PLATITUDES ABOUT "PRODUCT STEWARDSHIP" IN TORTS: CONTINUING DRUG RESEARCH AND EDUCATION

*Lars Noah**

Cite as: Lars Noah, *Platitudes About "Product Stewardship" in Torts: Continuing Drug Research and Education*, 15 MICH. TELECOMM. TECH. L. REV. 359 (2009), *available at* http://www.mttlr.org/volfifteen/noah.pdf

I. INTRODUCTION

What role does tort law have to play in drug research and development? Does the threat of liability create valuable incentives (and make up for perceived failings in regulatory oversight), or, instead, does it unduly interfere with innovation and patient access? These and related questions have inspired an active and largely inconclusive debate among commentators, while courts and legislators have made occasional forays into the area by constricting the scope of potential tort liability in particular circumstances.[1] The *Restatement (Third) of Torts: Products Liability*, which the American Law Institute (ALI) published one decade ago, includes special provisions governing prescription drug cases,[2] and

* Professor of Law, University of Florida; author of LAW, MEDICINE, AND MEDICAL TECHNOLOGY: CASES AND MATERIALS (Foundation Press, 2d ed. 2007).

1. *See* Lars Noah, *Rewarding Regulatory Compliance: The Pursuit of Symmetry in Products Liability*, 88 GEO. L.J. 2147, 2152–54 nn.24–28, 2157 & n.41 (2000); Lars Noah, *Triage in the Nation's Medicine Cabinet: The Puzzling Scarcity of Vaccines and Other Drugs*, 54 S.C. L. REV. 741, 743–44, 759–64 (2003).

2. *See* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 6 (1998) [hereinafter PRODUCTS RESTATEMENT]. For a comprehensive review of these issues and a wide-ranging critique of the earlier commentary, see Lars Noah, *This Is Your Products Liability Restatement on Drugs*, 74 BROOK. L. REV. (forthcoming 2009). I borrow from and expand upon a few sections of that symposium contribution in this Article.

the pitched battle over using implied preemption as a defense,[3] represents only the latest manifestation of these sharp disagreements.

This Article focuses on one emerging aspect of tort litigation against pharmaceutical manufacturers that, if it gained traction, portends a dramatic (and potentially counterproductive) expansion in the prescription drug industry's exposure to liability. The traditional theories of products liability—mismanufacture, defective design, and inadequate warnings—no longer exhaust the potential obligations of sellers. In addition to increasingly popular claims of misrepresentation and negligent marketing, which seem more like extensions of the three defect categories than entirely novel theories, a growing chorus of commentators would impose on pharmaceutical manufacturers a broader duty to test and educate (aspects of what they call an obligation of "product stewardship").[4] Frustrated by the inherent limitations of preapproval clinical trials,[5] the failure of the Food and Drug Administration (FDA) to demand rigorous postapproval testing,[6] and the minimal information communi-

3. *See* Wyeth, Inc. v. Levine, 129 S. Ct. 1187 (2009) (rejecting an implied preemption defense to a claim that the manufacturer of a prescription drug failed to supply an adequate warning, but failing to foreclose altogether the possibility that such a tort claim might conflict with a more clearly expressed FDA labeling requirement); Buckman v. Plaintiffs' Legal Comm., 531 U.S. 341, 347–53 (2001) (holding that fraud-on-the-FDA claim involving medical device review was impliedly preempted); R.F. v. Abbott Labs., 745 A.2d 1174, 1187–88, 1192–94 (N.J. 2000) (finding implied preemption of tort claims where the FDA had approved an AIDS screening test for use by blood banks); *cf.* Desiano v. Warner-Lambert & Co., 467 F.3d 85, 93–98 (2d Cir. 2006) (rejecting the argument that fraud exception in Michigan statute that had codified a compliance defense was preempted), *aff'd mem.*, 128 S. Ct. 1168 (2008) (by an equally divided court).

4. *See* George W. Conk, *Punctuated Equilibrium: Why § 402A Flourished and the* Products Liability Restatement *Languished*, 26 REV. LITIG. 799, 856–62, 878–80 (2007); *see also* Margaret A. Berger & Aaron D. Twerski, *Uncertainty and Informed Choice: Unmasking* Daubert, 104 MICH. L. REV. 257 (2005). I summarize and critique these proposals below in Part III.A & B respectively.

5. *See* New Drug and Antibiotic Regulations, 50 Fed. Reg. 7452, 7471 (Feb. 22, 1985) (codified in scattered sections of 21 C.F.R.) ("The much larger patient population and longer period of use associated with the marketing of a drug provides, for the first time, the opportunity to collect information on rare, latent, and long-term effects, some of which may be serious."); David A. Kessler, *Introducing MEDWatch: A New Approach to Reporting Medication and Device Adverse Effects and Product Problems*, 269 JAMA 2765 (1993); Robert J. Temple & Martin H. Himmel, Editorial, *Safety of Newly Approved Drugs: Implications for Prescribing*, 287 JAMA 2273 (2002); *see also* Marc Kaufman, *FDA Is Criticized over Drugs' Safety Problems*, WASH. POST, Apr. 24, 2006, at A5 (summarizing a new GAO report, which "concluded that the agency's entire system for reviewing the safety of drugs already on the market is too limited and broadly flawed").

6. *See* Bruce M. Psaty & Curt D. Furberg, Editorial, *Rosiglitazone and Cardiovascular Risk*, 356 NEW ENG. J. MED. 2522, 2523–24 (2007). Until recently, the Federal Food, Drug and Cosmetic Act (FDCA) made no mention of postmarket study requirements. *See* Robert L. Fleshner, *Post-Marketing Surveillance of Prescription Drugs: Do We Need to Amend the FDCA?*, 18 HARV. J. ON LEGIS. 327, 329–31 (1981). In 1997, Congress authorized the imposition of such requirements, though only for drugs eligible for "fast track" review. *See*

cated directly to patients,[7] these commentators have urged judges to draw on the common law tradition in order to remedy these and other alleged failings of the regulatory system.

II. Duties to Keep Testing

A. *Knowability Thresholds*

Whether resolving a design or informational defect claim, courts may struggle to determine precisely when a seller should have known that its product presented a risk of injury.[8] Manufacturers have no duty to warn of unknowable risks associated with drugs.[9] Some courts have

---

Food and Drug Administration Modernization Act of 1997, Pub. L. No. 105-115, §§ 112, 130, 111 Stat. 2296, 2309–10, 2331–32 (codified as amended at 21 U.S.C. §§ 356(b), 356b(a) (2000)). One decade later, it broadened the agency's authority in this area. *See* Food and Drug Administration Amendments Act of 2007, Pub. L. No. 110-85, tit. IX, 121 Stat. 823, 922 [hereinafter FDAAA]. Long before it received express authority to demand Phase IV trials, the agency often demanded as a condition of product approval that applicants undertake postapproval research, *see* Charles Steenburg, *The Food and Drug Administration's Use of Postmarketing (Phase IV) Study Requirements: Exception to the Rule?*, 61 Food & Drug L.J. 295, 325–27 (2006), though it has done a poor job of holding pharmaceutical manufacturers to these promises, *see* Jennifer Corbett Dooren, *Review Finds Gap in Required Study of Approved Drugs*, Wall St. J., June 1, 2005, at D4; *65% of Promised Drug Studies Pending*, Wash. Post, Mar. 4, 2006, at A4.

7. *See* Catherine A. Paytash, Note, *The Learned Intermediary Doctrine and Patient Package Inserts: A Balanced Approach to Preventing Drug-Related Injuries*, 51 Stan. L. Rev. 1343, 1367–71 (1999) (urging an administrative solution rather than expanding the duty to warn); Francesca Lunzer Kritz, *Not-So-Fine Print: Patient Drug Leaflets Omit Key Warnings, Other Information*, Wash. Post, Aug. 13, 2002, at F1 (describing problems in the implementation of a voluntary patient labeling program ordered by Congress); Sheryl Gay Stolberg, *Faulty Warning Labels Add to Risk in Prescription Drugs*, N.Y. Times, June 4, 1999, at A27 ("In a 1997 survey of 1,000 patients, the F.D.A. found that only one-third had received information from their doctors about the dangerous side effects of drugs they were taking.").

8. Imagine that a drug company receives a single report from a physician of an unexpected adverse drug event (ADE) in a patient. If the suspected ADE turns out to be spurious, subsequent patients will not suffer that injury or, if they do and attempt to file a lawsuit, patients will lose on causation at trial; if, however, the drug turns out to have caused the injury, plaintiffs often will have stronger evidence of causation by the time of trial even though the far less certain ADE would have served as the trigger for the duty to warn at the earlier time of sale. One would expect courts to require greater substantiation of risks before allowing a design defect (as opposed to a failure-to-warn) claim to proceed. Technologically sophisticated products subject to lengthy premarket review by administrative agencies pose tricky "state-of-the-art" questions. If risk information comes to light late in the agency's review, sellers generally still can make labeling modifications before sale, but designs become fixed earlier in the R&D process.

9. *See* Griggs v. Combe, Inc., 456 So. 2d 790, 791–93 (Ala. 1984) (rejecting claims because topical benzocaine had never before been associated with the development of Stevens-Johnson Syndrome); Toner v. Lederle Labs., 732 P.2d 297, 306–07 (Idaho 1987) ("Comment k does not require sellers to be clairvoyant."); Moore v. Vanderloo, 386 N.W.2d 108, 116 (Iowa 1986); Castrignano v. E.R. Squibb & Sons, Inc., 546 A.2d 775, 782 (R.I. 1988) (refusing to hold manufacturer of DES liable "for failure to warn of risks inherent in a drug

found a breach of the duty to warn on the basis of extremely weak evidence that a substance may have caused an injury,[10] while other courts have demanded greater substantiation of a risk allegedly posed by a product.[11]

In one case, the California Supreme Court attempted to define the "knowability" threshold. The majority explained that a pharmaceutical company would have a duty to warn only of "reasonably scientifically knowable risks."[12] Although it equivocated in further defining this test, the court in *Carlin* suggested that the inquiry would focus on how a reasonable "scientist conducting state-of-the-art research" would interpret a body of data.[13] The standard apparently does not, however, ask how such

---

[because] it neither knew nor could have known by the application of scientific knowledge available at the time of distribution that the drug could produce the undesirable effects suffered by plaintiff"); *see also* PRODUCTS RESTATEMENT, *supra* note 2, § 6 cmt. g; Kathleen H. Wilson, Note, *The Liability of Pharmaceutical Manufacturers for Unforeseen Adverse Drug Reactions*, 48 FORDHAM L. REV. 735, 745–50 (1980). A pair of jurisdictions impute knowledge to pharmaceutical manufacturers, thereby shifting the burden of proof on this issue to the defendant. *See* Shanks v. Upjohn Co., 835 P.2d 1189, 1199–200 (Alaska 1992); Feldman v. Lederle Labs., 479 A.2d 374, 387–88 (N.J. 1984).

10. *See, e.g.*, Hermes v. Pfizer, Inc., 848 F.2d 66, 68 (5th Cir. 1988) (adverse event reports); Wells v. Ortho Pharm. Corp., 788 F.2d 741, 745–46 (11th Cir. 1986) (manufacturer of spermicide had a duty to warn of possible teratogenicity notwithstanding the FDA's conclusion that these drugs did not cause birth defects). For instance, courts have held that a reasonable jury could have found a failure to warn of a risk not revealed during clinical trials because of knowledge that a chemically similar product created such a risk. *See* Thom v. Bristol-Myers Squibb Co., 353 F.3d 848, 854–55 (10th Cir. 2003); Wagner v. Roche Labs., 671 N.E.2d 252, 256–58 (Ohio 1996); *see also* Mulligan v. Lederle Labs., 786 F.2d 859, 864–65 (8th Cir. 1986) (sustaining a verdict for the plaintiff where the manufacturer previously had received reports of similar but not identical adverse reactions); Barson v. E.R. Squibb & Sons, 682 P.2d 832, 836 (Utah 1984) (reports that progesterone caused birth defects should have alerted manufacturer of progesterone-derivative of teratogenic potential).

11. *See, e.g.*, Grenier v. Med. Eng'g Corp., 243 F.3d 200, 205 (5th Cir. 2001) (rejecting the plaintiff's claim because she "presented no evidence about the cause, frequency, severity, or consequences of 'gel bleed' with regard to the [silicone breast] implants at issue in this case"); Smith v. Ortho Pharm. Corp., 770 F. Supp. 1561, 1582 (N.D. Ga. 1991) (rejecting failure-to-warn claim because there was no "reasonably reliable" evidence that spermicide caused birth defects); Finn v. G.D. Searle & Co., 677 P.2d 1147, 1153 (Cal. 1984) ("Knowledge of a potential side effect which is based on a single isolated report of a possible link between a prescription drug and an injury may not require a warning."); Young v. Key Pharm., Inc., 922 P.2d 59, 62, 65–69 (Wash. 1996) (affirming jury verdict in part based on the defendant's argument that "the state of knowledge about the relationship between fevers or viral illnesses and theophylline [a bronchodilator with a narrow therapeutic margin] was not yet clinically reliable and that it would have been irresponsible for the drug company to warn of risks that were not yet proven to be legitimate risks").

12. Carlin v. Superior Court, 920 P.2d 1347, 1349 (Cal. 1996) ("[W]e have expressly and repeatedly applied a strict liability standard to manufacturers of prescription drugs for failure to warn of known or reasonably scientifically knowable risks.").

13. *See id.* at 1353 ("[W]hen a plaintiff's claim is based on an allegation that a particular risk was 'reasonably scientifically knowable,' an inquiry may arise as to what a reasonable scientist operating in good faith should have known under the circumstances of the evidence.").

a scientist would interpret the data against the totality of other research casting light on the particular question.[14]

The *Carlin* majority conceded that, "if state-of-the-art scientific data concerning the alleged risk was [sic] fully disclosed to the FDA and it determined, after review, that the pharmaceutical manufacturer was not permitted to warn," then "the FDA's conclusion that there was, in effect, no 'known risk' is controlling."[15] Even though the decision to defer to the agency's determination makes perfect sense,[16] it seems odd to anoint the FDA as the arbiter of what is "known." A partial dissent in the case emphasized that the majority's standard "fails to recognize, much less deal with, the complexity of scientific evaluations,"[17] and it recommended instead a duty to warn "only of those risks supported by credible scientific evidence or that upon reasonable inquiry would be supported by credible scientific evidence."[18]

B. *Seeking out Risk Information*

California's reasonable biomedical researcher standard fails to explain whether sellers would have any obligation to generate—as opposed to become aware of already available—risk information. A few years after the *Carlin* decision, an intermediate appellate state court wrote that

---

14. *See id.* at 1351 ("[A] reasonably prudent manufacturer might reasonably decide that the risk of harm was such as not to require a warning as, for example, if the manufacturer's own testing showed a result contrary to that of others in the scientific community. Such a manufacturer might escape liability under negligence principles."); Howard A. Denemark, *Improving Litigation Against Drug Manufacturers for Failure to Warn Against Possible Side Effects: Keeping Dubious Lawsuits from Driving Good Drugs Off the Market*, 40 CASE W. RES. L. REV. 413, 437–41 (1990) (criticizing such an approach).

15. *Carlin*, 920 P.2d at 1353.

16. *See id.* at 1365 n.5 (Kennard, J., concurring in part and dissenting in part); Noah, *Rewarding Regulatory Compliance*, *supra* note 1, at 2153–58, 2165. In contrast, most courts treat compliance with FDA requirements as relevant but not dispositive. *See, e.g.*, Wells v. Ortho Pharm. Corp., 788 F.2d 741, 746 (11th Cir. 1986) ("An FDA determination that a warning is not necessary may be sufficient for federal regulatory purposes but still not be sufficient for state tort law purposes."); Wooderson v. Ortho Pharm. Corp., 681 P.2d 1038, 1057 (Kan. 1984) (ignoring FDA letter to a manufacturer rejecting addition of requested warning).

17. *Carlin*, 920 P.2d at 1360 (Kennard, J., concurring in part and dissenting in part) ("[T]he quality of scientific evidence 'may range from extremely vague to highly certain.' . . . Scientific studies suggesting associations between products and injuries may themselves be subjected to legitimate question as to the validity of their methods and the soundness of their conclusions.").

18. *Id.* at 1365 ("Evidence of a risk would be scientifically credible if the data upon which it is based, the methodology employed, and its conclusions identifying the existence of a risk comply with generally accepted scientific methodology and analysis."). In short, Justice Kennard sought to overlay rules for the admissibility of expert testimony on the question of when a risk becomes knowable. *See id.* at 1364 ("In determining the admissibility of new scientific techniques, this court has held that evidence of a technique is admissible only if it has gained acceptance in the particular scientific field to which it belongs.").

the "imposition of liability for breach of an independent duty to conduct long-term testing, where the causal link to the known harm to plaintiff is the unknown outcome of testing that was not done, would be beyond the pale of any California tort doctrine we can identify."[19]

Drug-drug interactions provide an illustration of the potential difficulties in defining a broader duty to test. Obviously, if a manufacturer discovers a dangerous interaction during clinical trials or post-market surveillance, then it would have a duty to communicate information about the risk.[20] What if, however, a patient experiences a previously unknown acute drug interaction and argues that the manufacturer should have tested for it?[21] A strict liability standard that focused on the knowability of this risk seemingly would ask only whether a manufacturer could have checked for the interaction, while a negligence standard would recognize the impracticality of testing for every conceivable drug-drug interaction.[22]

---

19. Valentine v. Baxter Healthcare Corp., 81 Cal. Rptr. 2d 252, 265 (Ct. App. 1999) (emphasis omitted); *see also id.* (explaining instead that "Baxter was charged with an *ongoing* duty to warn of side effects 'known or knowable' in the scientific community," which the jury concluded this manufacturer of silicone-gel breast implants had satisfied); Castrignano v. E.R. Squibb & Sons, Inc., 546 A.2d 775, 782–83 (R.I. 1988) ("In their capacity as experts they must carefully monitor the new developments and research that pertain to the drugs that they manufacture.").

20. *See, e.g.*, Garside v. Osco Drug, Inc., 976 F.2d 77, 81–82 (1st Cir. 1992) (allowing failure-to-warn claim against manufacturer of phenobarbital to proceed where drug allegedly interacted with amoxicillin and caused toxic epidermal necrolysis); Ferrara v. Berlex Lab., Inc., 732 F. Supp. 552, 553–55 (E.D. Pa. 1990) (rejecting failure-to-warn claim against manufacturer of MAO inhibitor because it had warned physicians of dangerous interactions with over forty substances, including a decongestant that the plaintiff's physician had prescribed).

21. *See* Bryant v. Hoffman-La Roche, Inc., 585 S.E.2d 723, 728–30 (Ga. Ct. App. 2003) (allowing such a claim to proceed based on testimony from the plaintiffs' expert witnesses); *see also* Robert J. Mayer, Editorial, *Targeted Therapy for Advanced Colorectal Cancer—More Is Not Always Better*, 360 NEW ENG. J. MED. 623 (2009) (describing entirely unexpected efficacy problems encountered when using a pair of approved drugs in combination); D.I. Quinn & R.O. Day, *Drug Interactions of Clinical Importance*, 12 DRUG SAFETY 393 (1995) (cataloging known interactions); Jennifer Corbett Dooren, *Safety of Plavix Under Review*, WALL ST. J., Jan. 27, 2009, at D3; Robert Langreth, *Recall of a Popular Roche Drug Raises Questions on Testing, Approval Process*, WALL ST. J., June 10, 1998, at B16 (discussing the discovery of several additional serious interactions shortly after approval of Posicor that led to its withdrawal).

22. *See* Richard McCormick, *Pharmaceutical Manufacturer's Duty to Warn of Adverse Drug Interactions*, 66 DEF. COUNS. J. 59, 67 (1999) (arguing that application of a strict liability standard in this context would threaten to impose limitless liability); *id.* at 68 ("If every concurrent use is foreseeable, then manufacturers would be obligated to test for these interactions, increasing the time beneficial drugs would take to go to market and pushing prices beyond the reach of most consumers."); *see also id.* at 65 ("[F]ew cases directly consider the manufacturer's failure to warn of an interaction that it should have discovered prior to marketing."); Ceci Connolly, *Price Tag for a New Drug*, WASH. POST, Dec. 1, 2001, at A10 (reporting estimates that place the average investment for an approved new drug at more than $800 million, and adding that the figure had more than tripled in the space of a decade, largely because

According to the *Products Liability Restatement*, pharmaceutical "manufacturers have the responsibility to perform reasonable testing prior to marketing a product and to discover risks and risk-avoidance measures that such testing would reveal."[23] In a failure-to-warn case involving an antibiotic's side effect discovered only after FDA approval, the New Jersey Supreme Court explained that "a manufacturer is held to the standard of an expert in the field," which means that it "must keep reasonably abreast of scientific knowledge and discoveries" and "may also be required to make tests to determine the propensities and dangers of [its] product."[24] Although a few courts resolving products liability claims against sellers of medical technologies have made a similar point,[25] the case law offers essentially no guidance about the contours of such a duty to test.[26] A few commentators have proposed, instead, shifting the burden of proof on matters of general causation as a way of effectuating a duty to test.[27] Separately, recognition of so-called "medical

---

of demands for larger and more complex clinical trials). FDA guidelines governing this aspect of clinical trials might provide a standard of what a reasonable company would do.

23. PRODUCTS RESTATEMENT, *supra* note 2, § 6 cmt. g; *see also id.* § 2 cmt. m ("The harms that result from unforeseeable risks—for example, in the human body's reaction to a new drug, medical device, or chemical—are not a basis of liability. Of course, a seller . . . is charged with knowledge of what reasonable testing would reveal."); *id.* § 10 cmt. c ("With regard to . . . prescription drugs and devices, courts traditionally impose a continuing duty of reasonable care to test and monitor after sale to discover product-related risks."); *cf. id.* § 10 cmt. c, reporters' note (discussing post-sale constructive knowledge only in relation to the available literature—namely, "a continuous duty to keep abreast of scientific developments"). Obviously, this question could arise as well with any number of other types of products.

24. Feldman v. Lederle Lab., 479 A.2d 374, 386–87 (N.J. 1984); *see also* Lindsay v. Ortho Pharm. Corp., 637 F.2d 87, 91 (2d Cir. 1980) ("The duty is a continuous one, requiring the manufacturer to keep abreast of the current state of knowledge of its products as gained through research, adverse reaction reports, scientific literature, and other available methods."); Wooderson v. Ortho Pharm. Corp., 681 P.2d 1038, 1049–50, 1057 (Kan. 1984) (same).

25. *See, e.g.*, Kociemba v. G.D. Searle & Co., 707 F. Supp. 1517, 1528–29 (D. Minn. 1989) ("[T]he duty to test is a subpart . . . of the duty to warn."); Bichler v. Eli Lilly & Co., 436 N.E.2d 182, 188–90 (N.Y. 1982) (allowing plaintiff's claim that DES manufacturer could have discovered reproductive toxicity if it had undertaken rodent testing); Collins v. Eli Lilly Co., 342 N.W.2d 37, 52 (Wis. 1984) (same, focusing on postapproval period).

26. *See* Daniel R. Cahoy, *Medical Product Information Incentives and the Transparency Paradox*, 82 IND. L.J. 623, 640–41 & nn.78–81 (2006) (discussing the still limited recognition of a common law duty to test); *see also id.* at 645 ("[A] manufacturer may reasonably conclude that the [liability] risks of generating potentially harmful information outweigh the benefits."); Young K. Lee, Note, *Beyond Gatekeeping: Class Certification, Judicial Oversight, and the Promotion of Scientific Research in "Immature" Pharmaceutical Torts*, 105 COLUM. L. REV. 1905, 1907 (2005) ("[I]t seems unlikely that manufacturers would, of their own volition, undertake research designed to determine the potential harm caused by an approved drug, thereby opening themselves up to greater liability."); *id.* at 1928–35 (urging federal courts to certify class action lawsuits in such cases, and implausibly proposing that they then appoint panels of neutral experts to design and seek NIH funding of epidemiological studies in order to settle unresolved questions of general causation).

27. *See, e.g.*, Margaret A. Berger, *Eliminating General Causation: Notes Towards a New Theory of Justice and Toxic Torts*, 97 COLUM. L. REV. 2117, 2152 (1997); *see also* Lars

monitoring" claims would amount to court orders that pharmaceutical (and other) manufacturers must engage in more careful surveillance once suspicions of a problem come to light.[28]

III. Duties to Help Educating

In the last few years, and in conjunction with concerns that pharmaceutical manufacturers have failed to satisfy their (regulatory) obligations to test, a few commentators have proposed dramatic expansions in the (tort) duty to test and warn of risks associated with prescription drugs. Both sets of proposals suffer from serious flaws, and they pay special attention to "lifestyle" drugs without ever explaining what sets these medications apart from their more valuable therapeutic brethren.

A. *"Product Stewardship" Proposals*

In a recent article, George Conk urged the recognition of an expanded obligation to test and warn.[29] "This patient-centered approach emphasizes the ongoing experimental quality of medical products, and a corresponding duty of product stewardship—a duty of ongoing study and product development, a duty of systematic manufacturer surveillance of the actual use of their products after obtaining regulatory approval to market the product."[30] I concur wholeheartedly with his point

---

Noah, *Civil Jury Nullification*, 86 Iowa L. Rev. 1601, 1643 (2001) ("[S]ome have applauded the failure by civil juries to abide by causation instructions as appropriately shifting the burden of proof to industries producing toxic chemicals without adequate safety testing."); *id.* at 1649 ("Jury tendencies to commingle weak evidence of causation with strong evidence of culpability have not prompted the doctrinal reforms favored by those who applaud this type of nullification. . . . On the contrary, . . . courts have reacted by clamping down on the rules for the admissibility of expert evidence . . . ."); *cf.* Albert Lin, *Deciphering the Chemical Soup: Using Public Nuisance to Compel Chemical Testing* (forthcoming 2009), *available at* http://ssrn.com/abstract=1329143 (suggesting a different approach to this problem).

28. *See* Kenneth S. Abraham, *Liability for Medical Monitoring and the Problem of Limits*, 88 Va. L. Rev. 1975, 1978, 1984–88 (2002); *see also* Paz v. Brush Engineered Materials, Inc., 949 So. 2d 1, 6–7 (Miss. 2007) (canvassing the division of authority in other jurisdictions); Sinclair v. Merck & Co., 948 A.2d 587, 594–96 (N.J. 2008) (declining to recognize such claims in Vioxx cases); Victor E. Schwartz et al., *Medical Monitoring: The Right Way and the Wrong Way*, 70 Mo. L. Rev. 349 (2005) (criticizing those courts that have allowed such claims).

29. *See* Conk, *supra* note 4, at 856–62, 877–80; *id.* at 805 (proposing "a common law duty to act affirmatively throughout the product's life-cycle, to systematically study uses and harms, to protect those who consume or are otherwise affected by their products").

30. *Id.* at 805–06; *see also id.* at 858–59 (elaborating on the point that experimentation continues after FDA approval); *id.* at 881 (emphasizing "the importance of recognizing an affirmative duty of product stewardship for producers of products that should essentially remain in development and subject to revision during their entire period of use by patients").

about the inescapably experimental nature of pharmaceuticals,[31] but I find little merit in Conk's affiliated suggestions that drug manufacturers should face liability for failing to continue actively studying their products after FDA approval. "Product stewardship" has a nice, though amorphous, ring to it, which might entice courts to impose an expansive and potentially limitless new tort duty.

Although he referred repeatedly to the need for more active postmarket "surveillance" (which normally connotes the collection and analysis of reported adverse events[32]), Conk appeared to call for more structured postapproval research (i.e., "Phase IV" trials),[33] but he never confronted the difficulties that arise with designing and conducting such studies.[34] He

---

Although Conk's previous work had focused on liberalizing the standard for design defect claims, he made passing references to "product stewardship." *See, e.g.*, George W. Conk, *The True Test: Alternative Safer Designs for Drugs and Medical Devices in a Patent-Constrained Market*, 49 UCLA L. REV. 737, 755 (2002). For my extended critique of his earlier work, see Noah, *supra* note 2, at pts. II.B–C, especially pt. II.C.4–5.

31. *See* Lars Noah, *Informed Consent and the Elusive Dichotomy Between Standard and Experimental Therapy*, 28 AM. J.L. & MED. 361, 362 (2002) ("[A]ll medical interventions have an experimental quality to them."); *id.* at 363 ("[P]roduct approval does not define the point at which an investigational intervention passes the threshold into standard therapy. Instead, the research phase continues after licensure, both in the sense that more safety data accumulates and insofar as physicians may improvise when using a product in ways not originally contemplated."); *id.* at 394 ("One common misconception is that FDA approval of a medical technology represents the point at which it crosses the line from experimental to standard therapy."); *id.* at 394–99 (elaborating); *see also id.* at 386–94 & nn.134, 141 (discussing the indistinct line between treatment and research); *id.* at 400–08 (same). *See generally* Bernadette Tansey, *Hard Sell: How Marketing Drives the Pharmaceutical Industry; What FDA Approval Means; Agency Weighs Benefits, Risks Before Drugs Get to Market*, S.F. CHRON., Mar. 3, 2005, at C1.

32. *See* Timothy Brewer & Graham A. Colditz, *Postmarketing Surveillance and Adverse Drug Reactions: Current Perspectives and Future Needs*, 281 JAMA 824, 825–28 (1999); Anna Wilde Mathews, *Vioxx Recall Raises Questions on FDA's Safety Monitoring*, WALL ST. J., Oct. 4, 2004, at B1; *see also* FDAAA, Pub. L. No. 110-85, § 901(a), 121 Stat. 823, 923 (2007) (to be codified at 21 U.S.C. § 355(o)(3)(D)) (distinguishing between active surveillance and Phase IV trials); *id.* § 905, 121 Stat. at 944 (to be codified at 21 U.S.C. § 355(k)(3)). Traditionally, the FDA used a passive approach, waiting for manufacturers and physicians to send in isolated reports, but it has begun to pursue more active forms of surveillance, including efforts to mine the databases of public and private health insurers or to establish sentinel systems that would provide early information about emerging hazards. *See* Ricardo Alonso-Zaldivar, *Medicare's Will May Be FDA's Way*, L.A. TIMES, June 5, 2005, at A1; David Brown, *Blood-Pressure Drugs Linked to Birth Defects; Window of Safety in First Tremester Refuted*, WASH. POST, June 8, 2006, at A12; *see also* Charles L. Bennett et al., *The Research on Adverse Drug Events and Reports (RADAR) Project*, 293 JAMA 2131, 2132–33, 2137 (2005) (describing a collaborative effort supported by federal grants).

33. *See* Conk, *supra* note 4, at 857, 860–61, 873, 878–80.

34. *See* Steenburg, *supra* note 6, at 372–74. I do not mean to question the value of a "lifecycle approach" for identifying and managing risks associated with medical technologies or to suggest that the FDA has embraced the idea as fully as it should. *See* INST. OF MED., THE FUTURE OF DRUG SAFETY: PROMOTING AND PROTECTING THE HEALTH OF THE PUBLIC 4–5 (Alina Baciu et al. eds., 2007). Further expanding the existing tort obligations of prescription drug manufacturers strikes me, however, as a clumsy way of pursuing such a goal.

also seemed worried that drug companies do not pay sufficient attention to patterns of off-label use and associated risks,[35] but his surveillance requirement would add little to the well-recognized existing obligation to anticipate (and potentially warn against) uses apart from those intended.[36]

Separately, Conk wanted warnings to reach patients,[37] though he never bothered to confront the debate over the learned intermediary doctrine.[38] Most astonishingly, he called on sellers to satisfy a broader duty to educate patients,[39] much like the informed consent duty of physicians,[40] which would mean laying out the pros and cons not just of their products but also competing drugs (and non-product substitutes).[41] Such

35. *See* Conk, *supra* note 4, at 873, 879–80; *id.* at 856 & n.142 (suggesting incorrectly that section 6 of the *Products Liability Restatement* relates only to FDA-approved uses); *id.* at 857 & n.145 (suggesting incorrectly that the *Restatement* deals with postapproval risks under the more forgiving standard for post-sale warnings).

36. *See, e.g.*, Knowlton v. Deseret Med., Inc., 930 F.2d 116, 122–23 (1st Cir. 1991); Rhoto v. Ribando, 504 So. 2d 1119, 1124 (La. Ct. App. 1987); Docken v. Ciba-Geigy, 739 P.2d 591, 593–95 (Or. Ct. App. 1987); *see also* Richards v. Upjohn Co., 625 P.2d 1192, 1196 (N.M. Ct. App. 1980) (holding that, because an intramuscular antibiotic solution "had been on the market for over ten years before the recommendation to use it topically was withdrawn," the manufacturer may have had a specific duty to warn against what was now an off-label use).

37. *See* Conk, *supra* note 4, at 875–80; *see also id.* at 805 (calling "for recognition of a robust common law duty of producers of medical products owed to those who use their products, . . . centered on an explicit duty of manufacturers to advance the patient's ability to make an informed choice regarding the course of medical treatment").

38. *See* Noah, *supra* note 2, at pt.III.A–B.

39. *See* Conk, *supra* note 4, at 872–74, 877–78; *id*. at 872 ("declar[ing] patient empowerment as a goal," and "seek[ing] to integrate the manufacturer's duty with that of the physician").

40. *See* Noah, *supra* note 31, at 366–67 ("These additional obligations [to disclose reasonable alternatives and the benefits of a recommended procedure] suggest the extent to which the duty to secure informed consent has . . . moved beyond a duty to warn of risks to include a broader obligation to educate the patient."); Peter H. Schuck, *Rethinking Informed Consent*, 103 YALE L.J. 899, 910 (1991) ("[A] health care provider's obligations toward patients are in several respects more onerous than . . . those that product manufacturers and sellers owe to their purchasers and consumers."); *id*. at 921–23 (elaborating); *see also* Matthies v. Mastromonaco, 733 A.2d 456, 461 (N.J. 1999) ("[A] physician need not recite all the risks and benefits of each potential appropriate antibiotic when writing a prescription for treatment of an upper respiratory infection."); Joan H. Krause, *Reconceptualizing Informed Consent in an Era of Health Care Cost Containment*, 85 IOWA L. REV. 261, 305–37 (1999) (explaining the practical limitations of the duty to disclose reasonable alternatives); Hunter L. Prillaman, *A Physician's Duty to Inform of Newly Developed Therapy*, 6 J. CONTEMP. HEALTH L. & POL'Y 43, 52–58 (1990) (discussing the difficulty that arises in deciding whether an alternative medical treatment is sufficiently accepted so that it must be disclosed); Gerald F. Tietz, *Informed Consent in the Prescription Drug Context: The Special Case*, 61 WASH. L. REV. 367, 406–17 (1986) (urging stricter application of the informed consent duty with respect to prescribing).

41. *See* Conk, *supra* note 4, at 872–73 ("[M]edical product makers must compare their products' risks and benefits—based on real-world data—both to competing products of the same class, and to recognized competing therapeutic options, including those the manufac-

an obligation would be both unprecedented and unwise,[42] in part because distant manufacturers of mass-produced goods cannot (and should not even attempt to) supplant the role of physicians when the time comes to help patients understand the full range of therapeutic options and make choices tailored to their particular circumstances.

Finally, Conk argued that, contrary to recent pronouncements by the FDA,[43] manufacturers may act unilaterally to revise approved

---

turer's product does not serve."); *id.* at 874 ("[M]edical product stewardship would require stent manufacturers to effectively inform their ultimate consumers—cardiac patients—of the comparative benefits of drug-eluting stent implants versus not only bare metal stents, but also coronary bypass graft surgery."). In support of this illustration, he pointed to criticisms lodged by the president of the Society of Thoracic Surgeons. *See id.* at 873. Although Phase IV research of these products continues, *see* Sylvia P. Westphal, *Concerns Prompt Some Hospitals to Pare Use of Drug-Coated Stents*, WALL ST. J., June 22, 2006, at A1, Conk seemed entirely oblivious to his source's obvious conflict of interest (insofar as stents compete against coronary bypass surgery), *see* Lars Noah, *Medicine's Epistemology: Mapping the Haphazard Diffusion of Knowledge in the Biomedical Community*, 44 ARIZ. L. REV. 373, 422–23 & n.212, 428 & n.240 (2002).

42. *See, e.g.*, Graham v. Am. Cyanamid Co., 350 F.3d 496, 514 (6th Cir. 2003) (rejecting a claim that the manufacturer of oral polio vaccine had a duty to inform physicians that inactivated polio vaccine (IPV) represented the preferred choice); Johnson v. Am. Cyanamid Co., 718 P.2d 1318, 1326 (Kan. 1986) (same, though based on the fact that IPV was not commercially available at the relevant time); Demmler v. SmithKline Beecham Corp., 671 A.2d 1151, 1154–55 (Pa. Super. Ct. 1996) (rejecting an inadequate warning claim for failure to specify the appropriate therapy in the event that a listed side effect occurred); *see also* Kearl v. Lederle Labs., 218 Cal. Rptr. 453, 468 (Ct. App. 1985) ("[W]hatever duty a manufacturer may have to inform of risks associated with nonuse of a product, such a duty most certainly cannot be imposed when the relationship between use and nonuse is statistically close . . . ."); Calabrese v. Trenton State Col., 392 A.2d 600, 604 (N.J. App. Div. 1978) (same, rabies vaccine), *aff'd*, 413 A.2d 315, 316 n.1 (N.J. 1980); *cf.* Powell v. Standard Brand Paint Co., 212 Cal. Rptr. 395, 398 (Ct. App. 1985) ("[T]he law does not require a manufacturer to study and analyze the products of others and to warn users of risks of those products."). *But cf.* May v. Dafoe, 611 P.2d 1275, 1277–78 (Wash. Ct. App. 1980) (distinguishing the seller of hospital equipment from drug manufacturers). In other contexts, the limited post-sale duty to warn does not include an obligation to inform of technological advances. *See, e.g.*, Rogers v. Clark Equip. Co., 744 N.E.2d 364, 370 (Ill. App. Ct. 2001); Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299, 1309–15 (Kan. 1993); *id.* at 1311 ("A variety of courts have found that a manufacturer does not have a post-sale duty to notify product purchasers or users of changes in the state of the art concerning the safe use of the product."); DeSantis v. Frick Co., 745 A.2d 624, 630–31 (Pa. Super. Ct. 1999).

43. *See* Requirements on Content and Format of Labeling for Human Prescription Drug and Biological Products, 71 Fed. Reg. 3922, 3934–36 (Jan. 24, 2006) (announcing administrative preemption of failure-to-warn claims involving prescription drugs); *see also* Supplemental Applications Proposing Labeling Changes for Approved Drugs, Biologics, and Medical Devices, 73 Fed. Reg. 49,603, 49,605–06, 49,609 (Aug. 22, 2008) (reiterating its implied preemption arguments); *id.* at 49,609 (amending 21 C.F.R. § 314.70(c)(6)); *cf.* Anne Wilde Mathews et al., *Bill Raising FDA's Powers Nears Passage*, WALL ST. J., Sept. 20, 2007, at A6 (reporting that plaintiffs' lawyers had persuaded Congress to include language in new legislation that might undercut the agency's implied preemption statement).

labeling in order to communicate new risk information.[44] Although that question is far closer than he appreciated,[45] the agency certainly would never tolerate any of the other additional items that he would want to see included, whether related to the risks and benefits associated with off-label uses,[46] cross-references to other drugs,[47] comparative efficacy claims (unless it has approved them),[48] full risk information directed to

---

44. *See* Conk, *supra* note 4, at 863–64 & n.171; *see also* David A. Kessler & David C. Vladeck, *A Critical Examination of the FDA's Efforts to Preempt Failure-to-Warn Claims*, 96 GEO. L.J. 461, 473–83, 495 (2008).

45. *See, e.g.*, Colacicco v. Apotex Inc., 521 F.3d 253, 274–76 (3d Cir. 2008) (deferring to the FDA's implied preemption analysis), *vacated*, 129 S. Ct. 1578 (2009); *see also* Peter H. Schuck, *FDA Preemption of State Tort Law in Drug Regulation: Finding the Sweet Spot*, 13 ROGER WILLIAMS U. L. REV. 73, 82–102 (2008); Catherine M. Sharkey, *Federalism in Action: FDA Regulatory Preemption in Pharmaceutical Cases in State Versus Federal Courts*, 15 J.L. & POL'Y 1013, 1032–46 (2007). *But see In re* Zyprexa Prods. Liab. Litig., 489 F. Supp. 2d 230, 273–78 (E.D.N.Y. 2007) (finding the FDA's position unpersuasive); Jackson v. Pfizer, Inc., 432 F. Supp. 2d 964, 968 & n.3 (D. Neb. 2006) (same).

46. *See* Lars Noah, *Constraints on the Off-Label Uses of Prescription Drug Products*, 16 J. PROD. & TOXICS LIAB. 139, 156–59 (1994); *id.* at 140 (noting the "FDA's countervailing concerns that precautionary labeling with regard to off-label uses could unnecessarily detract from other more important prescribing information and may instead amount to impermissible promotion of uses that have not been approved"); *see also id.* at 144–46 (explaining why efforts to force drug companies to test off-label uses were properly rejected); Thomas Scarlett, *The Relationship Among Adverse Drug Reaction Reporting, Drug Labeling, Product Liability, and Federal Preemption*, 46 FOOD DRUG COSM. L.J. 31, 40 (1991) ("[The FDA] is conscious of the problem of information overload . . . [and] would not acquiesce in defensive labeling that lacked medical support."). The FDA has leaned on companies to file efficacy supplements or to remove warnings when off-label uses have become well-accepted. *See, e.g.*, Fran Kritz, *FDA Seeks to Add Drugs' New Uses to Labels*, WASH. POST, Mar. 29, 1994, at F11 (asthma drug terbutaline used for preterm labor); Marie McCullough, *Firm Clarifies Its Warning on Drug Also Used to Induce Labor*, PHILA. INQUIRER, Jan. 4, 2001, at A3 (anti-ulcer drug misoprostol used to speed delivery).

47. *See* 21 C.F.R. § 201.6(a) (2008) ("Among representations in the labeling of a drug which render such drug misbranded is a false or misleading representation with respect to another drug . . . ."); *id.* § 201.80(i)(6) ("Unqualified recommendations for which data are lacking with the specific drug or class of drugs, especially treatment using another drug . . . may not be stated unless specific data or scientific rationale exist to support safe and effective use."); *id.* § 201.57(c)(11)(vi) (same for newer drugs); *see also* Melody Petersen, *Label Issues Are Delaying Generic Drugs*, N.Y. TIMES, Jan. 3, 2003, at C1; *cf.* Labeling for Oral Hypoglycemic Drugs of the Sulfonylurea Class, 49 Fed. Reg. 14,303, 14,327 (Apr. 11, 1984) ("The 'Warning' section of oral hypoglycemic drug labeling will retain the statement that the patient should be informed of the potential risks and advantages of these drugs and of alternative modes of therapy.").

48. *See* Noah, *supra* note 41, at 446; *see also* Bernhardt v. Pfizer, Inc., No. 00 Civ. 4042 LMM, 2000 WL 1738645 (S.D.N.Y. Nov. 22, 2000) (refusing to issue an injunction ordering a drug manufacturer to notify physicians and patients about the results of a large study finding that its antihypertensive agent worked less well than diuretics because this presented an issue for the FDA to resolve). The agency does not, however, have any authority to bar third-party initiatives to produce and publicize such information. *See* Barry Meier, *Doctors, Too, Ask: Is This Drug Right?*, N.Y. TIMES, Dec. 30, 2004, at C1 (describing efforts to conduct and disseminate "evidence-based reviews" of drugs); Christopher Rowland, *Consumer Reports Turns Focus to Prescription Drugs*, BOSTON GLOBE, Dec. 10, 2004, at A1.

patients,[49] disclosures of differences of opinion,[50] or even bland statements about best practices.[51]

In *Proctor v. Davis*,[52] an Illinois appellate court upheld a jury verdict for the plaintiff in claims against the manufacturer of the corticosteroid Depo-Medrol® (methyl prednisone acetate) after an ophthalmologist accidentally injected it directly into his eye.[53] Upjohn clearly knew about and arguably encouraged the widespread off-label use of Depo-Medrol

---

49. *See, e.g.*, Henley v. FDA, 77 F.3d 616, 620–21 (2d Cir. 1996) (rejecting challenge to the agency's decision to remove animal carcinogenicity disclosures from the patient labeling for oral contraceptives). For instance, during negotiations over the labeling of transdermal nicotine patches, manufacturers sought to include a stringent pregnancy warning concerning the teratogenicity of nicotine, but the FDA opted for a milder warning evidently because it did not want to discourage women who otherwise would have smoked during their pregnancies from attempting a cessation program using a patch. *See Nicotine Replacement Product Direct-to-Consumer Ads Are "Appropriate Thing to Do"*, F-D-C REP. ("The Pink Sheet"), July 20, 1992, at 8, 9; *see also* Dowhal v. SmithKline Beecham Consumer Healthcare, 88 P.3d 1, 4–5, 15 (Cal. 2004) (holding that, after the FDA switched these patches to nonprescription status, its continuing decision against highlighting this information preempted a contrary warning requirement imposed under state law).

50. *See* 21 C.F.R. § 1.21(c)(1); *see also* Karen Baswell, Note, *Time for a Change: Why the FDA Should Require Greater Disclosure of Differences of Opinion on the Safety and Efficacy of Approved Drugs*, 35 HOFSTRA L. REV. 1799, 1817–27 (2007) (discussing the history behind this rule); *id.* at 1827–32 (proposing revisions that would allow expressions of contrary opinions in an online clearinghouse); *cf.* Anna Wilde Mathews & Thomas M. Burton, *Invasive Procedure: After Medtronic Lobbying Push, the FDA Had a Change of Heart*, WALL ST. J., July 9, 2004, at A1 (describing stent graft manufacturer's success in blocking a paper written by agency scientists that had recommended surgery for most aortic aneurysm patients). Congress recently mandated that the FDA post internal differences of opinion concerning an approval decision on its web site. *See* FDAAA, Pub. L. No. 110-85, § 916, 121 Stat. 823, 959 (2007) (to be codified at 21 U.S.C. § 355(*l*)(2)(C)(iv)).

51. *See* Lars Noah, *Assisted Reproductive Technologies and the Pitfalls of Unregulated Biomedical Innovation*, 55 FLA. L. REV. 603, 653 (2003) ("[T]he agency has tried to avoid the use of product labeling to communicate statements that have more to do with good professional practice than the intrinsic risks of a drug when used as intended."); *see also* Labeling and Prescription Drug Advertising; Content and Format for Labeling for Human Prescription Drugs, 44 Fed. Reg. 37,434, 37,436 (June 26, 1979) ("There are potentially many such statements, which, if all are included in drug labeling, would transform labeling into small textbooks of medicine."). Even if the agency allowed these in professional labeling, it would never allow such statements in patient labeling (because to do so surely would infuriate physicians). *See* William J. Curran, *Package Inserts for Patients: Informed Consent in the 1980s*, 305 NEW ENG. J. MED. 1564, 1565 (1981) ("The protest against this proposal was immediate and strong in the medical profession . . . ."); Gina Kolata, *Controversy over Study of Diabetes Drugs Continues for Nearly a Decade*, 203 SCIENCE 986 (1979).

52. 682 N.E.2d 1203 (Ill. App. Ct. 1997).

53. *See id.* at 1206, 1215. The jury rejected malpractice claims against Dr. Davis, and the appellate court rejected Upjohn's decision-causation argument, agreeing that the trial judge acted properly in excluding evidence that Dr. Davis and the plaintiffs' experts had continued engaging in this off-label use even after the accident. *See id.* at 1212, 1213 n.13; *id.* at 1220–21, 1224 (DiVito, J., dissenting). When the jury credited Dr. Davis's testimony that he would not have used the drug if Upjohn had warned him of the risks associated with periocular use, however, it would seem to undercut injury causation insofar as Depo-Medrol had offered the last best hope of saving Mr. Proctor's deteriorating eye.

by periocular injection, and it had received a few reports of side effects associated with accidental intraocular injections,[54] but, just a couple of months before the plaintiff's injury, the FDA had rejected Upjohn's request to revise the package insert to reflect this information (the trial judge inexplicably excluded this evidence, which at the very least seemed relevant to the punitive damage request).[55] The jury verdict included more than $3 million in compensatory damages for the loss of an eye that, until the physician tried Depo-Medrol, seemed destined for blindness,[56] plus more than $124 million in punitive damages, which the trial judge had reduced to $35 million before the appellate court shaved it to $6 million.[57]

Even though it focused solely on the adequacy of warnings directed to physicians (without suggesting any obligation to communicate directly with patients), the opinion in *Proctor* offers a cautionary tale about the consequences of embracing an expansive duty of product stewardship. In light of the company's alleged efforts to encourage this off-label use, coupled with its failure to investigate the drug's toxicity when accidentally injected directly into the eye, the majority agreed that a jury could have found Upjohn's warnings inadequate (and its conduct outrageous!),[58] in part for failing to disclose that periocular use was not FDA approved (even though that would have been obvious from the silence in the indications statement) and that it was not recommended (even though that would have represented an entirely false statement about the existing standard of care in the ophthalmological community).[59] In contrast, in a case involving a different off-label use of Depo-Medrol, another court properly recognized that the FDA would not have allowed Upjohn to revise its labeling in this fashion.[60]

---

54. *See id.* at 1209 & n.9, 1214 n.14; *see also id.* at 1219–20 (DiVito, J., dissenting) (explaining that ophthalmologists at the time appreciated this risk).

55. *See id.* at 1210; *id.* at 1221–23 (DiVito, J., dissenting).

56. *See id.* at 1210–11.

57. *See id.* at 1216.

58. *See id.* at 1211–15.

59. *See id.* at 1206 n.1, 1210; *id.* at 1221 (DiVito, J., dissenting); *cf.* Denise Gellene, *Avastin Use in Eyes Irks Genentech*, L.A. TIMES, Oct. 17, 2005, at C1 (reporting that ophthalmologists have used a colon cancer drug off-label on more than 1,000 patients with macular degeneration and that the manufacturer "is in discussions with the [FDA] to modify the Avastin label to state that the drug is not for ophthalmic use").

60. *See* Hahn v. Richter, 628 A.2d 860, 863 (Pa. Super. Ct. 1993) (involving a failure to warn of the alleged risk of arachnoiditis associated with intrathecal administration, and crediting testimony from a former FDA Commissioner who had explained that the agency "would not have allowed Upjohn to contact physicians or send a 'Dear Doctor' letter regarding the intrathecal use of Depo-Medrol because it was not an approved use for the drug").

B. *"Informed Choice" Proposals*

Another proposal would recognize a tort duty to disclose uncertain risks, for instance when manufacturers have failed to investigate the teratogenic potential of drugs, coupled with awards of limited damages not dependent on proving that the drug actually caused a particular injury.[61] This idea perplexes me on a number of levels. First, it labors under a misimpression about longstanding FDA labeling requirements. The package inserts for prescription drugs routinely provide just such disclaimers, with subheadings that include, for example, a "pregnancy category" to reflect what little information exists about possible teratogenicity.[62] Although Bendectin may not have carried such disclaimers, having left the market just a few years after the FDA's 1979 labeling format revisions became effective,[63] the informed choice proposal

61. *See* Berger & Twerski, *supra* note 4, at 259, 287–88. Bendectin served as a primary illustration of the need for their proposal. *See id.* at 257–58, 268–69, 288–89; *see also* David E. Bernstein, Correspondence, *Learning the Wrong Lessons from "An American Tragedy": A Critique of the Berger-Twerski Informed Choice Proposal*, 104 MICH. L. REV. 1961, 1963–67, 1981 (2006) (arguing that the history and scientific record of Bendectin highlights the flaws with their proposal). In his response to their more general proposal, Bernstein made a number of other points concerning expert testimony, jury competence, and litigation costs. *See id.* at 1971–78. In their brief rejoinder, Berger and Twerski responded to some of these points, *see* Margaret A. Berger & Aaron D. Twerski, Correspondence, *From the Wrong End of the Telescope: A Response to Professor David Bernstein*, 104 MICH. L. REV. 1983, 1990–91 (2006), emphasized that the scientific record on Bendectin looked far different when many of the plaintiffs' mothers had ingested the drug, *see id.* at 1985–87, 1989, and admonished Bernstein for ignoring their more recent (and less easily critiqued) Parlodel illustration, *see id.* at 1987–88. As I explain below, however, they failed to respond to some of his other objections (which applied equally to Bendectin and Parlodel), and all three of the commentators completely missed a central feature of the current FDA regulations.

62. *See* Felix v. Hoffmann-LaRoche, Inc., 540 So. 2d 102, 104 (Fla. 1989) (Accutane); Nichols v. Cent. Merch., Inc., 817 P.2d 1131, 1133 (Kan. Ct. App. 1991) ("Gantanol was not contraindicated for use during early pregnancy; the package insert merely stated its effect on a fetus had not been determined."); *see also* 21 C.F.R. § 201.80(f)(6)(i) (2008); *id.* § 201.57(c)(9)(i) (same for newer drugs); Labeling and Prescription Drug Advertising; Content and Format for Labeling for Human Prescription Drugs, 44 Fed. Reg. 37,434, 37,450–52 (June 26, 1979) (explaining the rule). Nowadays, the biggest complaint relates to the fact that most drugs carry identical statements of uncertainty. *See* Francesca Lunzer Kritz, *Ending Guesswork on Drugs in Pregnancy*, WASH. POST, Feb. 26, 2002, at F1; *see also* Content and Format of Labeling for Human Prescription Drug and Biological Products; Requirements for Pregnancy and Lactation Labeling, 73 Fed. Reg. 30,831, 30,834, 30,854 (proposed May 29, 2008) (noting that more than sixty percent of drugs fall into category C); *id.* at 30,838–45 (explaining its proposal to revise the format and content of pregnancy risk statements in package inserts); Gideon Koren et al., *Drugs in Pregnancy*, 338 NEW ENG. J. MED. 1128, 1128 (1998). Indeed, regulatory officials all too often use disclamatory "warnings" as a lazy approach to risk management. *See* Lars Noah, *The Imperative to Warn: Disentangling the "Right to Know" from the "Need to Know" About Consumer Product Hazards*, 11 YALE J. ON REG. 293, 391 (1994) ("[I]f public disclosure of inconclusive animal data is the goal, risk labeling is not the appropriate mechanism."); *id.* at 398 & n.520 (noting the strategy of shaming products as a way to prompt additional testing); *cf. id.* at 326–32 (contrasting and applauding the FDA's risk categorization and substantiation requirements for prescription labeling, as illustrated by the pregnancy categories).

63. At least for some products, however, the FDA had required such warnings long before this rule became effective. *See, e.g.*, Brochu v. Ortho Pharm. Corp., 642 F.2d 652, 659

seemingly would have little relevance for prescription drugs sold during the last three decades.[64] Similar subheadings (and disclosures of the limits or complete absence of testing) cover other subjects, including use in special populations,[65] and the potential for carcinogenicity or mutagenicity.[66] The FDA also occasionally demands revisions in the package inserts for particular drugs simply to urge physicians to watch for suspected (but not yet confirmed) side effects.[67]

---

n.14 (1st Cir. 1981) (quoting disclaimers that appeared in the package insert for oral contraceptives sold before 1971); *cf.* 21 C.F.R. § 201.63(a) (2008) (mandating that the labels of all OTC drugs intended for systemic absorption caution pregnant or nursing women to "seek the advice of a health professional before using this product"); David DeTar Newbert, Comment, *Drugs During Pregnancy: Dangerous Business—The Continued Movement to Provide Adequate Warnings for the Consumer*, 62 NEB. L. REV. 526, 571–76 (1983) (discussing this rule). Conversely, even after the rule applicable to prescription drugs took effect, some manufacturers apparently failed to comply with it. *See* David B. Brushwood, *Drug Induced Birth Defects: Difficult Decisions and Shared Responsibilities*, 91 W. VA. L. REV. 51, 67–70 (1988).

64. I trust that, if another manufacturer reintroduced Bendectin, it would not have to provide any such disclosure in light of the now overwhelming evidence that the drug poses no risk of birth defects. *See* Determination That Bendectin Was Not Withdrawn from Sale for Reasons of Safety or Effectiveness, 64 Fed. Reg. 43,190 (Aug. 9, 1999); Michael D. Green, *Safety as an Element of Pharmaceutical Quality: The Respective Roles of Regulation and Tort Law*, 42 ST. LOUIS U. L.J. 163, 165 (1998) ("The scientific evidence, which is quite well-developed today, does not support those claims [linking Bendectin to birth defects]."); Gina Kolata, *Controversial Drug Makes a Comeback*, N.Y. TIMES, Sept. 26, 2000, at F1. In their original article, however, Berger and Twerski suggested that Bendectin would require an informed choice warning even today. *See* Berger & Twerski, *supra* note 4, at 280 ("In the Bendectin cases, for example, it is impossible to rule out that the morning sickness remedy is a mild teratogen that contributed to birth defects in some indeterminate number of cases in which the causal effect was too low to be detected."); *cf.* Berger & Twerski, *supra* note 61, at 1985–87, 1989 (responding to the current evidentiary record by focusing solely on what little was known prior to 1977).

65. *See, e.g.*, 21 C.F.R. § 201.80(f)(9)(vi) ("'Safety and effectiveness in pediatric patients have not been established.'"); *id.* § 201.57(c)(9)(iv)(E) (same for newer drugs); *id.* § 201.80(f)(10) (relating to geriatric use); *id.* § 201.57(c)(9)(v) (same for newer drugs). In recent amendments to this rule, the FDA also required that labeling include "a succinct description of the limitations of the usefulness of the drug and any uncertainty about anticipated clinical benefits." Requirements on Content and Format of Labeling for Human Prescription Drug and Biological Products, 71 Fed. Reg. 3922, 3989 (Jan. 24, 2006) (codified at 21 C.F.R. § 201.57(c)(2)(i)(B)). As with questions about use during pregnancy, most drugs used in pediatric patients traditionally carried disclaimers to indicate the lack of testing in that population. *See* ROBERT LEVINE, ETHICS AND REGULATION OF CLINICAL RESEARCH 239–41 (2d ed. 1986).

66. *See* 21 C.F.R. § 201.80(f)(5); *id.* § 201.57(c)(14)(i) (same for newer drugs); *see also* Labeling and Prescription Drug Advertising, 44 Fed. Reg. at 37,450 ("This information may be of value to physicians in deciding whether to prescribe a particular drug for an indication, when animal data demonstrate a relationship between the use of the drug and carcinogenesis, mutagenesis, or impairment of fertility and no comparable human data exist, and when equally effective alternative drugs that do not present a risk are available."); *id.* at 37,437 ("provid[ing] specific wording for statements in the absence of particular data or information").

67. *See* Thomas M. Burton, *FDA to Require Diabetes Warning on Class of Schizophrenia Drugs*, WALL ST. J., Sept. 18, 2003, at D3; Marc Kaufman, *Impotence Drugs Will Get Blindness Warning*, WASH. POST, July 9, 2005, at A6. Admittedly, such items rarely appear in whatever labeling may reach patients, though Congress recently established a mechanism that might do so. *See* FDAAA, Pub. L. No. 110-85, § 915, 121 Stat. 823, 958 (2007) (to be codi-

Second, assuming for the sake of argument that an FDA-approved drug failed to include such disclaimers, the existing threat of liability for failure to warn of knowable risks should continue to provide sufficient incentives for manufacturers to communicate warnings when preliminary adverse event information comes to light,[68] and it also would reach any questions of limited efficacy.[69] By advocating

---

fied at 21 U.S.C. § 355(r)(2)(D)) (requiring that the agency maintain a web site that would include disclosures of preliminary risk information in advance of potential labeling revisions); David Brown, *FDA to List Drugs Being Investigated: Complaints Will Be Posted Quarterly*, WASH. POST, Sept. 6, 2008, at A2 ("FDA officials said they realize that the new policy . . . may unintentionally alarm some patients.").

68. *See supra* note 8. I agree that admissibility criteria (and thresholds) geared toward establishing cause-in-fact (i.e., demanding epidemiological studies and a greater than 2.0 relative risk) have little application when deciding whether a material risk required a warning. *See* Berger & Twerski, *supra* note 4, at 280, 287. In their rejoinder, however, the commentators argued that juries will never get to hear this testimony about earlier suspicions of an undisclosed risk. *See* Berger & Twerski, *supra* note 61, at 1990 ("Only if each slice of evidence standing alone is sufficient to make out causation under the strictures of *Daubert* will a jury ever see the panoply of sources relevant to the determination of whether a risk is material."). Evidence of knowability and cause-in-fact need not—indeed, should not—be the same (though, if plaintiffs cannot secure clearer evidence of general causation after sale but before trial, then they should lose): the adequacy of the warning will depend on what the defendant should have known at the time of sale, while causation will depend on what evidence has accumulated many years later by the time of trial. If, based on the plaintiff's admissible even though weak (whether epidemiological or not) evidence, a reasonable jury could hold that the manufacturer breached its duty to warn at the time of sale, but the plaintiff lacks admissible causation evidence at the time of trial, then the court should reject the claim because the plaintiff has suffered no harm at the hands of the defendant. When deciding whether to add a warning based on emerging data, however, manufacturers will have no confidence that these early suspicions later will prove to be unfounded, so, if one accepts the deterrent assumptions that Berger and Twerski make, manufacturers will have an incentive to warn. *See* Michael Imbroscio & Gabriel Bell, *Adequate Drug Warnings in the Face of Uncertain Causality: The Learned Intermediary Doctrine and the Need for Clarity*, 107 W. VA. L. REV. 847, 858–61, 864–65 (2005). To the extent that they want simple disclaimers of general uncertainty even before the point of knowability with regard to particular risks, however, why would such a duty to disclose (to physicians) not fail on grounds of obviousness?

69. *See, e.g.*, Tobin v. Astra Pharm. Prods., Inc., 993 F.2d 528, 537–40 (6th Cir. 1993). Thus, I disagree with one commentator's recent claim that judges resolving drug products liability cases focus unduly on questions of safety and "do not consider effectiveness." Anita Bernstein, *Enhancing Drug Effectiveness and Efficacy Through Personal Injury Litigation*, 15 J.L. & POL'Y 1051, 1072 (2007); *see also id.* at 1058 (calling effectiveness "the neglected and undertheorized younger sibling of prescription drug safety"); *id.* at 1060 (pointing out that "the danger of harmful effects can be named in a warning much more easily than the danger of futility"); *id.* at 1061 ("explor[ing] the contrary thesis that effectiveness is, and ought to be, central to personal injury litigation related to prescription drugs"); *id.* at 1100. Elsewhere, however, she correctly recognized that effectiveness inevitably gets taken into account when judging prescription drug defectiveness. *See id.* at 1084. In contrast, Bernstein's repeated assertion that the federal regulatory "effectiveness" standard means nothing other than truth-in-labeling, *see id.* at 1066–68, 1082, 1098, and her passing suggestion that the FDA does not mandate labeling about comparative effectiveness, *see id.* at 1084–85, have no foundation, *see infra* notes 83 & 87. If a therapeutic failure occurs because of subpotency in a particular dose, an injured patient clearly could allege a manufacturing defect, and, if it occurs because a properly manufactured product does not work at all, then the patient could allege a design defect (but, if the drug only happens to fail in a particular patient, then, at most, the patient might have an informational defect claim in the event that the manufacturer exaggerated effectiveness or failed to specify known limitations on use in certain patient subgroups). The tricky

disclaimers of entirely speculative risks,[70] however, the proponents of the informed choice proposal completely ignore the hazards associated with overwarning,[71] and they disregard FDA restrictions applicable to such labeling.[72]

Moreover, if the media has generated ultimately unfounded hysteria by propagating misinformation about risks (as happened, for example, with respect to Bendectin and birth defects, silicone-gel breast implants

---

issues in therapeutic failure (as opposed to adverse side effect) cases relate to causation and damages, but, apart from a brief discussion of emotional distress, *see* Bernstein, *supra*, at 1080–82, she never mentions (much less grapples with) these complexities, *see, e.g.*, Willis v. Wu, 607 S.E.2d 63, 66 (S.C. 2004) ("A 'wrongful pregnancy' or 'wrongful contraception' action is brought by the parent of a healthy but unplanned child, seeking damages from [inter alia] a . . . pharmaceutical manufacturer who allegedly was negligent in . . . manufacturing a contraceptive prescription or device."); Lars Noah, *An Inventory of Mathematical Blunders in Applying the Loss-of-a-Chance Doctrine*, 24 REV. LITIG. 369, 377–78 & n.32 (2005) (explaining that only in medical malpractice cases do courts recognize claims for the loss of a less-than-even chance for a better outcome); *see also* Rivera v. Wyeth-Ayerst Lab., 283 F.3d 315, 319–21 (5th Cir. 2002) (dismissing, for lack of standing, a nationwide class action lawsuit brought on behalf of healthy users and insurers seeking to recover only their economic losses after the withdrawal of Duract® prompted by safety concerns); New Jersey Citizen Action v. Schering-Plough Corp., 842 A.2d 174, 177–78 (N.J. App. Div. 2003) (similar conclusion on claims based on direct-to-consumer advertising for Claritin®). *See generally* Moin A. Yahya, *Can I Sue Without Being Injured?: Why the Benefit of the Bargain Theory for Product Liability Is Bad Law and Bad Economics*, 3 GEO. J.L. & PUB. POL'Y 83 (2005).

70. I would have found their proposal far more compelling if they had limited themselves to the following type of situation: clinical trials or epidemiological studies reveal a statistically significant increased relative risk that did not exceed 2.0 and a manufacturer, confident that no amount of stratification, reliance on differential diagnosis, or future research could establish specific causation, decided to breach its duty to warn (and flagrantly ignore FDA requirements) by declining to mention this risk. Their discussion of material risks, however, instead imagined a duty to communicate even the most speculative information.

71. *See* Thomas v. Hoffman-LaRoche, Inc., 949 F.2d 806, 816 n.40 (5th Cir. 1992) (noting that the imposition of liability for a failure to warn about reported but unconfirmed adverse experiences with prescription medications could "force drug manufacturers to list, and perhaps contraindicate, every possible risk in order to avoid the possibility of liability"); Doe v. Miles Lab., Inc., 927 F.2d 187, 194 (4th Cir. 1991) ("If pharmaceutical companies were required to warn of every suspected risk that could *possibly* attend the use of a drug, the consuming public would be so barraged with warnings that it would undermine the effectiveness of these warnings . . . ."); Bernstein, *supra* note 61, at 1978–79 & n.108; Noah, *supra* note 62, at 381–91; *see also id.* at 379–80 ("It seems to be only a matter of time before a plaintiff succeeds in bringing an inadequate warning claim premised on the argument that, although a completely accurate statement of the risk had been provided, the pertinent warning lacked sufficient prominence because it was lost among the clutter of too many other cautionary statements on the label."); Noah, *supra* note 41, at 404–06, 455–56 (explaining that physicians are not immune to problems of information overload); Scott Hensley, *Liability Worries Cloud Drug Labels*, WALL ST. J., July 5, 2005, at D3; *cf.* Janssen Pharm., Inc. v. Bailey, 878 So. 2d 31, 55–59 (Miss. 2004) (noting that plaintiffs had argued "that Propulsid became a victim of label fatigue" by virtue of the five revisions to the package insert (sometimes accompanied by "Dear Doctor" letters) issued over the course of five years to convey increasingly alarming risk information, and concluding that this presented a question for the fact-finder); Richard A. Epstein, *Legal Liability for Medical Innovation*, 81 CARDOZO L. REV. 1139, 1150 (1987) ("The full costs of overwarning would only be known if legal actions were available to people deterred from taking needed therapy by excessive warnings.").

72. *See supra* notes 43–45 and accompanying text.

and autoimmune disease, and childhood vaccines and autism),[73] then perhaps such fear-mongering should qualify as a superseding cause even though entirely foreseeable. Although many commentators have criticized direct-to-consumer advertising of prescription drugs,[74] plaintiffs' lawyers do their share of tacky (and potentially hazardous) direct advertising to users of such products,[75] though they would not have to fear tort claims brought by patients who discontinued a prescribed (and still net beneficial) course of treatment—or simply became anxious—in response to exaggerated risk information appearing in ads trolling for clients.[76]

---

73. *See* Bernstein, *supra* note 61, at 1965, 1973, 1976–77, 1980 n.116, 1981; David Brown, *Scientist's Two Roles in Study May Conflict; Data Culled for Lawyer in Autism Case*, WASH. POST, Feb. 21, 2004, at A10 (reporting that the author of a controversial study linking autism to a type of vaccine had failed to disclose his closely related work for a plaintiff's lawyer done under a grant of nearly $90,000 from a legal aid society); Gardiner Harris, *Measles Cases Grow in Number, and Officials Blame Parents' Fear of Autism*, N.Y. TIMES, Aug. 22, 2008, at A16; Shankar Vedantam, *Study Finds No Autism Link in Vaccine; Digestive Problems, MMR Scrutinized*, WASH. POST, Sept. 4, 2008, at A2; *cf.* Wendy Wagner, *When All Else Fails: Regulating Risky Products Through Tort Litigation*, 95 GEO. L.J. 693, 714–20 (2007) (defending the breast implant litigation for promoting tardy safety research).

74. *See* Julie M. Donohue et al., *A Decade of Direct-to-Consumer Advertising of Prescription Drugs*, 357 NEW ENG. J. MED. 673, 674 (2007); Matthew F. Hollon, Editorial, *Direct-to-Consumer Advertising: A Haphazard Approach to Health Promotion*, 293 JAMA 2030 (2005); Richard L. Kravitz, *Direct-to-Consumer Advertising of Prescription Drugs: Implications for the Patient-Physician Relationship*, 284 JAMA 2244 (2000); Nat Ives, *FDA Ponders Pros and Cons of the Ways Prescription Drugs Are Promoted to Consumers*, N.Y. TIMES, Sept. 29, 2003, at C11; Bruce Japsen, *AMA Urges a No-Ad Period for New Drugs*, CHI. TRIB., June 15, 2006, at 1; *see also* Lars Noah, *Advertising Prescription Drugs to Consumers: Assessing the Regulatory and Liability Issues*, 32 GA. L. REV. 141, 169–79 (1997) (summarizing and responding to some of the earlier critiques).

75. *See* Victor E. Schwartz & Phil Goldberg, *A Prescription for Drug Liability and Regulation*, 58 OKLA. L. REV. 135, 166 & n.204 (2005); Chen-Sen Wu, *Distributive Justice in Pharmaceutical Torts: Justice Where Justice Is Due?*, LAW & CONTEMP. PROBS., Fall 2006, at 207, 223–24; Mary Flood, *Drug Doubts Put Lawyers in Motion*, HOUS. CHRON., June 10, 2007, at Bus. 1 (reporting that plaintiffs' attorneys use newspaper and television ads and "case-soliciting Web sites that already look like a pharmacy's inventory, except that the drugs listed are alleged to cause harm," and adding that the manufacturer of the latest target (the diabetes drug Avandia®) expressed concern that "lawyer ads could frighten patients into discontinuing their medicine, which could endanger their health"); *id.* (noting that one Houston firm's phone number is "1-800-BAD-DRUG"); Joseph P. Fried, *Specialty Lawyers Gear up for Suits over Two Medications*, N.Y. TIMES, July 30, 2000, § 1, at 28; *cf.* Berger & Twerski, *supra* note 61, at 1984 ("Bernstein bemoans the withdrawal of this useful drug from the market because of a bogus scare created by avaricious plaintiff's lawyers."). One of my favorites aired during the summer of 2008, from a series of ads run by the firm Ferrer Poirot & Wansbrough on various cable channels, was styled as a "Medical Alert!" and did not focus on any particular drug but instead a class of serious side effects (Stevens Johnson syndrome and toxic epidermal necrolysis) allegedly associated with two dozen—mostly still marketed, and many OTC—pharmaceutical products. One of the firm's latest TV spots (focusing on the risk of diabetes associated with the atypical antipsychotic drug Seroquel®) helpfully tells prospective clients not to discontinue treatment without first checking with their doctors.

76. *Cf.* Bailey v. Huggins Diagnostic & Rehab. Ctr., Inc., 952 P.2d 768, 770–73 (Colo. Ct. App. 1997) (rejecting tort claims against the author of a book that had exaggerated the risks associated with mercury in dental amalgam).

Third, the proponents of this idea cabin their duty of informed choice in ways that make little sense given their underlying arguments. They would allow some unspecified measure of damages for dignitary harm as well as for emotional distress,[77] but they fail to offer a persuasive explanation for limiting such awards to plaintiffs who develop an injury with a suspected but unproven link to the drug.[78] In addition, they limit their proposal to an indeterminate category of "lifestyle" drugs.[79] Finally,

---

77. *See* Berger & Twerski, *supra* note 4, at 280–86 (conceding that little case law supports their approach). Apart from a passing reference, *see id.* at 286 & n.142, the authors entirely failed to discuss the most directly applicable (and largely adverse) decisional law. First, many courts have rejected "medical monitoring" claims, which represent attempts to circumvent causation and injury requirements (in effect, ordering drug manufacturers and other defendants in toxic tort litigation to assist in the production of evidence that might later help to establish causation). *See supra* note 28. Second, courts generally have rejected fear of malfunction claims (typically in medical device cases). *See* Angus v. Shiley Inc., 989 F.2d 142, 147–48 (3d Cir. 1993); Walus v. Pfizer, Inc., 812 F. Supp. 41, 44–45 (D.N.J. 1993); Pfizer, Inc. v. Farsian, 682 So. 2d 405, 407–08 (Ala. 1996), *conformed to certified question*, 97 F.3d 508 (11th Cir. 1996). If a medical device manufacturer recalls an implant, courts have allowed recipients to recover the costs associated explant surgery and accompanying emotional distress. *See, e.g.*, Larsen v. Pacesetter Sys., Inc., 837 P.2d 1273, 1286–87 (Haw. 1992). If, however, explant surgery is not medically-indicated but undertaken at the patient's insistence, courts have rejected such claims. *See, e.g.*, O'Brien v. Medtronic, Inc., 439 N.W.2d 151 (Wis. Ct. App. 1989).

78. *See* Berger & Twerski, *supra* note 4, at 275 ("In a causation-free informed choice cause of action, a prima facie case for liability is established when a drug manufacturer fails to warn about a material risk and plaintiff subsequently suffers from that undisclosed risk."); *id.* at 283–86 & n.137. Once they unlink the requirement to establish injury causation, the denial of a right to make a fully informed choice seems no different even if the plaintiff fails to develop the feared injury. *See* Bernstein, *supra* note 61, at 1980 n.113. After all, if I understand their proposal correctly, plaintiffs would recover even if defendants could prove that something other than their product caused the feared injury. In one peculiar case, a court held that a warning might be inadequate even if the risk of the very injury suffered by the plaintiff was clearly disclosed, on the grounds that the plaintiff might have been deterred from taking the drug had the risk of some other more serious injury been fully disclosed. *See* Sanderson v. Upjohn Co., 578 F. Supp. 338, 339–40 (D. Mass. 1984); *see also* McMahon v. Eli Lilly & Co., 774 F.2d 830, 834–35 (7th Cir. 1985). *But cf.* Canesi v. Wilson, 685 A.2d 49, 54 (N.J. Super. Ct. App. Div. 1996), *aff'd in part*, 730 A.2d 805 (N.J. 1999).

79. *See* Berger & Twerski, *supra* note 4, at 259, 272, 288 & n.148; *id.* at 279 (imagining a drug that "has little therapeutic value and provides only aesthetic or palliative relief"); *see also id.* at 269–70 (using Parlodel, which allegedly "created gratuitous risk with very little benefit" in lactation suppression, especially compared to the use of OTC analgesics for this same purpose, to justify the recognition of a new type of failure-to-warn claim that would not require proof of causation); *cf.* Bernstein, *supra* note 61, at 1967–68 (disputing their suggestion that the morning sickness remedy Bendectin qualified as a lifestyle drug, explaining that, in severe cases, it could reduce dehydration and the accompanying need for hospitalization and risks of fetal harm). In their rejoinder, they never responded to Bernstein's argument that Bendectin served genuine therapeutic purposes; instead, Berger and Twerski adopted even more extreme rhetoric to make their semantic point. *See* Berger & Twerski, *supra* note 61, at 1989 ("When one seeks to huckster drugs as if they were M&M's, brutal honesty is called for."); *id.* at 1992 (referring to decisions "to imbibe non-therapeutic drugs," as if these amounted to alcoholic beverages). For a criticism of this purported distinction, see *infra* Part III.C. Also, why stop at (lifestyle) drugs? *See, e.g.*, Tara Parker-Pope, *Experts Revive Debate*

the informed choice proposal would obligate manufacturers to communicate only with physicians,[80] which would accomplish nothing unless physicians passed along the disclaimers.

Taking a page from the informed choice proposal, one commentator advocated expanding tort duties in order to respond to the inadequate testing of prescription drugs in children.[81] Pediatric research poses all sorts of tricky bioethical questions,[82] however, and drug manufacturers may avoid enrolling children (or pregnant women or the elderly) for entirely defensible reasons when developing investigational products not intended for use in such subpopulations. Assuming that labeling accurately communicates what the seller knows about the safety and efficacy of the prescription product in different user populations,[83] why impose

---

over Cellphones and Cancer, N.Y. TIMES, June 3, 2008, at F5; *see also* Lars Noah, *Managing Biotechnology's [R]evolution: Has Guarded Enthusiasm Become Benign Neglect?*, 11 VA. J.L. & TECH. 4, 54–59 (2006) (ridiculing a proposed new tort duty to disclose through labeling the use of genetically modified organisms in the production of food products).

80. *Compare* Berger & Twerski, *supra* note 61, at 1990–91; *id.* at 1991–92 ("The Vioxx episode demonstrates—as did Bendectin and Parlodel—that current tort law does not provide adequate incentives for pharmaceutical companies to supply physicians with enough information so that they can notify their patients of the risks they run when taking a drug that offers little or no therapeutic benefits . . . ."); Berger & Twerski, *supra* note 4, at 278 ("All a court need decide is whether the signs of risk and their potential gravity were sufficiently strong to require a drug manufacturer to alert physicians so they in turn can provide information to patients that will enable them to make a meaningful choice."), *with id.* at 279–80 ("[B]eing professionally trained to assess risk, [physicians] will not be prone to deem highly speculative risk as worthy of disclosure."); *id.* at 279 ("Admittedly, there is little social utility in providing information that is so tentative and unreliable that it will serve no purpose other than to frighten patients who need the drug away from its use."); *see also* Bernstein, *supra* note 61, at 1969 n.54 (pointing to the incongruity of their reliance on a pair of polio vaccine cases where the manufacturers had warned health care professionals but not patients of a remote risk).

81. *See* Susanne L. Flanders, Note, *A Tough Pill to Swallow: The Insurmountable Burden in Toxic Tort Claims Against Manufacturers of Children's Medications*, 16 J.L. & POL'Y 305, 308, 315–18, 338–41, 348–55 (2007) (focusing on (primarily OTC) drugs marketed for use in children, but making broader claims that would include a duty to engage in pediatric testing of prescription drugs marketed solely for use by adults). The same sorts of arguments might extend to other groups traditionally excluded from clinical trials (e.g., pregnant women, the elderly, and minorities).

82. *See* Doriane Lambelet Coleman, *The Legal Ethics of Pediatric Research*, 57 DUKE L.J. 517 (2007); Paul Litton, *Non-Beneficial Pediatric Research and the Best Interests Standard: A Legal and Ethical Reconciliation*, 8 YALE J. HEALTH POL'Y L. & ETHICS 359 (2008); John Solomon, *Drug Testing on Foster Children: A Federal Probe Found AIDS Researchers Violated Rules*, PHILA. INQUIRER, June 17, 2005, at A2; Sheryl Gay Stolberg, *Proposal to Test Smallpox Vaccine in Young Children Sets off Ethics Debate*, N.Y. TIMES, Nov. 5, 2002, at A14; *U.S. Health Agency Stops Autism Study*, NEWSDAY, Sept. 18, 2008, at A33 (reporting that a planned clinical trial of chelation therapy for autism, "called an unethical experiment on children," had been cancelled); *see also* Grimes v. Kennedy Krieger Inst., 782 A.2d 807 (Md. 2001) (lambasting negligent oversight of a study to compare different methods of lead paint abatement in housing).

83. *See* Robert Temple, *Commentary on "The Architecture of Government Regulation of Medical Products"*, 82 VA. L. REV. 1877, 1888 (1996) ("In some cases, a relatively toxic drug will be identified as a 'second-line,' a drug to be used only in people who cannot tolerate,

liability when an unexpected injury occurs in a subpopulation not studied (and, therefore, not an indicated use)?[84] Package inserts serve, first and foremost, to define for health care professionals the range of uses and users that have undergone rigorous study and FDA review.[85] A duty to investigate all foreseeable uses to which health care professionals might put an approved drug would be entirely unmanageable, and it

---

or do not respond to, safer agents."); Chris Adams, *Trial Judge: At FDA, Approving Cancer Treatments Can Be an Ordeal—Besieged by Desperate Families, Dr. Wirschfeld Weighs Tiny Advances in Drugs—No Such Thing as a Home Run*, WALL ST. J., Dec. 11, 2002, at A1 (reporting that, after initially rejecting Eloxatin® as a "first line" therapy for colorectal cancer patients because the manufacturer had not shown extended survival, the FDA approved the drug as a "second line" treatment based on a trial demonstrating tumor shrinkage in nine percent of patients who had not responded to chemotherapy); Andrew Pollack, *After a Long Struggle, Cancer Drug Wins Approval*, N.Y. TIMES, May 14, 2003, at C1 (reporting that the FDA approved Velcade® for multiple myeloma patients who have relapsed after trying at least two other treatments).

84. *See* Robak v. Abbott Labs., 797 F. Supp. 475, 476 (D. Md. 1992) ("Certainly, no manufacturer need explicitly spell out all of the conditions for which a drug is *not* indicated."). Obviously, if a seller knows of widespread off-label pediatric use, it cannot fail to disclose known risks in that foreseeable—though unintended—user population; similarly, if a seller knows of widespread off-label use for a different condition (or through a different method of administration), then it may have to disclose known risks. *See* Noah, *supra* note 46, at 159–62; Kaspar J. Stoffelmayr, Comment, *Products Liability and "Off-Label" Uses of Prescription Drugs*, 63 U. CHI. L. REV. 275, 299–305 (1996). Why, however, suggest that the seller must comprehensively study safety and efficacy in every conceivable but unintended use or user? *Cf.* Medics Pharm. Corp. v. Newman, 378 S.E.2d 487, 488–89 (Ga. Ct. App. 1989) (recognizing a duty to test the safety of off-label uses); Mitchell Oates, Note, *Facilitating Informed Medical Treatment Through Production and Disclosure of Research into Off-Label Uses of Pharmaceuticals*, 80 N.Y.U. L. REV. 1272, 1280–86, 1307–08 (2005) (explaining that manufacturers have only limited incentives to produce information about the efficacy of off-label uses). *See generally* David C. Radley et al., *Off-Label Prescribing Among Office-Based Physicians*, 166 ARCHIVES INTERNAL MED. 1021 (2006); Rita Rubin, *More Studies Urged for Off-Label Drugs*, USA TODAY, Nov. 25, 2008, at 7D; Bernadette Tansey, *Why Doctors Prescribe Off Label*, S.F. CHRON., May 1, 2005, at A12.

85. *See* Joe Collier & Ike Iheanacho, *The Pharmaceutical Industry as an Informant*, 360 LANCET 1405, 1405 (2002) ("Although the primary function of drug companies is to develop and market drugs, these companies spend more time and resources generating, gathering, and disseminating information."); Rebecca S. Eisenberg, *The Problem of New Uses*, 5 YALE J. HEALTH POL'Y L. & ETHICS 717, 717–18 (2005) ("Drugs are information-rich chemicals that in many respects are more akin to other information products . . . than they are to other chemicals . . . . Creating new molecules has become relatively cheap, but determining which molecules are safe and effective for which therapeutic purposes has remained stubbornly expensive . . . ."); Lars Noah, *Authors, Publishers, and Products Liability: Remedies for Defective Information in Books*, 77 OR. L. REV. 1195, 1212 (1998) ("[D]rug companies are actually engaged in the business of producing and selling information for use by patients and their physicians . . . . [T]he product defectiveness inquiry depends entirely on the information accompanying the product, such as the indications and contraindications for use."); *see also* Zuchowicz v. United States, 140 F.3d 381, 391 (1998) ("At greater than approved dosages, not only do the risks of tragic side effects (known and unknown) increase, but there is no basis on the testing that has been performed for supposing that the drug's benefits outweigh these increased risks.").

would threaten to deprive intended users of—or at least delay their access to—a valuable product.

C. *Are "Lifestyle" Drugs Different?*

When they allow design defect claims to proceed, some courts have emphasized that not all prescription drugs offer equally high utility.[86] In making product approval decisions, which require proof of both safety and effectiveness, the FDA routinely struggles with such questions.[87] Obviously, the agency will tolerate substantial risks for drugs that may save lives,[88] while products that treat simple conditions or offer only symptomatic relief will not get approved unless fairly benign.[89] Between

---

86. *See, e.g.*, Shanks v. Upjohn Co., 835 P.2d 1189, 1195, 1197–98 (Alaska 1992); Bryant v. Hoffman-La Roche, Inc., 585 S.E.2d 723, 727 (Ga. Ct. App. 2003); Freeman v. Hoffman-La Roche, Inc., 618 N.W.2d 827, 839–40 (Neb. 2000); Castrignano v. E.R. Squibb & Sons, Inc., 546 A.2d 775, 780–82 (R.I. 1988).

87. *See, e.g.*, E.R. Squibb & Sons, Inc. v. Bowen, 870 F.2d 678, 681–86 (D.C. Cir. 1989) (upholding the FDA's decision to withdraw approval of drugs where the agency found no "medical significance" to the use of antifungal ingredients intended to reduce candidal overgrowth after a course of antibiotics); Warner-Lambert Co. v. Heckler, 787 F.2d 147, 154–56 (3d Cir. 1986) (rejecting the plaintiff's claim that "'effectiveness' as used in the Act means only that the drug will have the effect the manufacturer claims for it," and concluding that the demonstration of effectiveness must include evidence of a therapeutic level of action compared with placebo); *see also* Rob Stein, *Medication Under a Microscope: Studies Raise Questions About Drugs' Efficacy Against Disease*, WASH. POST, Feb. 19, 2008, at A2. FDA regulations define "effectiveness" in terms of "clinically significant" outcomes. *See* 21 C.F.R. § 330.10(a)(4)(ii) (2008) (nonprescription drugs); *id.* § 601.25(d)(2) (biologics).

88. *See* Temple, *supra* note 83, at 1888 ("For serious diseases, especially those poorly treated by available therapy, considerable toxicity is acceptable, and labeling is used to attempt to guide physicians in detecting and mitigating harm."); Ron Winslow, *What Makes a Drug Too Risky? There's No Easy Answer*, WALL ST. J., Feb. 16, 2005, at B1. In reviewing high priority (potentially lifesaving) drugs, the agency has become more willing to accept "surrogate markers" for clinical endpoints. *See* 21 C.F.R. §§ 314.510, 601.41. For example, in the case of new cancer treatments, tumor shrinkage might substitute for evidence of extended survival times. *See* Anna Wilde Mathews, *Are Long Trials Always Needed for New Drugs?*, WALL ST. J., Apr. 26, 2004, at B1; *cf.* Andrew Pollack, *F.D.A. Restricts Access to Cancer Drug, Citing Ineffectiveness*, N.Y. TIMES, June 18, 2005, at C2 (reporting that the FDA approved Iressa® for lung cancer based on a fairly small clinical trial that showed tumor shrinkage in ten percent of patients who had not responded to chemotherapy but rescinded its approval two years later after the sponsor submitted postapproval clinical trials that showed no improvement in survival).

89. *See* Scott Allen, *In Fat War, Doctors Have Few Options*, BOSTON GLOBE, Apr. 1, 2004, at A1 (reporting that, according to some critics, FDA reviewers "subject weight-loss drugs to tougher safety standards than other drugs because they do not regard obesity as a true disease"); Laura Johannes & Steve Stecklow, *Dire Warnings About Obesity Rely on Slippery Statistic*, WALL ST. J., Feb. 9, 1998, at B1 ("[T]he FDA's bar for approving new drugs is lower for disease treatments than for other problems, such as baldness or skin wrinkles. The agency is less likely to approve a drug for a nondisease condition when it is shown to have serious side effects—such as those that diet drugs produce."); *see also* Christopher Rowland, *FDA Chief Looks to Speed Diabetes, Obesity Drugs*, BOSTON GLOBE, June 4, 2003, at A1; Rob

these two extremes lie difficult and increasingly contested judgments about the nature of the condition intended for treatment,[90] as illustrated by recent debates over the use of psychotropic drugs,[91] stimulants in children with behavioral disorders,[92] the abortifacient drug Mifeprex® (mifepristone),[93] and the vaccine Gardasil® (designed to prevent a sexu-

---

Stein, *Is Obesity a Disease?; Insurance, Drug Access May Hinge on Answer*, WASH. POST, Nov. 10, 2003, at A1.

90. *See* Lars Noah, *Pigeonholing Illness: Medical Diagnosis as a Legal Construct*, 50 HASTINGS L.J. 241, 259–63, 290–92 (1999). Commentators have criticized the drug industry for encouraging the medicalization of normal or relatively minor conditions. *See* Ray Moynihan et al., *Selling Sickness: The Pharmaceutical Industry and Disease Mongering*, 324 BRIT. MED. J. 886 (2002); Rob Stein, *Marketing the Illness and the Cure? Drug Ads May Sell People on the Idea That They Are Sick*, WASH. POST, May 30, 2006, at A3; Fiona Walsh, *Glaxo Denies Pushing "Lifestyle" Treatments: "Restless Leg Syndrome Can Ruin People's Lives": British Drug Firms' Figures Outstrip Expectations*, GUARDIAN (LONDON), Apr. 28, 2006, at 28 (GSK "defended itself against accusations that it is turning healthy people into patients by 'disease mongering' and pushing 'lifestyle' treatments for little-known ailments [e.g., restless leg syndrome]. Studies published in a respected medical journal . . . accused the big pharmaceutical companies of 'medicalising' problems such as high cholesterol and sexual dysfunction."); *see also* Marc Kaufman, *Hormone Replacement Gets New Scrutiny; Finding of Increased Risks Prompts Federal Effort*, WASH. POST, Aug. 14, 2002, at A1 (reporting that "federal officials want to explore whether hormone therapies and their producers have encouraged women to believe menopause is a condition to be treated, rather than an inevitable and natural set of changes to be managed," noting "the FDA's discomfort with the way that hormone treatments have been widely presented as an antidote to menopause").

91. *See* Colleen Cebuliak, *Life as a Blonde: The Use of Prozac in the '90s*, 33 ALTA. L. REV. 611 (1995) (discussing emotional enhancement and cosmetic pharmacology); Jeff Donn, *Are We Taking Too Many Drugs?*, NEWSDAY, Apr. 19, 2005, at B13 ("[T]he Centers for Disease Control voiced concern about huge off-label growth of antidepressants to treat such loosely defined syndromes as compulsion, panic or anxiety and PMS. Drug makers, doctors and patients have all been quick to medicate some conditions once accepted simply as part of the human condition."); Shankar Vedantam, *Drug Ads Hyping Anxiety Make Some Uneasy*, WASH. POST, July 16, 2001, at A1 (describing the successful marketing of Paxil® (paroxetine), and noting that "pharmaceutical companies, traditionally in the business of finding new drugs for existing disorders, are increasingly in the business of seeking new disorders for existing drugs"); *see also* Lars Noah, *Comfortably Numb: Medicalizing (and Mitigating) Pain-and-Suffering Damages*, 42 U. MICH. J.L. REFORM 431 (2009).

92. *See* Gardiner Harris, *F.D.A. Strengthens Warnings on Stimulants' Risks*, N.Y. TIMES, Aug. 22, 2006, at A14; Shankar Vedantam, *Debate over Drugs for ADHD Reignites: Long-Term Benefit for Children at Issue*, WASH. POST, Mar. 27, 2009, at A1 (reporting that prescriptions have reached almost 40 million annually); *see also* Gardiner Harris, *Use of Antipsychotics in Children Is Criticized*, N.Y. TIMES, Nov. 19, 2008, at A20.

93. *See* Lars Noah, *A Miscarriage in the Drug Approval Process?: Mifepristone Embroils the FDA in Abortion Politics*, 36 WAKE FOREST L. REV. 571, 593 (2001) ("Some opponents have suggested that the agency might . . . recast mifepristone's intended use in terminating pregnancy as a risk to the fetus rather than (or perhaps in addition to) a benefit to the mother, which might then justify summary withdrawal of the drug as an imminent hazard to public health."); *see also id.* at 580 ("[T]he clinical utility of a drug that can terminate pregnancy must lie in the fact that it provides a safer (or more convenient) alternative to a surgical abortion."); *id.* at 581–82 (questioning the product's eligibility for accelerated approval as a treatment for "serious illness").

ally transmitted disease, human papillomavirus (HPV), linked to cervical cancer).[94]

Some commentators would hold manufacturers of "lifestyle" drugs to a higher standard. One laundry list of such products included treatments for erectile dysfunction (ED), arthritis, obesity, and urinary incontinence,[95] but it failed to explain the reasons for lumping these disparate drugs together: was it that they offered primarily symptomatic relief (or targeted a mere risk factor[96]) and required chronic use? Aside from problems of recreational abuse, are powerful analgesics "lifestyle" drugs? Contraceptive products sometimes get trivialized in precisely this fashion.[97]

Even if not elevated to the vaunted status of a genuine "disease," bothersome conditions (e.g., irritable bowel syndrome) and disfiguring ailments (e.g., cystic acne) undoubtedly have adverse effects on the sufferers' quality of life, which can take an emotional and financial toll on

---

94. *See* Charlotte J. Haug, Editorial, *Human Papillomavirus Vaccination: Reasons for Caution*, 359 NEW ENG. J. MED. 861 (2008); Sylvia Law, *Human Papillomavirus Vaccination, Private Choice, and Public Health*, 41 UC DAVIS L. REV. 1731, 1733–42, 1755–64 (2008); *see also* Note, *Toward a Twenty-First Century* Jacobson v. Massachusetts, 121 HARV. L. REV. 1820, 1838–41 (2008) (suggesting, for purposes of evaluating the constitutionality of compulsory immunization programs, a distinction between "medically necessary" vaccines, which offer the only real means of protection against infectious diseases, and "practically necessary" vaccines that protect, for instance, against STDs (e.g., HPV and hepatitis B), which could be avoided through other means).

95. *See* Joseph Weber & Amy Barrett, *The New Era of Lifestyle Drugs*, BUS. WK., May 11, 1998, at 92; *see also* David Gilbert et al., *Lifestyle Medicines*, 321 BRIT. MED. J. 1341, 1342 (2000) (offering a similar list, and focusing on payment issues); Cindy P. Thomas, *Incentive-Based Formularies*, 349 NEW ENG. J. MED. 2186, 2188 (2003) ("Some insurers have created a fourth, 'lifestyle,' tier for more discretionary or 'cosmetic' drugs . . . .").

96. What once qualified as a mere risk factor may, over time, get recharacterized as a disease in its own right, as in the case of hypertension. *See, e.g.*, Denise Grady, *As Silent Killer Returns, Doctors Rethink Tactics to Lower Blood Pressure*, N.Y. TIMES, July 14, 1998, at F1 (reporting that "it is not known whether all drugs that lower blood pressure also protect against heart attack and stroke"). Thereupon, physicians began diagnosing patients with prehypertension. *See* Elizabeth Agnvall, *Making Us (Nearly) Sick: A Majority of Americans Are Now Considered to Have at Least One "Pre-Disease" or "Borderline" Condition. Is This Any Way to Treat Us?*, WASH. POST, Feb. 10, 2004, at F1; *see also* January W. Payne, *Forever Pregnant; Guidelines: Treat Nearly All Women as Pre-Pregnant*, WASH. POST, May 16, 2006, at F1.

97. *See, e.g.*, Hill v. Searle Lab., 884 F.2d 1064, 1069–70 & n.9 (8th Cir. 1989) (finding that IUDs do not serve an "exceptional social need" in part because many alternative forms of contraception exist, including abstention); *see also* MacDonald v. Ortho Pharm. Corp., 475 N.E.2d 65, 69–70 (Mass. 1985) (emphasizing the elective nature of contraceptives). *But see* Kociemba v. G.D. Searle & Co., 680 F. Supp. 1293, 1305–06 (D. Minn. 1988) (disagreeing). Contraceptives may, however, have unmistakable medical justifications, *see* Steven R. Bayer & Alan H. DeCherney, *Clinical Manifestations and Treatment of Dysfunctional Uterine Bleeding*, 269 JAMA 1823, 1826–28 (1993), including for women in whom pregnancy would present dangers to themselves or their children (indeed, the labeling for prescription drugs that treat other conditions may insist that patients use contraceptives in order to guard against the risk of birth defects).

them.[98] If not unduly dangerous, the FDA does permit marketing of prescription products that presumably everyone would label as "lifestyle" drugs (e.g., wrinkle reducers),[99] though even unmistakably cosmetic products such as Botox® may have secondary therapeutic uses.[100] In the final analysis, all drugs are, to one degree or another, lifestyle drugs.[101]

IV. Serious Product Stewardship

Genuine product stewardship, at least if understood as an effort to make the most of a scarce resource, strikes me as far more defensible

98. *See* James A. Henderson, Jr. & Aaron D. Twerski, *Drug Designs* Are *Different*, 111 Yale L.J. 151, 176–77 (2001) (noting that "there exists a class of patients who benefit emotionally and psychologically," even if not physically, from such products, and recognizing that "prescription drugs and devices [with] aesthetic properties can have profoundly beneficial effects on an individual's psychic well-being"); Denise Grady, *FDA Pulls a Drug, and Patients Despair*, N.Y. Times, Jan. 30, 2001, at F1 (reporting that those who favored withdrawing Lotronex® (alosetron), a drug indicated for use in patients with irritable bowel syndrome, had argued that its risks of severe constipation or ischemic colitis were unacceptable because it only treated a non-life-threatening condition, while the majority of patients on the drug who had suffered no serious side effects protested the withdrawal because the drug had helped them to cope with a condition that significantly interfered with their daily life activities).

99. *See* Natasha Singer, *Skin Deep; Injecting Silicone, and Risk*, N.Y. Times, Jan. 26, 2006, at G1.

100. *See* Lisa Girion, *Concern Raised on Botox Safety: The FDA Is Reviewing Botulinum-Based Drugs Used to Treat Cerebral Palsy and Other Ills*, L.A. Times, Feb. 9, 2008, at C1; Rhonda L. Rundle, *Botox Use on Migraines Gains Support*, Wall St. J., Sept. 12, 2008, at B3; Shankar Vedantam, *Botox Appears to Ease Depression Symptoms*, Wash. Post, May 21, 2006, at A9; *see also* Liz Kowalczyk, *Doctors Seek a Viagra Variant for Lung Ailment*, Boston Globe, Aug. 3, 2001, at A1 (reporting that physicians have used sildenafil to treat pulmonary hypertension in infants); Donald G. McNeil, Jr., *Cosmetic Saves a Cure for Sleeping Sickness*, N.Y. Times, Feb. 9, 2001, at A1.

101. *Cf.* Anita Bernstein & Joseph Bernstein, *An Information Prescription for Drug Regulation*, 54 Buff. L. Rev. 569, 608–11 (2006) (conceding that "lifestyle" drugs lie along a continuum, though suggesting a distinction based on the exercise of patient choice). A similarly vague dividing line exists with regard to medical procedures, treating "elective" surgeries as non-essential (or, at least, non-emergency). *See* General and Plastic Surgery Devices; Effective Date of Requirement for Premarket Approval of Silicone Inflatable Breast Prosthesis, 58 Fed. Reg. 3436, 3439 (proposed Jan. 8, 1993) ("Whether performed for reconstruction or augmentation purposes, breast implantation is a discretionary elective surgical procedure performed for its psychological benefits."); *see also* Zalazar v. Vercimak, 633 N.E.2d 1223, 1225–27 (Ill. App. Ct. 1993) (adopting a subjective standard of decision causation for informed consent claims involving elective cosmetic surgery); Schuck, *supra* note 40, at 955 (proposing a heightened consent duty in the case of elective treatments); *cf.* Whitlock v. Duke Univ., 637 F. Supp. 1463, 1470–71 (M.D.N.C. 1986) (concluding that the degree of required risk disclosure is higher in the context of non-therapeutic research), *aff'd*, 829 F.2d 1340, 1343 (4th Cir. 1987). *But see* Pauscher v. Iowa Methodist Med. Ctr., 408 N.W.2d 355, 359–61 (Iowa 1987) (declining to draw any such distinction). Even so, unmistakably lifesaving procedures technically also should qualify as elective insofar as respect for autonomy means that patients have a right to decline treatment. *See* Dan W. Brock & Steven A. Wartman, *When Competent Patients Make Irrational Choices*, 322 New Eng. J. Med. 1595 (1990).

than the previously discussed "stewardship" proposals.[102] Labeling designed to assist physicians—in making sure that the right drugs get to the right patients—offers the first line of defense. Unfortunately, research indicates that package inserts often fail to ensure rational prescribing.[103] These issues go beyond labeling to include choices about how and to whom a seller markets a drug. Such a theory might morph into a design defect claim, viewing the drug product as a package or bundle that includes choices about how patients may secure access to it.[104]

Just as regulatory officials have become more creative in adopting risk management plans,[105] tort litigation might encourage manufacturers

---

102. *See, e.g.*, Laura Landro, *The Informed Patient: Curbing Antibiotic Use in War on "Superbugs"*, WALL ST. J., Sept. 3, 2008, at D1 (reporting that hospitals have begun to adopt, sometimes under pressure from public and private insurers, "antimicrobial stewardship programs," which involve teams of specialists monitoring antibiotic use to reduce the spread of resistant bacterial strains by, for example, urging physicians to resist the tendency to prescribe powerful antibiotics in favor of selecting the narrowest-spectrum drug available for treatment of a particular patient's infection); *see also* Labeling Requirements for Systemic Antibacterial Drug Products Intended for Human Use, 68 Fed. Reg. 6062 (Feb. 6, 2003); Noah, *supra* note 41, at 437 ("[T]he FDA recently proposed mandating a best practices statement in the labeling of antibiotics, reminding physicians against overprescribing because of the public health consequences associated with growing drug-resistance."). In order to maximize the useful life of a new antibiotic, could the FDA approve it only for use by infectious disease specialists in hospitals (trusting them to save the drug for vancomycin-resistant pathogens), or might the agency persuade the Drug Enforcement Administration (DEA) to place the drug in Schedule II? *See* Scott B. Markow, Note, *Penetrating the Walls of Drug-Resistant Bacteria: A Statutory Prescription to Combat Antibiotic Misuse*, 87 GEO. L.J. 531, 542–43 (1998) (doubting the legality of either one of these approaches); *see also* Kevin Outterson, *The Vanishing Public Domain: Antibiotic Resistance, Pharmaceutical Innovation and Intellectual Property Law*, 67 U. PITT. L. REV. 67, 67–68, 73–86, 94–114 (2005) (elaborating on problems of resistance to antibiotics and antivirals, and discussing various proposed solutions).

103. *See* Karen E. Lasser et al., *Adherence to Black Box Warnings for Prescription Medications in Outpatients*, 166 ARCHIVES INTERNAL MED. 338 (2006); Noah, *supra* note 41, at 438–42; Andrea Petersen, *How Drug Alerts Trickle Down to Your Doctor: Amid Flurry of Red Flags About Serious Side Effects, Prescribing Turns Trickier*, WALL ST. J., Sept. 15, 2004, at D4 ("[R]esearch underscores how difficult it is for doctors to stay on top of the mass of drug information, and decide how or whether to act. The number of drugs has exploded in recent years, so there are simply more side effects and potential drug-to-drug interactions to keep track of."); Jonathan D. Rockoff, *Doctors Buried by Drug Data*, BALT. SUN, Apr. 7, 2006, at 1D.

104. *See, e.g.*, Carl Salzman, *Mandatory Monitoring for Side Effects: The "Bundling" of Clozapine*, 323 NEW ENG. J. MED. 827 (1990) (describing a controversial (and short-lived) system of restricted distribution adopted by the manufacturer of the new antipsychotic Clozaril® (partly in response to liability fears) that included weekly blood testing as a prerequisite for dispensing the drug to schizophrenic patients in order to guard against fatalities caused by agranulocytosis, a side effect reported during clinical trials in less than two percent of subjects); *see also* Noah, *supra* note 85, at 1214 (discussing other contexts that involve product bundling).

105. *See* Lars Noah, *Ambivalent Commitments to Federalism in Controlling the Practice of Medicine*, 53 U. KAN. L. REV. 149, 188–91 (2004) (discussing a variety of distribution restrictions on prescription drugs considered by regulatory officials); Gardiner Harris, *F.D.A. Imposes Tougher Rules for Acne Drug*, N.Y. TIMES, Aug. 13, 2005, at A1 ("Health officials say

to craft such programs.[106] For instance, with teratogens such as thalidomide and isotretinoin, plaintiffs might pursue negligent marketing claims on the theory that a prescription drug manufacturer should have further restricted distribution.[107] Such claims would represent a hybrid between more traditional defects in design and labeling,[108] challenging a manufac-

---

the new plan is the latest sign the F.D.A. is losing faith that the nation's doctors and pharmacists can adequately safeguard the health of patients . . . . [T]ime after time over the last decade, medical professionals have ignored the advice [in labeling], providing drugs to patients at risk of severe complications."); *id.* ("[I]nstead [of withdrawing effective drugs], the agency has begun fashioning restricted distribution programs . . . to ensure that health professionals follow its guidelines."). Congress recently granted the FDA express authority to restrict distribution of prescription drugs to specially trained physicians. *See* FDAAA, Pub. L. No. 110-85, § 901(b), 121 Stat. 823, 930 (2007) (to be codified at 21 U.S.C. § 355–1(f)(3)(A)).

106. *See* Margaret Gilhooley, *When Drugs Are Safe for Some but Not Others: The FDA Experience and Alternatives for Products Liability*, 36 HOUS. L. REV. 927, 945–47 (1999); *id.* at 946 ("The best case for applying a distribution limit, if products liability law were to be extended to recognize a new type of defect, relates to misuse of a drug that poses grave risks not only to the immediate users, but also to the wider public."). With little explanation, however, this commentator dismissed the possibility:

> Limiting the distribution of drugs, however, is too novel to be an appropriate basis for a finding of products liability. It is not clear, for example, how such a responsibility fits into the structure of the Restatement. A limit on distribution goes beyond being a warning, but unlike the typical design defect, it does not relate to a change in the formulation or dose of the drug.

Id. at 945; *see also id.* at 946–49 (favoring, instead, patient-directed labeling to serve as a counterweight to inappropriate prescribing by physicians).

107. *See* Lars Noah, *Too High a Price for Some Drugs?: The FDA Burdens Reproductive Choice*, 44 SAN DIEGO L. REV. 231, 236–37 & n.23, 256 & n.100 (2007) (noting that the manufacturer of Accutane has faced claims that it should have taken steps beyond the issuance of stern warnings to both doctors and patients to ensure that women would not become pregnant while using this teratogenic drug, and adding that these lawsuits have failed on other grounds); *cf. id.* at 239 (wondering whether the FDA could "demand that the manufacturer sell a bundled product (for example, a single pill that combined a teratogen with a hormonal contraceptive)").

108. Some negligent marketing claims relate primarily to issues of product design, while others focus on the nature of the information communicated to users (i.e., advertising), but a third subset of negligent marketing claims—those that relate to distribution choices—do not fit as neatly into an existing liability box. *See* Richard C. Ausness, *Tort Liability for the Sale of Non-Defective Products: An Analysis and Critique of the Concept of Negligent Marketing*, 53 S.C. L. REV. 907, 909–10, 915–16, 944–46 (2002); *see also id.* at 939 ("Just a few years ago, it appeared that negligent marketing was about to become a powerful tool in products liability litigation, particularly where the products involved were not 'defective' in the traditional sense."); *id.* at 954 ("[A] manufacturer's failure to actively monitor retail sales or to supervise the conduct of distributors or retail sellers seems more like nonfeasance than misfeasance."); *id.* at 965 (concluding for a variety of reasons that courts should decline to recognize such claims). Although many of the broader critiques of this theory have force, the distinctive treatment of medical technologies for purposes of applying other liability rules may justify some willingness to entertain negligent marketing claims. Ausness also mentions prescription drug products, though focusing primarily on OxyContin. *See id.* at 915–17, 945 & n.349; *see also id.* at 916 (making a passing reference to the diet drug combination fen-phen). Like the handgun litigation, OxyContin relates more to criminal misuse, *see infra* note 119, while fen-

turer's choice about the appropriate channels for distributing potentially hazardous goods,[109] in a way that resembles novel (and largely unsuccessful) theories asserted against gun sellers.[110]

Although the *Products Liability Restatement* finds a bright line distinguishing prescription and nonprescription products, which it then uses to justify different rules for the former category (because of the power of differential marketing),[111] pharmaceuticals actually lie along a continuum. For instance, stricter prescription requirements apply to controlled substances and certain teratogens (and the most restrictive access restrictions apply to investigational drugs supplied to subjects enrolled in a clinical trial). Although most people use prescription drugs on an outpatient basis, physicians order the administration of some medications in hospitals and other controlled settings.[112] A few over-the-counter (OTC) drug products now require securing permission from a pharmacist,[113] and

---

phen, which relates to problems of inappropriate off-label prescribing, better matches the type of negligent marketing claim that strikes me as worth considering.

109. *See, e.g.*, Moning v. Alfono, 254 N.W.2d 759 (Mich. 1977) (holding that a jury should resolve negligence claims against the manufacturer, wholesaler and retailer of slingshots marketed directly to children); *id.* at 771 ("The issue in the instant case is not whether slingshots should be manufactured, but the narrower question of whether marketing slingshots directly to children creates an unreasonable risk of harm."); *cf.* First Nat'l Bank of Dwight v. Regent Sports Corp., 803 F.2d 1431 (7th Cir. 1986) (rejecting failure-to-warn and negligent marketing claims against the manufacturer of metal-tipped lawn darts sold as appropriate for adults only, but allowing claims for violations of federal regulations prohibiting sales of such products through toy stores and similar retail outlets).

110. *See, e.g.*, Merrill v. Navegar, Inc., 28 P.3d 116 (Cal. 2001); Chicago v. Beretta U.S.A. Corp., 821 N.E.2d 1099 (Ill. 2004); Hamilton v. Beretta U.S.A. Corp., 750 N.E.2d 1055 (N.Y. 2001); *see also* Jean Macchiaroli Eggen & John G. Culhane, *Gun Torts: Defining a Cause of Action for Victims in Suits Against Gun Manufacturers*, 81 N.C. L. REV. 115, 204–09 (2002). *But see* Ileto v. Glock Inc., 349 F.3d 1191, 1201–09 (9th Cir. 2003) (allowing a negligent marketing claim to proceed); City of Cincinnati v. Beretta U.S.A. Corp., 768 N.E.2d 1136 (Ohio 2002) (allowing a municipality to pursue such claims). Some of these lawsuits alleged that manufacturers of certain types of weapons or ammunition should not have sold these products to civilians, instead limiting their distribution to law-enforcement professionals and the military. *See, e.g.*, McCarthy v. Olin Corp., 119 F.3d 148, 152, 156–57 (2d Cir. 1997) (noting, in the course of rejecting such a claim, that the manufacturer of Black Talon® bullets subsequently limited sales to professionals); *id.* at 163 (Calabresi, J., dissenting) ("Selling tanks to the armed forces is fine; selling them to the general public is, I would think, clearly negligent.").

111. *See* Henderson & Twerski, *supra* note 98, at 156, 170–73, 178–79; *id.* at 169 ("[S]uch differentiation [in design defect standards based on users] is not possible for nonprescription products, which are available to everyone on the open market.").

112. *See, e.g.*, Press Release, *FDA Approves Entereg to Help Restore Bowel Function Following Surgery* (May 20, 2008), *available at* http://www.fda.gov/bbs/topics/NEWS/2008/NEW01838.html (explaining that, in order to minimize risks relative to benefits, this drug will be restricted to inpatient use, only at specially certified hospitals, and patients may receive no more than 15 doses).

113. *See* Daniel Healey, *Plan BTC: The Case for a Third Class of Drugs in the United States*, 63 FOOD & DRUG L.J. 375, 375–77, 385–86 (2008) (explaining that the FDA conditioned approval for switches from prescription status of emergency contraceptive and smoking

plaintiffs might argue that other nonprescription drugs also should move "behind the counter" (or even to Rx status).[114] In some instances, physicians may even "prescribe" OTC products.[115]

Conversely, the relatively recent phenomenon of advertising prescription drugs directly to consumers, as well as the advent of Internet prescribing and dispensing, may have made these products more similar to OTC drugs.[116] Some commentators have suggested that drug manufacturers have a duty to cut off supplies to Internet companies that engage

---

cessation products on an age restriction enforced by pharmacists); *see also* Notice of Public Meeting, Behind the Counter Availability of Certain Drugs, 72 Fed. Reg. 56,769 (Oct. 4, 2007) (seeking input about the merits of this approach). Federal law now requires behind-the-counter status (though not limited to pharmacies) for products containing pseudoephedrine, though this statute sought to prevent criminal diversion rather than any direct risks to the consumer. *See* 21 U.S.C.A § 830(e) (2008); Jean C. O'Connor et al., *Developing Lasting Legal Solutions to the Dual Problems of Methamphetamine Production and Use*, 82 N.D. L. REV. 1165, 1178–79 (2006).

114. *See* Lars Noah, *Treat Yourself: Is Self-Medication the Prescription for What Ails American Health Care?*, 19 HARV. J.L. & TECH. 359, 382–83 (2006); *id.* at 381 ("If an OTC drug with otherwise unassailable labeling and design causes an injury, then the victim might argue that the product should have been made available only under professional medical supervision and never sold directly to consumers."); *see also* Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1271 (1994) ("Why should the presence of a good warning, no matter how explicit, prevent courts from considering the value of alternative marketing strategies in light of the common tendency of people to overuse over-the-counter drugs that provide relief from chronic ailments?").

115. *See, e.g.*, Ferrara v. Berlex Lab., Inc., 732 F. Supp. 552, 553–55 & n.1 (E.D. Pa. 1990) (applying the learned intermediary doctrine to reject claims for failing to warn of dangerous interaction against the manufacturers of a prescription antidepressant and an OTC decongestant prescribed by the plaintiff's physician); *see also* Kelley v. Wiggins, 724 S.W.2d 443, 449–50 (Ark. 1987) (affirming verdict against a clinic for negligently using Sudafed® in a high-risk patient); Sharkey v. Sterling Drug, Inc., 600 So. 2d 701, 711 (La. Ct. App. 1992) (crediting physician's testimony that he would not have recommended aspirin for child with flu-like symptoms if the OTC label had included a fuller warning of the risk of Reye's syndrome); Noah, *supra* note 62, at 321 & n.117, 338 (noting that the FDA sometimes approves separate professional labeling for OTC drugs); Peter Temin, *Realized Benefits from Switching Drugs*, 35 J.L. & ECON. 351, 358–59 (1992); Daniel W. Whitney, *Product Liability Issues for the Expanding OTC Drug Category*, 48 FOOD & DRUG L.J. 321, 329–30 (1993) (arguing that the learned intermediary rule should apply in such cases). *But see* Mitchell v. VLI Corp., 786 F. Supp. 966, 970 (M.D. Fla. 1992) (declining to apply the learned intermediary rule to an OTC contraceptive sponge that a physician had supplied to his patient).

116. *See* Chester Chuang, Note, *Is There a Doctor in the House? Using Failure-to-Warn Liability to Enhance the Safety of Online Prescribing*, 75 N.Y.U. L. REV. 1452, 1483 & n.131 (2000) (imagining the emergence of a new class of "quasi-prescription" drugs, and suggesting that prescription antihistamines might qualify); *id.* at 1453 ("In an online world where the physician is conspicuously absent, or at best virtual, the learned intermediary doctrine breaks down . . . ."); *see also* Henderson & Twerski, *supra* note 98, at 173 n.91 (conceding that, if physicians routinely acquiesced in patient demands for heavily advertised products, "[t]his breakdown of the learned intermediary as a screening device would make marketing of prescription drugs not substantially different from that of nonprescription products").

in irresponsible online prescribing and dispensing.[117] Serious practical difficulties would, however, complicate any such effort.[118] More controversially, if general practitioners engaged in patterns of dangerous overprescribing, then a plaintiff might claim that the drug manufacturer had a duty to limit access to only some subset of responsible physicians (perhaps only specialists or physicians who have registered with the manufacturer after attesting to their knowledge of the risks involved in the use of a product).[119]

More than twenty years ago, in *Swayze v. McNeil Laboratories, Inc.*,[120] a federal court rejected such a claim. In that case, a child had suffered respiratory depression (and eventually died) after a certified registered nurse anesthetist (CRNA) administered an excessive dose of

---

117. *See* Richard C. Ausness, *Will More Aggressive Marketing Practices Lead to Greater Tort Liability for Prescription Drug Manufacturers?*, 37 WAKE FOREST L. REV. 97, 136 (2002) (forecasting that negligent marketing claims will be brought against manufacturers of prescription drugs when patients suffer injuries as a result of dispensing by unscrupulous Internet pharmacies); Chuang, *supra* note 116, at 1480–88; *cf.* Stephanie Feldman Aleong, *Green Medicine: Using Lessons from Tort Law and Environmental Law to Hold Pharmaceutical Manufacturers and Authorized Distributors Liable for Injuries Caused by Counterfeit Drugs*, 69 U. PITT. L. REV. 245, 265–72 (2007) (suggesting an entirely inapt nondelegable duty theory to hold manufacturers liable for hazardous counterfeiting).

118. *See* Chuang, *supra* note 116, at 1460–61 (noting that Pfizer had sought assistance from the Federal Trade Commission to combat online prescribing of Viagra); *cf.* Ceci Connolly, *Pfizer Cuts Supplies to Canadian Drugstores; Sales Are Halted to Reimporters of Bargain Drugs*, WASH. POST, Feb. 19, 2004, at A10. The FDA once conditioned drug approval on restricted distribution through a single pharmacy. *See* Aaron Zitner, *Date-Rape Drug OK'd to Treat Sleep Disorder*, L.A. TIMES, July 18, 2002, at A12 (GHB); *cf.* Anna Wilde Mathews & Leila Abboud, *FDA Approves Generic OxyContin—Teva, Endo Get Clearance After Agreeing to Implement Abuse-Reduction Programs*, WALL ST. J., Mar. 24, 2004, at A3 ("[T]he FDA has never limited any opioid to certain pharmacies, and agency officials say they don't have the authority to block certain physicians from prescribing a drug.").

119. *See* Erik Eckholm & Olga Pierce, *Methadone Rises as a Painkiller with Big Risks*, N.Y. TIMES, Aug. 17, 2008, at A1 ("Methadone, once used mainly in addiction treatment centers to replace heroin, is today being given out by family doctors, osteopaths and nurse practitioners for throbbing backs . . . and a host of other severe pains . . . . [The FDA] is now considering requiring doctors to take special classes on prescribing narcotics."); *cf. In re* TMJ Implants Prods. Liab. Litig., 97 F.3d 1050, 1060 (8th Cir. 1996) (Heaney, J., dissenting) (suggesting that the manufacturer of Teflon should have ceased supplying this raw material to a medical device company because it knew of dangers associated with this application); Hunnings v. Texaco, Inc., 29 F.3d 1480, 1485–86 (11th Cir. 1994) (holding that a negligence claim could proceed against the supplier of mineral spirits where it knew that a retailer packaged the chemical in used milk jugs and sold the product without warnings); Mason v. Texaco Inc., 862 F.2d 242, 246 (10th Cir. 1988) (explaining that a "bulk seller [has] the obligation to sell only to knowledgeable and responsible distributors"). Courts generally have rejected negligent marketing claims involving the opioid analgesic OxyContin. *See, e.g.*, Labzda v. Purdue Pharma L.P., 292 F. Supp. 2d 1346, 1355 (S.D. Fla. 2003); *see also* Phillip J. Wininger, Note, *Pharmaceutical Overpromotion Liability: The Legal Battle over Rural Prescription Drug Abuse*, 93 KY. L.J. 269, 281–94 (2004–2005) (evaluating the prospects for such claims).

120. 807 F.2d 464 (5th Cir. 1987).

Sublimaze® (fentanyl) during surgery.[121] The nurse had, without any supervision by an anesthesiologist, selected this powerful narcotic agent from among various alternatives, administered an inappropriately high dose, monitored the patient's response, and decided how to counteract the drug's effects at the conclusion of the surgery. Although a clear violation of state law governing prescribing privileges, CRNAs routinely made these sorts of choices because of a shortage of licensed anesthesiologists.[122] The plaintiff had argued, among other things, that the manufacturer—knowing of this widespread practice of irresponsible use—should have restricted sales of the drug "to hospitals which establish and enforce appropriate procedures to assure that Sublimaze is prescribed and administered in compliance with state law."[123] The federal district court granted a directed verdict to the defendant, and a divided court of appeals affirmed.[124] The dissenting judge, however, thought that "McNeil could have prevented liability by removing, selectively, the drug from hospitals that could not ensure that qualified doctors would prescribe."[125]

Perhaps recognition of such claims would represent a form of product stewardship that courts resolving tort litigation should embrace. More so than proposed new obligations to engage in potentially endless testing or to communicate essentially meaningless disclaimers, a duty to

---

121. *See id.* at 466.

122. *See id.* at 466–67; *id.* at 472–73 (Goldberg, J., dissenting); *id.* at 476 ("[T]he testimony established a generalized pattern and commonly known practice in many hospitals that surgeons, the only doctors present, routinely did not supervise anesthesia.").

123. *Id.* at 469 n.5 (conceding that "a drug manufacturer could" have done so, but adding that "liability is imposed only for a defendant's failure to act reasonably, not for failing to do all that could be done"). The plaintiff also had argued that the manufacturer should have warned patients directly or completely withdrawn the drug from the market.

124. *See id.* at 466; *id.* at 471 ("[I]t is the physicians who have undertaken the responsibility of supervising CRNAs, and that responsibility cannot be shunted onto, or shared with, drug manufacturers."); *id.* at 472 ("The defendant cannot control the individual practices of the medical community, even if it is the prevailing practice, and we decline to impose such a duty."). The court noted at the outset that the plaintiff's separate medical malpractice claims had resulted in a "substantial" settlement. *See id.* at 465.

125. *See id.* at 477 (Goldberg, J., dissenting). As he elaborated:

> McNeil would not have had to police the operating room by engaging in selective withdrawal or by conducting other activities suggested by the plaintiff. Enforcing compliance would have remained the task of the hospitals, doctors, and Mississippi authorities. McNeil's only task would have been to obtain adequate assurances of compliance on which it could reasonably rely.

Id. (adding that "pressures resulting from selective withdrawal would likely have forced hospitals themselves to abandon the illegal practice and to insist that anesthesiologists were hired or that surgeons were required meaningfully to supervise anesthesia"); *see also id.* at 474 (arguing that the defendant had a duty "to monitor and ensure that the products it manufactures and markets are not generally used in an unreasonably dangerous fashion").

consider the adoption of distribution restrictions would better promote risk minimization. Obviously, some negligent marketing claims might create tension with emerging FDA policies in this area (though conflicts seem far less likely to arise than in the area of labeling), and they also could adversely impact patient access, but this potential extension of drug products liability strikes me as more worthy of exploration than the other approaches that have attracted attention in recent years.