

BMA response Sir Norman Williams Review

April 2018



Dear Sir Norman

The BMA is a professional association and trade union representing and negotiating on behalf of all doctors and medical students in the UK. It is a leading voice advocating for outstanding health care and a healthy population. It is an association providing members with excellent individual services and support throughout their lives.

The BMA welcomes the opportunity to respond to the review into the application of gross negligence manslaughter in healthcare.

Our response focusses on the three areas outlined in the review's terms of reference and builds on existing work that our Medico-Legal Committee started 2 years ago. We have suggested a number of changes that could be made to improve the systems in place, which have been informed by that work.

If you have any enquiries about the response or require further information, please do not hesitate to contact Reena Zapata, Senior Policy Advisor (rzapata@bma.org.uk)

Yours sincerely

A handwritten signature in black ink, appearing to read 'Chaand Nagpaul'. The signature is written in a cursive style with a large initial 'C' and 'N'.

Dr Chaand Nagpaul CBE
BMA council chair

Introduction

The BMA welcomes the opportunity to contribute to the Department of Health and Social Care's rapid review into Gross Negligence Manslaughter (GNM) in healthcare. We recognise that this has been called for in response to the impact of the case of Dr Bawa-Garba on the wider medical profession as well as other high-profile cases such as Mr Sellu.

The underlying events of a GNM case are tragic for the patient and their families. Without wishing to minimise this impact in any way, a charge and possible criminal conviction for manslaughter is devastating for the doctor (or other healthcare professional) involved. The recent case of Dr Bawa-Garba has only confirmed this. According to the Medical Defence Union, damage is done to many more individuals through the investigations that are not prosecuted, as is the case in 94% of investigationsⁱ in respect of healthcare workers in England and Wales. This figure suggests that there is a significant degree of over-investigation.

As well as the impact on doctors who are investigated, charged or convicted, there is also the wider impact - on staff morale, the delivery of health services and patient safety. These concerns have been exacerbated by the perceived lower threshold for prosecutions, an increase in the frequency of such investigations, and a perceived greater willingness of the Crown Prosecution Service (CPS) to prosecute.

The BMA hopes that the review will achieve long-term cultural change, including acceptance by the leaders of the healthcare system of the importance of creating a culture of openness and honesty. The BMA firmly believes that through the recommendations that it is advocating, it is possible to reduce the number of investigations and prosecutions and promote this culture. Adoption of the recommendations will in our opinion, lead to an improved and more coordinated and consistent approach between the police, the coroner, the CPS and the General Medical Council (GMC) when dealing with a doctor who is accused of GNM.

Lack of NHS resources, systemic pressures/failings and impact on patient safety

The NHS is regarded as one of the best health systems in the world, yet chronic underfunding and workforce shortages put quality of care and patient safety at risk. The BMA recently completed a report on the current pressures within the NHS and the impact this has on both doctors and patientsⁱⁱ.

Unfortunately, the court system does not give sufficient attention to these issues. Although the individual is supposed to be judged in 'all the circumstances in which (s)he was placed', the prosecution pivots around the standard of care given by the individual charged. The precise significance of failings in all healthcare settings may not always be evident, particularly given the complexity involved.

Commenting on this inadequacy in the court process, Mr Ian Barker, senior solicitor at the Medical Defence Union (MDU), recently said, "Should extra pressures and the impossible tasks you are being asked to do be relevant, and should that play a part in terms of culpability—yes. The Adomako ruling says that you look at all the circumstances of the case, and that means you look at those pressures."ⁱⁱⁱ

Additionally, although the BMA is aware that one trust was charged with corporate manslaughter, most prosecutions for gross negligence focus on the individual doctor. The BMA believes that where there are significant systemic pressures or failings that played a part in allegations of gross negligence, there should be corporate accountability. The Corporate Manslaughter Act should mean that the employing organisation is held to account for allowing unsafe practices and systems.

Defensive medicine

There is now growing evidence that doctors are practising defensive medicine. In 2015, a review of international literature^{iv} confirmed that defensive medicine is widespread and occurs in all diagnostic-therapeutic areas, although some medical specialties are affected more than others. Various studies have looked at the situation at national level, both within the EU and internationally.

In the United States, experts have estimated the cost of defensive medicine as being in the range of \$9 to \$18 billion annually, accounting for about 1-2% of US healthcare expenditure^v. Another US study projects that thorough malpractice reform could result in system-wide savings of \$41 billion over five years.^{vi} Additionally, it is important to point out that practising defensively does not simply have an economic impact but also leads to indirect costs such as loss of time and reputation of the doctors involved, personal stress and a tendency to avoid the treatment of high-risk patients.^{vii}

In the UK, over 1000 doctors responded to an anonymised [survey](#) by Dr Jenny Vaughan^{viii} seeking views from doctors on whether 'clinical practice change in the face of prosecution'. Their answers confirmed many worrying trends.

When asked if they practised more defensively (inclined to do more tests/procedures or overprescribe) because of the fear of litigation, 39 percent of respondents strongly agreed with the question while an additional 45 percent agreed.

The reluctance for doctors to disclose mistakes for fear of reprisal, deprives the profession from the opportunity to learn. This problem was recognised by Donald Berwick in his report, *A promise to learn – a commitment to act*^{ix}, which concluded that fear is toxic to both safety and improvement and that blame should be abandoned as a tool.

In line with Berwick's findings, the BMA believes that there should be a system where all errors are reported, acted upon, and used to improve the system. Emphasis should be on systemwide lessons, not the individual. Patient safety will never be improved unless everyone promotes an open learning culture. "We must channel the sadness at Jack Adcock's death, and the anger at Dr Bawa-Garba's fate, into positive change for safer patient care."^x

To understand the issue of the increasing number of doctors being prosecuted and the practice of defensive medicine, the BMA believes that it is important to examine the current

climate in the healthcare sector, the process once a doctor is accused of GNM and the impact any prosecution has on the healthcare system, the doctors involved and patient safety.

How we ensure healthcare professionals are adequately informed about:

- **where and how the line is drawn between gross negligence manslaughter (GNM) and negligence;**
- **what processes are gone through before initiating a prosecution for GNM;**
- **in addition, provide any further relevant information gained from engagement with stakeholders through this review about the processes used in cases of gross negligence manslaughter.**

GNM and Negligence

From a legal point of view, we understand that the criminal offence of GNM is designed to apply to ‘the truly exceptionally bad’ whereas clinical negligence aims to compensate the claimant for the harm they have suffered when a doctor falls below the standards of a responsible body of medical opinion.

Though there is clearly a role for the criminal law in deterring behavior that is wilful or intentional that causes serious harm or death, we share the view expressed in Berwick’s report^{xi} that recourse to criminal sanctions should be extremely rare.

This submission seeks to highlight what can be achieved within the current legal framework. Although beyond the scope of this review, the BMA believes it is important to explore the possibility of including ‘recklessness’ and “intent” as criteria, for the offence of GNM to be investigated.

We set out below the various aspects of the process for investigating and charging healthcare professionals with gross negligence manslaughter and the changes that we would recommend to make this process consistent.

Role of the Coroner

Currently we understand that the process often starts with the coroners referring the cases to the police who then escalate the matter to the CPS for a decision on whether to charge. The role of the coroner is to look at ‘who, how and why the death occurred’. As this is a local service, there are differences in the way GNM cases are dealt with. It is crucial that there is a consistent approach by coroners in relation to all GNM cases in healthcare that they refer to the police.

Recommendation 1: That any GNM cases in healthcare are referred only after consultation with the Chief Coroner. This should ensure that only the cases that warrant further investigation are referred to the police.

Role of the medical examiner

Between March and June 2016 the Government consulted on reforms to the death certification process and the introduction of medical examiners.

The reforms aim to improve how the bereaved are involved in the process of death certification and offer them an opportunity to raise any concerns, while also improving the quality and accuracy of medical certificates of cause of death. Since the consultation exercise, there have been no updates. It is imperative that the Government gives a clear update on the status of the reforms and the role of the medical examiner is clearly defined.

Role of the police

Investigations are often lengthy and can take as long as three years. In the process, the doctor affected is under a great deal of stress and an NHS system that is already strained may be denied the services of that particular doctor. Furthermore, as there is no dedicated police unit dealing with GNM cases in healthcare, this has a direct impact on the length of time the investigation takes.

Recommendation 2: That a national police unit is established to investigate GNM cases in healthcare. The benefit would be that investigations would be processed promptly, reliably and consistently. We would also encourage early liaison between the police and the CPS. This would ensure that only the cases which warrant prosecution are progressed.

Role of the CPS

The CPS makes decisions on whether to charge a criminal offence. All charging decisions must be made in accordance with the two-stage Full Code Test in the Code for Crown Prosecutors.

The Full Code Test has two stages: the evidential stage; followed by the public interest stage. Under the former, prosecutors must be satisfied that there is sufficient evidence to provide a realistic prospect of conviction against each suspect on each charge. The public interest stage requires the prosecutor to balance the public interest factors both in favour of and against prosecution.

The CPS only take a case to court when there is a 50% chance of conviction and prosecuting the case is in the public interest.

Recommendation 3: The test for bringing a prosecution is a difficult balancing act and to introduce consistency in a relatively small number of cases, it should be for the Director of Public Prosecutions to personally authorise all prosecutions involving accusations of GNM in a healthcare setting.

Role of the criminal court

The legal system is adversarial in England and Wales. However, in a complex system such as healthcare, grey areas of clinical decision cannot always be answered with a simple 'yes' or 'no' but can require a 'maybe'. It is therefore important to recognise that serious untoward

medical incidents are multi-layered in nature and any over-simplification would misrepresent this serious incident. Most occur as 'the result of a chain of relatively small mistakes and the contribution of each individual is often either impossible to determine or so small that it cannot be said to be a substantial cause of death'^{xii}.

The BMA firmly believes any platform used to determine criminal sanction, should be privy to all information relevant to systems failures, work pressures, understaffing, patient safety, and fitness to practise so all this is adequately adduced before the jury.

Role of the jury

GNM cases in healthcare are multi factorial and very complex. Juries are likely to find it difficult to get a clear grasp of all the circumstances given a lack of personal experience of working in healthcare and a potential lack of understanding of system pressures. It is therefore important that the jury is clearly guided as to whether such negligence was 'gross'.

Judges will direct the jury as to what this means. Usually they will explain that the jury must "be sure" of the defendant's guilt. There is no encouragement to elaborate on what the standard means, but if asked the jury may be told that "beyond reasonable doubt" means being sure so that they have no realistic doubts.

Additionally, such complex cases leave a lay jury very dependent on the statements of the expert witnesses, who are expected to give their informed opinion of the facts. It is well known that there can be considerable variation in the quality of their evidence, yet the jury must decide largely on the basis of the performance of the expert in court given their own potential lack of experience in healthcare.

Role of the expert witness

The primary duty of the expert witness is to the court, not the party that has instructed them. In criminal cases it is governed by the Criminal Procedure Rules, part 19^{xiii}. For expert evidence to be admissible it needs, among other things, to provide the court with information that would be outside the judge's or jury's knowledge and experience, and it must give the court the help it needs to form its conclusions.

Sir Brian Leveson, Appeal Court Judge, President of the Queen's Bench Division and his two fellow judges stated in their judgement of Mr Sellu case that "This failure (of witnesses) was underlined by the way in which the experts (Kelly and Bell) had (repeatedly) asserted gross negligence (..)we have come to the clear conclusion that the way in which the issue of gross negligence manslaughter was approached (and, in particular, the consequential direction to the jury) was inadequate (..)As a result, the conviction (of Sellu) is unsafe and is quashed."^{xiv}

The CPS selects the relevant expert witness from the different registers of experts, the police registers or via recommendations. The BMA believes that only experts who are in active clinical practice and hold a license to practice should be instructed in GNM cases. Lord Mackay of Clashfern said in 1990 "I know from my own experience just how important the quality of expert evidence is, and in no area is it more vital than where medical matters are at issue."^{xv} As a result, courts and jurors place on a lot of weight and reliance on the expert witness evidence presented to them.

Additionally, we believe that it should be mandatory for all expert witnesses to undergo core training in medico legal report writing, courtroom skills, cross examination and criminal law and procedure. This would provide the basic necessary competencies and confidence required to work efficiently as an expert witness.

Recommendation 4: That only experts who are in active clinical practice and hold a licence to practise are instructed in GNM cases.

Recommendation 5: That it should be compulsory for all expert witnesses to go through core training including report writing, courtroom skills, cross examination and criminal law and procedure.

Instructions for the experts

Participants at a joint BMA/CPS/Royal Society of Medicine (RSM) workshop in October 2017 highlighted that there was inconsistency in instructions to experts. The BMA firmly believes that there should be an agreed position from all parties about an explanation of the law to experts.

Recommendation 6: That the CPS devises guidance which clarifies the application of law to GNM cases in healthcare and addresses the importance of giving clear instructions to expert witnesses that highlight the relevant legal tests for GNM in healthcare settings.

Cognitive bias and expert witness work

In highly specialised industries such as medicine, aviation, forensics and policing, the performance of the expert is critical. Defining expertise and who is an expert has been a complex and challenging task with a variety of views and disagreements (Feldon, 2007^{xvi}; Hoffman, 1996^{xvii}). One crucial element of the performance of the expert relates to biasability and reliability. 'Biasability refers to the ability to make decisions based on relevant information without being biased by irrelevant contextual information. In addition to issues of biasability there are basic reliability issues. That is, how reliable (i.e., how consistent, how reproducible) is expert decision making even when there is no exposure to irrelevant biasing information?'^{xviii}

For example, a forensic expert who is aware of such information (e.g., that the suspect confessed to the crime, that eyewitnesses identified the suspect, or that the detective believes the suspect is guilty) is biased to incorrectly judge that the forensic evidence (e.g., firearms, handwriting, voice, fingerprints, etc.) matches the suspect and can wrongly identify the suspect^{xix}.

Cognitive bias may be defined as a pattern of deviation in judgement whereby inferences about other people and situations may be drawn in an illogical fashion.^{xx} Humans have a tendency to show bias in their everyday life judgements. This is indeed a natural element of the human psyche. For example, tunnel vision, jumping to conclusion, being influenced by the views of others are all recognisable common behaviours. However, whilst such biases may be part of human nature, it is crucial to guard against these in expert witness work where

there is a requirement for subjective evaluations and interpretations. 'The consequences of cognitive bias may be far-reaching: decisions by the investigator to follow a particular line of enquiry, the CPS to prosecute or not, and decisions in the criminal justice system as to the guilt or innocence of an individual upon which may rest their liberty or even their life in some jurisdictions, frequently depends on the reliability of the evidence and the conclusions drawn from its interpretation.'^{xxi} The BMA believes that it would be beneficial for everyone involved in the prosecution process to receive training on cognitive bias from a cognitive neuroscience expert.

Recommendation 7: That everyone involved in the prosecution process receive training on cognitive bias.

Mandatory human factors training for those involved in the prosecution process for GNM

The BMA believes that a human factors training programme should be developed for everyone involved in the prosecution process for GNM. This would lead to a better understanding of how multiple factors (which often exist in complex clinical settings) such as the effect of system failures and the errors of others can combine and affect the behaviour of a given individual. That may help those involved in the prosecution process to assess if there is any real criminal culpability on the part of the doctor.

Recommendation 8: That a mandatory human factors training programme is developed for everyone involved in the prosecution process for GNM in healthcare.

Role of the Healthcare Safety Investigation Branch (HSIB)

The BMA believes following presentations from experts in the fields of safety investigation that the HSIB should have its processes given the same legal protection that exists in aviation safety investigations.

In the HSIB consultation on creating safe spaces for investigating patient safety incidents, we recognised that these 'spaces' would allow doctors and other healthcare professionals to realise the learning from an incident. Creating the safe space depends on having some legal protection for disclosures with an application to the High Court to allow disclosure in certain categories such as where there is a clear regulatory or criminal matter at issue.

Recommendation 9: That disclosures by individuals to the HSIB should be given legal protection with a legal process involving a court application, should disclosure be sought.

How we ensure the vital role of reflective learning, openness and transparency is protected where the healthcare worker believes that a mistake has been made to ensure that lessons are learned and mistakes not covered up;

Exception reporting

Exception reporting is a feature of the 2016 junior doctor contract in England which allows junior doctors to immediately report instances where their actual work and training opportunities vary from their agreed work schedule. The report is sent to educational supervisors as well as guardians of safe working (for work issues) or the Director of Medical

Education (for training issues). Educational supervisors will review exception reports and then discuss them with the trainee to agree what action is necessary to address the issue. This could involve revising their work schedule, and approving claims for additional pay or time off in lieu. This should mean that wider problems, such as understaffing, which are out of both junior and senior doctors' control, can be raised with trust management and resolved to everyone's benefit.

Junior doctors in England should be encouraged to continue to use exception reporting to record all the instances where they have missed breaks, missed training opportunities, been under inadequate supervision, or worked outside their work schedule. The BMA will continue to provide guidance and support to doctors, working within a system that can prevent them from providing safe quality care. In England, we have called for a list of guardians of safe working to be published online, for more work to be done to end the cultural barriers to exception reporting and for training for the guardians on how to offer guidance and support if trainees are not able to speak up through their normal line management chain.

Exception reporting, or similar mechanisms producing standardised data, should be extended to all doctors to allow the early identification of systemic pressures related to workload before a critical incident occurs. Furthermore, the BMA would urge the development of metrics to quantify the frequency and severity of system pressures in hospitals and their effects on individual doctors; and that such metrics should be used to hold departments, trusts, commissioners and governments to account.

In Wales, the suggested algorithm for raising concerns (Clinical Supervisor, Educational Supervisor, Local Faculty Lead, Training Programme Director, Head of Foundation/Specialty Training School, Appropriate Associate Dean/Sub Dean of Wales Deanery) is not well publicised. There is a gap in relation to the ways in which junior doctors can raise concerns as there is no real equivalent to the real-time exception reporting system and the Guardians of Safe Working.

Recommendation 10: That the exception reporting process is standardised, extended to all doctors and a national database for exception reports is established so that data can be properly analysed and used to improve training and working experiences for doctors and outcomes for patients.

Incident Reporting

All trusts are mandated to provide mechanisms for reporting incidents or “any event which has given rise to potential or actual harm or injury, to patient dissatisfaction or to damage/loss of property”.^{xxii} Reports are also collated centrally through the National Reporting and Learning System, with over 4 million reports submitted since its introduction in 2003. Similarly, under the 2016 contract in England exception reporting systems are required which enable trainees to identify when working beyond rostered hours, miss safety breaks or are missing educational opportunities. In Scotland, Northern Ireland and Wales (and under 2002 terms and conditions in England) a process called rota monitoring is used to identify issues around working beyond safe limits. In Wales a Learning Contract has also been established to identify when educational opportunities are not being delivered for trainees.

These mechanisms are important in identifying when staff are working in conditions that may well be unsafe or when mistakes occur.

We know that many barriers exist to high quality incident reporting, linked to failures of software, onerous reporting systems and cultures that inhibit reporting. More must be done to encourage the use of not only incident reporting systems to raise concerns regarding patient safety but also to promote mechanisms such as exception reporting and monitoring, to prevent issues occurring where working conditions may well be compromised or induction or appropriate training to perform duties is not provided. Alongside this we need to streamline the process for providing such reports. Fundamental to any reporting system is the belief that healthcare professionals will not be targeted for their reporting, and in fact encouraged to highlight where problems occur so they can be acted on.

It is essential to create a culture of reporting concerns. Allowing action to address systems where issues around support, supervision or unsafe working exist.

Recommendation 11: Ensure access to systems such as incident reporting, exception reporting or rota monitoring for critical incidents, unsafe working, missed training/induction, supervision or breaks. To ensure confidence of health care staff, these systems should be able to demonstrate appropriate systemic responses and offer staff submissions legal privilege or the equivalent protections from targeting or reprisal.

Recorded reflections

As with most documents, recorded reflections, such as in e-portfolios and annual appraisals, training forms and the Annual Review of Competence Progression - whether completed by a doctor or their line manager/supervisor - are not subject to legal privilege under English and Welsh law. As a result, these documents might be requested by a court if it is considered that they are relevant to the matters to be determined in the case. A doctor can also choose to disclose their reflective statements as part of their defence, in court or tribunal proceedings, to support their case and show how they have responded to an incident.

Although it is rare and unusual for English and Welsh courts to order the disclosure of reflective notes or statements, they retain the ability to do so. 81 percent of respondents to Dr Vaughan's survey have stated that this potential access affects the way they currently record their reflections.

It is crucial that doctors' personal reflections which encourage openness and improvement through reflection and learning are protected. The focus of reflection should be on learning, rather than what has gone wrong.

The GMC has provided assurances both to the BMA and in public that it will never require access to a doctor's reflection documents (or seek these from third parties such as Royal Colleges), although the doctor may provide them as evidence of remediation. We believe that it is necessary to amend section 35A (1A) of the Medical Act 1983 which currently allows the GMC to compel disclosure.

Recommendation 12: That legal protection is provided to reflections in all education and training documents, such as e-portfolios and all annual appraisals, training forms and the Annual Review of Competence Progression.

Recommendation 13: That Section 35A (1A) of the Medical Act 1983 is amended so it excludes information provided for the sole purpose of education and training.

Lessons that need to be learned by the General Medical Council (GMC) and other healthcare professionals' regulators in relation to how they deal with the practitioner following a criminal process for gross negligence manslaughter.

The GMC's right to appeal against fitness to practise decisions

The BMA has consistently opposed and remains deeply concerned about the right of the GMC to appeal against fitness to practise decisions. We continue to believe that this right risks undermining doctors' confidence in the independence and fairness of the Medical Practitioners Tribunal Service (MPTS). Fitness to practise processes are very stressful for doctors and the perception of a risk of double jeopardy can only exacerbate this problem.

Recommendation 14: That the GMC should lose its right to appeal MPTS decisions.

Role of tribunals

Following an appeal by the GMC, the High Court decided in the case of Dr Bawa-Garba that the Medical Practitioners Tribunal did not give sufficient weight to the verdict of the jury and was wrong to conclude that public confidence in the profession could be maintained by a sanction short of erasure. The Court found that the Tribunal, "as a result of considering the systemic failings or failings of others and personal mitigation which had already been considered by the jury", wrongly reached a less severe view of Dr Bawa-Garba's personal culpability than the jury. The BMA is concerned about the extent to which the court's judgement could restrict the ability of a Medical Practitioners Tribunal to form its own view of the facts and of any public confidence considerations in cases involving a criminal conviction.

We have previously expressed concern that the public confidence criterion could lead to 'trial by media' and called for guidance that properly relates 'public confidence' to the GMC's overarching objective of public protection. One particular problem with the criterion is the subjectivity of public confidence considerations, which can lead to the same act being treated differently in different cases depending on the extent to which the patient is harmed. We would like to see research into the question of what members of the public would really expect in cases involving clinical error.

Recommendation 15: That there should be scope, even in cases involving a criminal conviction, for a Medical Practitioners Tribunal to form of its own view of the facts and of any public confidence considerations.

Recommendation 16: That the use of the public confidence criterion in cases involving clinical error should be reviewed and that further research into what members of the public would really expect if fully informed in such cases should be conducted.

Culture

The BMA believes it is important to recognise all the factors that influence the values and day-to-day behaviours of people working in the healthcare sectors. The ultimate aim is to shift from a culture of blame to one where staff feel confident to raise concerns, show candour, and to reflect and learn. For this to happen staff need to feel supported and be treated with compassion themselves.

The BMA is aware that currently, the organisational culture in the NHS is too often driven by competition, anxiety and fear, which limits learning. Leadership is key when it comes to changing culture but not the traditional, target-driven, top-down variety. We need a more collaborative style of leadership. Staff need to be engaged and listened to so that they can help shape the decisions and processes needed to deliver high quality healthcare.

The BMA would therefore firmly advocate the adoption of recommendations from Berwick's report^{xxiii}, where he clearly states that:

- Culture trumps rules, standards and control strategies and achieving a vastly safer NHS will depend far more on major cultural change than on a new regulatory regime
- The NHS needs to become a system devoted to continual learning and improvement of patient care
- Fear is toxic to both safety and improvement.
- Well-intentioned people who make errors or are involved in systems that have failed around them need to be supported, not punished, so they will report their mistakes and the system defects they observe, such that all can learn from them.
- NHS staff are not to blame – in the vast majority of cases it is systems, procedures, conditions, environment and constraints they face that lead to patient safety problems

Recommendation 17: That government, employers and regulators recognise the effect of leadership, organisational structures, regulation, and pressures in the system on the culture within the healthcare sectors and they work collaboratively with healthcare professionals towards creating an environment in which staff feel confident to raise concerns, show candour, and to reflect and learn.

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- ⁱ Mr Ian Barker, Senior Solicitor, MDU
- ⁱⁱ <https://www.bma.org.uk/collective-voice/influence/key-negotiations/nhs-pressures/working-in-a-system-under-pressure>, BMA, March 2018
- ⁱⁱⁱ http://careers.bmj.com/careers/advice/Workload_pressure_would_not_be_a_defence_against_clinical_negligence%2C_barrister_warns
- ^{iv} *Ig Sanita Pubbl.* 2015 May-Jun;71(3):335-51. Defensive Medicine: Defensive Medicine: Overview of the literature. Panella M, Leigh F, Rinaldi C, Donnarumma C, Tozzi Q, Di Stanislao F.
- ^v Hermer LD, Brody H. Defensive medicine, cost containment, and reform. *J Gen Intern Med.* 2010; 25:470-473.
- ^{vi} *J Am Health Policy.* 1994 Jul-Aug;4(4):7-15. How much does defensive medicine cost? [Rubin RJ](#), [Mendelson DN](#).
- ^{vii} Kessler, D.P.: Evaluating the medical malpractice system and options for reform. *J. Econ. Perspec.* 25, 93–110 (2011)
- ^{viii} Developed by Dr Jenny Vaughan (Consultant Neurologist, Imperial College Healthcare NHS Trust)
- ^{ix} A promise to learn – a commitment to act, Improving the Safety of Patients in England, National Advisory Group on the Safety of Patients in England, August 2013
- ^x Navjoyt Lather, clinical editor, Criminalising doctors, *BMJ* 2018; 360 doi: <https://doi.org/10.1136/bmj.k479> (Published 01 February 2018)
- ^{xi} A promise to learn – a commitment to act, Improving the Safety of Patients in England, National Advisory Group on the Safety of Patients in England, August 2013
- ^{xii} Kazarian M, Griffiths D, Brazier M. Criminal responsibility for medical malpractice in France. *Journal of Professional Negligence* 2011; 27: 188.
- ^{xiii} <https://www.justice.gov.uk/courts/procedure-rules/criminal/docs/2015/crim-proc-rules-2015-part-19.pdf>
- ^{xiv} *Sellu v The Crown* (2016) EWCA Crim 1716, (2016) WLR (D) 627. England and Wales
- ^{xv} Quick O. Expert evidence and medical manslaughter: vagueness in action. *J Law Soc* 2011: 38:496-518
- ^{xvi} Feldon, D. F. (2007). The implications of research on expertise for curriculum and pedagogy. *Educational Psychology Review*, 19(2), 91–110.
- ^{xvii} Hoffman, R. R. (1996). How can expertise be defined? Implications of research from cognitive psychology. In R. Williams, W. Faulkner, & J. Fleck (Eds.), *Exploring expertise* (pp. 81–100). Edinburgh, Scotland: University of Edinburgh Press.
- ^{xviii} Hierarchy of Expert Performance Itiel E. Dror, *Journal of Applied Research in Memory and Cognition*
- ^{xix} Dror, I. E., & Cole, S. (2010). The vision in 'blind' justice: expert perception, judgment and visual cognition in forensic pattern 185 Itiel E. Dror recognition. *Psychonomic Bulletin & Review*, 17: 161–7
- ^{xx} Haselton, et al. (2005) 'The evolution of cognitive bias'. In *The Handbook of Evolutionary Psychology*, Buss, D. M. (ed). Hoboken, NJ, US: John Wiley & Sons Inc., pp 724–746.
- ^{xxi} Cognitive Bias Effects, Forensic Science Regulator, Guidance, p 10
- ^{xxii} NHS Executive
- ^{xxiii} A promise to learn – a commitment to act, Improving the Safety of Patients in England, National Advisory Group on the Safety of Patients in England, August 2013