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## The Authors' Reply

We thank Professor Franklin and colleagues for their letter commenting on our systematic review.<sup>[1]</sup> We are pleased to note, in particular,

how much we agree on one fundamental point – there is enormous methodological variation in the research that has been conducted to date.

Prescribing error research, we concur, is an emerging research area. When reviewing the literature in this area, therefore, there are many choices that could be made in the presentation of the findings. We made a series of choices that resulted in our systematic review as published. We could have made different choices, as indeed were made by Professor Franklin and colleagues in the way that they reanalysed the literature in this area. That does not mean that our choices were intended to be misleading.

In our review, the first to have focused on the prevalence or incidence of prescribing errors generally, we chose to include a broad range of studies, including those published as abstracts, and to present our medians by the type of denominator used. Our inclusion criteria required that we only include abstracts where ‘they provided sufficient data to calculate prescribing error rates’ and excluded abstracts that did not meet this. If we had chosen to present our data by both the type of denominator and the data collection method, as Professor Franklin and colleagues have done, we may well have excluded more studies.

We chose to describe the breadth of work, with a commentary on the quality and implications. We included studies that used an estimated denominator in the narrative of our review – they were only excluded from the calculation of the medians. We made this choice based on a decision to include only fully empirical data in those analyses and did not intend to offend the authors of the excluded papers.

We reported a median error rate of 7% of medication orders, with a very broad inter-quartile range of 2–14%. We did not conduct a

meta-analysis of the data or suggest that these data be used other than to state that prescribing errors are ‘common’. As we noted in our review, “the ranges around these findings are very broad and, to some degree, are conditional upon each study’s purpose, setting, and methods.” The re-analysis conducted by Professor Franklin and colleagues confirm this statement.

Reanalysis of the data for error rates per admission or per patient day will undoubtedly also show that different medians would result from different study designs. Further delineation of the data could consider studies conducted within certain timeframes, such as before and after the introduction of medicines reconciliation, or within different types of healthcare services. Depending on the different research questions being asked, different choices as to how to select and analyse the data will be made.

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