

Evaluation of Streamlined HIV Pharmacy Services in a Hospital Based Ambulatory Pharmacy in British Columbia (BC)

Caitlin Olatunbosun¹, Junine Toy^{1,2}, Jack da Silva¹, Linda Akagi¹, Osric Sin¹

1. St. Paul's Hospital Ambulatory Pharmacy, 2. BC Centre for Excellence in HIV/AIDS

Background

- In BC, St. Paul's Ambulatory Pharmacy (SPH-Rx) provides centralized antiretroviral therapy (ART) distribution and pharmaceutical care to HIV patients on behalf of the BC Centre for Excellence in HIV/AIDS.
- HIV specialized pharmacy services have been associated with improved medication adherence, increased CD4 cell count, increased likelihood of viral suppression, and decreased medication errors.
- ART is picked up directly from SPH by approximately 50% of program participants.
- Historically, with each ART refill at SPH-Rx, an HIV-specialized clinical pharmacist provided a comprehensive appointment-based private medication consult .
- With improvement in ART and guidelines to start treatment early, more patients are stable while others need increased support to engage in care.
- In 2014, SPH-Rx sought to meet the needs of patients requiring more pharmacy services by shifting resources utilized by stable patients.
- SPH-Rx re-allocated services to patients of higher need by offering stable patients ART refill by phone without pharmacist appointment (No Appointment Needed Program, NAN) and streamlined clinical review.
- Patients were identified for the NAN program by the clinical pharmacist using stability criteria that includes: undetectable viral load, adherence to ART and laboratory monitoring, no current ART adverse effects, and on ART for at least 1 year. Identified patient were offered NAN with no obligation to accept or stay in the NAN program.
- The purpose of this study is to evaluate patient satisfaction with the NAN program.

Methods

- A patient satisfaction survey in paper format was used to assess patient satisfaction in the areas of accessibility, quality of care, and professionalism at all steps of the NAN refill process: ordering, pick-up, phone calls, and impact on overall care. Answers were selected from 4 and 5-point Likert scales.
- The survey was piloted and validated with peer navigators.
- Approximately 2000 patients were enrolled in NAN at the time of the survey.
- Between May 24 – July 31, 2019, 1000 surveys were distributed to NAN patients at time of medication pick-up consecutively as a convenience sample.

Results

- A total of 173 surveys were completed (17.3% response rate)

Table 1. Respondent characteristics

Patient characteristic	Number (%)
Male	162 (93.4)
Age > 50 yo	142 (82.0)
Median years on ART	18 (IQR 11-24)
Number of ART changes	
0-3	107 (61.8)
>3	48 (27.7)
Ever experienced ART adverse effect	97 (56.1)
Non-ARV polypharmacy	
3-5 medications	51 (29.5)
> 5 medications	18 (10.4)
Median years at SPH-Rx	15 (IQR 9-25)
Median years in NAN	5 (IQR 3-5)

Figure 1. Overall Patient Satisfaction with NAN services

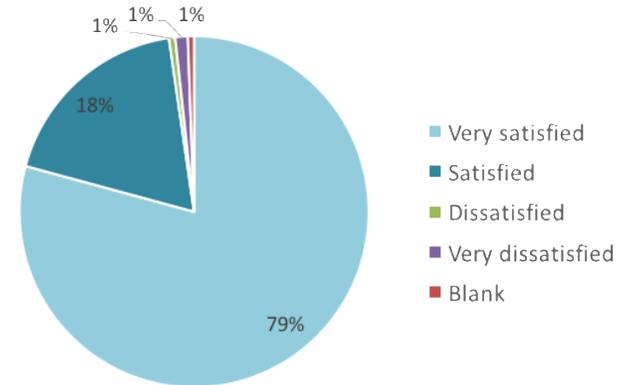
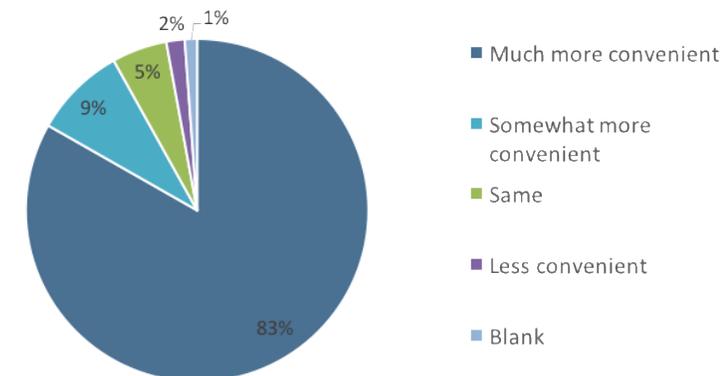


Figure 2. Overall Convenience of NAN services compared to appointment-based refill



Results

Accessibility

- It is easy to call for a refill (98.3% agree/strongly agree)
- Able to reach the pharmacist by phone (45.7% agree, 45.0% neutral)
- Pharmacy is accommodating to their requests (89.6% agree/strongly agree)
- Aware they can book an appointment if they wish (64.2% agree/strongly agree, 29.5% neutral)
- Wait >5 minutes when picking up medications in the pharmacy (15% agree, 8.1% neutral)

Quality of care

- The pharmacist calls about important issues (88.4% agreed/strongly agreed)
- The pharmacist's efforts to solve problems with their health are appreciated (96.9% agreed/strongly agreed)
- Since changing to phone refills, the majority of patients stated adherence, checking for drug interactions with the pharmacist, doing laboratory monitoring, and having their questions about medications answered was the same or better since enrolling in NAN.

Professionalism

- Patient worries about privacy when leaving a message for the pharmacist (6.4% agreed/strongly agreed)
- Patient worries about privacy when the pharmacist calls (8.7% agreed/strongly agreed)
- Health status is kept private and confidential on pick-up (86.7% agreed/strongly agreed, 7.5% neutral)
- Pharmacist on the phone is courteous and professional (97.8% agreed/strongly agreed of those who received phone calls)

Discussion

- Resource allocation is thought of as aligning limited resources to the area of highest need, but the literature is lacking on how to best do this for pharmacy services, and there lacks a tool to determine reasonable pharmacist-to-patient staffing levels.
- Task-shifting has been described for HIV care in resource limited settings where patients are down- or up-referred based on clinical stability.
- Decreasing the intensity of pharmacy services for less complex patients has been seen to increase patient satisfaction and improve efficiency in other settings but the data is limited.
- Streamlined pharmacy services are a convenient way to refill ART for stable patients and has high patient satisfaction rates.
- Pharmacist accessibility by phone is limited by a message system receiving refills and only patients with concerns receive a call back. The large amount of neutral responses suggests that while this limits direct contact, it isn't viewed as problematic.
- These results may be limited by a selection bias, and that those completing the survey have an existing relationship with the pharmacists. Survey anonymity and aggregate results were used to mitigate these effects.
- Analysis of clinical outcomes will also be used to evaluate NAN.

Conclusion

- This project shows that pharmacy services can be triaged by pharmacists based on clinical need with a high degree of patient satisfaction, and without compromise to accessibility, quality of care, or professionalism.