COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF INDUSTRIAL ACCIDENTS **BOARD NO. 33320-93**

Theresa Canavan	Employee
Brigham & Women's Hospital	Employer
Brigham & Women's Hospital	Self-insurer

REVIEWING BOARD DECISION
(Judges Wilson, McCarthy and Levine)

APPEARANCES
Peter F. Brady, Jr., Esq., for the employee
Matthew J. Walko, Esq., for the self-insurer on appeal
Mark B. Rees, Esq., for the self-insurer at hearing

WILSON, J. The self-insurer appeals from a decision in which an administrative judge concluded that the employee, Theresa Canavan, suffered permanent and total incapacity as a result of more than thirty symptoms attributable to her employment at Brigham & Women's Hospital.[1] (Dec. 353-354, 350, 356.) After the judge's decision awarding § 34A benefits was filed, the Supreme Judicial Court reversed a different administrative judge's earlier decision in favor of the employee. Canavan's Case, 432 Mass. 304 (2000). In that reversed decision, the hearing judge had awarded § 30 medical benefits and also denied the self-insurer's request to discontinue temporary total incapacity benefits that it was paying for an accepted exposure-induced sinusitis, with a date of injury of August 6, 1993. Canavan at 306. The Canavan court held that the administrative judge abused his discretion when he allowed expert medical opinion

[1] The symptoms found by the judge include "facial swelling, neck swelling, headache, mood swings, irritability, poor memory, poor concentration, sleepiness, numbness, tingling, dizziness, extreme fatigue, mild eye tearing, sneezing spells, throat tightness, moderate nasal blockage, nasal discharge, chest tightness, moderate flatulence, fullness, bloating, mild diarrhea, nausea, severe joint aches and pain, severe swelling of the hands and fingers, moderate swollen, tender lymph nodes, and moderate chest pains with palpitations." (Dec. 323-324.)

evidence on the controversial diagnosis of multiple chemical sensitivity (MCS), a diagnosis without a qualifying foundation of scientific reliability under Commonwealth v. Lanigan, 419 Mass. 15 (1994). Canavan, supra at 314-315. We take note of the present judge's determination in the instant decision that Ms. Canavan suffers not from MCS, but from "a combination of many or all of the more than thirty symptoms referenced by the employee and the doctors, and recorded by [the judge] in [the] decision." (Dec. 350.) However, we conclude that the distinction carries no weight, in light of the Canavan court's treatment of the issue.[2] After a careful review of the entire record of this difficult case, we reverse the decision awarding § 34A benefits.

A discursive review of the facts of this industrial injury is unnecessary.[3] The sole focus of our inquiry, in this appeal of the decision awarding permanent and total incapacity benefits, is to determine the effect of the Supreme Judicial Court's reversal of Ms. Canavan's earlier award of benefits under §§ 30 and 34 for her claimed MCS. The judge in the instant case based his conclusion that the employee is permanently and totally incapacitated on a significantly larger body of medical evidence than was introduced in the earlier proceeding. The medical evidence in the former case was

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[2] The Supreme Judicial Court listed the employee's complaints, as reported by the employee's expert, Dr. N. Thomas LaCava, as "arthritis, parathesias, organic brain syndrome, chemical induced headaches, immunodeficiency, and multiple chemical sensitivities (MCS) secondary to chemical poisoning . . . ." Canavan, supra at 306. The court then went on to discuss only MCS. The necessary implication of the court's outright reversal of the award of benefits under §§ 30 and 34 is that the purported condition called MCS includes the entire panoply of the employee's complaints. Otherwise, the court would have remanded the case for further proceedings on present medical disability, exclusive of MCS. This, of course, the court did not do.

In any event, the court's ancillary holding, that the employee's expert opinion evidence failed to prove causal relationship between the workplace and her claimed MCS, certainly applies equally to the employee's symptomatology: "There is no suggestion that the judge conducted a Lanigan analysis to determine whether Dr. LaCava used a reliable methodology to conclude that the chemical exposures to which the employee was subjected *caused* her to suffer from MCS. This was error." Canavan, supra at 316 (emphasis in original). The same holds true as to headaches, chronic fatigue, chronic pain, swelling of the extremities or any of the other symptoms of the employee's medical condition. (Dec. 323-324, 351-352.) See list in n. 1, supra. The issue is not the name that any doctor assigns to the symptoms; the issue is whether the work exposure caused the symptoms.

[3] The interested reader may turn to the "Background" section in Canavan, supra at 305-308.

provided solely by Dr. N. Thomas LaCava, who offered opinions on the employee's MCS. In the present case, the employee's treating rheumatologist, Dr. David E. Trentham, also testified on the employee's MCS condition. (Dec. 312-316.) This judge then awarded benefits based partly on the employee's chronic sinusitis, a medical condition that the self-insurer had accepted. The judge adopted the opinions of Dr. Arthur M. Lauretano, the employee's treating otolaryngologist, on the questions of continuing causal relationship of and disability resulting from that sinusitis condition. (Dec. 317-321, 351-352, 354-356.)

Following the principles announced by the Supreme Judicial Court in Canavan, supra, we conclude that the judge abused his discretion in admitting the opinions of all of the employee's experts. They do not pass muster under the Lanigan analysis insofar as MCS is claimed. We do note that Dr. Lauretano's opinions as to the work *triggering* the employee's sinusitis, and related conditions of rhinitis and laryngitis, are based on scientifically reliable personal observation and clinical experience. Nevertheless, Dr. Lauretano's opinion on why the sinusitis *continues* to be causally related and disabling is based on his adoption of the very MCS diagnosis of Dr. LaCava that the Supreme Judicial Court ruled inadmissible. Thus, we must reverse the award of permanent and total incapacity benefits.

The Canavan court addressed at length the application of the Lanigan analysis for determining the reliability of expert medical testimony with respect to the controversial diagnosis of MCS. First, summarizing the Lanigan approach, the court stated:

> [W]e recognized that 'strict adherence to the Frye test' [Frye v. United States, 293 F. 1013 (D.C. Cir. 1923)(the community of scientists involved must generally accept the theory or process at issue for it to be admitted in evidence)] could result in reliable evidence being kept from the finder of fact. [Commonwealth v. Lanigan, supra at 24.] For example, a new theory or process might be 'so logically reliable' that it should be admissible, even though its novelty prevents it from having gained general acceptance in the relevant scientific community. Id.
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> In order to account for this circumstance, we adopted in part the United States Supreme Court's reasoning in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), and held that 'a proponent of scientific opinion evidence may demonstrate the reliability or validity of the underlying scientific

> theory or process by some other means, that is, without establishing general acceptance.' Commonwealth v. Lanigan, supra at 26. We noted, however, that in most cases general acceptance will be the significant and 'often the only, issue.' Id. Thus, we have concluded that a party seeking to introduce scientific evidence may lay an adequate foundation either by establishing general acceptance in the scientific community or by showing that the evidence is reliable or valid through an alternate means. Commonwealth v. Sands, 424 Mass. 184, 185-186 (1997).

Canavan, supra at 310. The court next explained its adoption of the abuse of discretion standard of review in determining the issue before it, rather than the more rigid approach offered by a de novo appellate review:

> [W]hen considering novel scientific testimony there is often limited literature for an appellate court to examine to determine whether a scientific theory or method is reliable. . . . [P]rimary reliance by a reviewing court on the scientific literature is inconsistent with the principle in the Lanigan case that reliability can be shown through factors other than general acceptance. Id. at 26. Determining whether novel scientific testimony is reliable often will hinge on the presentations made by the parties in a particular case. A trial judge is required to assess the credibility of various expert witnesses in determining whether proposed scientific testimony is reliable; these determinations are not readily susceptible to de novo appellate review and these determinations may vary appropriately on a case-by-case basis.

Canavan, supra at 311-312. Finally, the court explained the application of the Lanigan analysis to expert conclusions based on personal observations or clinical experience:

> Observation informed by experience is but one scientific technique that is no less susceptible to Lanigan analysis than other types of scientific methodology. The gatekeeping function pursuant to Lanigan is the same regardless of the nature of the methodology used: to determine whether "the process or theory underlying a scientific expert's opinion lacks reliability [such] that [the] opinion should not reach the trier of fact." Commonwealth v. Lanigan, 419 Mass. 15, 26 (1994). Of course, even though personal observations are not excepted from Lanigan analysis, in many cases personal observation will be a reliable methodology to justify an expert's conclusion. If the proponent can show that the method of personal observation is either generally accepted by the relevant scientific community or otherwise reliable to support a scientific conclusion relevant to the case, such expert testimony is admissible.

Canavan, supra at 313-314 (footnote omitted). With these guidelines in mind, we turn to the self-insurer's appeal.

First, we address the obvious impact of Canavan on the present appeal. We reverse the decision as to the judge's adoption of the opinions of Drs. LaCava and Trentham, regarding the existence, causal relationship, and medically disabling effects of MCS. The Supreme Judicial Court's decision leaves no room for argument: the expert testimony concerning MCS in this case is as unreliable and inadmissible as it was in Canavan, supra:

> Dr. LaCava did not identify any specific studies that show the existence of MCS based on specific symptoms and did not identify tests that can be performed to prove that a patient suffers from MCS. On cross-examination, he admitted that there is a dispute in the medical community regarding the existence of MCS. Thus, the only evidence on this record tending to show that the employee suffers from MCS is Dr. LaCava's assertion. The purpose of the Lanigan test is to prevent an expert from offering testimony to a fact finder that is not based on reliable methodology. Commonwealth v. Lanigan, supra at 26. We cannot conclude that the expert's mere assertion that a methodology is reliable is sufficient to pass the Lanigan test absent any other evidence showing its reliability. See Kumho Tire Co. v. Carmichael, [526 U.S. 137, 157 (1999)], quoting General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997)("nothing in either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert"). We conclude that on this record it was an abuse of discretion for the judge to admit Dr. LaCava's diagnosis testimony.

Canavan, supra at 315 (footnotes omitted). Moreover, the court struck down the causation opinion of Dr. LaCava: "Because the judge below did not conduct a Lanigan analysis to determine whether Dr. LaCava relied on a reliable methodology to determine that chemical exposures caused the employee's MCS, it was error to admit the opinion." Canavan, supra at 316. Nor do we find anything in the record before us to save the MCS opinion of Dr. Trentham from the disapproval cast on Dr. LaCava's diagnosis and causation opinions by the Supreme Judicial Court. We reverse the judge's award of § 34A benefits based on the symptom complex described as MCS.

Next, we examine Ms. Canavan's introduction of the expert medical testimony of her otolaryngologist, Dr. Lauretano, on her chronic sinusitis, which arguably stands on a different ground than MCS. Indeed, the self-insurer accepted liability for the employee's

sinusitis, as a result of undisputed chemical exposures, including ethylene oxide, formaldehyde and diesel fuel, and paid benefits under §§ 34 and 30 for that impairment. Canavan, supra at 306. The existence of the condition and its initial causal relationship to the employment are therefore not matters in dispute. The questions that emerge in this § 34A proceeding are whether causal relationship between the work and the sinusitus continues and, if so, the extent to which it disables the employee. But in order to get to those questions, we must apply the Lanigan analysis to assess the legal validity of the judge's adoption of Dr. Lauretano's opinions. While we think that the doctor's opinion that the undisputed *initial* exposures in the workplace caused sinusitis is admissible (albeit not helpful to the employee's cause), we conclude that Dr. Lauretano's opinions on *continuing* causation and present disability were inadmissible under Lanigan. As a result, the judge's adoption of those opinions was an abuse of discretion. Canavan, supra at 315-316. We so conclude because Dr. Lauretano's testimony makes clear that continuation of the employee's sinusitis is inextricably tied to the existence of MCS. Insofar as the MCS is invalidated, so too is the continuation of the sinusitis as a condition causally related to the exposure at Brigham & Women's.

The judge set forth at length the various opinions of Dr. Lauretano regarding the employee's environmentally-induced exposure rhinitis, chronic sinusitis and later-occurring laryngitis, (Dec. 317-319), and relied on the doctor's testimony to support his conclusion that the employee suffered from a permanent and total work-related disability. (Dec. 347-348, 351-352, 354.) The judge recounted Dr. Lauretano's statement of causation in his report, Exhibit 20:

> In going over (the employee's) history, she initially came to me with rhinitis and sinusitis for which we did not find an obvious etiology. Her history really pointed to environmental exposure in that she could pinpoint times at work when she was exposed to certain chemicals that would lead to this type of symptomatology, and, ultimately, she came to the point where any exposures to fumes or toxins would lead to severe nasal and sinus symptoms and later on to laryngeal symptoms and finally, to generalized systemic symptoms for which she is now in detoxification therapy. Her history certainly seems consistent with environmentally-induced disease from exposure.

(Dec. 321.) Under Lanigan, is this statement of causal relationship a scientifically reliable and, therefore, an admissible expert opinion on which the judge could base an award of benefits? Upon review of the doctor's deposition testimony, there is no doubt that the medical opinions he expressed as to the onset of the employee's sinusitis are generally accepted in the relevant medical community of otolaryngologists. That opinion is fundamentally sound under the principles of Lanigan, as extrapolated and applied in Canavan. We conclude, however, that the doctor's opinion on whether the employee's sinusitis *continues to be causally related to the workplace* is not based on a scientifically reliable methodology under Lanigan.

The critical deposition testimony occurs on redirect examination and is as follows:

> Q: [F]ocusing on the sinusitis, in your experience as an otolaryngologist having treated patients at the Brigham, is it unusual for patients' complaints to be *triggered* by environmental factors, whether they be noxious chemicals or some other form of airborne irritants?
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> A: It's not unusual. It's quite common.
>
> Q: Is that accepted as being true in your practice?
>
> A: Yes.
>
> Q: Given your specialty has it ever been seriously questioned that sinus difficulties such as we've discussed can be *triggered or brought on* by exposure to environmental factors, whatever they are?
>
> A: It's not been questioned. Again, it's a common cause of symptoms.
>
> Q: [Was it] your earlier testimony that Ms. Canavan's particular form of sinusitis fell into a particular category where exposure to irritants, chemicals operated as a *triggering mechanism* for her complaints?
>
> A: Yes.
>
> Q: *And is that classification – referring to her particular sinusitis – separate and apart from the other diagnosis you made or accepted regarding the multiple chemical sensitivities or is it the same thing?*

A: *I believe it is part of it.* That's not to say that all patients who have sinusitis triggered by any particular cause will then [h]ave other systemic symptoms. Many will just have sinusitis. In her particular case, I think her sinusitis is part of it, just as we see other patients with other systemic diseases and sinusitis may be part of that systemic disease.

Q: Doctor, do you feel that the conditions for which you are treating Ms. Canavan are caused by her employment at Brigham?

A: I do feel that, yes.

. . .

Q: With regard to what's been referred to [as] "your adoption" of the diagnosis of multiple chemical sensitivities by other physicians, did you merely adopt what someone else was saying or did you come to your own independent conclusion?

A: I had exhausted other possible causes and at the time that I was exhausting those other causes T[h]eresa was being evaluated by other physicians and those other physicians had come up with chemical sensitivity as being a cause for this.

I adopted or agreed to that diagnosis once I felt I had exhausted all of the usual causes and so I felt that was certainly the cause in her case of these specific symptoms and findings.

Q: *Assuming that Miss Canavan were found not to be suffering from anything known as or recognized as multiple chemical sensitivity, would that mean that she no longer experiences the sinus complaints that you treated her for?*

A: Oh, she'd still be experiencing them. *I think it would be – the onus would be on us to try to explain what was causing them.*

Q: Okay. Now, multiple chemical sensitivity is a poorly understood syndrome; is that right?

A: To my understanding, yes. And as pointed out definitely hotly debated in medicine.

Q: Is sinusitis debated as being a real or fictitious condition?

A: No, it's a real condition. *Its causes are always being re-examined.* That's true of most things in medicine. The whole discussion I mentioned about mucociliary transport ten to fifteen years ago was something not discussed. Medicine is always evolving and causation is always evolving.

> Q: With regards to chronic sinusitis, is there any serious debate in the medical community, and especially in your subspecialty, that environmental factors can trigger those complaints?
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> A: There's no debate. It's definitely felt to be a potential cause.
>
> Q: Focusing on the sinusitis that you've diagnosed in Ms. Canavan, are you of the opinion that that sinusitis was caused by her work experience at the hospital?
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> A: Yes.
>
> . . .
>
> Q: And it is your opinion, Doctor, that based upon your education, training and experience and treatment of Miss Canavan that the problems that you were treating her for were caused by her experiences at the Brigham & Women's Hospital; is that right?
>
> A: Yes.
>
> MR. BRADY: Nothing further.
>
> (Whereupon, the deposition was concluded . . . .)

(Lauretano Dep., 90-91, 93-94, 97.)(emphasis added).

The doctor's testimony establishes general acceptance in the relevant community of otolaryngologists as to environmental factors triggering sinusitis. But, when it comes down to the relevant inquiry, whether the employee's current sinusitis can be explained *without incorporating the discredited diagnosis of MCS,* the opinion sputters: *"[T]he onus would [then] be on us to try to explain what was causing them [the sinusitis symptoms]."* Id. at 97. We can only read this to mean something other than the original Brigham & Women's exposure.

We therefore reverse the award of § 34A *in toto,* as it is impermissibly based on

the scientifically unreliable expert opinion testimony regarding multiple chemical sensitivity.[4]

So ordered.

_____
Sara Holmes Wilson
Administrative Law Judge

Filed: December 26, 2000

_____
William A. McCarthy
Administrative Law Judge

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Frederick E. Levine
Administrative Law Judge

[4] Alternatively, the employee can no longer maintain her claim for § 34A benefits. As the Canavan court reversed the § 34 award, she has not exhausted her entitlement to those temporary total incapacity benefits. Exhaustion of § 34 benefits is required before payment of § 34A benefits can be due. See G.L. c. 152, § 34A (St. 1991, c. 398, § 60); Slater v. G. Donaldson Construction, 14 Mass. Workers' Comp. Rep. 117 (2000). Hence any future claim for weekly benefits must be brought under § 34 or § 35.