) and breast cancer from hospital pharmacies (HP) to community pharmacies (CP), through this pilot program in Portugal.

METHODS

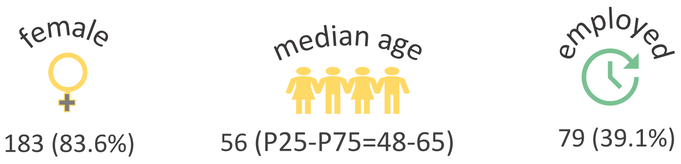
- A prospective longitudinal study was carried out. Participants were recruited during the routine medical visits in a public hospital in the north region and selected a community pharmacy of their convenience for medication dispensation.
- Data was collected from November 19th, 2020, to September 3rd, 2021, through questionnaires in three moments: baseline M0 (recruitment in HP), M1 (first dispensation in CP) and M2 (3 months after the first dispensation in CP).
- Main outcomes were access to medicines, therapeutic adherence (MMAS-8), health-related quality-of-life (EQ-5D-5L), satisfaction with the service, travel and waiting time, and patients' costs.

RESULTS



268 Participants (patients/caregivers)

219 (81.7%) M0, M1, M2



Patient Reported Outcomes Measures

There was a statistically significant ($p<0.05$) increase of adherence to therapy between M0 (HP) and M2 (CP), from 81.0% to 90.5%, and no changes in the quality-of-life (EQ-5D-5L) score.

Satisfaction

A significant improvement of satisfaction levels ($p<0.05$) at M2 (CP) was observed, when compared to M0 (HP) in all evaluated domains (Table 1).

Table 1. Participants' satisfaction (1)

Domains	n (167)	M0 (Baseline)	M2 (3-month)	p-value
		Median (P25-P75)		
Overall experience	167	5 (5-5)	5 (5-5)	0.012
Business hours	163	5 (4-5)	5 (5-5)	<0.001
Waiting Timing	167	5 (4-5)	5 (5-5)	<0.001
Privacy during dispensing	148	5 (4-5)	5 (5-5)	0.004
With the pharmacist´s	167	5 (5-5)	5 (5-5)	0.004
Professional's availability	148	5 (5-5)	5 (5-5)	0.010
Clarity of language that pharmacist used	119	5 (5-5)	5 (5-5)	0.011

(1) Participants who get the medicine in person in three moments (M0, M1, M2)

- ✓ People´s overall experience improved from 83.0% at M0 (HP) to 90.1% at M2 (CP).
- ✓ Improvements in satisfaction were mainly in the waiting time (32% of participants), opening hours (23%) and privacy conditions (21%).

Access, Costs, Absenteeism

- ✓ Transferring the dispense from HP to CP (Table 2) significantly reduced travel time per visit (-50min) and the median distance traveled (-36km).
- ✓ Commuting to hospital required the use of public/private motorized transport (99.4%), while half of participants walked/cycled to the CP.
- ✓ Consequently, there were significant savings from travelling: the median cost of €5 per person/visit (HP) was reduced to €0 (CP).

Table 2. Journey, cost and absenteeism

	n (167)	M0 (Baseline)	M2 (3-month)	p-value
Journey [(1)]		Median (P25-P75)		
Travel time (min)	161	60 (35-90)	10 (10-20)	<0.001
Distance (Km)	107;70 [(2)]	40 (20-65)	4 (2-6)	<0.001
Cost (euro)	96	5 (2.5-10)	0 (0-1)	<0.001
		n (%)		
Travel mode (walking/bicycle)	167	1 (0.6)	82 (49.1)	<0.001
		Median (P25-P75)		
Waiting Timing (min)	167	10 (5-15)	3 (0-5)	<0.001
		n (%)		
Work absenteeism	79	57 (72.2)	79 (100.0)	<0.001

[(1)] The journey to the pharmacy (hospital or community) refers to the act of leaving home, arriving to the pharmacy, and returning home.
[(2)] Different number of answers due to the change in the number of people travelling by car.

- ✓ In addition to travel time reduction, waiting time significantly decreased from 10 minutes (HP) to 3 minutes (CP).
- ✓ Consequently, there was significantly absenteeism reduction, representing a gain for individuals and society. Initially more than 25% of the patients reported working-day time lost (mostly part of the day), while with Farma2Care this no longer occurred.

CONCLUSIONS

- Farma2Care program promoted savings for participants and increased medication adherence, suggesting better health outcomes for patients.
- This collaborative initiative promoted better access and convenience for patients and caregivers, with absenteeism reduction and savings from travelling, and a positive impact on people´s satisfaction with this proximity service in articulation with the reference hospital.
- As future research, it will be important to evaluate the program, to estimate values to reward the contribution of the CPs and find conditions for policymakers to finance the delivery of this service.

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2 – Report of the Working Group "Proximity Project", April 2021. Accessed July 8, 2022. https://www.infarmed.pt/documents/15786/2304493/Projeto+de+proximidade+-+Relat%C3%B3rio/d478b639-2c72-45f6-ef65-bc881eea06aa

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