

Extra skin marks vs mocking a block – but what about wrong side mark?

We agree with Wight et al. that conventional methods (posters, awareness campaigns, etc) have not reduced the incidence of wrong side block [1,2]. Stop Before You Block (SBYB) only works if you actually stop immediately before the injection; Mock Before You Block (MBYB) is designed to force the stop moment [3].

We did suggest that other interventions like labels or extra marks might conform to MBYB, but only if they are placed immediately before the injection. Wight et al.'s suggestion involves placing the mark far too early. Their advice that "*the [new] block site mark should be visualised and it must be clearly stated that this has happened*" is clearly no different from what should happen anyway with respect to the surgical mark, so all they have done is replace one focus (which we know already has failed) with another.

Those who recommend extra labels or marks rarely if ever consider what is to happen when the extra label/mark is itself placed on the wrong side – as is inevitable. If the new mark does not reconcile with the surgical mark made pre-operatively, then which mark is to be believed? Should the operation be postponed? Should a third mark be made on the correct side before proceeding? Or something else? Calls to clarify this always fall on deaf ears and no policy has ever been suggested for this important – and we think likely common – eventuality.

The beauty of a mock block is that no such dilemmas exist. A mock block on the wrong side should itself trigger a concise investigation and human factors training. The reflective learning arising out of wrong side mock block (a 'no harm event') should be discussed at quality improvement meetings to identify themes or trends.

Wight et al. question our calculation of MBYB impact as based on non-independent events. The two events (wrong side mock and wrong side actual) are only 'dependent' in the reverse sense, in that the former *prevents* the latter. So, in fact, 1 in 39 million is an over-estimate of the likely incidence! Two wrong side blocks in succession at the same site have never been reported in the history of anaesthesia, and Wight et al. overlook the power of the first wrong side (mock) injection to 'inoculate' against further subsequent error.

We are interested in Wight et al.'s survey, as we have just completed our own much larger survey across many hospitals. We agree that performing a mock block will not come easily to most anaesthetists as it is disruptive to the seamless speed of performing a block –

but that is its very intention. However, we are especially interested in any difference in attitude to MBYB among those who have experienced performing wrong side block vs those who have not.

JJ Pandit

J Matthews

Oxford

M Pandit

Coventry and Warwickshire

References

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Letter

We commend Pandit et al. on their novel idea to reduce the incidence of wrong site block by introduction of a countermanding step (a "mock-block") that is integral to seamless performance of the block procedure [1]. In our own institution, we have trialed a range of measures in response to wrong site block events. These include regular audit, awareness campaigns, prominent display of "Stop Before You Block" (SBYB) posters and advocating verbalisation of the block side and site just before needle entry. Despite these measures, wrong site blocks have still occurred, and would seem likely to continue to do so [2].

In response to the Pandit et al.'s editorial, we conducted a snap survey of practice amongst 50 anaesthetists (30 consultants, 20 trainees) in our institution. Despite regular SBYB awareness campaigns, only 16 anaesthetists surveyed could correctly name all stages of the SBYB procedure. We wonder whether the main issue in wrong site block is failure to properly implement the current SBYB safety measures, rather than inadequacy of the measures themselves.

Also, we wonder how to engage those who have been slow to adopt the original SBYB measures with additional procedural steps, checks or stop points. When mock-block was explained as a possible technique to reduce wrong site block, 20 anaesthetists surveyed stated that they would not be willing to engage in this step, with only one giving their full support. While we applaud attempts to reduce the incidence of wrong site block, our experience has shown that introducing further layers of checks or stop points is not necessarily beneficial. The suggested mock-block may be helpful to those who engage in the process, but it is unlikely to succeed if the basics are not correctly performed.

Our survey also revealed that 10 anaesthetists reported performing or witnessing a wrong site block during their career. Based on these figures, we suggest that the incidence of wrong site block is likely to be higher than 1:6250, possibly due to under reporting. Pandit et al. argue that adoption of an action trigger (mock-block) could reduce incidence of wrong site block to ~1 in 39 million, a figure calculated as $1:6250^2$. This methodology assumes that the mock-block and subsequent block are statistically independent events; the reasoning underlying this calculation is dubious, and a reduction in wrong site block events to 1 in 39 million by use of a mock-block seems overly optimistic.

As a further intervention to reduce the incidence of wrong site block, at our institution we are now recommending an anaesthetic "block site mark" made at the site of the intended block and at a time prior to block commencement. This action may be performed at the anaesthetist's preoperative visit or in the anaesthetic room, but the mark must be placed in conjunction with checking the consent form and with the patient, and most importantly must be sited by the person who will be performing the block. Once the anaesthetist is ready to perform the block, the block site mark should be visualised and it must be clearly stated that this has happened. In addition we propose that the anaesthetic assistant withhold the block needle until the required block site mark is present and checked. By placing the block site mark during the preoperative visit or sign in process, a deliberate, conscious action to check the block site is performed, and later at the time of block commencement an easily visualised reminder is already present.

J. M. Wight

L. Chrisman

I. Reed

G. S. K. Wong

A. Pawa

Guy's & St Thomas' NHS Foundation Trust

London UK

Email: james.wight@doctors.org.uk

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