

HRB Centre for Primary Care Research Research Briefs

The Preferred Drug Initiative: impact and prescriber-variation following the introduction of a pharmaceutical policy



Against the background of an ageing population, the economic downturn of 2008 and rising drug costs, the HSE established the Medicines Management Programme (MMP) in 2013. The MMP has undertaken a number of initiatives aimed at enhancing evidence-based and cost-effective prescribing, one of which is the Preferred Drugs Initiative (PDI). The PDI recommends a single 'preferred drug' within a therapeutic drug class as the prescriber's drug of first choice. Factors considered when selecting the preferred drug include clinical efficacy, ease of administration, the possibility of side effects or interactions with other drugs, cost and national and international clinical guidelines.

Two recent studies from the Health Research Board (HRB) Centre for Primary Care Research (www.hrbcentreprimarycare.ie), in collaboration with the MMP, have examined the impact of the PDI on prescribing trends and the cost of prescription medicines across seven medication classes, and variation between GP practices in the prescribing of preferred drugs.



HRB CENTRE FOR
PRIMARY CARE RESEARCH



RCSI



QUEEN'S
UNIVERSITY
BELFAST

HR^B Health
Research
Board



NUI Galway
OÉ Gaillimh

We can be found at:

HRB Centre for Primary Care Research
Department of General Practice
Royal College of Surgeons in Ireland
123 St. Stephen's Green
Dublin 2, Ireland

Tel: +353-1-4022473

Email: enquiries.cpcr@rcsi.ie

www.hrbcentreprimarycare.ie

123 St Stephen's Dublin 2, Ireland

The Preferred Drug Initiative: impact and prescriber-variation following the introduction of a pharmaceutical policy



The first of these two studies, published in *BMJ Open* and led by Dr Ronald McDowell (Royal College of Surgeons in Ireland), used an interrupted time series design and segmented regression to analyse data from the Primary Care Reimbursement Service (PCRS) for medical card prescribing. Between 2011 and 2016, around a quarter of all medications prescribed were covered by the first seven PDI guidelines. The percentage of preferred drugs prescribed within each drug class was significantly higher immediately following publication of the guidelines in all cases except urology. The largest increases were for lansoprazole (1.21%, 95% CI: 0.84% to 1.57%) and venlafaxine (0.71%, 95% CI: 0.15% to 1.27%). Although absolute changes in prevalence were relatively small, the total cost savings between 2013 and 2016 were estimated to be €2.7 million.

The second study, also led by Dr Ronald McDowell and published in *Medical Decision Making*, extended the previous analysis using latent curve modelling with structured residuals (LCM-SR) to explore prescriber variation. In most cases, variation in prescribing remained relatively unchanged although it increased for urology medications following the PDI guideline. In the case of proton pump inhibitors and statins which had PDI guidelines issued together, prescribers who increased coverage of the preferred PPI also increased coverage of the preferred statin immediately following guidelines (correlation 0.47). Prescribing of preferred drugs was not moderated by prescriber-level factors such as the number of patients receiving prescriptions from the prescriber, or the proportion of these aged 65 years and older.

Overall, the impact of the PDI guidance was limited, with an inconsistent pattern observed across all therapeutic drug classes, and only a small increase (0.13%) in the percentage of preferred drugs issued overall between 2011 and 2016.

One approach to improving quality of care is to target unwarranted variation in practice. However, the PDI guidelines have had little impact in reducing variation between prescribers. While cost savings have been realised, more intensive implementation is needed if the PDI is to deliver the estimated €15 million per year saving that was anticipated.

Multifaceted interventions will be required to enhance the coverage and impact of the PDI so that these benefits can be realised. These should not only reduce medical practice variation but increase quality of care for patients.

The articles can be viewed at:

[1] McDowell R, Bennett K, Moriarty F, et al. An evaluation of prescribing trends and patterns of claims within the Preferred Drugs Initiative in Ireland (2011–2016): an interrupted time-series study *BMJ Open* 2018;8:e019315.

<https://www.ncbi.nlm.nih.gov/pubmed/29678966>

[2] McDowell RD, Bennett K Moriarty F, et al. Prescriber Variation in Relation to Prescribing Trends within the Preferred Drugs Initiative in Ireland (2012–2015): An Interrupted Time-Series Study Using Latent Curve Models. *Medical Decision Making*, 39(3), 278–293. 6.

<https://www.ncbi.nlm.nih.gov/pubmed/30741086>