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THE RELEVANCE OF THE GOUDGE INQUIRY TO THE PRACTICE OF CHILD PROTECTION/FORENSIC PAEDIATRICS.

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ABSTRACT

In 2008 Ontario, Canada the Goudge Inquiry arose following increasing concerns about practices surrounding forensic pathology and the investigation of paediatric deaths. Some of the considerations and recommendations have relevance to child protection/forensic paediatricians, particularly in relation to their responsibilities in opinion formulation and as expert witnesses. By examining the Inquiry recommendations, this paper applies them in relation to child protection/forensic paediatrics by discussing forensic medicine and its legal context, how interpretation of published reports and data should be used in opinion formulation; issues of 'diagnosis' versus 'opinion'; issues specific to child protection paediatrics; quality control; aspects of report writing and terminological considerations. It concludes with an adaptation of key recommendations directly from those of Goudge, applied to the context of paediatric forensic medicine undertaken in child protection assessments.

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THE RELEVANCE OF THE GOUDGE INQUIRY TO THE PRACTICE OF CHILD PROTECTION/FORENSIC PAEDIATRICS.

In 2008 in Ontario Canada an Inquiry was held which investigated cases of historical infant death and the opinions from pathologists related to those deaths[1]. Whilst the Inquiry focused on aspects of forensic pathology, some of the considerations and recommendations have relevance to forensic paediatricians, particularly in relation to their responsibilities in opinion formulation and as expert witnesses.

From the Inquiry the following aspects of relevant recommendations have been considered in relation to child protection/forensic paediatrics:

- Forensic medicine and its legal context.
- Interpretation of published reports and data.
- Diagnosis versus opinion.
- Child protection: forensic expert.
- Issues in child protection paediatrics.
- Quality control in forensic paediatrics.
- Aspects of report-writing and terminological considerations.

Forensic medicine and its legal context

The Inquiry recommended that forensic medicine must be done with consideration of the inherent legal issues. It recommended a standard procedure be used for the assessment of babies who have died. The same standard procedure is relevant in the assessment of children where there is a suspicion of physical assault. In such children the 'forensic assessment' is different to a standard clinical assessment of the same injury. The primary and main reason for the difference is due to the requirement that the opinions derived from a forensic assessment must meet the standards required by the relevant legal process(es). In psychiatry, the differences in purpose, objectives and process between clinical evaluations and forensic assessments which are undertaken to answer legal questions has been clearly defined[2].

Whilst all health professionals have the responsibility of identifying injury that may have been inflicted, the conduct of an optimal forensic medical assessment of a suspicious injury(ies) is the responsibility of child protection/forensic paediatricians. A forensic medical assessment leads to the formulation of an opinion based on the assessment. The opinions that are derived from forensic medical assessments must be relevant to, and able to be used by, the relevant statutory authorities – namely, child protection services and the police.

The Inquiry established that there was varied practice in the standard of assessment, formulation and communication of forensic opinion by forensic pathologists. The authors believe that the concerns identified in the practice of forensic pathology should be considered in relation to the practice of child protection/forensic paediatrics. The issues considered relevant, based on the recommendations of the Inquiry are: training, certification, competency, the forensic assessment process, report-writing and formulation of opinion.

The Inquiry drew a clear distinction between clinical pathology and forensic pathology. In particular, it emphasised the need for specific skills, knowledge and

aptitude because of the interface with, and the requirements of, the legal system. The chair of The Inquiry, Justice Goudge said: *"Few medical practitioners have or require any detailed understanding of the legal system and the legal investigation method. Becoming proficient in these areas is thus one of the features distinguishing forensic pathologists from their clinical counterparts"*[3].

The authors consider that the same requirement is applicable to forensic/child protection paediatrics. The requirement distinguishes child protection/forensic paediatrics from general/community paediatric practice. Therefore, child protection/forensic paediatric practitioners require specific training in addition to what is currently considered necessary in general paediatric training programmes.

Interpretation of published reports and data.

In his report, Justice Goudge considered that population based epidemiological data had limited value when considering in particular, an individual head injury case [1, 4, 5]. For example, a relatively short fall, from the perspective of epidemiological research, would not be likely considered responsible for a serious head injury. However, published individual cases indicate that short falls can occasionally result in serious head injury[6]. Epidemiologic data supports suspicion when a history of a short distance fall is given to account for significant head injury in an infant or child, but a thorough evaluation of the account provided, specifically in relation to the likely forces and biomechanics involved may lead to the opinion that the explanation is adequate. Similarly, it is inappropriate to use population-based epidemiological data to conclude that because an explanation has not been provided to account for an injury to an infant or young child, the injury must have been inflicted[7]. This is particularly important in children who might have the developmental capability to seriously injure themselves.

Diagnosis versus Opinion:

The primary goal when assessing any suspicious injury is to establish, if possible, whether or not the injury is adequately explained by the parents/carers. In some instances the appearance of the injury clearly indicates its mechanism, such as a hand mark from a slap or a human bite mark. When a parent/caregiver gives an explanation for an injury, the experience and therefore intuition of the forensic paediatrician will assist in determining whether the explanation is tenable. For example, the explanation that "the child hurt himself while on the trampoline" may be tenable if it's possible to obtain an in-depth analysis of the circumstances and situation that led to the injury. A particular type of fracture may indicate the type of force necessary to cause it. The mechanism that produces that type of force can be usefully discussed with the parents/carers. The police may use the information gathered by the forensic paediatrician in their interviewing of witnesses, parents or caregivers. Suspicion is not resolved if it is considered that there is an inadequate explanation.

The police are responsible for initiating charges and child protection agencies for considering the need to take action to protect the child. In both of these situations a court decides, based on the weight of evidence, if an individual is guilty of assault or the child is in need of protection. Such decisions are equivalent to concluding that the child has been physically abused. Justice Gouge recognised that the demands of the legal system, which requires a definitive forensic medical opinion, cannot often be

met by forensic pathologists. The same limitation is relevant to forensic/child protection paediatricians. Specifically, the forensic medical opinion cannot specifically state that 'abuse has occurred' or is confirmed. The best forensic medical practitioners can do is state the 'medical diagnosis' (eg fractured femur), consider any relevant medical conditions that would predispose the child to the injury, and assert that there has not been an adequate explanation provided. Therefore, the possibility that it has been inflicted remains a serious consideration. The final decision as to whether or not the evidence supports that the injury has been inflicted is made by the Court, whatever the jurisdiction.

Even when such a careful approach is taken, the potential for controversies remains. In his report Goudge states:

"*Reliability of forensic medical opinion is of great importance to the criminal justice system yet experts will debate whether existing scientific knowledge permits certain diagnoses to be reasonably formed, and whether new scientific knowledge casts doubt on previously expressed opinions or at the very least modifies the level of confidence with which those opinions can be reasonably expressed"*[4].

Historically, the opinions and even the diagnoses of forensic medical experts have been little challenged in Court. However opinions are now argued and debated, particularly in relation to the interpretation of scientific evidence. Courts now have the challenge of listening to and arbitrating over the debate in relation to the likely or probable cause of a particular injury and then reaching a definitive position as to whether or not it was caused by physical abuse. Scientific developments have led to the need for forensic medical opinions to be carefully and often less definitively formulated. For instance, the concept that certain clinical findings or patterns of injury are 'pathognomonic of child abuse' have generally been discarded. Examples of previous claims of pathognomicity as arising 'exclusively from abuse' include macular folds[8]. The concept that bruising can be timed or aged based on appearance is no longer considered valid[9].

Child Protection - Forensic Expert

Goudge emphasised in relation to experts and their opinions the following points:

- Report preparation must comply with expert witness requirements that have been published in the relevant jurisdiction.
- Experts must form their clinical opinions objectively, independently and not mis-use findings to support their pre-conceptions.
- Experts opinions including case reviews must consider all the relevant information that is available in relation to the matter. This includes police statements, records of interviews, police crime scene investigations and re-enactments as well as the full extent of the medical information and documentation.
- The evidence of experts must be impartial and should not be developed to favour the 'side' that has instructed the expert.
- Circumstantial information should not support the entire burden of the medical opinion[10]. This type of evidence may be important in legal arbitration and decision-making but it is not appropriate in the forensic medical opinion.

- Experts should ensure any contradictory evidence they identify is accounted for, commented upon in their final opinion and they must be prepared to adjust opinions when new information comes to light.

Issues in child protection paediatrics.

Child protection legislation in many jurisdictions holds the interests of the child as paramount; this provides guidance to judicial officers in their decision-making. This is equivalent to the courts reaching their findings in "the best interests of the child". However, at a clinical level, the best interests of the child must not influence the nature or strength of the forensic paediatric opinion. Specifically, at the clinical level the opinion must reflect the clinical assessment only and it is inappropriate for the forensic paediatrician to allow their opinion to be influenced by what they consider 'the child's best interests". Child protection legislation contains provisions ensuring safety of a child remains paramount whilst the matters of concern are assessed. Therefore, statutory child protection authorities must understand not to expect or rely on forensic medical opinion to provide definitive conclusions and instead they must rely on their own assessment and response, which is of the most importance at the early stages of an investigation of a suspicious injury.

Justice Gouge raised the obvious dangers of forensic pathologists delivering a preliminary forensic opinion that might change, particularly when it has not been appropriately qualified in the first instance (that is, its limitations are not mentioned). Preliminary opinions potentially lead police investigators in the wrong direction[10]. For example, the investigation of an infant death may continue for weeks or months, but forensic pathologists are often not under pressure to provide their final opinion. The situation is different in child protection/forensic paediatric practice because there are necessary time constraints in place. Interim decisions may be necessary to protect a child before the police investigation has been completed.

When child protection/forensic paediatricians produce an interim report in the circumstances described above, it is necessary for them to ensure that the report contains the relevant information they have considered as well as what additional information they are waiting for and when the final report is likely to be available. Care should be taken to avoid preliminary opinions on any aspect of an injury if it appears that additional investigations may influence the final opinion.

In reality, much child protection/forensic work is done outside of tertiary institutions in regional centres. This practice will continue because of practical and resource issues. Therefore, training programmes established primarily for child protection/forensic paediatricians must also properly accommodate trainees who plan to work in regional centres where forensic paediatrics will be part of their clinical responsibilities.

Quality control in forensic paediatrics:

Many of Justice Goudge's recommendations focus on oversight and accountability measures that should exist within, and external to, institutions with medico-legal responsibilities[11]. In forensic child protection practice, properly established peer review processes addresses these necessities,

In relation to forensic pathology in Ontario, Goudge described existing best practice guidelines as "limited" and peer review by colleagues as "cursory". He acknowledged the difficulties of objective oversight might be hindered by close professional relationships between professionals who work together in small groups. He discussed the use of external proficiency testing to assess the performance of specialists as a group. For such reviews to be adequate there must be a common agreed set of practice requirements to which individual forensic assessments can be matched. Practice requirements in forensic work are not limited to clinical evaluation, investigation and opinion formulation but also report-writing and presentation. An adequate and optimal review system must involve forensic paediatricians from other work sites to address the issues raised by Gouge.

Aspects of report-writing and terminological considerations:
The Commissioner considered carefully the importance of language employed to express opinion. The experts involved in the proceedings described different ways of expressing opinions. In accordance with the forensic standards that are required by the legal system, it is essential that forensic paediatricians are able to discuss their opinion in language that clearly communicates their findings so that it is understandable to the legal system.. These issues have been previously discussed by the authors in relation to medico-legal reports related to suspicious childhood injury[12].

Aspects of the Goudge recommendations most relevant to forensic paediatricians include[13]:

- Reports should use, appropriate and adequately explained language but they should not be simplified at the expense of using confusing or mis-interpretable terminology.

- Reports should not conclude with a diagnosis of abuse on the basis of no adequate explanation being provided. Justice Goudge criticised the pathologist at the centre of the Inquiry for formulating his opinion in terms such as the following template: *"In the absence of a credible explanation, in my opinion the post-mortem findings are regarded as resulting from non-accidental injury."* [14].

- Justice Gouge noted that the term "consistent with" should not be used. Using this term leads to an ambiguity of the statement in which it was made. It is not appropriate to use the phrase to suggest a link between clinical findings and a possible mechanism of causation (for example, "the injury was consistent with the child causing the injury to themselves"). To the courts the phrase means "*reasonably strongly supporting*" whilst scientifically it should only be used in its strict logical and neutral sense, indicating that an injury **could be** the result of a child injuring themselves[15]. Clearly in its correct usage "consistent with" means "could be", which is no more useful than saying it may be or may not be. It may be necessary to provide some opinion whether a specific scenario could cause the injury, in which case using unambiguous language is more appropriate.

- Levels of confidence should be expressed using the same terminology, regardless of the standard of proof applied in the jurisdiction and the judicial

proceeding in which it is being given. The fact that the implications of the opinion will vary depending on the nature of the proceedings is a matter for the tribunal, not the forensic paediatrician.

- The basis of the opinion should be explicit. The contribution to the final opinion of other expert's views and the extent of non-medical information that has been used in the formulation of the opinion should be explicitly stated.

During the proceedings of the Inquiry it became clear that there was a pressing need for a uniform scale of confidence to be developed and applied by clinicians in their forensic work. It was recognised however this may pose some risk that such a system could mask the true limitations of the opinion by appearing to be more precise than they actually are. Some have argued the expert's level of confidence is less important than their reasoning which leads to their opinion[16]. Reasoning can be evaluated, debated and challenged, which is of importance in fields of medicine which are interpretive disciplines.

The Appendix is an adaptation of relevant recommendations derived from the Goudge Report that have relevance to forensic paediatricians in the evaluation of injuries that are considered suspicious of inflicted injury:

(***insert Appendix here):***

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HIGHLIGHTS

- Forensic assessment of suspicious injury must meet legal standards.
- Forensic assessment usually cannot state abuse has occurred or is confirmed.
- Use of a default diagnosis of abuse in absence of explanation should not be used.
- Content of interim reports during an investigation differs from finalised report.
- Recommendations, adapted from Goudge are applied to child protection paediatrics.

31st March 2014

To Editor in Chief
Journal of Forensic and Legal Medicine

We, the authors of this manuscript

"THE RELEVANCE OF THE GOUDGE INQUIRY TO THE PRACTICE OF CHILD PROTECTION/FORENSIC PAEDIATRICS".

declare that we have no conflict of interest in relation to the content of the submitted manuscript.

Dr Catherine Skellern
Dr Terry Donald.

Appendix

ADAPTATIONS OF KEY RECOMMENDATIONS

- Evidence-based forensic medicine should be wary of non-cognitive based "diagnoses" of abuse and opinions. Cognitive-based decision-making requires keeping an open mind to the full range of possibilities that the medical assessment might reveal, without preconceptions or presumptions about abuse, and collecting evidence both to support and to negate any possibilities.

- Cognitive-based decision-making accurately captures the appropriate approach to forensic medicine and helps promote an evidence-based culture.

- All relevant hospital and medical records should be provided to the forensic specialist prior to the commencement of writing the medico-legal report.

- The child protection/forensic paediatrician should remain vigilant against confirmation bias or being affected by extraneous considerations. This is best done through increased professionalism and education, an enhanced awareness of the risks of confirmation bias, the promotion of an evidence-based culture, complete transparency concerning both what is communicated and what parts of it are relied upon by the paediatrician, and a cautious approach by the paediatrician to the use of circumstantial or non-medical information (such as psycho-social information, past history).

- Paediatricians should exercise caution in providing preliminary opinions. In particular, a preliminary opinion on mechanism of injury or other forensic issues such as timing should not be provided if ancillary investigations have any reasonable chance of altering the preliminary opinion. In such circumstances, it should be stated that clarification of these issues are '*pending further tests"*.

- Perhaps the only use of a preliminary opinion is to confirm suspicion or otherwise. There may be a legitimate role for intuition to be used at this stage.

- Medical opinions often depend on technical knowledge and expertise that are not easily understood by lay persons. Particularly in paediatric forensic medicine, opinions may be highly nuanced. However the criminal justice system in which these opinions are used, demand certainty and simplicity. This divergence in the cultures of the two professional areas poses a serious risk of misunderstanding between them, one that is further increased by an adversarial process designed to push and pull these opinions in different directions. To reduce the risk of being misunderstood, the most important parts of a child protection/forensic paediatrician's opinion should be expressed in writing at the earliest opportunity.

- The ability of the various consumers of a child protection/forensic paediatrician's opinion – including peer reviewers, coroners and stakeholders

in the criminal justice system or child protection proceedings – to understand, evaluate and potentially challenge the opinion requires that it be fully transparent. It should clearly state not just the opinion but the facts on which the opinion is based, the reasoning used to reach it, the limitations of the opinion, and the strength or degree of confidence the child protection/forensic paediatrician has in the opinion expressed.

- Although some of the consumers of a forensic paediatrician's opinion are experts, such as peer reviewers, many are professionals who have a responsibility to obtain more than a purely "lay" understanding, who have little or no understanding of technical language. It is essential that the forensic paediatrician's opinion be understood by all the users. It must therefore be communicated in language that is not only accurate but also clear, plain and unambiguous.

- In expressing opinions, child protection/forensic paediatricians should provide opinion within the context of their analysis of the scientific evidence. Such an approach requires that the emphasis be placed on empirical evidence, and its scope and limits, as established in large measure by relevant and appropriate peer reviewed medical literature and other reliable sources. This approach places less emphasis on authoritative claims based on personal experience, which can seldom be quantified or independently validated.

- More generally, forensic paediatricians should be careful to express their opinions in terms that are not ambiguous, but that do elucidate the issues addressed by the opinions.

- Child protection/forensic paediatricians should analyse the level of confidence they have in their opinions and articulate that understanding as clearly as they can. Pending the development of a common language for this purpose, child protection/forensic paediatricians should use their own formulations to capture this as accurately as possible.

- Proof beyond a reasonable doubt is a legal standard applicable to the totality of evidence and it has no correlation with science or medicine. Child protection/forensic paediatricians should be educated and trained not to think in terms of "proof beyond a reasonable doubt" and they should not formulate or articulate their opinions in terms of this legal standard.

- Participants in the justice system should similarly be educated to avoid efforts to compel child protection/forensic paediatricians to express their opinions in terms of this legal standard. The law must work with opinions not diagnoses.

- Child protection/forensic paediatricians should be educated and trained so that their level of confidence or certainty in their opinions remains essentially the same and not dependent on the legal jurisdiction in which those opinions are expressed.

- Child protection/forensic paediatricians should not engage in "default diagnoses". The absence of a credible explanation is not a substitute for

sufficient clinical findings to support the existence of abuse or non-accidental injury. In particular, a formulation such as "in the absence of a credible explanation, the clinical findings are regarded as resulting from non-accidental injury" should not be used.

- If the clinical forensic evaluation is not sufficient to support a mechanism of injury, it should be characterised as "indeterminate" or something similar.

- Child protection/forensic paediatricians should outline in their reports the alternative or potential mechanisms of injury or disease causation that may arise in a case. They should also evaluate alternative explanations that are raised by the clinical findings or by the reported history associated with the clinical presentation. They should describe precisely what alternative explanations have been considered and why they can or cannot be ruled out. The same principles should inform all child protection/forensic paediatrician's communications, including their court evidence.

- Child protection/forensic paediatricians should clearly communicate, where applicable, areas of controversy that may be relevant to their opinions and place their opinions in that context.

- They should also clearly communicate, where applicable, the limits of the science relevant to the particular opinions they express and as they analyse the level of confidence they have in those opinions.

- Caution in using circumstantial evidence or information at all should be particularly pronounced where the circumstantial evidence is potentially unreliable or contenscious or comes close to the ultimate issue that the court must decide.

- Child protection/forensic paediatrician's opinions must ultimately fall within their particular area of expertise.

- When child protection/forensic paediatricians base their opinions, in whole or in part, on consultation with other experts, they should identify those experts as well as the content of the opinions those experts expressed.

- The articulation of the basis for the child protection/forensic paediatrician's opinion in a completely transparent way is at the cornerstone of forensic medicine. Child protection/forensic paediatrician's opinions, whether given in writing or in oral communication, should articulate both the clinical findings diagnosed and the reasoning process followed, leading to the opinions expressed.