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TECHNICAL REPORT

International variation in the usage of medicines

A review of the literature

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Prepared for the Department of Health within the PRP project "An 'On-call'
facility for International Healthcare Comparisons"

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Executive summary

In July 2009 the Department of Health established a Steering Group “Extent and Causes of International Variation in Drug Usage” to guide analytical work to better understand the extent and causes of international variation in drug usage. This report aims to contribute to this process by reviewing the published and grey literature on international variation in the use of medicines in six areas (osteoporosis, atypical anti-psychotics, dementia, rheumatoid arthritis, cardiovascular disease/lipid-regulating drugs (statins), and hepatitis C).

The systematic search found surprisingly few international comparative studies that examined medicines use and these varied widely in terms of quality and focus, populations and time periods studied, and outcomes measured. However, despite this variation several common issues emerged from the evidence reviewed here. We identify three broad groups of determinants of international variation in medicines use:

- Macro- or system level factors. Differences in reimbursement policies, and the role of health technology assessment, were highlighted as a likely driving force of international variation in almost all areas of medicines use reviewed here, including dementia, rheumatoid arthritis, hepatitis C, and, for some countries in central and eastern Europe, statins. A related but rarely studied aspect is patient co-payment, potentially explaining some of the international variation in medicines use, which is likely to play an important role in the United States in particular, compared with European countries; but the extent to which cost-sharing policies impact on overall use of medicines in international comparison remains unclear.
- Service organisation and delivery. Most studies reviewed here pointed to differences in access to specialists as a likely driver of international variation in areas such as atypical anti-psychotics, dementia, and rheumatic arthritis, with for example access to and availability of relevant specialists identified as acting as a crucial bottleneck for accessing treatment for dementia and rheumatoid arthritis.
- Clinical practice. Several studies highlighted the role of variation in the use and ascertainment methods for mental disorders, and differences in the use of clinical or practice guidelines. Many studies further pointed to differences in prescribing patterns as an important factor, along with a potential reluctance among clinicians in some countries to take up newer medicines, but none of the studies presented here provided empirical evidence to support this notion.

Each of these factors is likely to play a role in explaining international variation in medicines use, but their relative importance will vary depending on the disease area in question and the system context. It is likely that any given level of use of a given medicine in one country is determined by

a set of factors the combination and the relative weight of which will be different in another country.