Effect of policy and practice changes on oral anticoagulation use in North Carolina

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Abstract: Despite a long history of proven effectiveness, oral anticoagulation therapy (OAT) has been underused in medical practice so the full potential for stroke risk reduction has yet to be realized in everyday clinical settings. Several policy changes intended to improve care quality and change care delivery were recently established, but the effect of these policy changes on OAT use is unknown. The overall objective of this proposal is to estimate the effect of policy and practice changes on OAT use in real world clinical settings. This work: investigates the impact of The Joint Commission's National Patient Safety Goals on the initiation of OAT in eligible AF patients (Aim 1); evaluates the effect of geographic, physician, facility and patient factors on OAT initiation and time to discontinuation for eligible AF patients (Aim 2); and investigates the effect of patient-centered medical homes (PCMH) on OAT initiation (Aim 3). The overall hypothesis of the work is that both National Patient Safety Goals and PCMHs are associated with increased use of OAT, but only PCMHs are associated with greater time to OAT discontinuation.

Claims data from the North Carolina State Health Plan are used to create cohorts of incident AF before and after policy changes. Difference in difference regression modeling is utilized to evaluate OAT initiation upon hospital discharge in the cohorts before and after The Joint Commission policy changes. A survival analysis approach is employed using Cox proportional hazard regressions to evaluate time to OAT discontinuation before and after these policy changes. A difference in difference modeling approach is used to compare OAT initiation by PCMH exposure status.

This research is significant in several respects: 1) it examines an understudied area of health policy governing health care delivery safety and quality in a population with documented underuse of appropriate therapy; 2) it identifies and differentiates specific populations who have benefitted from policy and practice changes enabling targeted future interventions for maximum effect; and 3) it evaluates an innovation in the health care delivery model for primary care, the PCMH, by providing evidence of its impact on guideline adherence in receiving OAT.

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