

The Credible Forensic Psychiatric Evaluation in Multiple Chemical Sensitivity Litigation

Robert I. Simon, MD

The forensic psychiatrist must be able to perform a credible psychiatric evaluation and render a competent psychiatric opinion in hotly contested multiple chemical sensitivity (MCS) litigation. Forensic psychiatrists are often requested to evaluate MCS claimants by third party payers, employers, lawyers, and government agencies regarding health care costs and disability payments, workers' compensation claims, unemployment benefits, workplace accommodation reimbursements for special housing and environmental needs, civil litigation, and other claims. The credible forensic psychiatric evaluation of MCS litigants is described using the multi-axial diagnostic system of DSM-IV. Forensic psychiatrists must avoid becoming polarized by the current MCS controversy. The ethical requirements of honesty and striving for objectivity can be met by keeping separate the roles of therapist and expert, staying abreast of the scientific literature regarding MCS, and understanding the role of the psychiatric expert in MCS litigation.

The forensic psychiatrist must be able to perform a credible psychiatric evaluation and render a competent psychiatric opinion in hotly contested multiple chemical sensitivity (MCS) litigation. Forensic psychiatrists are often requested to evaluate MCS claimants by third party payers, employers, lawyers, and government agencies regarding health care costs and disability payments, workers' compensation claims, unemployment benefits,

workplace accommodation reimbursements for special housing and environmental needs, civil litigation, and other claims. The debate over the organic versus psychological origins of MCS is a major controversy today.

Cullen¹ defined MCS as "an acquired disorder characterized by recurrent symptoms, referable to multiple organ systems, occurring in response to demonstrable exposure to many chemically unrelated compounds at doses far below those established in the general population to cause harmful effects. No single widely accepted test of physiologic function can be shown to correlate with symptoms."

Dr. Simon is Clinical Professor of Psychiatry and Director, Program in Psychiatry and Law, Georgetown University School of Medicine, Washington, DC. Address correspondence to: Robert I. Simon, MD, 7921-D, Glenbrook Road, Bethesda, MD 20814.

Table 1
MCS Criteria^a

Acquired in relation to some documentable environmental exposure(s), insult(s), or illness(es)
Symptoms involve more than one organ system
Symptoms recur and abate in response to predictable environmental stimuli
Symptoms are elicited by exposure to chemicals of diverse structural classes and toxicologic modes of action
Symptoms elicited by exposures to chemicals that are demonstrable but in low concentrations
Exposures that elicit symptoms must be very low, several standard deviations below the "average" exposures known to cause adverse human responses
No single widely available test of organ system function can explain the symptoms

^aAdapted from M. R. Cullen.¹

Cullen¹ described seven major criteria for the diagnosis of MCS, listed in Table 1. Cullen candidly states, ". . . the MCS designation with its above case definition is but one early attempt at a classification" whose "biologic homogeneity and integrity of MCS itself is purely conjectural at present."

Clinical ecology is premised on a belief that MCS results from repeated small exposures or a single high exposure to a wide variety of environmental agents with sensitive persons, causing multisystem organ abnormalities.² The sensitized person becomes intolerant to many synthetic chemicals found in everyday life. The manifestation of adverse reactions

depends upon the tissue or organ afflicted, the nature of the toxin, individual susceptibility, time length of exposure, totality and synergism of other body stressors, and deranged metabolism from the initial insults.³

Gots,⁴ on the other hand, observes that "MCS is a clinical phenomenon in which a patient experiences a wide variety of subjective symptoms in conjunction with low level chemical exposures either real or perceived." Gots refers to MCS as a phenomenon, not a disease, because there are potentially too many causes and no underlying characteristic or cause to fulfill the necessary criterion of a disease. Many MCS claimants have current or past psychological symptoms and psychiatric disorders.

Witorsch *et al.*,⁵ in a series of 61 cases of MCS defined by the Cullen criteria, found that their research "suggests that MCS is best characterized as a manifestation of one of several primary psychiatric disorders that involve somatization as a psychopathologic mechanism. The Cullen criteria, in fact, describe an essentially psychiatric condition." Cullen acknowledges that MCS patients defy traditional diagnostic approaches and "most if not all will meet DSM-III criteria for some form of somatoform or psychosomatic illness."¹ MCS has defied definitive diagnosis since Cullen first established tentative diagnostic features for this alleged disorder.

Davidoff and Fogart⁶ counter the psychogenic origin argument by providing alternative hypotheses to explain the high prevalence of psychotic disorders and conditions found in individuals diagnosed

with MCS. The simplest explanation they offer is that an emotional disorder is caused by the chemical exposure.

Forensic psychiatrists who are retained in toxic chemical litigation generally encounter two types of cases.⁷ In traditional toxic tort cases, the plaintiff alleges physical and psychological damages resulting from exposure to a specific chemical compound. The alleged toxic response and subsequent symptoms bear a dose-response relationship to the level of exposure. The relationship between a significant exposure to either a single compound or a chemical group and a replicable symptom complex should be demonstrable or identifiable.⁸ Generally, these cases allege that neurotoxicity develops from exposure to chemical agents that directly affect brain function.⁹ Traditional toxic tort cases may stand alone, overlap, or be part of a MCS claim.

In MCS cases, no typical dose-response relationship exists between the alleged exposure to the noxious chemical compound and the plaintiff's manifold physical and psychological reactions. A low level of exposure to the offending chemical agent is claimed to produce a disabling pathophysiologic response. The afflicted individual also reacts at low levels to a wide variety of other chemical substances. These may include "indoor pollutants," common allergens, grooming products such as perfumes and hair sprays, household and commercial cleaning products, dusts, food, paint products, pesticides, detergents, tobacco smoke, volatile organic compounds, vehicle exhausts, and an almost endless list of other substances and products found in every-

day living. Allergy or immunotoxicity or both have been suggested as the pathophysiologic mechanisms.¹⁰ Currently, neurotoxicity and porphyria are advanced as the underlying mechanisms.¹¹

MCS litigation is often difficult and taxing for the forensic psychiatrist because of the uncertainties surrounding this diagnosis and the usually extreme contentiousness of the parties in litigation. The forensic psychiatrist must be able to conduct a credible examination for either the plaintiff or the defense amid the usual rancor of the contending parties. Taking sides in the MCS controversy will likely erode the forensic psychiatrist's credibility and lead to the marginalization of her or his opinions. The forensic psychiatrist must be informed and guided by a knowledge of the scientific literature regarding MSC.

The Credible Forensic Psychiatric Evaluation

The DSM-IV¹² provides a multidimensional format for a credible psychiatric examination of litigants in toxic cases. Although DSM-IV was created primarily for clinicians who treat patients, it has found applicability in psychic injury litigation as well. DSM-IV contains the warning, "When the DSM-IV categories, criteria, and textual descriptions are employed for forensic purposes, there are significant risks that diagnostic information will be misused or misunderstood. These dangers arise because of the imperfect fit between the questions of ultimate concern to the law and the information contained in a clinical diagnosis." However, the caveat goes on to say, "when

used appropriately, diagnosis and diagnostic information can assist decision makers in their determinations".¹³ Attorneys have a tendency to use DSM-IV in a literal, cookbook-style fashion. To prove useful in litigation, the DSM-IV multi-axial format must be informed by clinical knowledge, training, and experience.

The DSM-IV multi-axial system forms the backbone of a comprehensive psychiatric evaluation. The five axes discussed below refer to important sectors of information. Although most psychiatrists are familiar with the systematic approach to psychiatric evaluation in DSM-IV, it is remarkable how infrequently it is applied in litigation.

Axis I: Clinical Disorders and Other conditions That May Be a Focus of Clinical Attention

Axis I psychiatric diagnoses are made regularly by nonpsychiatric physicians, nonmedical mental health professionals, and psychiatrists who are treating or evaluating litigants. Generally, anxiety, depression, and somatization are the most common psychiatric symptoms found in MCS litigants.¹⁴ Recent studies suggest that a number of MCS patients may have panic disorder and symptoms of acute hyperventilation.¹⁵ In traditional toxic tort cases, psychic injury may be the major damage claim such as in "cancerphobia" claims.¹⁶ Usually, however, psychic injury claims among MCS litigants are important but are considered by plaintiffs to be secondary to the alleged physical injuries. Litigants alleging toxic chemical injury are generally very resistant to considering psychological issues as causing part of or all of their difficulties. Accordingly, the

examiner should always start by asking the litigant about current problems caused by the alleged toxic exposure rather than beginning by asking "tell me about yourself."

The hallmark of a poorly performed forensic psychiatric evaluation is the failure to carefully investigate the litigant's past psychological history. Litigation can divert the examiner's clinical focus so that it becomes fixed solely on the litigant's current symptoms, as if the litigant's life began with the litigation. In *Carlin v. RFE Industries, Inc.*,¹⁷ the plaintiff failed to disclose a long history of treatment for many of the currently alleged symptoms of MCS. Preexisting psychiatric disorders or conditions are commonly found in the histories of MCS litigants. In one study, a history of anxiety and depressive disorders predating workplace exposure to chemicals was a stronger predictor developing an environmental illness.¹⁸

The forensic psychiatrist must also have sufficient time to perform a credible psychiatric examination. Arbitrarily imposed time limits are inimical to a full exploration of all five evaluation axes. The examinee may need to be scheduled for separate sessions in order not to fatigue the examinee as well as to develop a task-specific working alliance.¹⁹ The presence of third parties can interfere with the conduct of a credible psychiatric examination.²⁰ Because of the highly subjective nature of MCS symptoms, the forensic psychiatric examiner must obtain information from collateral sources. All current and past medical and psychiatric records need to be obtained. If possible,

the examiner should talk to others who know the litigant. Also, the forensic psychiatrist must be clinically alert for the possibility of any symptom manipulation by the litigant. In MCS litigation, rather than symptom magnification the litigant may consciously deny or minimize the presence of a prior mental disorder or symptoms.

Axis I diagnoses commonly found during a forensic examination in MCS litigation include somatization disorder (formerly referred to as hysteria or Briquet's syndrome), mood and anxiety disorders, and adjustment disorders. Often, the forensic examiner finds symptoms of emotional distress that do not rise to the level of a diagnosable psychiatric disorder. The examiner should not attempt to force these symptoms into a DSM-IV psychiatric diagnosis. Describing the litigant's emotional distress symptom is usually sufficient. Running "fast and loose" with psychiatric diagnoses will undermine the credibility of the forensic psychiatrist. Table 2 lists some of the "typical" characteristics of MCS litigants. For the forensic psychiatrist, however, there is no such thing as a "typical" MCS litigant. Individuals with MCS comprise a heterogeneous group. Each individual's unique symptoms and circumstances must be thoroughly evaluated.

Posttraumatic stress disorder (PTSD) has been alleged in some traditional toxic tort cases as well as in MCS cases.²¹ PTSD is a favorite diagnosis in psychic injury litigation because it is incident specific, establishing the plaintiff's cause of action, if unchallenged.²² In providing expert testimony, some examiners at-

Table 2
Some "Typical" Characteristics of
MCS Litigants

Adult women between age 20 and 40 years
Caucasian
Education—high school graduate or higher
Formerly employed in service occupations
Signs and symptoms of multiple system involvement
Resistant to psychological issues
Articulate in describing medical history
Knowledgeable about MCS
Disabled
Special accommodations required for examination ^a

^aRequirements may include adjusting ventilation of interview office, use of medical equipment (oxygen masks), dust masks for noxious odors (examiner's toiletries, carpet odors), and special examination rooms, for example.

tempt to squeeze the litigant's symptoms into a PTSD diagnosis, even though the diagnostic criteria for this disorder are clearly not met.

Thus, in *Sterling v. Velsicol Chemical Corp.*,²³ the Sixth Circuit Court of Appeals concluded that the alleged causes of PTSD must be closely scrutinized:

Plaintiffs' drinking or otherwise using contaminated water, even over an extended period of time, does not constitute the type of recognizable stressor identified either by professional medical organizations or courts. Examples of stressors upon which courts have based awards for PTSD include rape, assault, military combat, fires, floods, earthquakes, car and airplane crashes, torture, and even internment in concentration camps, each of which are natural or

man-made disasters with immediate or extended violent consequences. . . . Whereas consumption of contaminated water may be an unnerving occurrence, it does not rise to the level of the type of psychologically traumatic event that is a universal stressor. A plaintiff's claim that a particular event or series of events caused him PTSD must be subjected to the closest scrutiny. The court must demand that a plaintiff produce sufficient authority that the particular event constitutes a "recognized stressor" or a psychologically traumatic event which would produce significant symptoms of distress in almost everyone experiencing such an event. In the instant case, the plaintiffs produced none, and this court can identify no relevant authority that the consumption of contaminated water is a recognized stressor upon which an award of PTSD can rest. Additionally, plaintiff's experts presented no evidence establishing that any of the plaintiffs were, in fact, "retraumatized" through recurrent and intrusive recollections or dreams of drinking the contaminated water. Plaintiff Johnson's nightmares about "what was happening to [his] children and [constant preoccupation] with what their condition was and . . . might be in the future" merely describe his reasonable fear of increased risk of cancer and other disease. Since each plaintiff failed to satisfy all of the criteria necessary for a diagnosis of PTSD, we reverse the district court's award for damages.

If a DSM-IV diagnosis is made, the examiner must be able to provide sufficient data to support the diagnosis. The unsubstantiated diagnosis of a psychiatric disorder has no place in the credible psychiatric evaluation.

Axis II: Personality Disorders According to the DSM-IV, a personality disorder "is an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and

leads to distress or impairment" (p. 629).¹²

The evaluation of litigants for personality disorders tends to be deferred or overlooked by some forensic psychiatric examiners. Examiners may ignore personality disorder diagnoses because they seem irrelevant or unimportant compared with an Axis I disorder. A common problem is that examiners fail to consider comorbidity—the occurrence of more than one psychiatric disorder in the examinee. Also, the diagnostic criteria for a personality disorder may not be clearly discernible during the time allotted for the forensic psychiatric examination. In clinical practice, a personality disorder may become apparent only after many therapy sessions. Thus, examiners may not want to make tenuous personality disorder diagnoses that may provide opposing counsel with additional ammunition for cross-examination.

The criteria for the diagnosis of personality disorders are "soft" compared to the more firmly established diagnostic criteria for Axis I disorders. Personality tests are available that permit the rapid assessment of Axis II disorders. Consultation with a forensic psychologist can be helpful in determining the presence or absence of a personality disorder. However, personality test results cannot be solely relied upon in making a personality disorder diagnosis. The evaluation process must be clinically informed by an experienced and knowledgeable test evaluator. Self-report questionnaires or semistructured interviews that arrive at a personality disorder diagnosis by direct questions derived from Axis II criteria were found

to be only marginally useful because of examinee defensive biases.²⁴ Interviews of individuals who know the litigant may help corroborate the presence or absence of an Axis II diagnosis.

Personality disorders occur rather frequently among litigants, either alone or in conjunction with an Axis I disorder. Individuals with personality disorders usually experience troubled relationships, work impairments, and stressful life experiences. There is a high degree of psychiatric morbidity associated with personality disorders that includes self-destructive behaviors, suicide, violence, moribund marriages, destroyed lives, desperate isolation and the high utilization of health care resources.²⁵ MCS symptoms may reflect or become a convenient focus for the personal distress experienced by individuals with personality disorders.

The incidence of childhood abuse in persons with diagnosed personality disorders, particularly borderline personality disorder, is reported to be high.²⁶ Staudenmayer *et al.*²⁷ found a history of child abuse in a series of patients presenting with MCS. The authors note that highly significant life stressors occurring in childhood were difficult to elicit, often becoming apparent only after months of psychotherapeutic work. One-day examinations or simple, self-report questionnaires are usually insufficient to obtain an abuse history, if present. Moreover, Staudenmayer reported significant success in treating MCS symptoms by identifying and addressing the underlying psychiatric disorder caused by the abuse.

Axis III: General Medical Conditions

Axis III is used for discussing current

general medical conditions that are relevant to the understanding and management of an individual's psychiatric disorder. MCS litigants usually have a multiplicity of current and past medical symptoms and disorders. Because of the significant representation of somatization disorders among MCS litigants, voluminous medical records usually exist that memorialize frequent visits to a variety of doctors and a high utilization of medical resources.

The protean symptoms associated with MCS can be found among a wide variety of medical disorders. The credible forensic psychiatric evaluation requires careful review of all available current and past medical records. Litigants may be taking a number of medications that can produce anxiety, depression, and other psychological symptoms. Moreover, the litigant may react to side effects of medications with psychological distress. A careful drug inventory is part of the credible psychiatric evaluation. If possible, the forensic psychiatrist should review the reports of all medical experts involved in the current litigation before rendering an opinion or report.

MCS litigants often complain of shortness of breath or tightness of the chest, eye irritation, gastrointestinal pain or discomfort, headache, nose and throat irritation, fatigue, lethargy, muscle and joint pain, skin irritations, dizziness, increased sensitivity to odors, cough, memory loss or impairment, auditory problems, sleep disturbances, urinary difficulties, chest pain, numbness and tingling sensations, problems with concentration, and sinusitis.⁵ Other symptoms such as confusion,

menstrual difficulties, and palpitations are also frequently present. The base rate occurrence of these symptoms in the general population is quite high. For example, aggregation of these symptoms can be found in such medical conditions as the common cold or flu or among individuals with somatization disorders. The credible forensic psychiatric evaluation will consider the possibility of alternative medical causation of MCS symptoms. A comprehensive medical evaluation, including complete laboratory studies, should be available and reviewed carefully. If possible, direct communication with the physician who performed the medical examination should be made to clarify any confusing physical and laboratory findings. The forensic psychiatrist should be familiar with the scientific literature concerning medical findings in MCS.

Axis IV: Psychosocial and Environmental Problems Axis IV is used to evaluate psychosocial and environmental problems that may affect diagnosis, treatment, and prognosis of Axis I and II mental disorders. Table 3 lists some of the major categories of life stressors that the clinician must consider when conducting a forensic psychiatric evaluation. For example, having an adolescent child at home usually constitutes a major psychological stressor. Psychosocial distress can produce symptoms similar to or identical with organic mental disorders.²⁸

The competent forensic psychiatric evaluation of the MCS litigant considers the possibility of multiple or alternative causation in assessing the litigant's symptoms. Collateral sources of information may include interviews with

Table 3
Assessing Psychosocial Stressors

Illness or injury
Marital
Interpersonal (other)
Parenting
Occupational
Financial
Legal
Life phase
Living circumstances
Family issues
Other life exigencies

third parties who know the litigant, as well as work records, school records, police records, all medical and mental health records, prior litigation records, financial records, and any other relevant sources of information. The finding of current or past psychiatric conditions usually indicates the presence of multiple psychosocial stressors. Even when the litigant is exposed to a toxic substance capable of producing mental impairments, alternative causation of symptoms must be considered. We all live in a sea of stressors. Psychiatric reports of MCS litigants that do not consider multiple or alternative causations in the evaluation of psychic injury claims are not credible.

In MCS cases, the forensic psychiatrist must evaluate the litigant's perception of harmful toxic exposure and its sequelae. Most psychiatrists have considerable experience in assessing their patients' perceptions of risk and danger. Risk perception may be real or unrelated to real risk. It may be present even in the absence of risk in toxic cases.¹⁶ Risk perception reflects individual, cultural, social, and situational variables. Whether accurate or

not, the perception of being harmed by toxic compounds can be very troubling. The litigant suffers from his or her perceptions even if no evidence exists of any health hazard from the chemical exposure. However, the fact that the MCS litigant is suffering is usually not at issue, only the cause of the suffering.

It is the forensic psychiatrist's task to form an opinion that best explains the litigant's symptoms and impairments among plausible alternatives. For example, litigants may experience major psychological distress if they must move from their homes because of the threat, real or perceived, of continuing toxic exposure. The real estate value of their homes may be considerably depressed, or essentially worthless. A credible psychiatric evaluation must consider a wide variety of stressors in the overall evaluation of the litigant. Psychiatric experts should be able to opine whether a given psychiatric disorder can be caused by an alleged toxic agent, based on their knowledge and experience. However, the court must ultimately decide whether the litigant's psychic injuries are related to toxic exposure, after review and consideration of all of the facts.

MCS litigation itself is a major psychological stressor because the credibility of the litigant's symptoms and impairments are vigorously challenged. The litigant's entire life will undergo minute scrutiny by defense counsel, usually accompanied by a thorough psychiatric examination. Extended, fatiguing depositions are common, with the stress often heightened by the adversarial interactions of the attorneys. Under these circumstances, the lit-

igant may psychologically regress, manifesting intensified symptoms and further entrenchment of both physical and psychological complaints. The credible psychiatric examination must assess the role of litigation stress in the litigant's current clinical picture.

Axis V: Global Assessment of Functioning Axis V is used to assess the clinician's judgment of the individual's overall level of functioning. The Global Assessment of Functioning Scale (GAF) is a means of evaluating psychological, social, and occupational functioning. For a more complete assessment of functional impairment, Axis V of DSM-IV can be used in conjunction with the latest edition of the American Medical Association's *Guides to the Evaluation of Permanent Impairment*.²⁹ Other assessment approaches are also available.³⁰ In MCS litigants, the forensic psychiatric examiner may have difficulty separating physical from psychological impairments. For example, sexual dysfunction can be caused by the presence of a physical disorder, a psychiatric disorder, or both, as well as by the medications used to treat the disorders. Moreover, it is not enough to rely solely upon the forensic examiner's "clinical experience" in making impairment assessments. Such judgments can be idiosyncratic or even deviant when subject to litigation pressures.

No matter how ominous a psychiatric diagnosis may appear to be, courts assess the claimant's *actual* level of functional impairment in assessing damages. For example, some chronic schizophrenic patients with a long history of hallucinations and delusions can take reasonable care of

themselves and stay employable. A specific diagnosis, by itself, does not imply a certain level of impairment.¹³

Most traditional toxic tort litigants appear to go about their lives and function reasonably well. On the other hand, MCS litigants with prominent physical symptoms often claim considerable impairment in functioning. Some will claim total disability. Psychological dysfunction is usually claimed to be secondary to the physical problems.

As part of their claimed disability, MCS litigants may request special accommodations before they agree to be examined. The forensic psychiatrist should consider meeting reasonable requests, if possible. For example, allowing for a number of breaks is acceptable, so long as the continuity of the examination is not undermined. Some examples of problematic requests are that the forensic psychiatrists not use deodorants or fragrances on the day of the examination; that the psychiatric examination be conducted while the litigant's face is hidden behind a surgical mask, or that special ventilatory adjustments be made in the examiner's office (closing all windows and turning off ventilation).

Special accommodations or the use of medical equipment must not be allowed to undercut the credibility of the forensic psychiatric examination. If, for example, a dust or oxygen mask must be used by the litigant throughout the examination, the psychiatrist will need to assess the adequacy of the forensic examination. If the examination is heavily encumbered by inhibitors and distractors, a credible forensic psychiatric evaluation may not

be possible. Moreover, the professional comfort of the examiner is also important to the conduct of a credible examination. *De facto* proof of disability should not be presumed from the granting of special requests or permission to use portable medical equipment during the examination. Careful evaluation of functional impairment must still be conducted.

A credible assessment of psychological functioning of the MCS and traditional toxic tort litigant requires obtaining an accurate preincident history. A comparison should be made between current and past functioning. Generally, past psychological functioning is a predictor of postincident prognosis. Also, the stressful role played by litigation needs to be part of an assessment of functional impairment of the MCS litigant.

The Expert's Role

Because of the intense controversy surrounding MCS litigation, the forensic psychiatrist may have difficulty maintaining a position of neutrality. The Ethics Guidelines of the American Academy of Psychiatry and the Law require of the forensic psychiatrist honesty and the striving for objectivity (Section IV).³¹ Psychiatric experts who hold strong, unmodifiable biases concerning MCS should not undertake these cases, no matter how desirable they may appear to be to attorneys as experts for one side or the other in litigation. The forensic examiner must not suggest or attempt treatment of the MCS litigant. Moreover, the litigant's symptoms should not be affirmed or debunked. Debating the litigant about MCS has no place in the credible forensic

psychiatric examination. Honesty and striving for objectivity require that the forensic psychiatrist provide reasoned opinions to the court based upon the competent analysis of existing peer-reviewed studies.

In *Sterling*, noted above, the admissibility of expert testimony based upon its helpfulness, was governed by Rule 702 of the Federal Rules of Evidence.³² The court held that testimony by a pediatrician and an immunologist that the ingestion of drinking water contaminated by a nearby chemical waste site caused damage to the immune system of the plaintiffs was inadmissible. The court stated, "without the requisite clinical tests and a widely accepted medical basis for reaching its conclusions, plaintiffs' experts' opinions are insufficient to sustain plaintiffs' burden of proof that the contaminated water damaged their immune system."³³ Numerous MCS cases have been excluded under *Daubert*.³⁴ As a result, some MCS cases are being litigated under the theory that low level chemical agents cause a toxic encephalopathy.

The testimony of experts in MCS litigation runs the full gamut from credible to incredible. The standard for the admissibility of scientific evidence enunciated by the U.S. Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*³⁵ will require stricter scrutiny of expert testimony by judges. Judges, acting as gatekeepers, will require psychiatrists and other mental health professionals to support their opinions with demonstrable clinical and scientifically supported data.³⁶ The legal system is telling all experts to "prove it," consistent with professional

ethical codes (Sect. IV).³¹ However, behavioral science experts may be given wider latitude in their testimony. In *Moore v. Ashland Chemical, Inc.*,³⁷ the U.S. Court of Appeals for the Fifth Circuit held that testimony based on clinical medicine is not "hard science." Therefore, it is not subject to the factors governing the admissibility of scientific testimony as established by *Daubert*. In *McKendall v. Crown Control Corp.*,³⁸ the U.S. Court of Appeals for the Ninth Circuit held that the admissibility of expert testimony need not be based solely on scientific knowledge and *Daubert* criteria. Instead, expert testimony may be based on the experience or training of the expert.

In MCS litigation, physicians and mental health professionals who have treated the patient are frequently converted into expert witnesses. For psychiatrists and other mental health professionals, treater and expert witness roles are incompatible and should be avoided.^{39, 40} Plaintiff attorneys should seriously consider retaining a forensic psychiatrist to function in the role of the expert. The treating professionals can legitimately testify as a fact witness. For a variety of reasons, plaintiff attorneys often attempt to combine these roles, potentially undercutting the credibility of the treater turned expert. Opposing counsel will point out to the court the treater's conflict of interest by proffering articles from the forensic psychiatric literature and The Ethical Guidelines of the American Academy of Psychiatry and Law.³¹

The question is often raised by attorneys about the usefulness of conducting a

Table 4
Some Prognostic Factors in MCS Litigants

Prognostic Factor	Positive	Negative
Age	Younger	Older
Symptoms	Acute (<6 months)	Chronic (>6 months)
Work history	Satisfying	Unsatisfying
Relationships	Supportive	Dysfunctional
Prior psychiatric history	No	Yes
Concurrent medical disorders	Treatable	Untreatable
Concurrent psychiatric disorders	Treatable	Untreatable
Psychological insight	Yes	No
Leisure activities/Interests	Yes	No
Sex life	Gratifying	Ungratifying
Marital status	Married	Single
Currently employed	Yes	No
Symptom reinforcers (litigation, unproven treatments)	No	Yes

psychiatric examination of the litigant. Will the examination of the litigant pass the “so what?” test or, even worse, potentially harm the attorney’s case? No assurances can be given ahead of time. This decision is a judgment call that the attorney will need to make based on his or her factual understanding of the legal case. Performing a psychiatric evaluation is like performing exploratory surgery; the doctor does not know what he or she will find until the patient (litigant) is opened up. If the balance of factors seems to preclude a psychiatric examination, the forensic psychiatrist can legitimately serve in the role of consultant to the attorney rather than as an expert witness.

Prognostic statements about the course of the litigant’s condition and need for future treatment are problematic. Table 4 lists some factors that must be considered, such as age, acuteness or chronicity of symptoms, prior psychiatric disorders, current diagnosable medical and psychiatric disorders, the presence of symptom

reinforcing situations and treatments, and the presence or absence of supportive relationships and adequate treatment. MCS litigants frequently withdraw from relationships. Many also experience impaired relationships because of restrictions placed on the lives of family members and friends. The personal isolation that results is usually a poor prognostic factor. Since many MCS litigants are resistant to considering psychological factors in their illness, the presence of a treatable psychiatric disorder or condition that may be causing or contributing to the symptoms often goes untreated or may be treated inappropriately.

Psychiatric experts must understand their roles in MCS litigation. The forensic expert is a spoke in the wheel of the complex litigation vehicle that the attorney will drive into court. Most often, he or she is a member of a team of experts. The forensic psychiatric expert’s main functions are to perform a credible, thorough examination of the litigant and to

provide testimony that is based upon honesty and the striving for objectivity.

Conclusions

The credible forensic psychiatric evaluation of MCS litigants is described herein using the multiaxial diagnostic system of DSM-IV. The forensic psychiatrist must avoid taking sides in the current MCS controversy. The ethical requirements of honesty and striving for objectivity are facilitated by keeping separate the roles of therapist and expert, staying abreast of the scientific literature regarding MCS, and understanding the role of the psychiatric expert in MCS litigation.

Acknowledgments

The author gratefully acknowledges the research assistance provided by Patricia A. Simon, RN, and the legal assistance of Robert Battey, Esq.

References

1. Cullen MR: The workers with multiple chemical sensitivities. *Occup Med* 2:655-61, 1987
2. Ziem G, McTamney J: Profile of patients with chemical injury and sensitivity. *Environ Health Perspect* 105(Suppl 2):417-36, 1997
3. Rea WJ: *Chemical Sensitivity: Principles and Mechanisms*. Boca Raton, FL: Lewis, 1992
4. Gots RE: Multiple chemical sensitivities—public policy. *Clin Toxicol* 33:111-13, 1995
5. Witorsch P, Ayesu K, Balter NJ, Schwartz SL: Multiple chemical sensitivity: clinical features and causal analysis in 61 cases. Presented at the Annual Meeting of the North American Congress of Clinical Toxicology Annual Meeting, Rochester, NY, September 16-19, 1995
6. Davidoff AL, Fogart L: Psychogenic origins of multiple chemical sensitivities syndrome: a critical review of the research literature. *Arch Environ Health* 49:316-25, 1994
7. Gots RE, Hamosh TD, Flamm WG, Carr CJ: Multiple chemical sensitivities: a symposium

- on the state of the science. *Regul Toxicol Pharmacol* 18:61-78, 1993
8. Ashford NA, Miller LS: Low-level chemical sensitivity: current perspectives. *Int Arch Occup Environ Health* 68:367-76, 1996
9. Bowler RM, Mergler D, Huel G, Cone JE: Aftermath of a chemical spill: psychological and physiological sequelae. *Neurotoxicology* 15:723-9, 1994
10. Terr AI: Immunological issues in "multiple chemical sensitivities". *Regul Toxicol Pharmacol* 18:54-60, 1993
11. Gots RE: Multiple chemical sensitivities: distinguishing between psychogenic and toxicodynamic. *Regul Toxicol Pharmacol* 24:S8-S15, 1996
12. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders* (ed 4). Washington, DC: APA, 1994
13. *Ibid.*, xxiii-xxiv
14. Simon GE, Katon WJ, Sparks PJ: Allergic to life: psychological factors in environmental illness. *Am J Psychiatry* 147:901-6, 1990
15. Leznoff A: Provocative challenges in patients with multiple chemical sensitivity. *J Allergy Clin Immunol* 99:438-42, 1997
16. Simon RI: Cancerphobia: myth or malady in psychic injury litigation. *Trauma* 29:43-60, 1988
17. *Carlin v. RFE Industries, Inc.*, No. 88-CV-842, 1995 WL 760739 (N.D.N.Y. 1995)
18. Brinkley KE, Kutcher S: Panic response to sodium lactate infusion in patients with multiple chemical sensitivity syndrome. *J Allergy Clin Immunol* 99:570-4, 1997
19. Simon RI, Wettstein RM: Toward the development of guidelines for the conduct of forensic psychiatric examinations. *Bull Am Acad Psychiatry Law* 25:17-30, 1997
20. Simon RI: "Three's a crowd": the presence of third parties during the forensic psychiatric examination. *J Psychiatry Law* 24:3-25, 1996
21. Schottenfeld RS, Cullen MR: Occupation-induced post traumatic stress disorders. *Am J Psychiatry* 142:198-202, 1985
22. Simon RI: Toward the development of guidelines in the forensic psychiatric examination of posttraumatic stress disorder claimants, in *Post-Traumatic Stress Disorder in Litigation: Guidelines for Forensic Assessment*. Edited by Simon RI. Washington, DC: American Psychiatric Press, 1995, pp 31-84
23. *Sterling v. Velsicol Chemical Corp.*, 855 F.2d 1188, 1210 (6th Cir. 1988)
24. Westen D: Divergences between clinical and research methods for assessing personality disorders: implications for research and the

- evolution of Axis II. *Am J Psychiatry* 154: 895–903, 1997
25. Gabbard GO: Finding the “person” in personality disorders. *Am J Psychiatry* 154:891–3, 1997
 26. Herman JL, van der Kolk BA: Traumatic antecedents of borderline personality disorder, in *Psychological Trauma*. Edited by van der Kolk BA. Washington, DC: American Psychiatric Press, 1987, pp 213–228
 27. Staudenmayer H, Selner ME, Selner JC: Adult sequelae of childhood abuse presenting as environmental illness. *Ann Allergy* 71:538–46, 1993
 28. Lundberg A: Psychiatric aspects of air pollution. *Otolaryngol Head Neck Surg* 114:227–31, 1996
 29. American Medical Association: *Guides to the Evaluation of Permanent Impairment* (ed 4). Chicago: AMA, 1993
 30. Panzarella JP: The nature of work, job loss, and the diagnostic complexities of the psychologically injured worker. *Psychiatr Ann* 21: 10–15, 1991
 31. American Academy of Psychiatry and the Law: *Ethics Guidelines of the Practice of Forensic Psychiatry* (adopted May 1987; revised October 1989, 1991, and 1995). Bloomfield, CT: AAPL, 1995
 32. Fed. R. Evid. 702
 33. *Sterling v. Velsicol Chemical Corp.*, 855 F.2d at 1207, 1209 (6th Cir. 1988)
 34. *Rutigliano v. Valley Business Forms*, 118 F.3d 1577 (3d Cir. 1997); see also *Summers v. Missouri Pac. R.R. Sys.*, 897 F. Supp. 533 (E.D. Okla. 1995); *Graham v. Canadian Nat’l Ry. Co.*, 749 F. Supp. 1300 (D. Vt. 1990); *Bradley v. Brown*, 852 F. Supp. 690 (N.D. Ind. 1994), *aff’d* 42 F.3d 434 (7th Cir. 1994); *Maxwell v. Sears Roebuck & Co.*, No. CA 94–1056 (Fla. Cir. Ct. Mar. 3, 1997)
 35. 509 U.S. 579 (1993)
 36. Custer WV: Multiple chemical sensitivity syndrome: the wavering influence of the courts on public policy. *Regul Toxicol Pharmacol* 24:S182–S187, 1996
 37. 126 F.3d 679 (5th Cir. 1997), 126 F.3d 679 (5th Cir. 1997)
 38. 122 F.3d 803 (9th Cir. 1997)
 39. Strasburger LH, Gutheil TG, Brodsky A: On wearing two hats: role conflict in serving as both psychotherapist and expert witness. *Am J Psychiatry* 154:448–56, 1997
 40. Greenberg SA, Shuman DW: Irreconcilable conflict between therapeutic and forensic roles. *J Prof Psychology Res Pract* 28:50–57, 1997