Keywords: Unborn, Medico-legal, Court, intrapartum CTG, Fetal distress, Labour, Bolam test, Bolitho Test

Obstetric medico-legal litigation is a constant sword of Damocles hovering over the various aspects of care the Obstetrician must practice to ensure the safe delivery of a healthy infant to a healthy mother. And just as intensely fulfilling is the lusty cry of a healthy child held lovingly by smiling parents so emotionally demolishing is a brain damaged newborn. Obstetricians had for centuries sought a remedy to find out if and when the child in the labouring utero is in difficulty – which difficulty we now know is hypoxia or lack of oxygenation. For the very contractions of the maternal uterus which are necessary to expedite delivery of the child produce a simultaneous diminution of blood flow to the feto-placental unit. In the majority of cases the child can withstand this temporary and intermittent diminution of blood with every contraction. However, there are circumstances when hypoxia supervenes and if sufficiently pronounced it may result in permanent damage to the unborn child. In such situations the timely delivery of the child would save it from death or damage.

Modern obstetrics has gone a long way in detecting this threat of fetal distress through Electronic Fetal Monitoring (EFM) during the process of labour. Yet intra-partum hypoxia with resultant fetal damage is an ever-present horror haunting obstetricians in such situations as:

The client CY’s mother admitted herself in labour on 31 May 2004. Labour was augmented and during second stage of labour on 1 June 2004 fetal hypoxia developed and a vacuum extraction was performed. A very acidotic baby was delivered and subsequently was confirmed to have hypoxic ischaemic encephalopathy and went on to deliver cerebral palsy [1].

Clinically available in the 1960s, EFM in the form of Cardiotocography (CTG), quickly substituted the old fashioned Intermittent Auscultation (IA) method of direct fetal stethoscope [2,3]. By the 1970s it was used in 84% of all U.S. births and presently it constitutes the most widely used intrapartum monitoring test for fetal distress, including all variants of such monitoring [4,5]. However CTG monitoring has proved to be more of a pandora’s box rather than a panacea in that in spite of its daily use, scientific controversy litters the subject for a number of reasons [6]. Among these are poor inter and intra-observer reliability, high false positive rate of up to 60%, the unquestioned contribution to an increased Caesarean Section rate as well as its failure to deliver the much expected pregnancy outcome improved as compared to simple intermittent auscultation [7-10]. These limitations have led to extreme views such as those of Lent who makes the following (entirely challengeable in our view) statement:

Though obstetricians believe that they should use EFM because
its status as the standard of care will protect them from liability, it may in fact expose them to liability given its failings. Instead, auscultation is equally, if not more, safe and effective, and is more likely to protect physicians from liability [11].

The first and second statements are partially correct, but the third, especially if applied to high-risk cases is dangerous advice for official College guidelines clearly state that in high-risk situations electronic fetal monitoring should be implemented[12]. In spite of the fact that non-adherence to clinical guidelines does not automatically imply an adverse outcome for the defendant, a disastrous clinical outcome in the face to such non adherence to such guidelines would be hard to defend in Court [13].

However at one point, Lent does state a fact which as part of a bigger argument is correct and that is the statement that CTG may expose doctors to liability, given its failings [14]. Having said this, the present authors do not accept this as a counter-argument to the advice that in high-risk situations, intrapartum CTG monitoring is clinically and medico-legally obligatory.

CTG monitoring does produce a physical and indelible record, which for many reasons and not just CTG failings may expose an obstetrician to liability just by existing. However, it may also provide their defense if good practice is observed. One aspect by which the diagnostic intention of CTG may add to the defendant obstetrician’s problems is what Buttigieg has labelled “the shifting sands phenomenon” which refers to the medico-legal problems engendered by such CTG features as its high inter and intra-observer errors, its high false positive rate, etc [15]. The former refers to the different interpretation which may be given to a specific CTG tracing by two experts (inter observer variation) and even by the same expert on different occasions(intra-observer variation). Bearing these aspects in mind I would like next to briefly look at the “distillate” of two rudimentary principles applied to medico-legal jurisprudence the Bolam principle and that of Bolitho [16,17].

Re-visiting Bolam and Bolitho

In English Tort Law it had been long established that in any action for medical negligence at common law, the plaintiff must show three things: that the defendant owed the plaintiff a duty of care, that the defendant breached that duty by falling below the standard of care required by the law; and that the breach was a proximate cause of the damage alleged by the plaintiff [18]. In 1957 with Bolam v. Friern Hospital Management Committee [1957] English tort law saw the emergence of the Bolam principle. The case centred on patient James Bolam was neither restrained nor administered a muscle relaxant prior to electro-convulsant therapy with resultant violent flailing and subsequent serious injuries. The Court held that there is no breach of standard of care if a responsible body of similar professionals supports the practice being judged even if this did not comply with the established standard of care.

The plaintiff needs to establish that
1. The existence of a duty of care by the defendant to the plaintiff
2. The doctor, through omission or commission, breached that duty of care as defined by a responsible body of similar professionals.

Criticised for its overreliance on medical testimony and personal judgement of experts, Bolam was subsequently “enriched” or maybe “reined in”in 1997 by the Bolitho Principle.

In Bolitho v. City & Hackney Health Authority, the plaintiff, a mother of a dead two-year child, claimed that the doctor involved (whose bleep had malfunctioned) would have intubated and saved the child had she been present. The defendant maintained that in this particular case, even if available,she still would not have intubated. The Court applied the Bolam test to the defendant, holding that no breach of duty had been effected. The plaintiff appealed and again the Court upheld the ruling quoting that the opinion tallied with that of similar professionals but further than that with the explanation of the facts as given, the reasoning made sense to the Court. The Court upheld that the doctors’ line of action of the defendant was both defensible and logical. The Bolam and Bolitho principles are often employed in tandem as in fact had been done at the very birth of the Bolitho principle.

The Bolam principle did establish a repeatedly acknowledged primacy in English Law – it was applied by the House of Lords in respect of diagnosis in 1985, of treatment 1981, and, with some caveats ,the volunteering of information when advising patients on possible treatment in 1992 [19-21]. However, there are situations that taking Bolam ad litteram and on its sole premise, the possibility does exist that the courts could potentially not condemn even a foolish practice if this is backed up by a substantial proportion of the members of a particular profession [22]. This is where the Bolitho principle comes into its own. Furthermore, Bolitho to some extent, does make the Court and not the medical fraternity the final arbiter of malpractice or its absence [23]:

It is crucial to appreciate that the Bolam principle establishes the standard of care as determined by the practice of a responsible body of similar professionals. It judges what has been done by the defendant by what is done by peer practice. Here lies one of the Achilles’ tendons of the principle for what is done is not necessarily what ought to be done. And here is one reason why official guidelines need not necessarily be adhered to although this is essentially not particularly wise and furthermore the legal importance of guidelines is bound to increase [24]. The “norm” of the practice is not necessary the ideal of practice. An extension of this is given by Gibson in his discussion of “doctrinal feedback”:

In the real-world practice can depart from that which the law expects. For example, suppose a physician provides more than reasonable care with extra tests, unneeded procedures, etc.? So as to steer clear of tort liability’s considerable gray area. If other physicians follow suit, their precautions slowly but surely become the new legal norm, as the reasonable care standard dutifully absorbs the conduct of those it governs. Instead of discouraging wasteful practices, then, the law feeds them back into doctrine, transforming over compliance into mere compliance and ratcheting up the standard of care. Overcautious physicians consequently have to do even more to steer clear of liability, and the cycle be gins anew. The “doctrinal feedback” phenomenon [25].

In a country like Malta with one government university hospital and a limited pool of choice for a “a responsible body of similar professionals” the potential does exist for such a medico-legal quandary [26-28]. One may take as an example of the “extra” and “unneeded” tests, the routine monitoring of high and low risk labouring patients when College guidelines advise such monitoring only in high-risk cases. The reasons may be many and certainly include both defensive medicine as well as a genuine intention of giving “the best” care to the labouring patient [29]. Furthermore, CTG monitoring is a time and personnel saver – although at an otherwise increased cost – for intermittent auscultation has the disadvantage of requiring 1:1 nursing personnel compared to EFM
Such a practice decreases attention from the real ‘high risk’ labouring woman, induces unnecessary anxiety in medical and midwifery staff and is associated with unwarranted intervention. In such a situation in a Court case involving CTG argumentation, the Court may be misled as to what is the “norm” by Bolam’s body of responsible men themselves influenced by “doctrinal feedback”.

Some reflections on Courtroom CTG through the Bolam – Bolitho principles

Even the Bolam principle enriched with the Bolitho qualification still has many limitations. I will here look at the application of Bolam-Bolitho to Courtroom CTG interpretation with its “shifting sands” quality [31]. Bolam-Bolitho leaves the final decision in the Court’s hands as based on its assessment of whether the argument makes sense or not. Courtroom CTG decisions are a breed of their own where making sense demands great expertise in most cases. And Judges may be admirably and sufficiently motivated enough to become informed about the subject to make laudable and erudite statements such as:

Baseline variability describes the changes in the baseline of the FHR [32]. Such changes occur slowly unless there is an acute accident. Accelerations are the increases in the FHR and they are a positive and reassuring sign if they occur as a response to uterine contractions or movements in which case they are seen occasionally. They may not occur regularly but they should be seen occasionally. Decelerations are reductions in the FHR of more than 15 beats per minute from the baseline rate, while accelerations are increases in the FHR of more than 15 beats per minute [33].

However, unfortunately, Courts everywhere have a tendency to a much less expert understanding of CTG use, principles and scientific limitations. Here we find one example of the use of a CTG nomenclature which was outdated by a good thirty years:

It is said that if the CTG had still been available the court would be able to tell when it was discontinued and whether there were Type II dips and, if so, for how long (i.e. whether they were continuous) [34].

In the original Bolitho v. City & Hackney Health Authority common sense and logic dictated that the opinion of “a responsible body of similar professionals” asserted that intubation of the child in question was not indicated and the explanation was assessed to hold water by the Court. The question arises: How is the ordinary Judge in a Courtroom CTG case to make objective sense (1) on a subject which is highly specialised (2) on a subject suffering from “shifting sands” phenomenon (3) when objective interest in the subject varies widely from one Judge to another? And, in Courtroom CTG litigation, is not the decision of the case being passed on back to the medical profession although the final ruling is as always, the venerable Court’s prerogative? This is not insignificant theoretical quibbling akin to the philosophy of establishing how many angels can dance on a pin head. In 2011 “birth asphyxia” comprised 50% of the UK NHS litigation costs, and in the 2000-2010 decade, the same NHS forked out £3.1 billion for maternity medico-legal claims mostly involving cerebral palsy and CTG misinterpretation [35-37].

Courtroom CTG is as contentious as clinical CTG. While reversing a decree of absolvitor by the Lord Ordinary, Lord Eassie, Lord Hardie, and Lord Emslie stated That:

The Lord Ordinary had erred in failing to conclude that the consultant obstetrician had a duty to intervene based on her apparent acceptance in evidence that shortly before 16.00 hrs, the CTG trace was “pathological” with areas of reduced variability, a tachycardia and persistent late decelerations. It was also submitted that the Lord Ordinary erred in attaching weight to the evidence of the defender’s expert witnesses which was based on their own interpretation of the CTG trace and not the treating consultant’s interpretation.

Interesting to note that the Ordinary Lords had allowed the influence of the defender’s expert to hold sway, while the Superior Lords took the final decision back in the Courts’ hands. Wise indeed are the words of the Lord Bannatyne in Nadine Montgomery v Lanarkshire Health Board [38]:

The key issues to be addressed are the extent to which the courts are prepared to engage with expert testimony and identifying the point at which it becomes acceptable to disregard the commonly held views of the medical profession.

This may be an arduous task indeed, especially if medical opinion is equally divided – in the case just quoted, two bodies of expert opinion supported the defendant’s interpretation of the CTG trace while two equally expert bodies disagreed leaving the Judge to arbitrate [39]. At times disagreement arises even regarding in the basic explanation of CTG elements:

It was put to him in cross-examination that accelerations could only suggest that the baby was not suffering from hypoxia. Dr Schneider disagreed: he said the presence of accelerations meant that the baby was going through a normal sleeping/waking cycle, and was reacting normally to external stimuli [40].

Bolam’s “breach of duty” comes into its own if CTG monitoring is not resorted to when clinically indicated and when most obstetricians would do so:

…both doctors were in clear breach of duty in turning off the CTG and allowing the pregnancy to continue. Mr Maskrey suggests the breach of duty by Dr Holmes may have occurred because he was misled by Dr Schneider’s inaccurate assessment [41].

Bolam’s applied ‘duty of care’ as defined by a responsible body of similar professionals implies two entities in the scenario – the defendant’s action on one hand and the “responsible body of similar professionals” on the other. As applied to Courtroom CTG litigation, an important element of modern-day obstetric care is left out of the equation, namely consent. In Tippett v Guy’s & St Thomas’ Hospital NHS Foundation Trust, a case which was dismissed by the Court, we find one example of patient non-compliance with her own care:

On the facts and evidence, the mother removed the trace at 1155 hours, and that it had been reconnected by the midwife at 1331 hours [42].

In such a case one may argue that, although the performance of an operation or the giving of medical treatment without the patient’s consent amounts to a criminal battery, in view of the worrying CTG tracing, one may have sought permission from or at least discussed the issue with the hospital legal advisors [43]. Such patient non-compliance may have at its root causes many factors and the situation requires special attention in countries, such as Malta, where there is increasingly met resistance to C-section involving the irregular migrants especially from the sub-Saharan or Horn of
Africa. In the latter situation the obstetrician in the Labour Ward can and should revert his case to the Attorney General [44]. This article skims a small part of the surface of the ocean one may navigate in where the Bolam-Bolitho principles encounter Courtroom CTG disputes. Most Obstetricians employ CTG as part of the intra-partum care of a labouring woman because they care about the well-being of the unborn. Such a practice produces a permanent record which may be used in defence or attack in a Court of Law. Although the “shifting sands” nature of CTG may make it a “loose cannon” in a Court of Law the Obstetrician, if he maintains good practice should persist in using CTG monitoring when indicated. The principles of Bolam and Bolitho, however limited and disputable, are there to precisely safeguard such good practice when a clinician needs to account for his actions in a Court of Law, be it criminal or civil.

References
1. CY ‘A minor under a disability’ (2012) by his father and next friend FY v Western Health and Social Care Trust (successor to Altnagelvin Hospitals Health and Social Services Trust) 72.
3. Normally done at regular intervals by the midwife using a Pinard stethoscope (one of many types of fetal stethoscopes).
4. Ibid.
5. One unit may use computerised analysis, another may combine with ST analysis of the fetal ECG (STAN) etc.
10. Ibid.
12. Essentially here we speak of the UK’s College of Obstetricians and Gynaecologists and the USA’s American College of Obstetricians and Gynaecologists.
26. The population of Malta is (2020) 442,365 as of 14.
27. Bolam v (1957) Friern Hospital Management Committee 1\ WLR 5829.
28. Most such professionals in Malta practice Obstetrics and Gynaecology along the latest official guidelines.
29. DJ Nochimson, ER Guzman, RA Knuppel, M Lake, BS Schiffrin, et al. (1995) There are arguments which state that defensive medicine in this context may actually save lives of the unborn, even if this is a very expensive practice. See AM Vintzileos, ‘Intrapartum electronic fetal heart rate monitoring versus intermittent auscultation: A meta-analysis.’ Obstet Gynecol 85: 14.
31. Especially referring to its high inter- and intra-observer variations of interpretation.
32. Fetal Heart rate.
34. Whiston v London Strategic Health Authority [2009] EWHC 595 (QB), HQ06X03108.
36. The highest of any specialty.
41. Ibid.
44. Although modern Court trends in general (1999) tend to hold that a pregnant woman has the same rights of any adult person who is competent to make her own health care choices, even if such a choice puts her life or of that of the child at risk. See S Michalowski, ‘Court-Authoured Caesarean Sections. The End of a Trend?’, 62: 115-127.