



QueensCare
HEALTH CENTERS

Simple Targeted Encounters to Better Control Diabetes

Bringing Care to the Patient – A Pharmacy Pilot Project

Cecilia Wu, PharmD

Background

QueensCare Health Centers is a Federally Qualified Health Center in Los Angeles, California with two in-house pharmacies serving five health centers. Clinical Pharmacists (CP) provide Comprehensive Medication Management for difficult or uncontrolled patients, diabetes being the most common. CPs are a great asset to the medical team. They fill the gap between brief doctor visits and can provide the frequent in-depth care most uncontrolled diabetic patients need. Through a Collaborative Practice Agreement, CPs meet with patients between doctor visits and may adjust, initiate or discontinue medications and/or insulin, provide education as well as monitor patient response to therapy and order relevant labwork.

→ How can we take successful elements from the Clinical Pharmacy service and adapt it to the community pharmacy setting?

Limitations of Clinical Pharmacists

- Patients often “no show” for clinic appointments
- Schedules are fixed, with limited capacity

Benefits of the Community Pharmacy

- Patients come to the pharmacy regularly to pick up
- Patients come at their own convenience



→ Provide **SIMPLE, TARGETED encounters** to help patients with diabetes at our pharmacy.

Data Collection

Encounter data was collected from December 2018 to March 2020. Pharmacy staff entered data into a HIPAA compliant, user created online app from knack.com

Hemoglobin A1c (A1c) lab data was collected from June 2018 to June 2020 with reports from a user created Microsoft Power BI program utilizing EPIC clinical databases. Data was analyzed using Excel (Office 365).

A1c lab values were collected for all patients who received at least one program encounter. Baseline lab values older than 6 months were discarded.

Implementation/Design

The program was piloted at our East Los Angeles pharmacy.

- One pharmacist (RPh) supervised 2-3 pharmacy staff. (~150-200 prescriptions daily). Additional training was provided for staff.
- All patients (regardless of insurance) were eligible for our program. Enrollment was staggered as the program was implemented and offered to patients coming to the pharmacy for pick up.
- All patient encounters were documented. Corresponding A1c lab values were tracked for patients who were offered program encounters.

Our program consists of three main components:

Trigger → Assessment → Encounter



* Initial interim data analysis showed many patients were overdue on lab monitoring. Thus additional triggers based on patient's A1c were added.

Medication Triggers

- 1) Any Diabetes Testing supply Rx (glucometer, test strips, lancets)
 - Staff asked if the patient was having problems using their glucometer
 - Staff asked if the patient knew their blood sugar goals
- 2) Any Insulin Rx
 - Staff asked if the patient was skipping injections
 - If patient admitted to skipped injections, staff asked why

A1c Triggers

- 1) Patients with Overdue A1c (last lab >4months if uncontrolled (A1c ≥7%) or last lab >6months if controlled (A1c <7%))
 - Patients sent to Lab for a STAT blood draw
- 2) Patients with Elevated A1c (≥10%)
 - Patients received RPh consult about lab result, discussion of reasons for poor A1c control. Patient education materials were provided. Patients were encouraged to follow up with their medical provider

We cross referenced diabetic prescriptions filled, waiting for pick up (aka in “Will Call”) with a clinical database of lab values. Patients with overdue or elevated A1c values were flagged. Reports were pulled weekly.

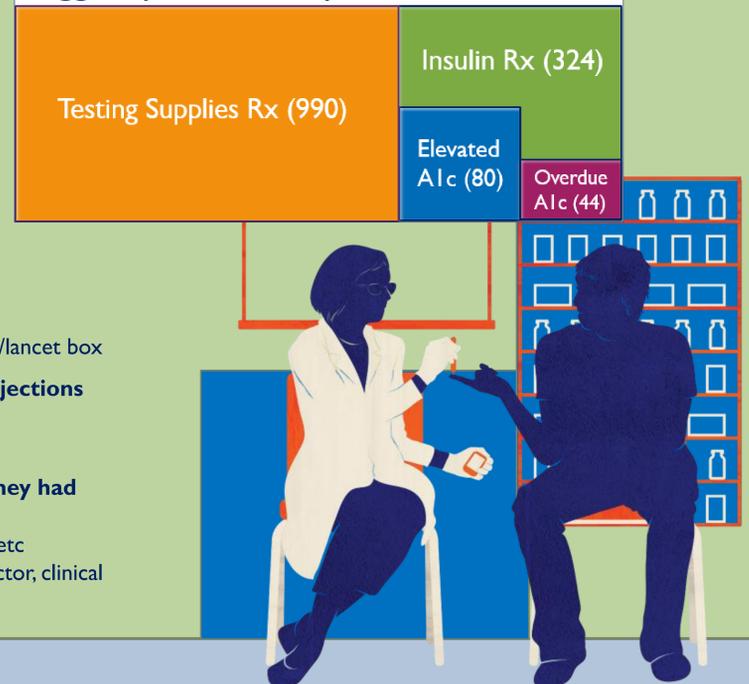
Results

Our program rolled out Dec 2018 and continued until the pandemic (March 2020).

- Encounters = 1,438 patient encounters documented
- Unique Patients = 548 diabetic patients

- + **Nearly 1/3 of patients (31%) reported problems using a glucometer**
 - pharmacy staff reviewed proper glucometer use
 - patients demonstrated proper use before leaving the pharmacy
- + **Almost 2/3 of patients (60%) did not know their blood sugar goals**
 - pharmacy staff reviewed blood glucose goals
 - patients were given stickers with goals to put on glucometer or test strip/lancet box
- + **Slightly more than 1/2 of patients (52%) admitted to skipping insulin injections**
 - RPh asked patients their reason(s) for missing injections
 - RPh discussed strategies to prevent missed injections
- + **More than 1/3 of patients (36%) with very elevated A1c did not know they had uncontrolled diabetes**
 - RPh discussed lab, reasons for poor control, offered education materials, etc
 - RPh encouraged patient to make appointment with medical provider (doctor, clinical pharmacist, nutritionist, etc)

Triggers (# Encounters)



Conclusions

Simple targeted encounters provided by Pharmacy staff to diabetic patients appear to help improve disease control beyond usual care. Our program targeted three important components of chronic disease care:

- + **Education (diabetes self-monitoring)** It is assumed that patients can master glucometer use on their own. Even patients who have owned a glucometer before admitted to problems with use. Hands-on teaching with patient's demonstrating proper use was needed for our patient population. Also many patients did not know their blood sugar goals despite years of picking up testing supplies. By reviewing goals, giving out small stickers, we hope patients will be able to recognize high values and thus may be more likely to make changes or follow up with their medical provider.
- + **Adherence (insulin injections)** Patients on insulin often face more barriers to adherence than oral treatments. We provided individualized consultation addressing each patient's reported barrier. Fear of insulin side effects like weight gain or hypoglycemia, fear of needles or the inconvenience of injecting are common barriers.
- + **Care Gaps (A1c monitoring)** Timely A1c labs are essential to assessing diabetes control. Patients picking up are physically present at the pharmacy and can be more successfully routed to the lab compared to phone calls or mail reminders. While not done in our program, point of care hemoglobin A1c testing is also an option.

Our program leverages the pharmacy setting

- + **Accessibility** – No appointments are required. Patients often come to the pharmacy more regularly than doctor visits. Some patients come monthly to the pharmacy versus only a few times a year to their doctor. Consistent repetition can reinforce important disease knowledge.
- + **Report/Trust** – Patients may feel more comfortable with the regular pharmacy staff who help them. They may be more forthcoming when asked about adherence issues or the pharmacist may be able to assess adherence based on fill history.

Our program is reproducible

Health centers can utilize support staff like nurses, community health workers, etc. to provide similar diabetes education. The key is to find the most accessible setting for the patient's convenience. If replicated in a pharmacy, creating a realistic workflow in a busy pharmacy is crucial. As always, finding sustaining funding to offset costs of staff training, staff time spent providing encounters can be challenging.

Study Limitations:

Our program was designed as a pilot project not a research study. Since we do not have a control group, we can only show an association between improved A1c values for diabetic patients who regularly pick up from our pharmacy.

Funding

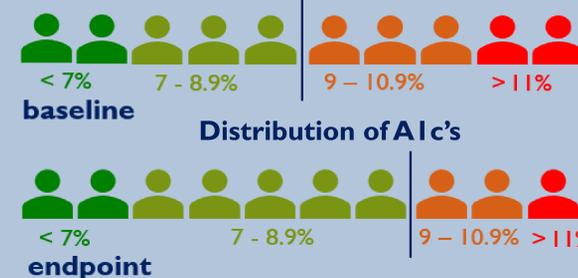
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Diabetes Control

	# Patients	Average A1c
Baseline	475	9.34%
1 st f/u A1c	463	9.06%
2 nd f/u A1c	358	8.78%
3 rd f/u A1c	241	8.57%
4 th f/u A1c	117	8.39%
5 th & 6 th f/u A1c	37	8.33%
Endpoint	466	8.84%

Before our program encounters, the average A1c for our patients was 9.34%. We tracked every subsequent A1c for patients who continued to pick up from our pharmacy during our program. Overtime, the patients who continued to come to our pharmacy showed a decrease in A1c. (Due to staggered enrollment, smaller numbers of patients have later follow up A1c values for assessment.) Average A1c at endpoint, regardless of length of time enrolled, was also lower 8.84%.



Key Takeaway

Diabetics need more time and attention than our current health system provides. Simple encounters targeting self-monitoring, adherence and lab monitoring can make a difference. Providing these resources in more accessible settings beyond the doctor's offices is vital.

Acknowledgements

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