The author's reply

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We thank Dr Pridmore for his interest in our recent article, and sympathize with the practical needs of treating patients with depression. We do not question that some of Dr Pridmore's patients improved after repetitive transcranial magnetic stimulation (rTMS), nor do we dispute that many advances in medicine have come about through serendipity.

What we do argue is that, although this may be a useful approach to the treatment of individual cases (that is, rTMS is safe, therefore there is nothing to lose and much to gain in trying it out), it will not help us to understand why rTMS is effective in some patients and not others, it will not help us to modify the parameters of stimulation to maximize any benefits, and it will not help us to target other conditions for rTMS. Scientific knowledge about the mechanism of action of rTMS will help to inform these questions.

In addition, it is common in the literature for small-scale studies of rTMS, some perhaps based on serendipitous observations such as those described by Dr Pridmore, to report beneficial effects that may be only marginally greater than placebo effects. In such cases, rigorous hypotheses about the mechanism can help guide decisions on whether to risk large amounts of public money on multi-centre double-blind trials.

A pragmatic approach clearly has its usefulness, as illustrated by Dr Pridmore's letter; however, scientific input is necessary to progress beyond luck or chance.

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