ENHANCED PATIENT CARE FOR DIABETICS IN FAMILY HEALTH TEAMS

Linnea Corbett, James Hadley with contributions from the entire Cottage Country Family Health Team

Background

In April 2012, the Gravenhurst Cottage Country Family Health Team formed a Diabetes Quality Improvement Team to focus on improving outcomes for our patients living with Diabetes.

Our multidisciplinary team includes 6 Physicians, 2 Registered Nurses, A Nurse Practitioner, Dietitian, Social Worker, IT Specialist, Pharmacist, and 2 Support staff.

To ensure we considered the 6 elements of the Chronic Care Model, we conducted a comprehensive overview of all of our internal processes, challenges and successes. From there we were able to establish a comprehensive set of clinical goals – both process and outcome metrics for A1C, LDL and BP. In addition, we began tracking foot and eye exams, self-management discussions and immunization status. Having a clear understanding of the parameters we would track over time, we conducted a Needs Assessment to identify those areas in our current practice that were contributing to our Care Gap.

As a first step, it was determined that the team needed to standardize coding and data entry to enhance the accuracy of our diabetic registry. Following this we were able to determine baseline measurements versus our goals. We then worked to define roles and responsibilities of team members to increase efficiency by avoiding duplication of effort.

Since the inception of this program, we have met as a Team on a monthly basis to discuss different strategies to improve outcomes for our patients with diabetes.

PROCESS

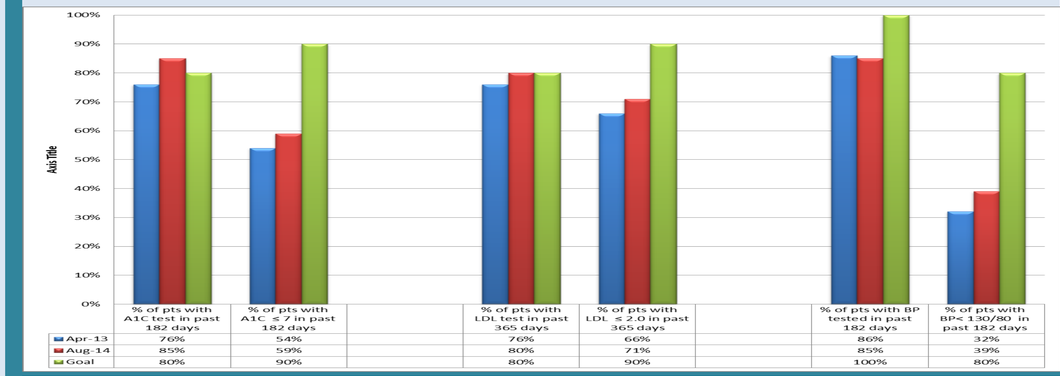
DIABETIC VISIT FORMAT

Our diabetic clinics consist of individual appointments based on ten minute intervals, totalling 30 minutes per visit.

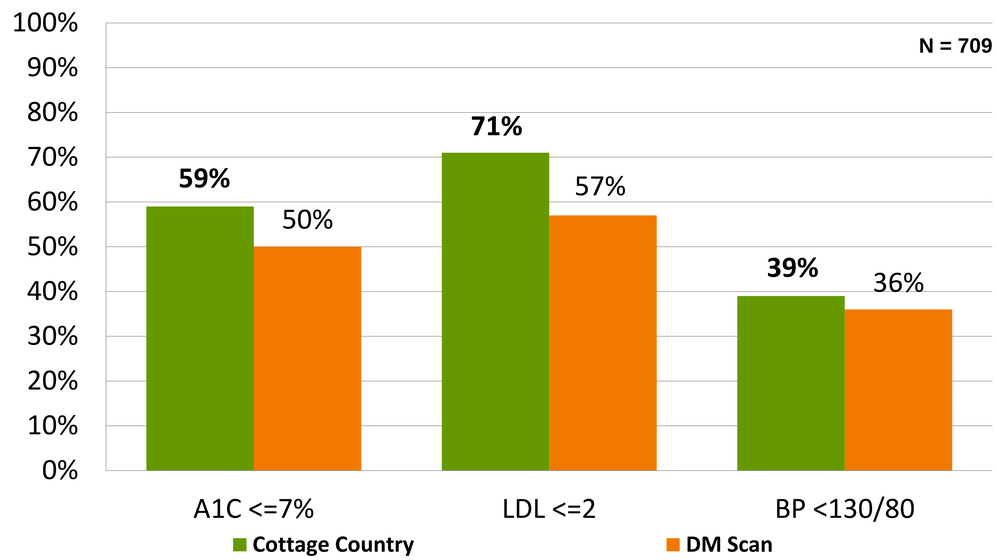
- Patients begin with an assessment by a Registered Nurse
- Allied Health Team member (dietitian, social worker, pharmacist) then provides an educational component
- The Physician examines patient for any changes in clinical management. At the conclusion they are given a "pink slip" by the physician, which helps administrative staff book their next diabetic visit, including blood work one week before the appointment (most appointments are every 3 months)

RESULTS

The designing and creation of a "custom form" for Diabetic encounters gave nursing staff and physicians a standardized method of recording all pertinent information during the appointment. This information was then collected using a search built within our EMR and exported in a structured text format. That file is then imported into Excel, which allows filtering, sorting and calculations to be easily performed. The results can then be graphed to clearly indicate our progress and identifying any metrics needing further attention.

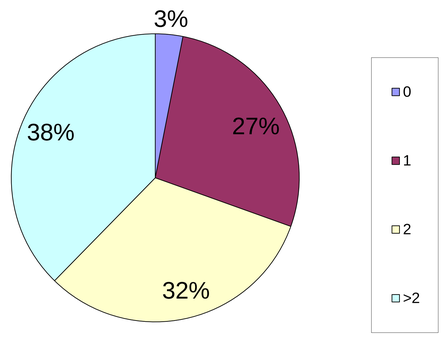


	% of pts with A1C test in past 182 days	% of pts with A1C ≤ 7 in past 182 days	% of pts with LDL test in past 365 days	% of pts with LDL ≤ 2.0 in past 365 days	% of pts with BP tested in past 182 days	% of pts with BP< 130/80 in past 182 days
Apr-13	76%	54%	76%	66%	86%	32%
Aug-14	85%	59%	80%	71%	85%	39%
Goal	80%	90%	80%	90%	100%	80%

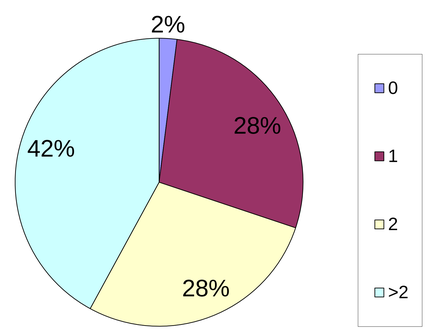


Opportunity for Therapeutic Optimization: Number of Medications Rx'd in Patients with an A1C >0.07

December 2013
A1C > 0.07 N= 292

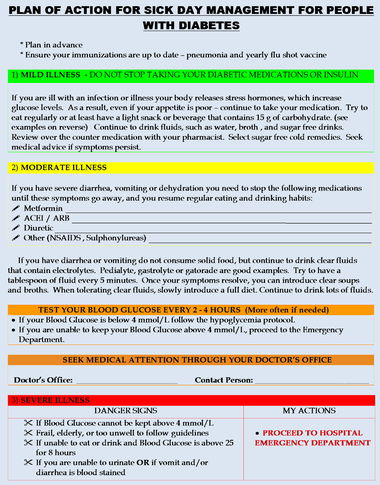


August 2014
A1C > 0.07 N = 302 pts



Continuous Quality Work

As a team, we decided to identify the gaps in educational needs for our diabetic patients. One gap we decided to address was the "sick day protocol" for Type II Diabetics. Diabetic patients receive this tool along with education from our dietitian and the physician regarding medications. We developed a document that is user friendly for both healthcare provider and patient. Patients are advised to place the Sick Day Plan on their refrigerator or cupboard. This gives patients and family members easy access to information when the patient becomes ill.



PLAN OF ACTION FOR SICK DAY MANAGEMENT FOR PEOPLE WITH DIABETES

* Plan in advance
* Ensure your immunizations are up to date – pneumonia and yearly flu shot vaccine

1) MILD ILLNESS - DO NOT STOP TAKING YOUR DIABETIC MEDICATIONS OR INSULIN

If you are ill with an infection or illness your body releases stress hormones, which increase glucose levels. As a result, even if your appetite is poor – continue to take your medication. Try to eat regularly or at least have a light snack or beverage that contains 15 g of carbohydrate. (see examples on reverse) Continue to drink fluids, such as water, broth , and sugar free drinks. Review over the counter medication with your pharmacist. Select sugar free cold remedies. Seek medical advice if symptoms persist.

2) MODERATE ILLNESS

If you have severe diarrhea, vomiting or dehydration you need to stop the following medications until these symptoms go away, and you resume regular eating and drinking habits:

- Metformin
- ACEI / ARB
- Diuretic
- Other (NSAIDS, Sulphonylureas)

If you have diarrhea or vomiting do not consume solid food, but continue to drink clear fluids that contain electrolytes. Pedialyte, gastrolyte or gatorade are good examples. Try to have a tablespoon of fluid every 5 minutes. Once your symptoms resolve, you can introduce clear soups and broths. When tolerating clear fluids, slowly introduce a full diet. Continue to drink lots of fluids.

TEST YOUR BLOOD GLUCOSE EVERY 2 - 4 HOURS (More often if needed)

- If your Blood Glucose is below 4 mmol/l. follow the hypoglycemia protocol.
- If you are unable to keep your Blood Glucose above 4 mmol/l., proceed to the Emergency Department.

SEEK MEDICAL ATTENTION THROUGH YOUR DOCTOR'S OFFICE

Doctor's Office: **Contact Person:**

3) SEVERE ILLNESS

DANGER SIGNS	MY ACTIONS
✕ If Blood Glucose cannot be kept above 4 mmol/l. ✕ Frail, elderly, or too unwell to follow guidelines ✕ If unable to eat or drink and Blood Glucose is above 25 for 8 hours ✕ If you are unable to urinate **OR** if vomit and/or diarrhea is blood stained	• **PROCEED TO HOSPITAL EMERGENCY DEPARTMENT**

Future Plans

- Diabetic Health Blitz: to be held on October 29, 2014. We will have free chiropodist care for our diabetic patients that cannot afford foot care. We also have the dental bus from our Public Health office coming. The DEC will have a booth, as well as our dietitian with lots of educational information
- To develop a separate Program for our pre-diabetic population
- Collaborate with other health teams and community services for ongoing improvement in our outcomes with our diabetic population

Conclusions

Our Family Health Team has successfully developed a Diabetic Program that has made exceptional strides in improving diabetic management with our providers and patients. Patient engagement and participation in their care has evolved to a new level and common goal with provider. Outcomes continue to improve and help our Team meet the needs of our diabetic population. Overall, our Family Health Team can proudly state that " every diabetic patient in our practice receives the same standard of care".

Acknowledgements

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Medical Group Solution Specialists Merck

References

Canadian Diabetes Association

Cottage Country
Family Health Team