MULTIDISCIPLINARY MEDICATION REFILL PROTOCOL DECREASES MEDICATION REFILL TIME

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BACKGROUND/PROBLEM

• The changing landscape of medicine places a variety of demands on the time of clinicians, and strategies to reduce inbox bloat and promote “top-of-license” work among clinical support staff are needed to combat rising physician burnout and improve clinical efficiency.1,2

• Physician surveys consistently cite paperwork as a top contributor to burnout, and EHR-generated messages such as refill requests have been shown to make up a significant portion of this paperwork.2

• In primary care clinics, prescription refill requests significantly impact day-to-day clinic workflow, increasing clinician burnout and patient dissatisfaction.3

• Delays in response may cause gaps in treatment, leading to potential adverse patient events and stress on patient/provider relationships.3

METHODS

• Interdisciplinary refill protocol (Figure 2) was created based on the state Medicaid preferred drug list (Figure 1) to allow for centralized, nursing-driven management of most prescription refills at one Family Medicine residency clinic in Milwaukee, WI.

• Medication refill processing time (i.e., time between initiation of a refill request and either refill approval or denial) was measured in minutes and was compared pre-intervention (3/1/17 to 11/30/17), during protocol adoption and mid-intervention (12/1/17 to 8/31/18) and post-intervention (9/1/18 to 6/28/19).

• Mood median test was used to compare the median time for a medication refill request to be addressed.

• Levene’s test was used to test for change in variance surrounding the median of each group.

RESULTS

• The total number of refills were as follows:
  - Pre-intervention (N = 24,073)
  - Mid-intervention adoption (N = 23,770)
  - Post-intervention (N = 25,770).

• A statistically significant reduction was identified in median time to refill completion, from 232 minutes in the pre-intervention phase to 157 minutes in the post-intervention phase (P<0.001; Figure 3).

• Reduction in median time to response was most apparent in the resident subgroup, with median times of 383 minutes pre-intervention and 79 minutes post-intervention (P<0.001).

• Levene’s test showed significant heterogeneity in variance across groups for response time (Table 1).

• Response time standard deviations (SD) had an overall reduction across groups with pre-intervention mean SDs of 14.5 days, mid-intervention mean SDs of 10.8 days, and post-intervention mean SDs of 5.9 days (P<0.001) (Figure 4).

CONCLUSIONS

• Protocol implementation resulted in significant decrease in medication refill wait time and significantly reduced variation in time to completion of requests.

• This project reinforces the importance of a standardized multidisciplinary medication refill protocol.

• Results from this project is currently being used to further improve and expand the process of medication refill within both academic family medicine clinics.

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REFERENCES