

A Novel Theoretical Framework to Address the Gap Between Universal Guidelines and International Variation in the Threshold for Abdominal Aortic Aneurysm Surgery

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1 **To the Editor:**

2 Decision making in the treatment of abdominal aortic aneurysms (AAA) has an extensive
3 evidence base with a number of landmark trials informing clinical practice¹. The practice of
4 evidence based medicine, like any other professional practice, rests on some underlying
5 assumptions². At a very general level, they include an implicit understanding of how the
6 theoretical or belief-related and practical or action-related duties of everyone involved are
7 linked. The former set point to an overarching duty of sticking to the facts or ‘getting it right’,
8 the latter, to that of succeeding or ‘getting it done’^{3,4}.

9 There are two competing models on how to discharge both theoretical and practical duties.
10 They have been developed in response to challenges to rationality as an overall norm. For
11 instance, wishful thinking looks like a clear case of irrationality, which ought to be avoided.
12 Yet, it can be preferable to clear-eyed understanding of how desperate one’s situation is. Acting
13 against one’s better judgment is another standard case of irrationality. While in principle it
14 ought to be avoided, in some situations, such behaviour leads to better outcomes. These and
15 related challenges arise from unrecognised conflicts between the theoretical and practical
16 duties, whose joint fulfilment is required by the norm of rationality.

17 The two competing models offer different approaches to managing the resulting tensions. On
18 the first, *one-way connection model*, only truth leads reliably to success, not the other way
19 around⁵. Without an accurate assessment of the facts of the matter, we can be lucky, but not
20 successful in performing a task. This model offers clear guidance: first get it right, then get
21 things done. It has been applied successfully to explaining why the comfort wishful thinking
22 offers doesn’t make it an eligible option in terms of rationality.⁶ However, this model doesn’t
23 help in cases where theoretical and practical duties seem to pull in opposite directions. On the
24 second, *ad-hoc connection model*, theoretical and practical duties cannot be fully reconciled⁷.

25 They run two separate pursuits, getting it right and getting it done. Truth and success are as
26 likely to come together as not. This model acknowledges potential conflicts between theoretical
27 and practical duties. It has been successfully applied to cases of positive illusions where
28 ‘overrating oneself’ looks like a rational strategy in so far as it facilitates the achievement of
29 daring goals. Arguably, an accurate assessment of one’s abilities and chances of success might
30 impede agency in such cases.⁸ Still, this model cannot tell us how conflicts between theoretical
31 and practical duties ought to be addressed in principle. The solutions it proposes remain open
32 to the criticism of being arbitrary.

33 We recently developed a novel, two-way connection framework to resolve the difficulties faced
34 by these two models. It shows that success may lead to truth as reliably as truth to success. In
35 some cases, theoretical duties cannot be fulfilled in advance of practical duties. This is because
36 engaging the believer’s own agency offers a legitimate way to ‘getting it right’ and so to
37 fulfilling the overarching norm of belief. The framework has been successfully applied to
38 identifying cases where the norms of both action and belief can be satisfied as a two-way
39 connection, in contrast to wishful thinking, delusions of grandeur and other forms of
40 irrationality where some norms are satisfied at the expense of others.^{9,10} This framework can
41 help address the gap between universal guidelines and international variation in the threshold
42 for AAA surgery.

43 Considering the fundamental role it gives to evidence, evidence-based medicine is likely to
44 support an implicit commitment to the *one-way connection model*, according to which
45 theoretical duties take precedence over practical ones. On this model, good clinical practice
46 essentially means compliance with evidence-based guidelines. Alternatively, an implicit
47 commitment to the *ad-hoc connection model* aligns with the view that practical and theoretical
48 duties are often at odds. On this model, evidence-based guidelines are seen as increasingly

irrelevant to good clinical practice – either because they become dated or because they cannot take into account the complexities of real-life clinical cases.

The management of small abdominal aortic aneurysms (AAA), in terms of the adherence to the size threshold for surgery, is a case that illustrates the discrepancy between evidence-based guidelines and real-life practice. Although international guidelines all recommend surgery to be withheld until the AAA reaches 55mm in diameter (for men), recent data from international vascular registries show wide variations between the adherence to this recommendation. In the fee-for-service health care systems, some 40% of AAAs are treated before the 55mm threshold, as compared to the UK whereby <10% of AAAs are treated before 55mm^{11,12}.

Applied to the case of significant international variation in AAA care in spite of homogenous clinical guidelines, the parallel use of these two implicit models can explain two things: first, why the variation occurs at all, and second, why the distribution of greater vs lesser compliance with guidelines across different healthcare systems is as currently observed.

Public-funded systems are likely to centre on a one-way connection model, leading to stricter application of evidence-based guidelines. In contrast, private-funded systems are likely to operate on the ad-hoc connection model, leading to closer alignment with patient choice which may diverge from professional guidelines. The latter point is strongly supported by our recent studies on patients^{13,14} and clinicians¹⁵ priorities in AAA care and research¹⁶. The distribution of these two healthcare systems across and within different countries leads to variations in care, according to their respective one-way or ad-hoc connection models.

While these two models explain the current gap between homogeneous guidelines and varying practice in AAA care by making apparent previously unrecognised conflicts between norms of belief and action in the clinic, a new model is needed to address these conflicts. Without such

a model it remains unclear whether and how greater international harmonisation of clinical practice can be achieved.

Drawing on the *one-way connection model*, this would require frequent updating of clinical guidelines worldwide coupled with further peer and institutional pressure to ensure compliance. Drawing on the *ad-hoc connection model*, greater international harmonisation of practice should not be attempted. So, neither approach is up to the task. The first risks being impractical and counterproductive whilst the second fails to acknowledge the issue altogether.

The novel two-way connection framework offers a clear, comprehensive and principled way of reconciling possible conflicts between theoretical and practical duties. It builds on the two implicit models but transcends their limitations. It acknowledges the current gap between homogeneous guidelines and varying practice in AAA care as an important issue. It also upholds the close link between theory and practice, guidance and judgement, evidence and experience. However, this link is dialogical rather than one-way. It allows us to heed equally the theoretical and practical imperatives of getting it right and getting it done.

With respect to AAA care, this means explicit articulation of the criteria of success underpinning treatment in public- vs private-funded healthcare systems. Arguably, these criteria give rise to competing expectations from patients as well as clinicians in these settings. What's more, many clinicians but also patients will move from one setting to the other (ie – a clinician has a private practice concurrent to their public hospital appointment; a patient may wish to utilise private health insurance even in the NHS setting). If professional guidelines fail to acknowledge the potential differences between healthcare systems in terms of what counts as success, the evidence base they rely on risks being either too narrow and unrepresentative or too broad and confusing. By contrast, the two-way connection framework puts in place the

95 conceptual resources to consider the extent to which alternative criteria of success should shape
96 what counts as evidence conducive to optimising health outcomes.

97 Drawing on a new theoretical framework, we put forward a compelling explanation of the
98 current gap between universal guidelines and international variation in AAA care. In particular,
99 we showed that there are implicit, yet unrecognised tensions between norms of belief and
100 actions in current AAA care. We also outlined a clear, comprehensive and principled way of
101 addressing this gap. Challenging the assumption that the criteria of success at the heart of
102 alternative healthcare systems are irrelevant to defining what counts as evidence is a first step.

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