

# Gender differences in physician decisions to adopt new prescription drugs

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## Abstract

Physician adoption of new technologies is a key issue for population health. This paper explores the role of GPs in the adoption and diffusion of novel oral anticoagulants (NOACs). These are new prescription drugs used for the prevention of stroke or systemic embolism among at-risk patients with non-valvular atrial fibrillation (NVAF). We use detailed individual data on physician characteristics from the Medicine in Australia: Balancing Employment and Life (MABEL) panel survey of Australian physicians. With physician consent, we link this unique dataset to actual drug utilization from the Australian Pharmaceutical Benefits Scheme (PBS) and the Medicare Benefits Schedule (MBS) for the period 1 January 2012 and 31 December 2015. There are various factors relevant to the uptake of new drugs, one of the most salient is gender. We find a large statistical gender difference in the speed of adoption. The hazard rate of days to first prescription is about 51% higher for male GPs. However, conditional on having prescribed for the first time, men and women follow a similar trajectory of adoption. We test various hypotheses proposed in the literature as drivers of this gender gap. Moreover, this paper could be the first to study the relationship between GPs' risk preferences and personality traits, and their adoption decisions of new prescription drugs. After controlling for detailed GPs characteristics, their prescribing volume, practice style and practice location, we conclude that there are still unobservable characteristics that influence this gender disparities in the speed of adoption. Three possible channels that could explain this disparity are: first, gender differences in access to information, networks and inputs; second, women greater caution because of women's abilities being perceived differently than men's abilities, translating into harder punishment for women after bad outcomes; and third, women greater caution as the result of differences in practice styles.

**Keywords:** Australia; gender; adoption of new prescription drugs; general practitioners

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