Improving Reasoning in Medicolegal Evaluations

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Abstract

This paper presents a systematic approach to analysis in medicolegal evaluations in light of recent challenges within the type of reasoning that medical experts use. I identify a form of reasoning that is used within a specific argumentation structure as being the most appropriate to the goals of medicolegal evaluations. This approach to analysis addresses the legal system's need for well-supported opinions applied to specific cases. It achieves the core task of medicolegal decision-making: to classify an individual as one of two legal categories, "disabled" or "not disabled," or "sane" or "insane".

Keywords: forensic science, logic, expert testimony, decision support techniques, disability evaluation, forensic psychiatry, forensic medicine

Learning Objectives

1. Identify the core task of decision-making in medicolegal valuation and the three goals of legal reasoning relevant to medicolegal evaluation

2. Describe important sources of uncertainty in medicolegal evaluation

3. Define “defeasible reasoning” and “dialectical argumentation,” and explain how they can be applied to improving reasoning in medicolegal evaluation

4. Discuss the limitations of statistical analysis in medicolegal evaluation
Introduction

I often find it hard to understand how evaluators come to the conclusions they reach in their medicolegal reports. For example, in a disability assessment, an evaluator might describe milder symptoms, ambiguous test results, and little evidence of impairment in a given worker’s daily life. Later, however, he or she might conclude that the worker is too impaired to perform any job duties.

What is missing in such cases is a description of the evaluator’s reasoning linking medical evidence to conclusion. Without such description, it is difficult to defend the conclusions of the report. Recently, there has been considerable scrutiny of these methods, including the reasoning forensic experts use to reach conclusions. In General Electric Co. v. Joiner (1997), the Supreme Court concluded that expert methodology and conclusions are not distinct, and that an expert’s conclusion should be excluded in the event that valid reasoning does not support it. In a discussion of "not guilty by reason of insanity" evaluations, Beckham et al. (1989) noted concerns about the lack of standardized methods and procedures for making decisions. Levitt (2008) raised similar concerns about variance of expert opinions in "competency to stand trial" evaluations.

The goal of this article is to define a systematic approach to analysis in medicolegal evaluations so evaluators can provide a rational foundation to defend conclusions. For the purpose of this article, a “medicolegal evaluation” will be defined as an assessment by a medical or psychological professional addressing a question relevant to a criminal or civil legal issue. The medicolegal evaluation may include a review of records, the examination of a party involved in the legal matter, the performance of medical or psychological tests, or communication with others that have knowledge of the case. The medicolegal evaluator may be formally recognized by a court as an "expert witness" or play a more informal role such as an “independent examiner” or "peer reviewer."

Although in this paper I will focus on disability evaluations, which is my area of expertise, the same analysis can be applied to other medicolegal evaluations, including assessment of: competency to stand trial; criminal responsibility; diminished capacity; child custody; psychological, or physical injury; and risk of violence.

Requirements for Reasoning in a Medicolegal Evaluation

The purpose of a medicolegal evaluation is not to diagnose or treat a medical condition, but to address a legal question (e.g., whether an insured has fulfilled the terms of the contract with the disability insurer and is therefore eligible for benefits). The medicolegal evaluation must conform to the following goals of legal reasoning:

Rational proof.
Legal reasoning defends its conclusions by the quality of its evidence and the strength of its arguments. There are always competing claims in a legal proceeding. A claim must therefore not be uncritically accepted, but must be justified and proven by rational means (Feinman, 2006).

Conservatism.
Legal reasoning accepts only well-supported medical opinions. It excludes speculative, hypothetical, arbitrary or idiosyncratic views (Daubert v. Merrell Dow, 1993).

Specificity.
Legal reasoning must show that the correct decision has been made in the specific case under consideration. It may not deal only with probabilities, estimates or generalities (Feinman, 2006).
The medicolegal evaluator must also address the significant uncertainty associated with human behavior in times of conflict that is the focus of legal proceedings. Uncertainty in a medicolegal evaluation derives from the necessity of having to deal with complex systems that have interrelated variables, inadequate information about the state of these variables, and incomplete understanding of how these variables interact (Petroski, 2012). For example, sources of uncertainty in a disability evaluation include: limited understanding of how psychological illnesses, physical illnesses, or injuries affect the overall functioning and performance of specific work tasks; incomplete knowledge of how a claimant acts outside an evaluator’s office; inconsistent reports of a claimant’s presentation and abilities; unknown reliability of collateral sources of information such as family and coworkers; imprecision of medical observations like “psychomotor retardation” or “antalgic gait”; unverifiable subjective feelings of pain or depression; unintentional bias of a treating provider who acts as an advocate for the claimant; and intentional deception of a claimant who wants to avoid an unpleasant work situation (Rogers, 1997).

**Which Form of Reasoning is Most Appropriate to the Needs of the Medicolegal Evaluation?**

Defeasible reasoning operating within a framework of dialectical argumentation can contend with significant uncertainty and produce defensible conclusions applicable to the specific case in a medicolegal evaluation.

Defeasible reasoning gives a tentative basis, subject to qualification and exception, for accepting a conclusion (Pollock & Cruz, 1999). The following is an example of a defeasible argument:

- Most birds fly
- X is a bird
- Therefore, X probably flies

This form of reasoning is called "defeasible" because the conclusion can be "defeated" (rendered invalid) by a new premise or condition. In the example above, the conclusion would be defeated if the premise “X is a penguin” were added.

Toulmin (1958) provided a model for creating and evaluating defeasible arguments. He stated that an argument begins with an assertion or claim that some conclusion is true. Toulmin emphasized the necessity of generalizations in rational discussion as a means of supporting the assertion by justifying the step from evidence to conclusion. The “backing” of the generalization refers to the reasons for accepting it. A “qualifier” of the generalization addresses the degree of certainty with which it can be justifiably applied to the specific case, including the possibility that the specific case might be an exception to the general rule. Let us expand the defeasible argument above to illustrate these points. We start with an assertion that a certain bird “X” probably flies, based on a generalization that most birds fly. As a backing for this generalization, we note that zoological studies have shown that most birds fly. We qualify this generalization by pointing out that some birds, such as penguins and ostriches, do not fly. If X is not such an exception, then we have justified our assertion. If we obtain information later that we were mistaken about the identity of X, which after all belongs to a species of flightless bird, then we can revise our conclusion. If, some day, many species of flightless birds were to be discovered, then we might lose the backing of the generalization and need to retract it.

Defeasible reasoning reflects the practical experience that informs law and medicine (Prakken & Sartor, 2004). In complex systems, such as human behavior, useful generalizations are qualified rather than absolute (Murphy, 2003). In these systems, which are subject to significant uncertainty, one may need to revise tentative conclusions in light of new evidence. Defeasible reasoning allows the application of medical generalizations to each unique case under consideration by considering the qualification of and exception to these generalizations. Defeasible reasoning also allows for withdrawing a generalization and replacing it with another that is better supported by new evidence.
The strength of generalizations used in medicolegal evaluations ranges from strongly-supported warrants based on the results of well-designed controlled medical studies, to moderately-supported warrants based on less formal studies or consensus guidelines, to weaker warrants based on testimony, expert opinion, or general knowledge in the medical field (Gross, 2001). The medical evaluator should always use the most reliable and strongest generalizations available, as the law requires well-supported conclusions. In order that the reader may assess the strength of the generalization, the evaluator should describe the backing of the generalization and the degree to which the generalization must be qualified to apply to the case at hand.

As an example of a defeasible inference relevant to a medicolegal (physical disability) evaluation, consider the assertion that "John Smith, who has undergone a lumbar discectomy, can safely resume heavy physical work after rehabilitation." In support of this assertion, one could offer a generalization that "most patients can successfully return to heavy work after lumbar discectomy." As backing for this generalization, one could cite studies showing that most patients may be sent back to unrestricted activity after a lumbar discectomy with no increase in incidence of re-herniation. One could qualify the generalization by noting that individuals who have undergone more than one lumbar discectomy, or who are predisposed to disk herniation because of risk factors such as genetics or smoking, may not be able to safely return to heavy physical work. If John Smith's case is not categorized among these exceptions, then the assertion is justified (Talmage & Melhorn, 2005).

Defeasible reasoning advances plausible arguments that are weaker than deductive or strong inductive arguments. Defeasible arguments are concerned with the practical need to advance arguments and reach conclusions, even when one cannot prove these conclusions to a high degree of certainty (Walton, 2001).

One also needs a means by which defeasible inferences can be structured and organized to reach a defensible conclusion in the face of complex evidence and competing viewpoints. Dialectical argumentation can provide the framework within which defeasible inferences can convincingly link evidence and conclusions. It is a method of argumentation based on a dialogue between opposing views, in which proponent and opponent question and challenge each other's positions until one prevails (Murphy, 2003). This method reflects the give-and-take of legal discourse (Prakken & Sartor, 2004). It is in essence defeasible, as an argument provisionally holds sway until defeated by a stronger argument.

The medicolegal evaluator will always face conflicting arguments offered by the claimant and the respondent in a legal matter. The evaluator must test these rival arguments through competition to determine which is stronger. Such testing is necessary when there is no accepted model or rule for proving a conclusion based on data alone (Ben-Haim, 2001). An argument prevails if it can defeat every attack that is made by rivals.

Different approaches to testing competing arguments highlight variations on common themes, such as: considering information in an organized and systematic manner; focusing on the most relevant issues; keeping the mind open to alternative viewpoints; revealing the full argument, including any unstated premises or assumptions; and communicating the degree of uncertainty in the conclusion. Walton, for example, emphasizes the use of “critical questions” to challenge an argument (2008); Heuer, the use of structured analytic techniques (1999); and Schum, how combining sub-arguments affects the strength of the conclusion (1994).

**Burden of Proof**

Conclusive defeat of an argument, however, is usually not possible in the uncertain, complex and controversial forensic issues faced in medicolegal evaluations. The “burden of proof” is an argumentation technique used to resolve issues when conclusive proof is impractical (Meany & Schuster, 2002). The burden of proof refers to the obligation of a party in dispute to establish, through evidence, a required degree of belief concerning a fact
or issue in the mind of the decision-maker, such as a judge or jury (Black, 1990). According to the law, if one makes a claim then one must prove that claim. This is the burden of proof (Feinman, 2006). It helps prevent a stalemate between competing claims when there is a practical need to reach a conclusion.

In medicolegal evaluations, the party bearing the burden of proof is usually the one petitioning for some special status, such as a defendant claiming to be insane or incompetent to withstand trial, a worker claiming to be disabled, or a parent requesting sole custody of a child. The party with the burden of proof may be explicitly identified or may be implied by the circumstances of the evaluation.

The party with the burden of proof meets this burden when it has introduced sufficient evidence to make a “prima facie” case. A prima facie case is an argument that is valid “on its face” and will prevail unless defeated by an opposing argument, although it may not ultimately be convincing to the decision-maker (Black, 1990). For example, in a murder trial, the prosecutor (who has the burden of proof) could make a prima facie case by introducing evidence that the defendant had motive, means, and opportunity to commit the crime. If unchallenged, this evidence could result in a conviction. The defense, however, may attack the prosecutor’s prima facie case – for example, by claiming that the defendant has an alibi, or that eyewitness or forensic evidence that seemingly favors guilt is unreliable.

Defeasible arguments provide prima facie cases for believing something to be true (Prakken & Sartor, 2004). They serve to establish a claim but are not definitive proof, as they may be overturned by stronger arguments. Defeasible arguments are plausible arguments that may be most useful in shifting the burden of proof from one side of the dispute to the other (Walton, 2008). When one party meets its burden of proof (by successfully making a prima facie case, attacking the prima facie case of its opponent, or defending an attack on its own prima facie case) it shifts the burden to the other party in the dispute. If the side with the burden of proof fails to meet its burden, and thereby shifts it to the opponent, then that side will lose the dispute. The shifting of the burden of proof is a cyclical process, reflecting the flow of argumentation in a trial or dispute (Godden & Walton, 2006).

How Much Confidence Can We Place in Conclusions Reached by This Method?

Medical experts are often asked to measure their conclusions against the standard of proof of “reasonable medical certainty” (“standard of proof” refers to the predetermined degree of certainty to which a claim must be proven (Babitsky & Mangraviti, 2000). Although the term “Reasonable medical certainty” is often described as meaning “more likely than not,” the term is poorly defined legally (Bradford, 2001) and medically (Poythress, 2004), and provides little or no guidance in assessing the acceptability of the conclusions of a medicolegal evaluation.

In the absence of a clearly-defined standard of proof, how can one determine how much confidence one should place in the conclusions of a medicolegal evaluation? Because the medical expert’s views are subjective, it would be problematic to rely only on his or her assurance that the standard of proof has been met. It would be preferable if there were some way to assess and verify this assurance, as experts may tend to overestimate the accuracy and reliability of their opinions (Taleb, 2007). And, as noted above, courts may not accept the expert’s unsupported assertion.

Another approach would be to attempt to assign a numerical value, such as a probability, to the level of confidence. In DNA testing, for example, one can assign a specific value to the probability that two DNA samples are derived from the same source (Lucy, 2005). Such a numerical value based upon statistical analysis would seem to provide more compelling support for a conclusion than an analysis of competing arguments.

Statistical or probabilistic inference does make sense when there is the necessary background knowledge. For example, DNA testing requires detailed quantitative information about the structure of DNA,
transmission of human genetic material, and the relevant allele frequencies in the population of interest (Lucy, 2005).

There are, however, significant difficulties in attempting to apply statistical analysis and probability-based reasoning as the primary means of drawing inferences in medicolegal evaluations. The high informational demands of statistical models limit their usefulness when dealing with the severely restricted information often encountered in medicolegal evaluations (Ben-Haim, 2001). While DNA analysis involves assessing chemical compounds under controlled laboratory conditions, medicolegal analysis must potentially deal with the full range of human behavior under real world conditions. Meaningful probability values may not be calculable in practice because of the complexity of human interactions and the lack of relevant statistical models or data (Freedman, 2011). Key elements of medicolegal analysis, including subjective and volitional factors (with the potential for deception), will be subject to significant uncertainty and will foil any attempt to reach a defensible conclusion by statistical or probabilistic methods alone.

The physical sciences operate under a model where statistical generalizations derived from observations of numerous related cases can be applied to an individual case. This, however, does not apply to medicine and law. In these fields, rather, truths are circumstantial and provisional, rooted in the unique facts of the case. One would have to sacrifice the understanding of the vital individual elements of a case in order to achieve a more rigorous standard of statistical analysis (Eco & Sebeok, 1983).

Acknowledging these concerns, courts have tended to reject prosecution arguments based primarily on probabilistic or statistical analyses of a defendant’s guilt (Murphy, 2003).

In this author’s view, a more satisfactory approach would be to use reasoning and argument, the currency of medicolegal analysis, to assess and express the level of certainty of conclusions. By examining the quality of reasons supporting a conclusion (versus the quality of reasons supporting other competing conclusions), one would be able to assess, to some degree, the strength of that conclusion. The degree of confidence in the conclusion would be justified by the strength and completeness of the evidence, as well as the reasoning supporting it, rather than by imposition of a questionable numerical value or unverifiable opinion.

The testing of competing arguments allows one to rank rival arguments ordinally (i.e. best supported, second-best supported, etc.) according to the evaluator’s conclusions about the strength and completeness of the reasoning, and the evidence supporting them (Heuer, 1999). This is a comparative and classificatory assessment of available arguments, and it cannot quantitatively describe the degree to which one argument is superior to another. When information is too limited to quantify decision-making criteria, however, picking the top option is regarded as a rational approach to decision-making (Schwartz & Bergus, 2008).

Ordinal ranking of hypotheses is well-suited to the needs of decision-making in a medicolegal evaluation. The core task in medicolegal decision-making typically consists of classifying an individual as one of two mutually exclusive categories relevant to the legal issue at hand, such as "disabled" or "not disabled"; "sane" or "insane"; "fit to parent" or "not fit to parent" (Murphy, 2003). The law requires that this categorization be clear and decisive, not vague, ambiguous or probabilistic. The task is not (as in science) to develop hypotheses to explain the data, but rather to choose which of two legal categories is more consistent with the evidence. Ordinal ranking of hypotheses allows the evaluator to show that classification of the individual into one of these categories is better supported by evidence.

This author’s analysis suggests that it is not realistic to definitively prove that the conclusion of a medicolegal evaluation has attained some explicit legal standard of proof. This is partly because the standard of proof itself is poorly defined, and partly because uncertainty is inherent in information within "social sciences," like in medicine and law. It is, however, realistic to expect that the evaluator has tested this conclusion by argument and shown it to be the best supported among relevant alternatives. In the special case in which the evaluator must choose between two exhaustive and mutually exclusive legal categories (such as "sane" versus "insane"),...
the choice of one category over another is equivalent to stating that this conclusion is "more likely than not."

Owing to the uncertainty involved in medicolegal evaluations, there will not be only one definitive "correct" conclusion. Different evaluators may reasonably present different arguments and reach different conclusions for the same case. Scientifically rigorous proof is not feasible in medicolegal evaluations. Ultimately it is up to the judgment of the decision-maker involved in the case to decide which arguments and conclusions are most convincing (Ben-Haim, 2001).

Example of the Method

The following example shows how this method may be applied in a medicolegal evaluation (peer review) of a psychiatric disability claim. The legal issue in this case involves whether the worker satisfied the terms of the contract according to which disability benefits are paid. The medicolegal evaluator has been asked whether the available evidence supports the presence of impairment due to a psychiatric disorder that has prevented the employee from performing her job duties. For the purpose of instruction, this example is presented as a dialogue; in an actual report, it could be presented in the usual narrative fashion.

The worker initially presented the following information in support of her claim. She documented that her psychiatrist had diagnosed major depressive disorder and had described clinical findings sufficient to meet the diagnostic criteria for that disorder. The psychiatrist affirmed that these clinical findings reflected functional impairment in cognition, emotional stability, and social interaction, which have prevented the worker from performing her job duties as a customer service representative.

Clinical records, including the worker’s history and treating providers’ medical opinions, are often used to support claims in medicolegal evaluations. These primarily address medical diagnosis and treatment and cannot be expected to present well-organized forensic arguments. At times the evaluator may be able to hold an actual dialogue about the case with the treating provider or other knowledgeable party. When this is not possible, the evaluator must first reconstruct the claimant’s argument as convincingly as possible from the available records, according to the "principle of charity" in logical discourse (Walton, 2008), and then hold an imagined dialogue analyzing the case.

One could reconstruct the worker’s argument in a more formal manner as follows. The assertions described below introduce defeasible arguments supporting the claim. In this example, it is implied that the worker has the burden of proof, as she is attempting to establish a claim for a special status of “disability.”

Assertion #1: One should accept the worker’s testimony that she has been unable to work due to depression.

Generalization: people are usually truthful about their medical conditions and are aware of their capabilities.

Backing: general knowledge.

Qualification: the reliability of an individual’s testimony depends on the situation: people can be mistaken or deceptive.

Assertion #2: One should accept the psychiatrist’s opinion that the employee’s psychiatric condition prevents her from working.

Generalization: the psychiatrist is a medical expert, and an expert’s opinion is usually reliable.

Backing: general medical knowledge.

Qualification: the reliability of an expert’s opinion depends upon many factors, including relevant experience and potential bias (Walton, 2008).
Assertion #3: The diagnosis of major depressive disorder implies significant impairment.

Generalization: Major depressive disorder is often a severe mental disorder.

Backing: (Sadock & Sadock, 2007).

Qualification: major depressive disorder may also occur in mild forms (American Psychiatric Association, 2000).

Assertion #4: Treatment by a psychiatrist, with prescription of psychotropic medication, implies that an individual is suffering from a severe and disabling depression.

Generalization: treatment with antidepressant medication, as opposed to counseling alone, is reserved for more severe depressions.


Qualification: there is considerable variation in accepted treatments for depression; the nature of treatment depends on a number of factors (American Journal of Psychiatry, 2010).

What constitutes a prima facie case in a medicolegal evaluation is not clearly defined by some external standard. It depends in part on the nature of evidence available in a given medical field. For example, when considering evidence in a psychiatric case, the evaluator might accept subjective information supporting a prima facie case, as there is limited objective data in this field. On the other hand, when considering evidence in an orthopedic case, the evaluator might insist on more objective data such as findings from a physical examination or imaging studies.

If the worker had not been able to provide even a prima facie case, then the analysis would have ended and the worker’s claim would have been defeated. After accepting the worker’s prima facie case, however, the evaluator must then test the strength of this case by challenging it with a contrary argument based on the evidence in the case. Such a contrary argument could include the following elements.

Counter-assertion #1: One should not accept the worker’s testimony at face value in this case.

Justification: when an individual benefits in some ways from adopting a sick role, she may be motivated to exaggerate symptoms and minimize abilities.

Backing: (Rosner, 1994).

This argument attempts to undercut the argument in Assertion #1 by claiming that the circumstances of this case reflect an exception to the generalization offered.
Counter-assertion #2: One should not accept the treating psychiatrist’s opinion at face value in this case.

Justification: A treating physician is often not knowledgeable about disability assessment and tends to be biased in favor of the patient’s wishes.

Backing: (Rosner, 1994).

This argument attempts to undercut the argument in Assertion #2 by claiming that when the treating physician is performing a disability evaluation, this constitutes an exception to the generalization.

Counter-assertion #3: A diagnosis of major depressive disorder does not necessarily imply significant impairment.

Justification: The disorder often exists in milder forms that are not disabling.

Backing: see the “qualification” for Assertion #3 above.

This argument attempts to undercut the argument in Assertion #3 by claiming more clinical evidence is necessary to determine if the case under consideration is covered by the generalization, or if it is an exception.

Counter-assertion #4: Treatment by a psychiatrist alone does not necessarily show that the worker has been suffering from severe depression.

Justification: Less-severe mental disorders are also treated by a psychiatrist with psychotropic medication. Treatment of severe depression may require more intensive interventions such as inpatient hospitalization, day hospitalization, or electroconvulsive therapy.


This argument attempts to rebut the argument in Assertion #4 by challenging the premise that treatment with antidepressant medication is reserved for more severe depression.

The evaluator decided these counter-assertions were sufficiently compelling to shift the burden of proof to the claimant, requiring a defense of the original assertions.

Response #1: The worker has a good performance record with her employer, and it would not be in her interest to jeopardize her job by taking an unnecessary medical leave.

This argument attempts to defend the original assertion by claiming that in this case the worker does not have a credible motivation to misrepresent her ability to work.
Response #2: The treating psychiatrist may not be knowledgeable about disability evaluation, and may be biased to some degree in favor of the patient's wishes. Nonetheless, the psychiatrist has provided useful clinical evidence about the case that speaks for itself.

This response attempts to minimize the claim of Counter-assertion #2 by arguing that while it has a point, it does not affect the case's conclusion.

Response #3: There is additional clinical evidence in this case showing that the worker's major depressive disorder is more severe and disabling.

The claimant provided additional information indicating that the treating psychiatrist included mental status findings and psychological test results suggestive of impairment, and noted the claimant's report that her mother has moved in with her because she has difficulty performing normal daily activities due to depression. This argument attempts to answer the objections of Counter-assertion #3 by providing additional clinical information showing that this case involves a more severe form of major depressive disorder.

Response #4: In this case, the psychiatrist later augmented the initial antidepressant medication with a second medication according to clinical guidelines, and also referred the employee to a day hospital program.

Backing: this response attempts to turn the argument of Counter-assertion #4 (that severe depression is usually treated with more intensive interventions) to its advantage. It attempts this by showing that since the psychiatrist has initiated more intensive treatment, it is likely that the worker's condition is more severe.

The medicolegal evaluator concluded that the argument in favor of the worker's claim of impairment had adequately responded to all reasonable objections and contrary arguments, and had prevailed. Therefore, the evaluator classified the worker as "impaired" ("disabled").

Discussion

I have presented this systematic approach to analysis in light of recent challenges to the reasoning used in medicolegal evaluations. Although analysis in medicolegal evaluations is based on medical knowledge, it serves a legal purpose, and so must address the goals of the legal system, including: rational proof, conservatism, and specificity. This analysis must also address the significant uncertainty arising from the effects of human behavior under non-ideal conditions.

I have concluded that a form of logic called defeasible reasoning, operating within a structure of dialectical argumentation, best meets the needs of the medicolegal evaluation. This approach uses rational inference to apply well-supported medical generalizations to address the particular circumstances of the case. It is not realistic to expect that the conclusion of a medicolegal evaluation attain some explicit legal standard of proof. Using the method described in this article, the evaluator can, however, choose the best-supported argument based on the strength and completeness of its evidence and reasoning. This ordinal ranking of arguments allows the evaluator to achieve the core task of medicolegal decision-making: to classify an individual into one of two mutually exclusive legal categories, such as "disabled" or "not disabled," or "sane" or "insane".

Use of a systematic approach to analysis in medicolegal evaluations with attention to the reasoning involved could improve the quality and reliability of these evaluations and facilitate their understanding and acceptance by courts and other requesting bodies.

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References


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