

## POSTER ABSTRACTS

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### Evaluation of Physician Group Academic Detailing as a Method to Increase Laboratory Monitoring

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**Objectives/Background:** The objective of this study is to determine whether group academic detailing is an effective method to reduce medication safety errors in the outpatient environment in three integrated delivery systems. The specific error target is failure to conduct lab monitoring at baseline and annually for patients on ace inhibitors (ACE-Is), angiotensin receptor blockers (ARBs), diuretics, and digoxin.

**Methods:** Preparatory to the intervention, semi-structured interviews were conducted with 17 primary care physicians across the three plans to identify clinically important targets, perceived barriers, and possible solutions. Thirty-eight clinics across the 3 HMOs were organized into 19 pairs matched by pre-intervention error rates and practice environments. The clinics in each pair were randomly assigned to either intervention or control status. The intervention was delivered by a respected physician in the local medical group who had been trained in group academic detailing and a pharmacist drug educator who met for one hour with each intervention clinic to review baseline lab monitoring error rate feedback and to engage the providers in identification and implementation of methods to reduce their error rates. A 1-hour follow-up visit was conducted two months later to assess progress, identify and resolve barriers, and reinforce the importance of increasing lab-monitoring rates. Using automated medical and pharmacy claims data, changes in error rates (failure to lab monitor at initial dispensing and annually) were calculated one year pre-intervention and one year post-intervention and compared for intervention vs. control clinics.

**Results:** Preliminary results for changes in rates are only available for one HMO. Pre-intervention failure-to-monitor rates were approximately 40-50% for initial monitoring for both ACE/ARBs and Digoxin/Diuretics, and 35-40% for ongoing monitoring. Improvements were greater at intervention sites for each drug group and for both initial and ongoing monitoring. These intervention effects were highly significant in hierarchical models that adjusted for clustering of patients within physician and clinic, and adjusted for physician pre-intervention rates, patient age, and patient gender. Differences were quite consistent across the 7 intervention-control pairs. The 7 intervention clinics dropped dramatically in ranking of error rates among all 110 primary care clinics in the HMO, but control sites did not.

**Conclusions:** Based on early results in one of three study HMOs, group academic detailing appears to be an effective method for reducing lab monitoring error rates in the outpatient setting. Further analysis will be conducted in the other two HMOs to determine whether these findings are replicated in all three settings. Although electronic alerts incorporated into electronic order entry systems may be as effective and less expensive in some settings, such system solutions are not yet widely available and are not always successful. Group academic detailing may represent either an effective alternative (when electronic solutions are unavailable) or an adjunct to these solutions, possibly enhancing their acceptance. While this intervention produced a significant relative change in laboratory monitoring, there remains much opportunity for improvement. Moreover, as more system-level interventions become widely available, it will be valuable to assess each innovation as well as multiple strategies in combination.