

Effects of reminder systems in reducing No-Show Rate in an academic general internal medicine clinic

Mani Khorsand Askari, MD¹, Hoda Shabpiray, MD¹, Sadik Khuder, PhD¹, Anand Mutgi MD, Ken Vellequette, MD², Cheryl Growden², Lisa Heyman², Dawn Lennard², Brenda Joyce¹, Basil Akpunonu, MD¹

¹Division of Internal Medicine, Department of Medicine, The University of Toledo, Toledo, OH 43614

²Community Care Clinics, The University of Toledo, Toledo, OH 43614

*Corresponding author: mani.askari@utoledo.edu

Published: 14 December 2023

Background: A No-show (NS) is defined as a failure to keep a face-to-face or virtual outpatient appointment without notice. A High no-show rate (NSR) affects continuity of care. The mean NSR in US is 18.8% with the highest rate seen in primary care offices (1). There are several reasons for NS including transportation issues, concurrent admission on the day of appointment, with the most reported reason being “forgetting the time of appointment”(2-4). Interventions are designed based on the main reason of NS. Some interventions to decrease NSR include automated reminder systems (ARS) by texts, emails, and staff calls to patients 24hrs before visit. The effect on NSR reduction with these measures in our setting is unclear.

Objectives: This prospective study was conducted to assess the effect of ARS on NSR in an academic general internal medicine (GIM) clinic.

Methods: Data on NSR was collected in the academic GIM clinic after initiating ARS by telephone, text, or email. ARS delivered before the appointment time and was consistent throughout the study. We also collected data on actual reasons for NS by random telephone calls to NS patients. The second intervention was a direct call from staff members to the patients 24 hours before the appointment as a direct reminder.

Results: The total number of visits for the year was 18640. NSR was around 19% at the introduction of ARS, Nov 2022, and over 6 months of using ARS dropped to 15% by end of May 2023 (P=0.001). There was a significant further reduction from June to the end of July with the use of direct staff calls (P=0.0000005).

Conclusion: We conclude the ARS reduces the NSR in this academic GIM clinic. Moreover, the addition of direct staff calls to the patient could further reduce the NSR.

References

1. Kheirkhah P, Feng Q, Travis LM, Tavakoli-Tabasi S, Sharafkhaneh A. *Prevalence, predictors and economic consequences of no-shows*. BMC Health Serv Res. 2016; **16**: pp. 13. doi:10.1186/s12913-015-1243-z
2. Kaplan-Lewis E, Percac-Lima S. *No-show to primary care appointments: why patients do not come*. J Prim Care Community Health, 2013. **4**(4): pp. 251-255. doi:10.1177/2150131913498513
3. Mohamed K, Mustafa A, Tahtamouni S, Eshraga T, Reham H. *A Quality Improvement Project to Reduce the 'No Show' rate in a Paediatric Neurology Clinic*. BMJ Open.Quality, 2016. **5**: pp. u209266.w3789. doi: 10.1136/bmjquality.u209266.w3789
4. Johnson BJ, Mold JW, Pontious JM. *Reduction and management of no-shows by family medicine residency practice exemplars*. Ann Fam Med, 2007. **5**(6): pp. 534-539. doi:10.1370/afm.752