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## Bad apples': time to redefine as a type of systems problem?

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The patient safety movement of the early 21st century rode into town on the 'systems' horse. The Institute of Medicine report confidently declared that 'The problem is not bad people; the problem is that the system needs to be made safer.'<sup>1</sup> Recognising humans as inherently fallible, advocates for patient safety proposed that it was wrong to blame individual clinicians for poorly designed systems that were full of error traps.<sup>2</sup> Iconic examples—such as administration of vincristine via the wrong route—were used to show how punishing doctors one at a time did nothing to prevent catastrophic errors from recurring.<sup>2,3</sup> Individual blame was, therefore, deemed the wrong solution to the problem of patient safety; as long as specific individuals were deemed culpable, the significance of other hazards would go unnoticed. The systems approach sought to make better diagnosis and treatment of where the real causes of patient safety problems lay: in the 'latent conditions' of healthcare organisations that predisposed to error.<sup>4</sup> In order to promote the learning and commitment needed to secure safety, a 'no-blame' culture was advocated.<sup>5</sup> With the spotlight switched off individuals, the thinking went that healthcare systems could draw on human factors and other approaches to improve safety.

Almost certainly, the focus on systems has been an important countervailing force in correcting the long-standing tendency to mistake design flaws for individual pathologies. There can be no doubting the ongoing need to tackle the multiple deficits in how healthcare systems are designed and organised. Encouraging examples of just how much safety and other aspects of quality can be improved by addressing these problems continue to appear.<sup>6–10</sup> Yet, recent years have seen increasing disquiet at how the importance of individual conduct, performance and responsibility was written out of the patient safety story.<sup>11,12</sup> In

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this issue, Bismark and colleagues<sup>13</sup> show why we need to take seriously the performance and behaviours of individual clinicians if we are to make healthcare safer for patients.

This study of formal patient complaints filed with health service ombudsmen in Australia found that a small number of doctors account for a very large number of complaints from patients: 3% of doctors generated 49% of complaints, and 1% of doctors accounted for 25% of all complaints. Moreover, clinician characteristics and past complaints predicted future complaints, with the authors' model identifying those doctors relatively unlikely to generate future complaints within 2 years (<10% risk) as well as those highly likely to attract further complaints (>80% risk). These findings are consistent with other recent research, including work showing that some doctors are repeat offenders in surgical never events,<sup>14</sup> and a broader literature that has explored the phenomenon of 'disruptive physicians' with behaviour problems as well as those facing health or other challenges that impact on patient care.<sup>15,16</sup>

These studies show that a very small number of doctors may contribute repeatedly not just to patient dissatisfaction, but also to harm and to difficult working environments for other healthcare professionals.<sup>17</sup> Bismark et al's study suggests that identifying and dealing with doctors likely to incur multiple complaints may confer greater benefit than any general strategy directed at clinicians in general. This study represents an extreme example of the '80–20' rule—also known as Pareto principle or the 'law of the vital few', which suggests that around 80% of events can be accounted for by 20% of the causes. It is unlikely that this rule applies so dramatically to other patient safety problems. For instance, adverse event studies in the USA, UK, Canada and The Netherlands indicate that approximately 5–10% of hospitalised patients experience harm from their medical care, and about one-third of these events are preventable.<sup>18–21</sup> US hospitals admit 40 million patients a year in the USA,<sup>22</sup> suggesting approximately 500 000 preventable adverse events. It seems inconceivable that a small minority of healthcare professionals could cause the majority of these events.

Yet 'bad apples'—individuals who repeatedly display incompetent or grossly unprofessional behaviours—clearly exist.<sup>23–25</sup> While they may not account for most patient safety problems, the field has probably reached the point where we can at least name the problem of bad apples without detracting from still crucial efforts to improve the design of organisational systems and human factors.

Many countries, including the USA and the UK, have introduced periodic recertification or 'revalidation' of doctors in an attempt to take a systematic, preventative, risk-based approach.<sup>26</sup> In theory, relicensing should pick up doctors whose practice is unsafe, and ensure they are enabled to improve or that their licences are restricted or removed. But relicensing systems are remarkably difficult to design and operate, not least because it is hard to ensure that bad apples are detected (and appropriate action taken) while also encouraging good apples to thrive. Any regulatory system of 'prior approval' involves a high regulatory overhead,<sup>27</sup> typically imposing high burdens both on the regulatees (individuals and organisations) as well as on the regulators. The 'good apples' may have to divert their time and resources in demonstrating that they are good, while the bad apples may find ways of evading detection. Therefore, it is perhaps unsurprising that relicensing

regimes for doctors typically attract a high level of regulatee complaint, both about burden and lack of efficacy.<sup>28,29</sup>

While it may remain difficult for doctors to prove they are ‘good’, perhaps too little is done to address those whose practice patterns, communication styles, or other behaviours pose risks to their patients. If the natural history of the bad apple is one of repeated concerns,<sup>25</sup> and if one of the risk factors for a medico-legal complaint is a previous complaint, then one solution involves focusing more resources on doctors who throw up red flags.

Despite the relative lack of research into this area, several studies demonstrate the possibility of early identification of warning signs related to physician behaviour. One study analysed documentation of unprofessional behaviours in routine evaluations of students at three US medical schools, and showed a threefold increased odds of eventual disciplinary action by state medical boards.<sup>30</sup> Another US study correlated a low professionalism rating on the Residents’ Annual Evaluation Summary with subsequent disciplinary action.<sup>31</sup> A third study identified the predictive value of low scores on the Patient-Physician communication component of the Medical Council of Canada clinical skills examination in terms of patient complaints against these physicians that were filed with medical regulatory authorities.<sup>32</sup> And now, Bismark et al have demonstrated the extent to which past complaints identify doctors at high risk for further complaints. For instance, doctors named in a third complaint had a 38% chance of generating a fourth complaint within 1 year and a 57% probability within 2 years.

Though focusing on ‘bad apple’ individuals may seem at odds with the systems approach to patient safety, a good way of thinking about their behaviour is as a system problem. We have always known about physicians who generate recurrent complaints from patients and repeatedly exhibit questionable competence or unprofessional behaviours. Studies, such as those by Bismark and colleagues, as well as others<sup>30–32</sup> demonstrate that it may be possible to identify these individuals and focus resources on dealing with them. Just as early warning systems detect deteriorating patients and alert medical emergency teams to intervene, the time may have come to recognise the need for early warning systems to identify physicians in need of intervention. In some cases, remediation may well improve behaviour. In others, recalcitrant behaviour or continued legitimate complaints from patients will warrant restricted licences or even removal from practice.

Any system focusing on doctors who throw up concerns requires, of course, that concerns are raised. This is not straightforward. Complaints from patients are likely to be a valuable resource in identifying problematic behaviours. But on their own, patient complaints may not satisfy criteria for sensitivity and specificity. Patient complaints will only ever represent the tip of the iceberg, since they consist only of complaints reported to formal authorities. Some problematic clinicians—such as the UK mass murderer, Dr Harold Shipman, and the nurse murderer, Beverley Allitt—enjoy very high esteem from their patients. On the other hand, some doctors who attract repeated complaints may, in fact, themselves be victims of contextual or system problems unrelated to the individual clinicians including understaffing, excessive wait times, fragmented care and inadequate supports for home care. Some practice settings or specialties may be more likely to provoke patient complaints, and patterns of

unnecessary procedures, missed diagnoses, and operative complications may be apparent only when multiple forms of intelligence are compiled over time.

Relying on colleagues to report poor conduct or performance is also unreliable. In one survey of physicians, 96% of respondents agreed that physicians should report impaired or incompetent colleagues to relevant authorities, but only about half who had actually encountered such colleagues had in fact reported them.<sup>33</sup> In another study,<sup>34</sup> 17% physicians reported direct personal knowledge of a colleague whom they regarded as incompetent to practice medicine in their hospital, group, or practice. Those who acknowledged that they had taken no action cited the belief that someone else was taking care of the problem, the belief that nothing would happen as a result of the report, and fear of retribution. Beyond this study, we know that coworkers are inhibited by strongly held beliefs about shared fallibilities, institutionalised deference to particular professional (and gendered) hierarchies, and the inherent complexities and difficulties of everyday professional life.<sup>35</sup>

For the present, the science is probably not at the stage where a particular policy solution presents itself readily. What is perhaps clear is that identifying the problem clinician will likely involve multiple sources of intelligence, and taking very seriously warning signs that do appear from any source. A research agenda in this field must be pursued vigorously. The field of patient safety (and quality improvement more generally) probably could not have achieved the traction it has without first focusing on identifying and correcting systems problems. But the time has now come to design and evaluate systems that identify problematic individuals. A one-horse race will no longer do.

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