RECOMMENDED FOR FULL-TEXT PUBLICATION Pursuant to Sixth Circuit Rule 206

File Name: 11a0121p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

SUE PLUCK; RAY PLUCK, Plaintiffs-Appellants,		
v.	>	No. 09-4572
BP OIL PIPELINE COMPANY, Defendant-Appellee.		

Appeal from the United States District Court for the Northern District of Ohio at Akron. No. 08-01545—John R. Adams, District Judge.

Argued: March 2, 2011

Decided and Filed: May 12, 2011

Before: GILMAN, GIBBONS, and COOK, Circuit Judges.

COUNSEL

ARGUED: Thomas R. Houlihan, AMER CUNNINGHAM CO., L.P.A., Akron, Ohio, for Appellants. Robin G. Weaver, SQUIRE, SANDERS & DEMPSEY L.L.P., Cleveland, Ohio, for Appellee. **ON BRIEF:** Thomas R. Houlihan, AMER CUNNINGHAM CO., L.P.A., Akron, Ohio, for Appellants. Robin G. Weaver, SQUIRE, SANDERS & DEMPSEY L.L.P., Cleveland, Ohio, for Appellee.

OPINION

JULIA SMITH GIBBONS, Circuit Judge. In this toxic tort case alleging exposure to benzene, plaintiffs-appellants Sue and Ray Pluck appeal the district court's order granting summary judgment to defendant-appellee BP Oil Pipeline Company ("BP"). The Plucks challenge the district court's grant of BP's motion *in limine* to exclude the testimony of their specific-causation expert, Dr. James Dahlgren, as

unreliable under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). They also argue that the district court should have admitted Dahlgren's supplemental declaration, which contradicted his prior testimony and was untimely filed. Based upon these arguments, the Plucks contend that the district court erred in granting summary judgment to BP. For the reasons that follow, we affirm the district court in all respects.

I

This case arose from benzene contamination allegedly caused by gas-pipeline releases near the Weaver Woodlands allotment in Franklin Township, Summit County, Ohio. Between 1948 and 1962, an underground pipeline owned by BP that passed through Franklin Township experienced five spills, resulting in the seepage of gasoline into the surrounding soil and groundwater. In 1990, following reports of drinking water contamination in Weaver Woodlands, BP entered into a voluntary agreement with the Ohio Environmental Protection Agency ("OEPA") to investigate the source and extent of the contamination. Testing revealed the presence of benzene in the wells of nine residents in concentrations exceeding the OEPA's safe drinking water standards; however, benzene was not detected in the well located at 605 Fairwood in Weaver Woodlands. Benzene, a component of gasoline, is "a known carcinogen in sufficient doses," which is "also ubiquitous in the ambient air and is a component or constituent of vehicle exhaust and cigarette smoke." *Baker v. Chevron USA, Inc.*, 680 F. Supp. 2d 865, 870 (S.D. Ohio 2010) (citing *Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst.*, 448 U.S. 607, 615–16 (1980)).

In an effort to remediate the contamination, BP excavated areas of contaminated soil, constructed monitoring wells, and conducted ongoing soil and water testing in the area. BP conducted only a monitoring strategy with respect to 605 Fairwood, which had been designated as an "area of concern" because of its "hydraulically downgradient" position from 604 Fairwood, where benzene contamination was present. In 1995, the owners of the property at 605 Fairwood sued BP for alleged contamination; BP agreed to purchase this property, and several others, in settlement. *See Facemire v. BP Am., Inc.*, No. CV-1995-01-0159 (Summit Cnty. Ct. Common Pleas filed Jan. 13, 1995).

A.

In May 1996, Sue and Ray Pluck purchased the home at 605 Fairwood, where they used the well water to drink, wash, shower, and irrigate their yard and garden. In October 1996, around the time that the Plucks noticed a gasoline odor in their home and water, benzene was first detected in the well on their property in the amount of 3.6 parts per billion ("ppb"). At this time, Mrs. Pluck began drinking bottled water in lieu of tap water, although she claims to have resumed drinking tap water upon the drilling of a new, deeper well. BP installed the new well in December 1996 and tested it on a quarterly basis; the company states, and the Plucks do not dispute, that between 1997 and May 2002, the new well tested negative for benzene twenty-two times. In October 2003, benzene measuring 1.8 ppb was detected in the new well, and a carbon filtration system was installed to capture the contaminant. In 2005, the Plucks moved from 605 Fairwood upon the recommendation of Mrs. Pluck's physician.

Mrs. Pluck was diagnosed with Non-Hodgkins lymphoma ("NHL") in 2002 at age forty-eight. Following chemotherapy in October 2002, the cancer went into remission for five years. Mrs. Pluck later experienced a recurrence in 2007 but was again in remission as of January 2009.

B.

The Plucks filed suit in the Summit County Court of Common Pleas on June 24, 2008, and BP thereafter removed the case to federal court. See Pluck v. BP Am., Inc., No. 5:08-cv-01707 (N.D. Ohio removed July 16, 2008). On June 26, 2008, the Plucks filed a nearly identical suit in the United States District Court for the Northern District of Ohio, alleging claims of strict liability for hazardous activity, negligence, and loss of consortium. The district court granted BP's motion to consolidate the cases and ordered

The EPA's maximum permissible contaminant level for benzene is 5 ppb. 40 C.F.R. § 141.61(a)(2).

The plaintiffs first filed these claims in the Summit County Court of Common Pleas in June 2006, after which the case was removed by BP to federal district court. On June 27, 2007, the parties stipulated to the dismissal of the claims without prejudice pursuant to Fed. R. Civ. P. 41(a). See Pluck v. BP Am., Inc., No. 5:06-cv-01444 (N.D. Ohio dismissed June 27, 2006).

the Plucks to file an Amended Complaint, which they did on October 31, 2008. In their Amended Complaint, the Plucks once again alleged claims of strict liability for hazardous activity, negligence, and loss of consortium on behalf of Mr. Pluck, all based upon Mrs. Pluck's alleged benzene exposure. BP denied these allegations in its Answer. Pursuant to the case management plan, the district court then established a discovery deadline of December 15, 2008, for expert reports and cautioned that "an expert will not be permitted to testify or provide opinions on issues not raised in his/her report."

To support their claims, the Plucks retained Drs. James Dahlgren and Joseph Landolph as experts on causation to demonstrate that benzene is generally capable of causing NHL and specifically caused Mrs. Pluck's NHL. As to specific causation, Dahlgren opined in his report "to a reasonable degree of medical certainty that Sue Pluck's [NHL] was caused or contributed to be caused by benzene from the BP refinery."

On April 15, 2009, BP filed two motions *in limine* to exclude the testimony of Dahlgren and Landolph on the grounds that their testimony failed to satisfy the standard for reliability set forth in *Daubert*. In particular, BP argued that Dahlgren's testimony was unreliable "because he formulated a specific causation opinion without evidence of dose, and subsequently performed an unreliable dose reconstruction in an attempt to support his opinion." BP also moved for summary judgment on the same date, arguing that, under Ohio law, "[w]ithout expert testimony to establish both general causation and specific causation, a claimant cannot establish a prima facie case of exposure to . . . toxic substance[s]." *Terry v. Caputo*, 875 N.E.2d 72, 79 (Ohio 2007). Approximately one month after BP filed its *Daubert* motions and motion for summary judgment, Dahlgren submitted a supplemental declaration in which he evaluated Mrs. Pluck's illness under a differential-diagnosis methodology.

On November 25, 2009, the district court issued an order granting all of BP's motions and dismissing the Plucks' case with prejudice. With respect to specific

 $^{^{3}}$ As there is no refinery near Weaver Woodlands, Dahlgren presumably is referring to the pipeline.

causation, the court rejected Dahlgren's testimony as unreliable under *Daubert*, stating that it "suffer[ed] significant methodological flaws and [was] apparently based upon speculation and conjecture rather than evidence and data." The court premised its opinion on the following: Dahlgren formulated his opinion on dose "without any exposure data, only having been told that [Pluck] had been 'heavily' exposed to benzene in her water"; he relied upon a "no safe dose" theory that had been discredited by other courts as a basis for establishing specific causation; he could not explain the "scribbles" used to calculate Mrs. Pluck's dose of benzene; and he filed an untimely supplemental declaration that contradicted his previous testimony and employed "an entirely new differential diagnosis methodology that was not mentioned at any point prior to the submission of his declaration." The court also excluded Dahlgren's untimely supplemental declaration, finding that it "provid[ed] no additional information that would assist . . . in making a reliability determination based upon testimony or opinions previously offered." After the district court granted summary judgment, the Plucks timely appealed.

II.

We "review the exclusion of expert testimony for abuse of discretion, even when the exclusion results in the entry of summary judgment for the opposing party." *Meridia Prods. Liab. Litig. v. Abbott Labs.*, 447 F.3d 861, 868 (6th Cir. 2006) (citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152–53 (1999); *Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244, 248 (6th Cir. 2001)). "A district court abuses its discretion if it bases its ruling on an erroneous view of the law or a clearly erroneous assessment of the evidence." *Ky. Speedway, LLC v. Nat'l Ass'n of Stock Car Auto Racing, Inc.*, 588 F.3d 908, 915 (6th Cir. 2009) (internal quotation marks omitted). Accordingly, "we will not substitute our own judgment for that of the district court and will reverse an evidentiary decision only where we are left with a definite and firm conviction that [the district court] committed

The district court assumed "[f]or purposes of this analysis only," that Landolph's testimony established general causation. It noted, however, that to the extent Landolph opined on specific causation, he relied "upon the purported methods and findings of Dahlgren." On appeal, the Plucks challenge the district court's evidentiary rulings only with regard to Dahlgren.

a clear error of judgment." *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 528 (6th Cir. 2008) (alteration in original) (internal quotation marks omitted).

We review the district court's grant of summary judgment *de novo*. *Allen v. Highlands Hosp. Corp.*, 545 F.3d 387, 393 (6th Cir. 2008). Summary judgment is proper where no genuine issue of material fact exists, and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). In considering a summary judgment motion, "the district court must draw all reasonable inferences in favor of the nonmoving party." *Ky. Speedway*, 588 F.3d at 915 (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986)). "The central issue is 'whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Id.* (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 251–52 (1986)).

III.

The Plucks raise two arguments on appeal. They dispute the district court's exclusion of Dahlgren's specific-causation opinion as unreliable under *Daubert*, arguing that the court improperly demanded precise data regarding Mrs. Pluck's dose of benzene and ignored Dahlgren's differential-diagnosis methodology, which formed the basis of his opinion. The Plucks also challenge the district court's exclusion of Dahlgren's supplemental declaration, which was filed five months after the discovery deadline for expert reports. In response, BP contends that the district court properly excluded Dahlgren's opinion, which failed to quantify Mrs. Pluck's dose and "failed to account for confounding factors," including other sources of benzene exposure. BP also maintains that the district court recognized differential diagnosis as a reliable methodology for establishing specific causation but concluded that Dahlgren employed this methodology in his untimely supplemental declaration only "after he had already arrived at his specific causation conclusion."

In a toxic-tort case, as here, the plaintiff must establish both general and specific causation through proof that the toxic substance is capable of causing, and did cause, the

plaintiff's alleged injury. Meridia Prods., 328 F. Supp. 2d at 798. As to specific causation, "[t]he plaintiff must show that [s]he was exposed to the toxic substance and that the level of exposure was sufficient to induce the complained-of medical condition (commonly called a 'dose-response relationship')." Valentine v. PPG Indus., Inc., 821 N.E.2d 580, 588 n.1 (Ohio Ct. App. 2004). Both causation inquiries involve scientific assessments that must be established through the testimony of a medical expert. Baker, 680 F. Supp. 2d at 874; Terry, 875 N.E.2d at 77. Without this testimony, "a plaintiff's toxic tort claim will fail." Baker, 680 F. Supp. 2d at 874.

Federal Rule of Evidence 702 governs the admission of expert testimony. It provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. In *Daubert*, the Supreme Court stated that the district court, when evaluating evidence proffered under Rule 702, must act as a gatekeeper, ensuring "that any and all scientific testimony or evidence admitted is not only relevant, but reliable." 509 U.S. at 589. The district court must consider "whether the reasoning or methodology underlying the testimony is scientifically valid." *Id.* at 592–93.

We have explained that "Daubert attempts to strike a balance between a liberal admissibility standard for relevant evidence on the one hand and the need to exclude misleading 'junk science' on the other." Best v. Lowe's Home Ctrs., Inc., 563 F.3d 171, 176–77 (6th Cir. 2009). Although there is no "definitive checklist or test" to strike this balance, the Daubert Court set forth factors relevant to the inquiry: (1) whether the theory or technique can be or has been tested; (2) whether it "has been subjected to peer

⁵While plaintiffs typically must first establish general causation, *Terry*, 875 N.E.2d at 76, the district court assumed for purposes of its analysis that general causation had been established.

review and publication"; (3) whether there is a "known or potential rate of error"; and (4) whether the theory or technique enjoys general acceptance in the relevant scientific community. 509 U.S. at 593–94. This inquiry is "a flexible one," and the factors are neither definitive nor exhaustive. *Nelson*, 243 F.3d at 251 (internal quotation marks omitted). However, "[a]n expert who presents testimony must 'employ[] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Best*, 563 F.3d at 177 (second alteration in original) (quoting *Kumho Tire*, 526 U.S. at 152).

A.

The Plucks first argue that the district court improperly excluded Dahlgren's specific-causation opinion based upon his failure to quantify Mrs. Pluck's dose of benzene exposure. The Plucks concede that Dahlgren did not establish dose; they instead argue that Dahlgren used differential diagnosis to determine specific causation and that the district court "ignore[d] the ability of a physician to apply causal and probabilistic reasoning to arrive at a differential diagnosis and offer an opinion on specific causation." In response, BP maintains that Dahlgren did not apply differential diagnosis in either his expert opinion or his deposition, but did so only in an untimely supplemental declaration filed five months after the deadline for expert reports. The district court agreed with BP's argument, stating that the record made clear "that Dahlgren's declaration disclosed an entirely new differential diagnosis methodology that was not mentioned at any point prior to the submission of his declaration." We also agree.

This circuit has recognized differential diagnosis as an "appropriate method for making a determination of causation for an individual instance of disease." *Hardyman v. Norfolk & W. Ry. Co.*, 243 F.3d 255, 260 (6th Cir. 2001); *see also Best*, 563 F.3d at 178 (stating that a causation opinion based upon a reliable differential diagnosis may satisfy the requirements of Rule 702). Differential diagnosis is "a standard scientific technique of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated." *Hardyman*, 243 F.3d at 260 (internal quotation

marks omitted). As we explained in *Best*, a physician who applies differential diagnosis to determine causation "considers all relevant potential causes of the symptoms and then eliminates alternative causes based on a physical examination, clinical tests, and a thorough case history." 563 F.3d at 178 (internal quotation marks omitted).

In this case, the Plucks acknowledge that Dahlgren did not explicitly identify differential diagnosis as his methodology until filing his supplemental declaration, but they argue that he identified and ruled out alternative causes for Mrs. Pluck's NHL "without necessarily using the term 'differential diagnosis." Yet, merely claiming that an expert used differential diagnosis is alone insufficient to satisfy the reliability inquiry under *Daubert. See Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 674 (6th Cir. 2010), petition for cert. filed, 79 U.S.L.W. 3554 (U.S. Mar. 9, 2011) (No. 10-1122); see also Best, 563 F.3d at 179 (cautioning that "[n]ot every opinion that is reached via a differential-diagnosis method will meet the standard of reliability required by *Daubert*"). Rather, we stated in *Tamraz* that

[c]alling something a "differential diagnosis" or "differential etiology" does not by itself answer the reliability question but prompts three more:
(1) Did the expert make an accurate diagnosis of the nature of the disease? (2) Did the expert reliably rule in the possible causes of it?
(3) Did the expert reliably rule out the rejected causes? If the court answers "no" to any of these questions, the court must exclude the ultimate conclusion reached.

620 F.3d at 674. Here, the parties do not dispute the accuracy of Mrs. Pluck's NHL diagnosis. Accordingly, to determine whether Dahlgren performed a differential diagnosis satisfying the requirements of Rule 702, we must evaluate whether Dahlgren reliably "ruled in" the potential causes of Mrs. Pluck's NHL and "ruled out" alternative causes.

In *Tamraz*, we rejected an expert witness's causation testimony, which sought to demonstrate that manganese exposure caused the plaintiff's Parkinson's disease, as unreliable under *Daubert* and, therefore, inadmissible. *Id.* We stated that the expert's opinion was unreliable because "his efforts to 'rule in' manganese exposure as a possible cause or to 'rule out' other possible causes turned on speculation, not a valid

methodology." *Id.* In particular, we observed that the expert's hypothesis concerning the relationship between manganese exposure and Parkinson's disease, albeit plausible, was based upon speculation and was not the "product of reliable principles and methods," as is required by Rule 702. *Id.* at 670 (internal quotation marks omitted). Thus, we concluded that "no matter the label," the expert's testimony "[did] not satisfy Rule 702." *Id.* at 674.

Regardless of how the Plucks characterize Dahlgren's causation analysis, his expert opinion likewise failed to meet the requirements of Rule 702. Foremost, Dahlgren could not reliably "rule in" benzene as the cause of Mrs. Pluck's NHL. In recognition of the fact that benzene poses a health concern at certain levels of exposure, the EPA has stated that the maximum permissible contaminant level for benzene in drinking water is 5 ppb. 40 C.F.R. § 141.61(a)(2). Dahlgren, however, did not ascertain Mrs. Pluck's level of benzene exposure, nor did he determine whether she was exposed to quantities of benzene exceeding the EPA's safety regulations. To the contrary, Dahlgren admitted that he "ha[d] limited exposure data" and that the "[r]esults of soil and water tests from the EPA for the Pluck's [sic] property [were] still pending." Nevertheless, he concluded that "chronic low-level exposure can and does cause NHL"; that Mrs. Pluck "probably had an injurious exposure to benzene and other organic solvents considerably above background"; and that "[t]here is no safe level for benzene in terms of causing cancer." We find this analysis unpersuasive, particularly because the levels of benzene in the Plucks' wells never exceeded the maximum permissible contaminant level of 5 ppb designated by the EPA. Dahlgren's opinion that Mrs. Pluck's "low-level exposure" to benzene caused her NHL is not grounded in "sufficient facts or data," nor does it reflect the "reliable principles and methods" required by Rule 702. It is, instead, pure conjecture.

Although the Plucks argue that the district court required too much specificity regarding Mrs. Pluck's dose, this argument is without merit. In *Nelson*, we upheld the district court's exclusion of a causation expert's testimony in a case alleging injury due to exposure to polychlorinated biphenyls ("PCBs") following a gas-pipeline release. 243

F.3d at 246. We remarked that the causation expert, like Dahlgren, "made no attempt to determine what amount of PCB exposure the . . . subjects had received and simply assumed that it was sufficient to make them ill." *Id.* at 252. Thus, because there was no "factual basis from which a jury could infer that the plaintiffs were in fact exposed to PCBs," we deemed the expert's methodology scientifically unreliable. *Id.* at 253.

Although the Plucks contend that evidence of benzene exposure existed by virtue of its presence in their wells in 1996 and 2003, it is well-settled that the mere existence of a toxin in the environment is insufficient to establish causation without proof that the level of exposure could cause the plaintiff's symptoms. See id. at 252–53 (noting that the presence of PCBs in the plaintiffs' environment "in excess of allowable limits" could not establish causation without evidence that they were "exposed at a level that could cause neurological and lung impairments"); McClain v. Metabolife Int'l, Inc., 401 F.3d 1233, 1242 (11th Cir. 2005) (stating that causation "requires not simply proof of exposure to the substance, but proof of enough exposure to cause the plaintiff's specific illness"). Here, Dahlgren offered no such evidence. Rather, in attempting to estimate Mrs. Pluck's exposure, Dahlgren relied upon a gasoline-vapor-concentration study that discussed the correlation between benzene exposure and leukemia. See Ami S. Patel et al., Risk of Cancer as a Result of Community Exposure to Gasoline Vapors, 59 Archives Envtl. Health 497 (2004). Citing this study, Dahlgren stated that Mrs. Pluck "was exposed to a concentration of benzene . . . 129 times higher than the Patel study would indicate increases the risk of . . . leukemia fourfold." Yet, when asked to explain the methodology for his calculations, Dahlgren admitted that he could not do so, as he was "not sure about any of these scribbles." Moreover, Dahlgren failed to mention that the Patel study "did not find a statistically significant association between NHL and residing near a gasoline spill." See also Baker, 680 F. Supp. 2d at 886–87 (rejecting Dahlgren's reliance upon Patel's study as a basis for his causation opinion and noting that "[t]here was not a statistically significant increase in [NHL]" following prolonged periods of benzene exposure). The district court thus concluded, as do we, that Dahlgren's attempt to determine Mrs. Pluck's level of benzene exposure "[did] not represent a scientifically reliable methodology."

Finally, even if Dahlgren had properly "ruled in" benzene exposure as the cause of Mrs. Pluck's NHL, he failed to "rule out" alternative causes of her illness, as is required under the differential-diagnosis methodology. See Tamraz, 620 F.3d at 674 (stating that an expert's opinion must be rejected if the expert failed to rule out alternative causes of the plaintiff's illness). In *Nelson*, for example, we found "simply no basis" to assume that exposure to PCBs caused the plaintiffs' illnesses when the causation expert failed to account for confounding factors, including alcohol use and cigarettes, that might have produced such symptoms. 243 F.3d at 253 (internal quotation marks omitted); see also Wills v. Amerada Hess Corp., 379 F.3d 32, 50 (2d Cir. 2004) (noting that an expert's opinion suffered from a "fatal flaw" when he acknowledged that cigarettes and alcohol were risk factors for developing squamous-cell carcinoma but "failed to account for these variables in concluding that decedent's cancer was caused by exposure to toxic chemicals such as benzene and PAHs").

In this case, Dahlgren acknowledged in his deposition that Mrs. Pluck was exposed to other sources of benzene, particularly from her extensive smoking habit. He observed that cigarettes contain benzene; that smoking can contribute to elevated levels of benzene exposure; and that he "[could not] tell from the existing data that her cigarette smoking would have caused her to be at significantly increased risk for . . . [NHL]." Dahlgren also opined that other organic solvents may pose a risk, and his written opinion commented upon Mrs. Pluck's "injurious exposure to benzene and other organic solvents." Yet, Dahlgren neither identified these "other" solvents nor determined Mrs. Pluck's potential level of exposure to them. Thus, Dahlgren failed to "rule out" alternative causes of Mrs. Pluck's NHL, and the district court did not abuse its discretion in concluding that he did not perform a reliable differential diagnosis.

B.

The Plucks also argue that the district court erred in striking Dahlgren's supplemental declaration, in which he used differential diagnosis to evaluate the cause of Mrs. Pluck's NHL. Dahlgren filed his supplemental declaration on May 15,

2009—one month after BP filed its *Daubert* motions and motion for summary judgment, and five months after the district court's December 15, 2008, deadline for the submission of expert reports. The district court struck this declaration as untimely, contradictory to Dahlgren's previous specific-causation opinion, and reliant upon a new differential-diagnosis methodology that Dahlgren failed to discuss within the permissible time frame for filing expert reports.

Although it is undisputed that Dahlgren first identified differential diagnosis as his causation methodology in his supplemental declaration, the Plucks maintain that Dahlgren used differential diagnosis in his deposition without explicitly saying so. They state that "Dahlgren was never asked in his deposition what his methodology was." These statements approximate the Plucks' argument in the district court, in which they relied upon GED Integrated Solutions, Inc. v. Durotech International, Inc. to argue that Dahlgren's supplemental declaration should be admitted beyond the December 15, 2008, deadline for the submission of expert reports. No. 5:06CV1327, 2009 WL 233872 (N.D. Ohio Jan. 30, 2009). In *Durotech*, the district court rejected a timeliness challenge to an expert's supplemental report on the grounds that it contained "nothing more than what the Court would have learned had it held a formal hearing on this *Daubert* challenge" and did "not include a new expert evaluation of any evidence." Id. at *2. Here, the district court properly concluded that, unlike in *Durotech*, Dahlgren's report contradicted his prior causation opinion and attempted "to introduce an entirely new methodology well after the point at which it would be proper." Indeed, as we discussed above, Dahlgren did not use differential diagnosis in his expert opinion or deposition testimony because he failed to reliably "rule in" benzene as the cause of Mrs. Pluck's NHL and, likewise, failed to "rule out" alternative causes, including smoking and exposure to other solvents. See Best, 563 F.3d at 178. Thus, Dahlgren's supplemental declaration served as an untimely attempt to introduce a new causation methodology.

We have recognized that "[d]istrict courts have broad discretion to exclude untimely disclosed expert-witness testimony," particularly when these reports serve as a "transparent attempt to reopen" the *Daubert* inquiry after the weaknesses in the

expert's prior testimony have been revealed. *Pride v. BIC Corp.*, 218 F.3d 566, 578–79 (6th Cir. 2000) (internal quotation marks omitted). In this case, the district court did not abuse its discretion in striking Dahlgren's untimely supplemental declaration, in which he attempted to bolster his deficient opinion by employing a new causation methodology. We also conclude that, because Dahlgren did not provide a specific-causation opinion satisfying the requirements of Rule 702, the district court did not err in granting summary judgment on behalf of BP.

IV.

For the foregoing reasons, we affirm the judgment of the district court in all respects.⁶

⁶The Plucks claim in passing that the district court erroneously implied that Mrs. Pluck began drinking bottled water exclusively in 1996 and "ignored other avenues of exposure to benzene in the water—through dermal absorption and inhalation through showering, and through working the soil in her garden." They argue that these alleged omissions "painted a picture" that their lawsuit involved merely an isolated incident of benzene exposure. However, contrary to this claim, the district court noted that the Plucks "used their well water to drink, wash, bathe, and irrigate their lawn and garden." Moreover, although the district court correctly observed that Mrs. Pluck ceased drinking water from the contaminated well upon smelling gasoline in 1996, it did not state that she did not drink from the new well. Thus, the Plucks, who have cited no case law supporting their argument, have disregarded the district court's discussion of Mrs. Pluck's benzene exposure. This argument is without merit.