Diabetic Foot Exam Risk-based Category and Its Impact on Preventing Limb Ulcerations and Amputations in Patients with Diabetes Mellitus.

Authors: Naif Hindosh MD, Rand Hindosh MD, James Kamau MD, Shilpa Salpekar MD, Sebastian Manuel MD, Steven Cardio MD, Juliana Sotherland MD

- Patients with diabetes are predisposed to developing lower extremity ulcers and subsequently infections, both of which significantly increase the risk for amputation.
- Risk based intervention has been shown to significantly reduce the occurrence and recurrence of diabetic foot complications.
- Studies show that neuropathy, vascular disease, deformities, prior ulcerations, and amputations are major risk factors for the development of ulcerations and amputations
- A risk assessment tool has been developed to assist clinicians in calculating a risk score based on these major risk factors

Project Aim

- Increase the diabetes foot exam quality metrics by 10% in 6 months (20% of baseline) in our IM clinic.

Methods

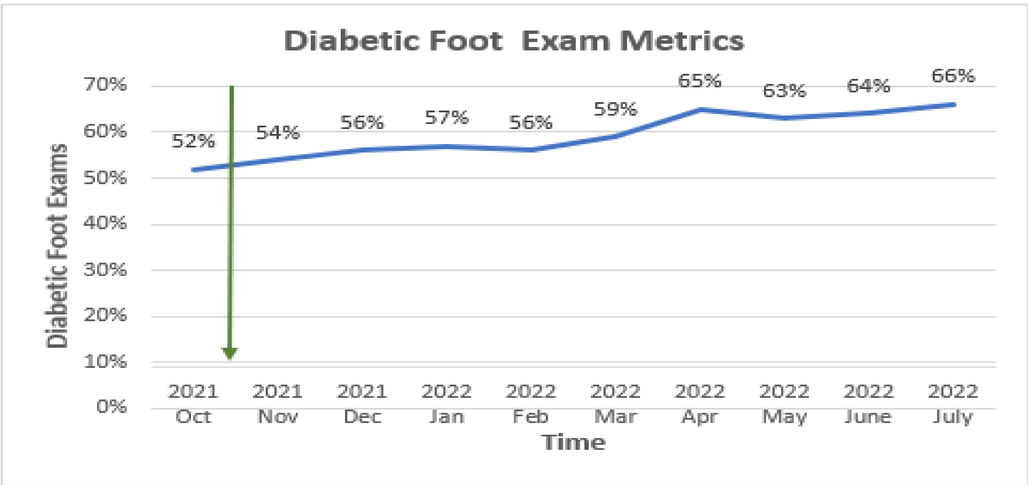
- We created e-learning video and assigned it to the primary care providers in the network
- We allowed 2 months for providers to review and complete the e-learning module prior to the intervention.
- The intervention duration was 6 months from October 2021 to April 2022.
- .We ran the clinic quality metrics and calculated the diabetic foot exam metric of our IM clinic.
- We set our baseline percentage to be 52% which is the percentage of diabetic foot exams that were performed successfully by the end of October 2021 at our clinic.
- We followed our clinic monthly diabetic foot exam percentages with the aim to reach 62.4%

Results

- We tracked the diabetic foot exam metrics monthly for our clinic (Table and graph below). The percentage of diabetic foot exams increased to over 62% after 6 months following our intervention.

Diabetes

	Oct 21	Nov 21	Dec 21	Jan	Feb	Mar	Apr
Foot Exam	52 %	54 %	56 %	57 %	56 %	59 %	65 %



Discussion/Conclusion

Risk category 0	Risk category 1	Risk category 2	Risk category 3
LOW RISK	MODERATE RISK	HIGH RISK	VERY HIGH RISK
Re-check in 12 months	Re-check in 6 months	Re-check in 3 months	Immediate referral if active ulcer or Charcot foot. Re-check in 1 month if history of ulcer or Charcot foot.

Risk category 0	Risk category 1	Risk category 2	Risk category 3
Patient education, daily inspection, proper footwear, routine foot care as needed, yearly follow-up. Tight glycemic control necessary to maintain this risk category.	Patient education, proper footwear, soft molded insoles, routine foot care as needed, daily self-inspection, 6 month follow-up	Patient education, proper footwear with possible modifications, custom molded insoles fitted into footwear with possible modification to relieve areas of pressure, scheduled routine foot care, daily self-inspection, 3 month follow-up	Patient education, extra depth footwear with custom modification, custom molded insoles with modifications to relieve pressure, offload with cast as necessary, scheduled routine foot care, daily self-inspection, monthly follow-up

Discussion/Conclusion

- We found there is a big gap in clinic metrics which have identifiable ways to improve if providers with the help of admin team take the responsibility to dig deeper into it.
- Literature review showed that performing an accurate diabetic foot exam would result in calculating a risk category that would lead to better care including when to schedule next diabetic foot exams to allow capturing early signs of diabetic foot based on the baseline exam results and the appropriate timing of referring to podiatry team

References

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