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## Who Opens Alerts to Physicians? (And Who Doesn't?)

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Et al.

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Title: Who Opens Alerts to Physicians? (And Who Doesn't?)

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Abstract:

Background: Electronic medical records (EMR) provide opportunities to implement systems of information flow, such as alerts to providers.

Methods: Within a group practice with an EMR, we conducted a trial of automated alerts to the in-baskets of primary care physicians and staff when patients were discharged from hospital to home. We generated alerts for new medications or monitoring needs. Staff received alerts to schedule office visits. Using EMR "digital crumbs", we tracked when alerts were viewed. We analyzed the impact of physician age, gender, department, and employment status (full-time, part-time) as well as patient conditions (age, gender, comorbidity, and number of office visits in the previous year) on timely opening.

Results: Of 763 alerts to physicians, 616 (81%) were opened within one day. Characteristics associated with timely opening were age < 50 (OR 1.7, 95% CI 1.1, 2.6) and full-time employment (OR 2.9, 95% CI 1.6, 5.2). Of 1928 alerts to staff, 1173 (61%) were opened within one day. Staff of male physicians were more likely to open the alerts within one day (OR 1.8, 95% CI 1.4, 2.4) as were working for the Family Medicine department (OR 1.9, 95% CI 1.3, 2.6) or a sub-specialty department (OR 16.6, 95% CI 2.3, 122.3). Staff of full-time physicians were less likely to open alerts (OR 0.64, 95% CI 0.47, 0.87). Adjusting for patient characteristics had no impact on results.

Conclusion: Special efforts may be required to reach physicians working part-time and older physicians. Characteristics related to staff opening of alerts are specific to this group practice, but the high level of variability across physician types and departments is likely to be an issue in many settings. Design of a system directed at reaching staff quickly may require in-depth assessment of work flow and communication patterns in clinical departments.