Measuring prevalence, reliability and variation in high-risk prescribing in general practice using multilevel modelling of observational data in a population database

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Declared competing interests of authors: Professor Peter Donnan is a member of the New Drugs Committee of the Scottish Medicines Consortium and reports grants from GSK, grants from Lundbeck, grants from Gilead and grants from Otsuka outside the submitted work.

Published October 2015
DOI: 10.3310/hsdr03420

Plain English summary

High-risk prescribing in general practice
Health Services and Delivery Research 2015; Vol. 3: No. 42
DOI: 10.3310/hsdr03420

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High-risk prescribing is the prescribing of drugs to people particularly vulnerable to side effects of those drugs because of their age, the conditions they have or other drugs they are taking. High-risk prescribing is not always inappropriate because in some people the expected benefits will outweigh the potential risks. The study found that high-risk prescribing is common and that both practices and general practitioners (GPs) vary significantly in how often they start high-risk prescriptions of anti-inflammatory painkillers such as ibuprofen. There is more variation between GPs than between practices, suggesting that decisions to start high-risk anti-inflammatory painkillers are largely determined by individual GP decisions rather than the way the practice is organised. However, high-risk prescribing at GP level cannot be easily measured using existing electronic data and it is not possible to identify GPs with above average high-risk prescribing by targeting practices with above average high-risk prescribing. Between 2004 and 2009, high-risk prescribing, measured using 17 indicators, fell from use in about 1 in 12 people particularly vulnerable to drug side effects to use in about 1 in 20, but this was largely because of falling use of anti-inflammatory painkillers in these people rather than because all types of high-risk prescribing reduced. The main implication of the study is that prescribing safety improvement is likely to be better implemented in all practices rather than trying to target practices or GPs with above average high-risk prescribing. Research is needed to better understand why high-risk prescribing varies so much and to develop and evaluate ways of improving it.
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This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its preceding programmes as project number 10/2000/29. The contractual start date was in October 2011. The final report began editorial review in May 2014 and was accepted for publication in October 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors and production house have tried to ensure the accuracy of the authors’ report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health.

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