Pilot purpose:

1. To evaluate the impact of Reminder Rosie on medication adherence, client experience, and PSW/nursing utilization for TC-CCAC clients.
2. To provide insight into which TC-CCAC clients would benefit most from Reminder Rosie.

These findings will be presented to TC-CCAC management to inform decision making about funding and support of Reminder Rosie for select TC-CCAC clients.

Overview

Maintaining independence with ADLs and IADLs is often a significant challenge for people with cognitive impairment or dementia. Without support and assistance with personal care, a client's overall health can be compromised. Medication reminders are a frequent need for TC- CCAC clients, even for those that may not require a personal support worker for personal care. Although some pharmacies and community support services offer telephone medication reminder services, these services are not available to the majority of TC-CCAC clients. Alternative aids to improve medication adherence require assessment.

One method of improving adherence is with a medication reminder device. There are several reminder devices that can assist with medication or other reminders (e.g., personal care, physician appointments, and social activities). Based on our experience, we choose to evaluate the device Reminder Rosie. Reminder Rosie is a voice-activated reminder system that can help clients with dementia maintain their independence with medication administration. The reminders are set using personalized voice recordings by a family member, caregiver or health care professional.

It well established in medical literature that improved medication adherence can reduce health care costs. (Roebuck MC, 2011; World Health Organization, 2003). Although our objective was not to assess the impact of using Reminder Rosie on Health Care costs, it is something to bear in mind when considering the results of the pilot.

Executive Summary

Pilot purpose: To evaluate the impact of Reminder Rosie on medication adherence, resource utilization and client satisfaction and to provide insight into which Toronto Central (TC)-CCAC clients would benefit most from Reminder Rosie.

Method: A PDSA cycle was used to assess Reminder Rosie for a small group of TC-CCAC clients that met the project's inclusion and exclusion criteria. TC-CCAC pharmacists set up the devices for eligible clients,

and followed- up after the first reminder, at 1 week, 1 month, 2 months, and 3 months. Outcome measures included improvement in medication adherence, impact on client experience, and the impact on PSW/nursing utilization.

Results: Eleven clients were enrolled in the pilot, with 7 completing the 3 month pilot project. Four clients didn't complete the project due to advanced dementia (3), and client resistance (1). Eighty-six percent of clients achieved a compliance rate of 80% or greater, exceeding our target of 75%. Fifty-seven percent of clients achieved an absolute increase in medication adherence of 30% or more from baseline, exceeding our target of 50%. Most participants had no PSW services during the pilot period. However, we did observe a decrease in time spent on medications by 10 minutes per day (1) and 30 minutes per day (1), discharge of weekly nursing (1), and less time reported on medication reminders (1). A conservative break-even analysis demonstrated that only 7 (14%) TC-CCAC clients using Reminder Rosie would need to have a reduction in PSW hours of 30 minutes daily for the purchase of 50 devices to have a cost-neutral impact. For little or no cost, TC-CCAC clients and caregivers could experience improved medication adherence, positive client experience and satisfaction, a decrease in caregiver burden, and clinical outcome improvements.

Clients were confident using the device and found Reminder Rosie helpful and easy to use. Fifty-seven percent of clients completing the pilot wanted to continue using the device. For those that didn't continue, 1 client moved to long-term care, another found the device annoying and another didn't find the device helpful. Forty-three percent of clients were willing to pay $100 to keep the device but couldn't afford it. Seventy-one percent of clients completing the pilot would recommend Reminder Rosie.

Discussion: When used for appropriate clients, Reminder Rosie improves medication adherence. Clients that benefited from the device were those who had mild cognitive impairment or mild dementia, insight into their adherence issues, and were motivated to improve their medication adherence. There were reduced nursing and PSW costs associated with using the device. Although the goal of this pilot wasn't to assess other outcomes such as health status, emergency room visits or health care costs, data from this pilot indicate that other outcomes may be improved with using the device.

Recommendations: The Reminder Rosie device improved medication adherence and had an impact on client well-being which in itself may be grounds for TC-CCAC to consider providing the device to clients in certain circumstances. The overall costs savings to TC-CCAC are difficult to predict, but savings are likely given the break-even analysis. It is expected that reminder devices would also decrease overall health care costs. We would suggest that LifeAssist be invited to present at TC-CCAC to increase awareness of options to assist with medication adherence. A second PDSA cycle could be completed with a larger sample size to obtain more robust findings on the cost benefit of using such a device.