Improving Eye Care for Patients with Diabetes

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BACKGROUND

In Ontario, over 800,000 people are living with diabetes.[1] The Ontario Ministry of Health aims to ensure 80% of adult Ontarians with diabetes receive timely monitoring of 3 key diabetic markers: measurement of HbA1c in last 6 months, measurement of cholesterol in last 12 months, and retinal eye exam in last 24 months.[1]

As of December 2012, 72% and 76% of St. Joseph's Health Centre (SJHC) Urban Family Health Team (UFHT) diabetic patients had HbA1c and cholesterol measured within target timeframes, respectively. However, only 41% of our diabetic patients had a documented retinal exam within the last 2 years (compared to a provincial average of 66% in 2010[2]).

Using quality improvement (QI) principles, we analysed possible contributors to this gap in care. We predicted that many of our patients had *undocumented* retinal exams, whereas other patients had not undergone retinal examination. We felt that standardized documentation of retinal exams is essential for identifying patients who are not up-to-date with standards of care, to then ensure appropriate and timely referrals. Using the plan-study-do-act (PDSA) quality improvement methodology, we modified our clinic's electronic medical record (EMR) to capture self-reported retinal exams. In a later PDSA cycle, we then collaborated with our hospital's ophthalmology team to develop and implement a simple reporting form for both new consults and follow-up (F/U) exams that could be faxed back to the patient's family doctor.

PDSA Cycle 1

PLAN
- Introduced new searchable "Self-reported retinal exam" stamp in EMR
- Incorporated self-reported retinal exam data into "DM visit stamp" and "DM flowsheet" in EMR
- Introduced new "Retinal eye exam referral" stamp requesting formal consult report from ophthalmologist/optometrist

DO
- Education session with all residents
- Emailed instructions to all staff and residents
- Trained chronic disease RN

STUDY
- By March 2013, 48% of diabetic patients had documented retinal exam– room to improve!
- Staff confusion about "Retinal eye exam referral"
- Request for consult reports caused excess work for clinic clerical staff
- Many staff not familiar with purpose and use of "Self-reported retinal exam" stamp

ACT
- Simplify: discontinued "Retinal eye exam referral" stamp and request for old reports
- Education sessions with staff MDs and RNs
- Reminder training with residents
- Written reminders to use "Self-reported retinal exam" placed on all clinic computers

PDSA Cycle 2

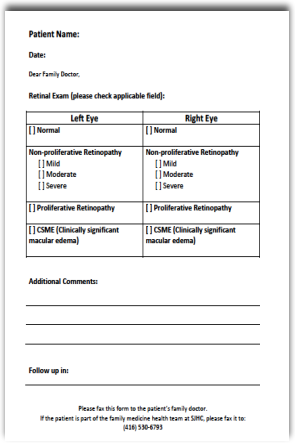
PLAN
- Collaborated with staff ophthalmologist to jointly develop standardized Diabetic Retinal Exam Reporting Form for use at SJHC Eye Clinic, to be sent back to family doctor
- Coordinated with Eye Clinic manager to ensure implementation of Diabetic Retinal Exam Reporting Form at MD and clerical levels

DO
- Eye clinic clerical staff attach standardized Diabetic Retinal Exam reporting form to patient chart for any diabetic visit
- Ophthalmologist complete form during visit (check boxes)
- Clerical staff fax form back to family doctor

STUDY
- By June 2013, 55.5% of diabetic patients had a documented retinal exam
- Mixed feedback from Eye Clinic staff regarding rationale and use of standardized reporting form

ACT
- Updated SJHC UFHT staff with project results and reminder to use "Self-reported retinal exam" stamp and refer patients overdue for exam
- Ensure consistent use of Diabetic Retinal Exam reporting form at Eye Clinic
- Education session for Eye Clinic staff

Diabetic Retinal Exam Reporting Form



Patient Name:

Date:

Dear Family Doctor,

Retinal Exam (please check applicable field):

Left Eye	Right Eye
[ ] Normal	[ ] Normal
Non-proliferative Retinopathy [ ] Mild [ ] Moderate [ ] Severe	Non-proliferative Retinopathy [ ] Mild [ ] Moderate [ ] Severe
[ ] Proliferative Retinopathy	[ ] Proliferative Retinopathy
[ ] CSME (Clinically significant macular edema)	[ ] CSME (Clinically significant macular edema)

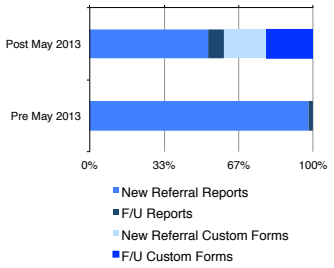
Additional Comments:

Follow up in:

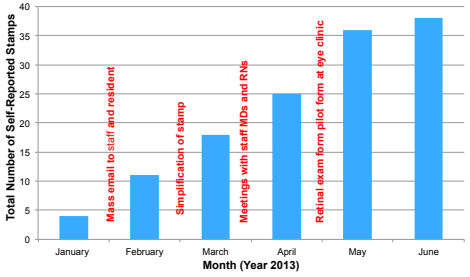
Please fax this form to the patient's family doctor.
If the patient is part of the family medicine health team at SJHC, please fax it to:
(416) 530-6793

RESULTS

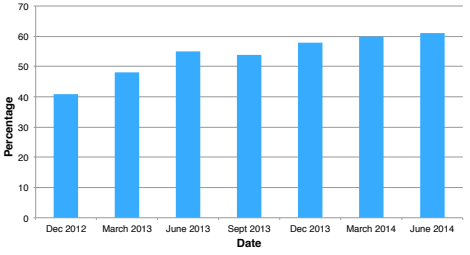
Sources of Diabetic Eye Exam Reports from the Eye Clinic



Cumulative Number of Self-Reported Retinal Exam Stamps for SJHC UFHT Diabetic Patients



Percentage of SJHC UFHT Diabetic Patients with Documented Retinal Eye Exam in Prior 2 years



CONCLUSION

- Through the implementation of multiple QI interventions, including the introduction of standardized retinal exam reporting tools in our electronic medical record and collaborating with our community hospital's eye clinic to develop a standardized reporting form for new and follow-up retinal exams, a greater proportion of our diabetic patients had documented retinal exams.
- This project highlights the practical application of QI strategies and opportunities for interdisciplinary collaboration to improve patient care.

References

1. Ontario Ministry of Health and Long-term Care (2012). "Ontario Diabetes Strategy". Accessed at http://www.health.gov.on.ca/en/public/programs/diabetes/intro/strategy.aspx on Nov 15, 2012.
2. Tepper, J (2010). "Ontario Diabetes Strategy- Newsletter Issue #6". Ontario Ministry of Health and Long-term Care. Accessed at http://www.health.gov.on.ca/en/pro/programs/diabetes/docs/nl_ods_6.pdf on Nov 15, 2012.