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# Tracking Home Blood Glucose through MyChart

Zachary Osborn

Milton Family Medicine

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# The Problem

- Self-monitoring of blood glucose (SMBG) is a crucial tool in the management of Type 1 and Type 2 diabetics on insulin, and for Type 2 Diabetics who titrating medications and/or undergoing lifestyle changes.(Malanda, Welschen et al. 2012)
- Patients often fail to bring in their SMBG readings (or monitor at all) for a variety of reasons, hindering efforts to adjust their therapy.
- SMBG tends to decrease overtime, with reassurance from a provider and habit identified as key reasons for continuing (Peel, Douglas et al. 2007)
- Transferring SMBG readings into the EMR is an inefficient administrative task and a poor use of resources

# Public Health Implications

- Using SMBG to guide adjust therapy contributes significantly to reduction in HbA1c levels (Chircop, Sheffield et al. 2021)
- Direct medical expense from diagnosed diabetes were estimated at \$362 million in Vermont in 2017, with an additional \$158 million indirect costs from lost productivity (American Diabetes Assc., 2018)

# Community Perspective

- “Patients don’t monitor their blood glucose at home for a number of reasons including anxiety, denial, and forgetfulness. But some of my patients just never seem to remember to bring their readings in! ...It affects my ability to guide their treatment because I have to rely on their memory of their numbers or wait for them to go home and send it in later.” – a family medicine physician in the community
- “I don’t like to measure my blood sugars because I don’t understand what it means. Plus, I’m forgetful. And then if I do track it I often forget them at home. “ – a patient with Type II Diabetes

# Intervention

- Educate physicians about the use of “MyChart Blood Glucose Flowsheet” which allows them to place an order through EPIC that allows patients to input their readings directly into the EMR
- I spoke with providers in Milton to get their opinions on barriers to SMBG
- Created a smartphrase “.smbgmychart” that can be attached to discharge instructions, giving patients information on how to log their readings

# Result

User SmartPhrase – SMBGMYCHART [357246]

Do not include PHI or patient-specific data in SmartPhrases.

★ B abc ↶ ↷ ? + Insert SmartText ↶ ↷ ⇄ Insert SmartList ☰

1 2 3 4 5 6 7

### Tracking your Blood Glucose on [MyChart](#)

**How should I record my blood sugars at home?**

You have a couple options! You could write it down and bring it with you to your next appointment. Or you can enter it directly in [MyChart](#). This makes it easier for both you and your doctor to see, lets your doctor track your numbers over time, and puts these numbers directly into your medical record.

**How do I log my Blood Glucose on [MyChart](#)?**

To use **MyChart Blood Glucose**, you must be on [MyChart](#)—see above on your after visit summary for information on how to join [MyChart](#)

You will get a message in the "**My Messages**" tab on [MyChart](#) with a link to a page where you can upload your home measurements.

# Evaluation of Effectiveness and Limitations

- Patients don't record/bring in their readings for many reasons, using MyChart Blood Glucose Flowchart is likely to help certain patients who are organized or will benefit from the reminders. It does not address patients who avoid measuring their blood glucose for anxiety/denial reasons
- Providers will have to determine which patients are likely to benefit from this system vs which ones are more likely to track theirs with pen and paper
- Patients who are not computer literate may not benefit

# Future Plans

- It would be interesting to design a quality improvement project to see if use of MyChart improves patient compliance and A1c levels.
- A survey of patient attitudes about tracking their blood glucose to design further interventions to improve compliance.

# References

- American Diabetes Association (2018). "Economic Costs of Diabetes in the U.S. in 2017." Diabetes Care **41**(5): 917-928.
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- Peel, E., M. Douglas and J. Lawton (2007). "Self monitoring of blood glucose in type 2 diabetes: longitudinal qualitative study of patients' perspectives." Bmj **335**(7618): 493.