Best Practice & Research Clinical Obstetrics and Gynaecology 29 (2015) 1126–1131

Contents lists available at ScienceDirect

Best Practice & Research Clinical Obstetrics and Gynaecology

journal homepage: www.elsevier.com/locate/bpobgyn

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The role of insurers in maternity safety

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Keywords:
obstetrics
intrapartum care
insurance
litigation
adverse events
training

Adverse events in maternity care are frequently avoidable and litigation costs for maternity care are rising for many health services across the world. Whilst families for whom this injury was preventable suffer from this tragedy, there is an enormous loss of resource to healthcare in general. It is axiomatic that preventing avoidable harm is better for women, their families and society in general, and downstream this improvement should also reduce both litigation and costs. However, there are few initiatives that have reduced adverse clinical events in maternity services and fewer still that have demonstrated decreases in litigation costs. Where these data do exist, the involvement and engagement of insurers seem to have been crucial, but often unrecognized.
Insurers could play a much broader role in preventing harm, and this article explores this potential.

Current situation

Adverse events in maternity care are frequently avoidable and litigation costs for maternity care are rising for many health services across the world [1,2]. Adverse events are common: In the USA, the rate was 3.8% in comparison to UK at 11.7% and Australia 16.6% [4], and this is no less the case in maternity care, although the overall rates of adverse events may be less in obstetric services than other acute settings [5]. One cannot conclude that just because an adverse outcome has occurred

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http://dx.doi.org/10.1016/j.bpobgyn.2015.07.002
1521-6934/

that it is preventable, but many adverse events in maternity care may be preventable. A multi-professional group from the US identified that 87% of their intrapartum quality problems were preventable [6]. A Swedish research group identified substandard care in labour for two-thirds of infants with a low Apgar score [7], and in Norway, human error was identified in 92% of obstetric compensation claims [8].

The NHS Litigation Authority (NHSLA), which insured almost all the NHS maternity units in England over the past decade (2000–09), published their experiences in their journal *Ten Years of Maternity Claims* [1]. This study demonstrated, with claims experience as the measure, that maternity care was safe with <0.1% of births being the subject of a legal claim. However, this low incidence of litigation should not mask the avoidable harm that resulted in serious disability and profound anguish for thousands of women, their babies, families and friends. Nor should this obscure the likely total expected cost to the NHS of £3.1 billion, which represents a £600 litigation surcharge for each and every infant born in that decade. Litigation costs are increasing, and there is now a £700 litigation surcharge for each baby born in England [9]. These are payments that no one wants to receive, or pay; it is money lost to the healthcare service and patient care. However, these payments, particularly their prevention, may be a useful fiscal lever for driving improvement.

In which ways can insurers improve the current situation?

1) Provide financial incentives, particularly for training.

Multi-professional training appears to be one of the most promising strategies to improve perinatal outcomes across the world, localised for best effect. However, training is not magic, nor is it automatically effective. Therefore, we must make sure that training improves outcomes. There are now numerous studies evaluating the effectiveness of skills training for obstetric emergencies with increasing evidence that practical training is associated with improvements in clinical outcomes [10–12]. However, not all training has been associated with such positive effects, and there are a number of studies where training either did not improve clinical outcomes [13,14] or was associated with an increase in perinatal morbidity [15,16]. It is therefore important to ensure that the training that has been demonstrated to be effective is the one that is widely implemented and included in national guidance [17]. In a review of maternity training programmes, it was identified that a common characteristic of units that had improved outcomes was a financial incentive to provide the training [3], most commonly provided by insurers. There are examples of reductions in litigation payments related to improvements in maternity outcomes. A group in Bristol has identified improvements in perinatal outcomes after training [10–12] that have been associated with a 91% reduction in litigation payments. There are similar reports from the US: One group reported improvements in perinatal outcomes and observed that the national obstetric claims experience (claims/10,000 births) was approximately 20% higher in comparison to that seen in their system [18]. Another group described a parallel reduction in poor intrapartum outcomes and the number of reserved claims per birth, which decreased at a rate of approximately 20% per policy year [19]. In another US paper, the average yearly compensation payments decreased from $27,591,610 between 2003 and 2006 to $2,550,136 between 2007 and 2009 in association with a decrease in sentinel events from five in 2000 to none in 2008 and 2009 [20]. Training requires funding, and most of these studies were supported or incentivised by insurers. However, the best way of providing these incentives is currently unclear. Payment for performance programmes has not always resulted in improved outcomes [21]; the Clinical Negligence Scheme for Trusts (CNST) process, whereby the NHSLA awarded risk management discounts, has recently been discontinued [22,23], and revised methods for calculating contributions will reward safer organisations that have fewer claims.

One of the common barriers to the introduction of training in many healthcare settings has often been the gap between local budgets and national claims, where units find it difficult to justify spending funds on training, when there is no immediate local financial benefit. It is noteworthy that the risk management reductions afforded by CNST provided a significant impetus for units to start training because managers could justify to their fund holders the direct financial benefits of training. Other successful schemes in maternity care have employed similar incentivisation methods, including

insurer-funded research projects in Australia [24] and the US [25]. Based on quality monitoring, incentivisation might also be a powerful tool for quality improvement. This could start by defining the characteristics of good and not so good services, and incentivise mechanisms where the latter transforms itself into the other [2]. Instead of silo working, Trusts could consider linking into improvement networks or engage in a 'buddy system' with another unit, as is commonly the case in education. Therefore, there is a nascent evidence base for both effective patient safety initiatives and their positive effect on claims. Most of these successful initiatives were supported by insurers, and more work is required to understand how best to incentivise best care and outcomes using financial levers [4]. However, insurer engagement to provide a system overview and targeted financial support is likely to be key.

Families, staff and insurers, all want the best possible outcomes in maternity care. However, because of the disjointed nature of healthcare services, there can be perverse financial pressures that could disincentivise outcome improvements. One US service reported an 11% decrease in the rate of maternal and neonatal adverse outcomes between 2008 and 2011, which saved the hospital system $284,985 in costs to the maternity service, but, as a consequence, earned $324,333 less in neonatal revenue: a net loss of $305 to the hospital for each adverse maternity event avoided [26].

Clearly, these perverse incentives could be stopped by a whole system approach by insurers.

2) Use claims data to target areas for improvement.

To promote patient safety, the claims data can be collated and used. The NHSLA identified that three (overlapping) categories accounted for 70% of the total value of claims; mistakes in foetal heart rate interpretation, mistakes in the management of labour and the development of cerebral palsy [1]. A similar report from Norway endorsed these findings [8].

Although these claims analyses offer a perspective on safety that informs litigation systems, they provide a very narrow and often historical view of adverse incidents for clinicians; therefore, they may be of limited direct value to clinical services.

There are other examples of research directly supported by insurers that have both prevented harm and contributed to the evidence base for effective patient safety interventions. Probably the best example is the VicPROMPT study [24]: a clinical study supported by the Victorian Managed Insurance Authority (VMIA) that demonstrated an improvement in neonatal outcomes after a training intervention for intrapartum care. There were also improvements in unit safety attitudes. In addition, a preliminary actuarial investigation into the claims data suggests that there has been an associated reduction in maternity claims as well (personal communication). These data illustrate exactly what the symbiosis of clinical–insurer engagement can achieve to mutually benefit families, healthcare providers and insurers.

There is a truism that: '*We can only improve the things that we can measure*'., In order to make rapid quality improvement feasible, a recent commentary [42] recognised that measurement of quality in maternity care should be made easier, more timely and more understandable. The decision of the NHSLA to change the methodology for assessing CNST contributions recognises that we should rely less on the self-assessment of risk processes and begin to prioritise what matters most: clinical outcomes and patient experience.

Once again, there is an alignment of families, healthcare providers and insurers; all of whom agree that units should collect and produce a standard, relevant set of quality indicators, ideally from routinely collected data, and present these in a manner that facilitates ongoing local improvement. To introduce a standard set of quality indicators and investigate local dashboards that can be aggregated up to a regional and national level in a new and efficient bottom-up approach, there are some models from both the NHSLA [43,44] and VMIA (personal communication) of targeted work. Moreover, there are enormous opportunities which might have a mutual benefit to use these data to link clinical and insurance datasets, for example, the identification of pragmatic outcome proxies for claims to more accurately tailor risk and unit-level premiums. Insurers also have the traction to join up the current disjointed, myriad regional and national groups, all of whom have a different window on maternity data, to a common purpose: using data for local improvement.

3) Oppose barriers in the current legal system.

The current adversarial litigation process may itself be a significant barrier to better care. There are reports of obstetric providers ceasing to provide care in response to liability concerns [27], whilst those that remain report having to perform unnecessary investigations and interventions in response to the perceived litigation threat [28,29].

In one US study of 890,266 women who gave birth across 37 states, where malpractice premiums reached a threshold of $100,000 per annum, there was a significantly higher rate of caesarean section (CS) and a reduced rate of vaginal birth after caesarean (VBAC) [29]. These interventions have not only improved outcomes but have also increased healthcare costs.

In addition, traditional litigation systems have provided only money, and then only infrequently, slowly and at considerable emotional and psychological expense [30]. Injured patients report additional needs that are not met by financial compensation alone: restoration (more broadly than money), sanction and accountability and communication (disclosure, explanation, candour); and, perhaps most significantly, correction (steps taken to assure the error is not repeated) [30]. In 2014, the NHSLA introduced a mediation service to address some of these issues [31]. No-fault systems in New Zealand have been demonstrated to offer more timely compensation to a greater number of injured patients and more effective processes for complaint resolution and provider accountability. However, it seems that there has not been a marked improvement in patient safety [32].

Finally, there is increasing recognition that those litigation systems that require blame and individual provider fault to access compensation for medical injury may themselves stymie attempts to make care safer [30,33], particularly with regard to abandoning blame and increasing transparency [34]. Traditionally, no-fault systems have also been criticized for their expense and the presumption that eliminating liability will dilute incentives for healthcare providers to deliver high-quality care. Certainly, some empirical data suggest that a compensation model designed around avoidable or preventable injuries rather than negligent ones would not increase costs [33]. There is good evidence that litigation costs have been the drivers to improving workplace safety [35]. However, the data are less robust for no-fault compensation in medical care and patient safety: Patient safety does not seem better in New Zealand [32] or Sweden [36], in comparison to the UK. Furthermore, at least one author has observed that: 'In the absence of directly relevant research findings, we are left with clearly unreliable anecdotal evidence which regrettably doubts a connection between no-fault and safer care' [37]. In one study, there was an association between better note keeping and more detailed consultations and fear of litigation [37]. However, in maternity care, the threat of litigation does not in itself appear to improve care, and there are a number of obstetric studies that demonstrate the opposite effect [28]. Swedish obstetricians who work in a no-fault system appear to be very candid in their reported management of shoulder dystocia with subsequent brachial plexus injury [38]. This has led to a better understanding of the causal mechanisms of injury, and thereby prevention [39]. The introduction of a no-fault compensation system in those countries without them may improve learning from claims and safety, improve candour and improve the experience of those injured. There are other ways of improving candour, including the introduction of a statutory duty and/or incentives to improve candour [40], and it will be useful to determine the effect of these initiatives. As with all interventions, the introduction of a no-fault system should be carefully evaluated, but there are sufficient potential advantages for an insurer to pilot a no-fault system with both a quantitative evaluation and a parallel process evaluation. Insurers could lead the way with malpractice reform using evaluated pilots of a more 'patient safety friendly' tort system [33,41].

Conclusion

Insurers are perfectly placed to play a central bridging role linking patients, health services and policy to improve care and outcomes: Better engagement and collaboration with healthcare professionals could reduce the, often unintended, barriers to safety in the current litigation landscape. Moreover, insurers could signpost effective interventions, support research into safety and pump-prime implementation, in addition to the more obvious use of their fiscal power to incentivise best practice and outcomes.

Insurers and clinicians could, and should, have a much more effective, wide-reaching, symbiotic relationship that works to prevent avoidable harm in maternity services. There are good examples where exactly these collaborations have directly improved care and reduced poor outcomes in maternity services. These improvements have been associated with reductions in claims, which mutually benefit all of the stakeholders in healthcare, and, in particular, consumers and their families.

Conflict of interest statement

No conflict of interest declared.

Practice points

- Many adverse events in maternity care are a result of human error and may be preventable.
- Multi-professional training appears to be one of the most promising strategies to improve perinatal outcomes. Insurers can provide a financial incentive to provide such training.
- Insurers can also collate claims data and use this to promote patient safety.
- There is potential for insurers to lead the way with malpractice reform using evaluated pilots of a more 'patient safety friendly' no-fault tort system.

Research agenda

- We look forward with interest to the prospect of increased engagement and research between insurers and clinicians.

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