MEDMARC®
LIFE SCIENCES INSURANCE

Andy Hall, Esquire
Executive Claims Specialist
Ricky Benjamin, Esquire
Partner and Head of FDA/Life Science Industry Practice
Burr & Forman

Claims 2025—Navigating an Increasingly Difficult and Complex World

December 10, 2025

Disclaimers

Forward Looking Statements

This presentation contains Forward Looking Statements and other information designed to convey our projections and expectations regarding future results.

There are several factors which could cause our actual results to vary materially from those projected in this presentation. The principal risk factors that may cause these differences are described in various documents we file with the Securities and Exchange Commission, such as our Current Reports on Form 8-K, and our regular reports on Forms 10-Q and 10-K, particularly in "Item 1A, Risk Factors." Please review this presentation in conjunction with a thorough reading and understanding of these risk factors.

Non-GAAP Measures

This presentation contains Non-GAAP measures, and we may reference Non-GAAP measures in our remarks and discussions with investors.

The primary Non-GAAP measure we reference is Non-GAAP operating income, a Non-GAAP financial measure that is widely used to evaluate performance within the insurance sector. In calculating Non-GAAP operating income, we have excluded the after-tax effects of net realized investment gains or losses and guaranty fund assessments or recoupments that do not reflect normal operating results. We believe Non-GAAP operating income presents a useful view of the performance of our insurance operations, but should be considered in conjunction with net income computed in accordance with GAAP. A reconciliation of these measures to GAAP measures is available in our regular reports on Forms 10-Q and 10-K and in our latest quarterly news release, all of which are available in the Investor Relations section of our website, Investor.ProAssurance.com.

Medmarc is a member of ProAssurance Group. The product material is for informational purposes only. In the event any of the information presented conflicts with the terms and conditions of any policy of insurance offered from ProAssurance, its subsidiaries, and its affiliates, the terms and conditions of the actual policy will apply.

MEDMARC

Presentation Agenda

01 **Admissibility of 510(k) evidence**

02 **GLP-1s? Wonder drug? Litigation target? Both?**

03 ***Loper Bright*—A year later**

04 **Recent developments with LDTs**

05 **Autism and Tylenol—still a litigation issue?**

06 **Questions**

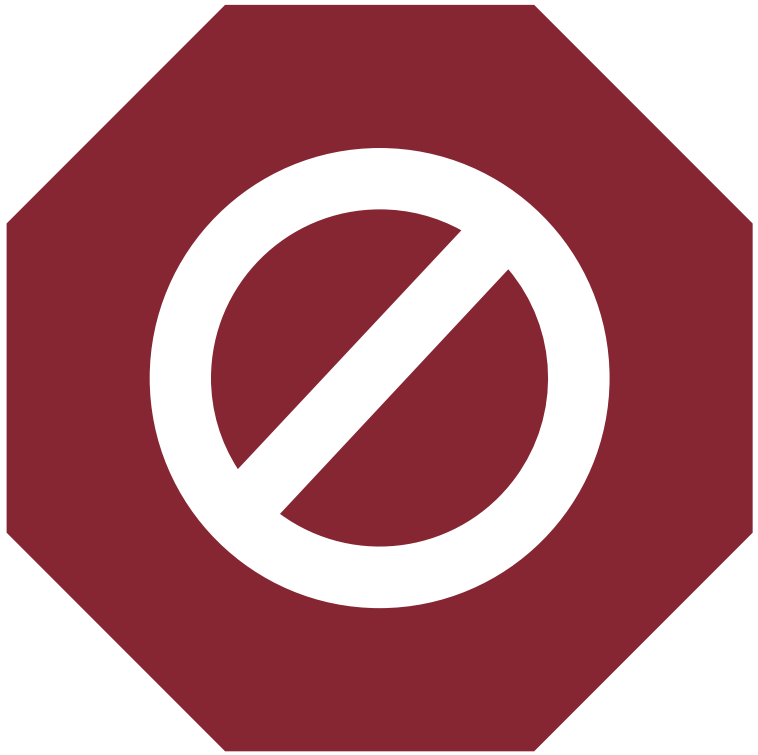
MEDMARC

Admissibility of 510(k) evidence

Regulatory background

- The 1976 Medical Device Amendments ("MDA") to the Federal Food, Drug, and Cosmetic Act (the "Act") categorized medical devices into classes I, II, and III for purposes of Food and Drug Administration ("FDA") regulation based on risk
- A class III device requires premarket approval ("PMA"), where a manufacturer must provide the FDA with 'reasonable assurance' that the device is safe and effective for its intended purpose
- Class I and II devices, which are lower risk, may be *cleared* for marketing if substantially equivalent to a predicate approved device via the 510(k) process

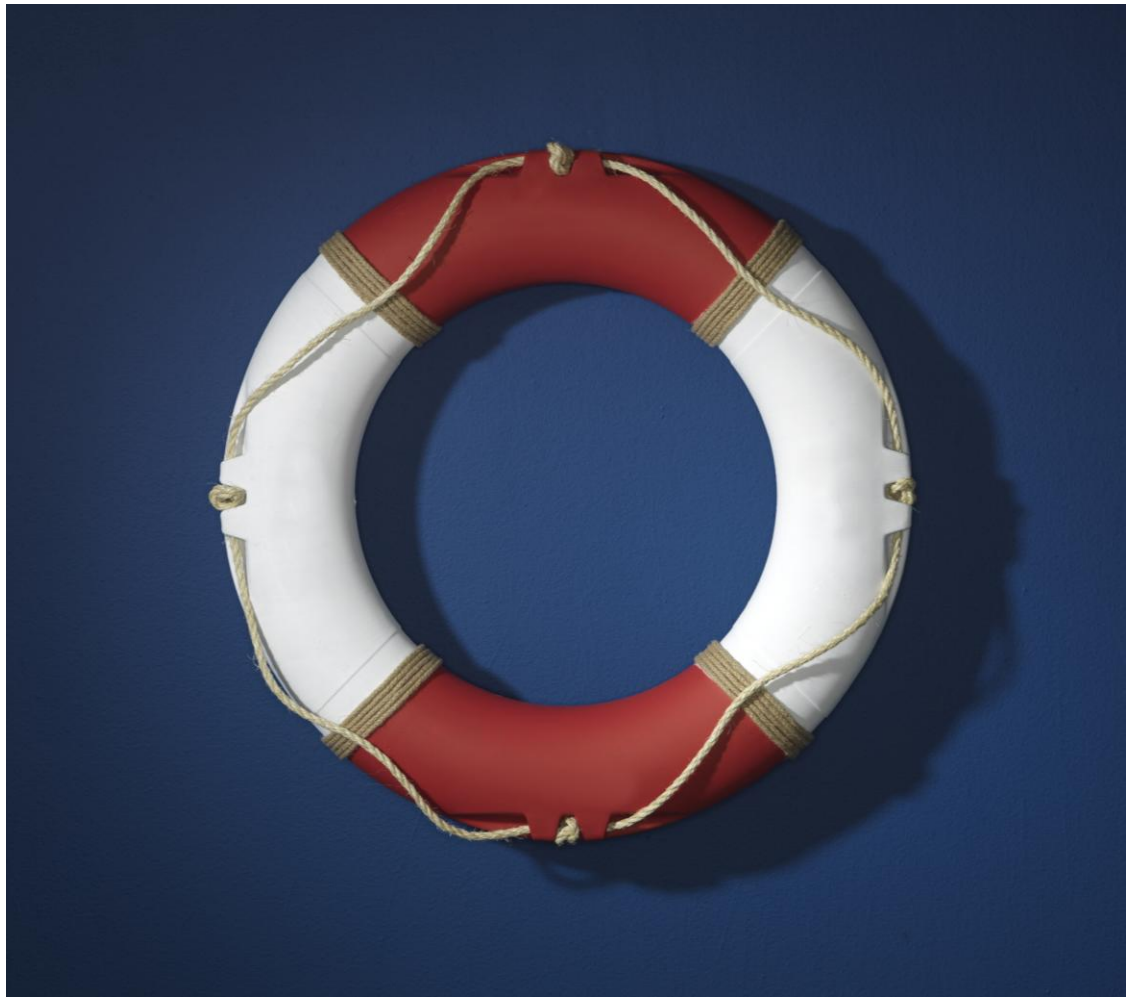
Types of preemption



- **Express preemption**
  - 21 U.S.C. § 360k(a)
    - "General rule . . . no State or political subdivision of a State may establish or continue in effect with respect to a device intended for human use any requirement—
      - (1) which is different from, or in addition to, any requirement applicable under this chapter to the device, and
      - (2) which relates to the safety or effectiveness of the device or to any other matter included in a requirement applicable to the device under this chapter"
- **Implied preemption**
  - *Buckman Co. v. Plaintiffs' Legal Comm.*, 531 U.S. 341, 348 (2001)
    - "[P]laintiffs' state-law fraud-on-the-FDA claims conflict with, and are therefore impliedly pre-empted by, federal law"

The safety myth

- *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 493 (1996)
  - "the 510(k) process is focused on *equivalence*, not safety"
- How Plaintiffs use this
  - *Eghnayem v. Boston Scientific Corp.*, 873 F.3d 1304, 1318 (11th Cir. 2017):
    - Held district court did not abuse discretion in excluding 510(k) evidence
    - "[I]f 510(k) does not go to a product's safety and efficacy – the very subjects of the plaintiff's products liability claims – then evidence of [manufacturer] compliance with 510(k) has no relevance to the . . . claims in this case"



Manufacturer strategy: Make a case for safety

- The Supreme Court expressly acknowledged "the FDA simultaneously maintains the exhaustive PMA and the more limited § 510(k) processes in order to ensure . . . that medical devices are reasonably safe and effective." *Buckman*, 531 U.S. at 349-350
- *Otero v. Zeltiq Aesthetics, Inc.*, No. 17-3994, 2018 WL 3012942, at *3 (C.D. Cal. June 11, 2018):
  - "Indeed, the FDA's regulations provide that if the agency has found that a device is substantially equivalent to – but has technological characteristics that are different from – a predicate device, then that means the agency concluded that the data submitted . . . contains information, including clinical data if deemed necessary by the Commissioner, that demonstrates that the device is as safe and effective as a legally marketed device.'" (internal quotations omitted)

Preemption—test

- *Dickson v. Dexcom Inc.*, No. 24-0121, 2024 WL 3417392, at *5 (W.D. La. July 15, 2024):
  - "The MDA preempts state law claims when: (1) the federal government has established specific requirements applicable to the device and (2) the claims are based on state requirements that are 'different from, or in addition to the federal ones' and relate to the device's safety and efficacy." (citing *Riegel v. Medtronic, Inc.*, 552 U.S. 312, 322 (2008))
  - First prong met for Class II devices if there are special controls. *Id.* at *7.

Tiered approach—preemption

- Argue presence of 510(k) requirements expressly preempt plaintiff's claims
  - *See, e.g., Dickson, supra*
- Argue presence of 510(k) requirements at least impliedly preempt plaintiff's claims
  - *See, e.g., Buckman, supra*

Tiered approach—admissibility

- If plaintiff's claims are permitted, argue 510(k) evidence is at least admissible to establish manufacturer reasonableness:
  - e.g., no design defect, no negligence
- *In re Cook Medical, Inc., IVC Filters Mktg., Sales Practices and Prod. Liab. Litig.*, No. 14-2570, 2018 WL 6617375, at *1 (S.D. Ind. Dec. 18, 2018):
  - "A factor the jury may consider in determining whether a manufacturer acted reasonably is whether it complied with federal regulations"
- *In re Bard IVC Filters Prods. Liab. Litig.*, 298 F. Supp. 3d 1045, 1047-48 (D. Ariz. 2018):
  - Plaintiff moved in limine to exclude 510(k) clearance evidence, but was denied
  - Court recognized: "FDA grants 510(k) clearance only where the device 'is as safe and effective as a [predicate device] and does not raise different questions of safety and efficacy than the predicate device'"
  - Court reasoned: "evidence of Bard's compliance with the 510(k) process, while certainly not dispositive, is *nonetheless relevant to the reasonableness* of Bard's conduct and whether the company defectively designed the G2 filter" (emphasis added)

Tiered approach—admissibility

Appendix

Table 1. Example cases where 510(k) evidence was admitted.

CASE	CITATION
Hrymoc v. Ethicon, Inc.	297 A.3d 1245 (N.J. July 25, 2023)
In re Bard IVC Filters*	289 F. Supp. 3d 1045 (D. Ariz. 2018)
In re Cook Medical	2018 WL 6617375 (S.D. Ind. Dec. 18, 2018)
Block v. Woo Young Med. Co.	937 F. Supp. 2d 1028 (D. Minn. 2013)
Huggins v. Stryker Corp.**	932 F. Supp. 2d 972 (D. Minn. 2013)
Retractable Techs. v. Becton	2013 WL 11322723 (E.D. Tex. Aug. 29, 2013)
Strum v. DePuy Orthopaedics	2013 WL 3184765 (Ill. Cir. Ct. Mar. 8, 2013)
Musgrave v. Breg, Inc.	2011 WL 4620767 (S.D. Ohio Oct. 3, 2011)
McClellan v. I-Flow Corp.	2010 WL 3954092 (D. Or. Oct. 7, 2010)
Lillebo v. Zimmer Inc.	2005 WL 388598 (D. Minn. Feb. 16, 2005)
Corrigan v. Methodist Hosp.	874 F. Supp. 657 (E.D. Pa. 1995)

Table 2. Example cases where 510(k) evidence was excluded.

CASE	CITATION
Carlino v. Ethicon*	208 A.3d 92 (Pa. Super. Ct. Apr. 11, 2019)
Campbell v. Boston Scientific**	882 F.3d 70 (4th Cir. 2018)
In re Ethicon MDL	2018 WL 3608496 (S.D.W. Va. July 24, 2018)
Kaiser v. Johnson & Johnson	2018 WL 1358407 (N.D. Ind. Mar. 16, 2018)
McGinnis v. C.R. Bard	2018 WL 2456581 (N.J. Super. Ct. Feb. 8, 2018)
Eghnayem v. Boston Scientific**	873 F.3d 1304 (11th Cir. 2017)
In re C.R. Bard**	810 F.3d 913 (4th Cir. 2016)
Kransky v. DePuy Orthopaedics	2016 WL 3960033 (Cal. App. Ct. July 21, 2016)
In re Zimmer NexGen MDL	2015 WL 5145546 (N.D. Ill. Aug. 21, 2015)
Huskey v. Ethicon	2015 WL 4944339 (S.D.W. Va. Aug. 19, 2015)
Sanchez v. Boston Scientific	2015 WL 631289 (S.D.W. Va. Feb. 12, 2015)
Lewis v. Johnson & Johnson**	991 F. Supp. 2d 748 (S.D.W. Va. 2014)

**Bailey v. B. Braun Medical Inc.*, 2022 WL 22887142 (N.D. Ga. Dec. 14, 2022) declined to follow.
***Distinguished by *In re Mentor Corp. ObTape Transobturator Sling Prod. Liab. Litig.*, No. 4:08-MD-2004, 2016 WL 7332769 (M.D. Ga. Dec. 15, 2016).

Acknowledgments

The presenters would like to thank Ahmed-Zayn Mohamed for research and administrative support.

MEDMARC

GLP-1s—Wonder drug? Litigation target? Both?

GLP-1s—what are they?

- GLP-1s mimic a natural hormone, GLP-1, that the body releases after eating. Releasing GLP-1 causes the body to:
  - Release insulin when blood sugar is elevated
  - Suppress glucagon release (Glucagon raises blood sugar)
  - Slow down how fast food leaves the stomach
  - Reduce appetite
- These factors cause users to lose weight
- Originally a drug designed to treat Type 2 diabetes

Tupponce, Joan, *What do GL-1 receptor agonists actually do?,* July 1, 2025, available at https://www.vcuhealth.org/news/what-do-glp-1-receptor-agonists-actually-do/ (last visited November 20, 2025).

MEDMARC

GLP-1s—notable brands

Type 2 Diabetes

- Ozempic (semaglutide)
- Mounjaro (tirzepatide)
- Trulicity (dulaglutide)
- Victoza (liraglutide)
- Rybelsus (semaglutide)(oral medication)
- Bydureon (exenatide)

Weight Loss

- Wegovy (semaglutide)
- Zepbound (tirzepatide)
- Saxenda (liraglutide)

Alyssa Billingsley, PharmD, *A Good Rx Savings Guide to GLP-1 Receptor Agonists: Ozempic, Wegovy, Trulicity, and More*, GoodRx, October 27, 2025, available at https://www.goodrx.com/classes/glp-1-agonists/glp-1-drugs-cost-and-savings (last visited November 25, 2025).

MEDMARC

GLP-1s—benefits

-Lowering blood sugar
-Lowering body weight

-Lowering blood pressure
-Improving lipid disorders
-Improving fatty liver disease
-Reducing risk of heart and kidney disease
-Delaying diabetic-related neuropathy
-Improving sleep apnea
-Reducing dementia risk

-Loss of appetite, indigestion, nausea, vomiting, diarrhea
-Dizziness, headaches
-Increased heart rate
-Infections
-Pancreatitis
-Gastroparesis

GLP-1 Agonists, Cleveland Clinic, available at https://my.clevelandclinic.org/health/treatments/13901-glp-1-agonists (last visited November 25, 2025); Jaime Osnato, *GLP-1s for Sleep Apnea*, Sleep Foundation, July 11, 2025, available at https://www.sleepfoundation.org/sleep-apnea/glp-1-for-sleep-apnea/ (last visited November 25, 2025); Tyler Francischine, *Popular Diabetes medications may protect against Alzheimer's disease, UF researchers find*, University of Florida College of Pharmacy, April 16, 2025, available at https://ufhealth.org/news/2025/popular-diabetes-medications-may-protect-against-alzheimers-disease-uf-researchers-find#:~:text=The%20data%20showed%20a%20statistically,cognitive%20decline%20in%20Alzheimer's%20patients. (last visited May 25, 2025). Images created in Copilot with Microsoft PowerPoint.

MEDMARC

GLP-1s—multi-district litigation ("MDL")

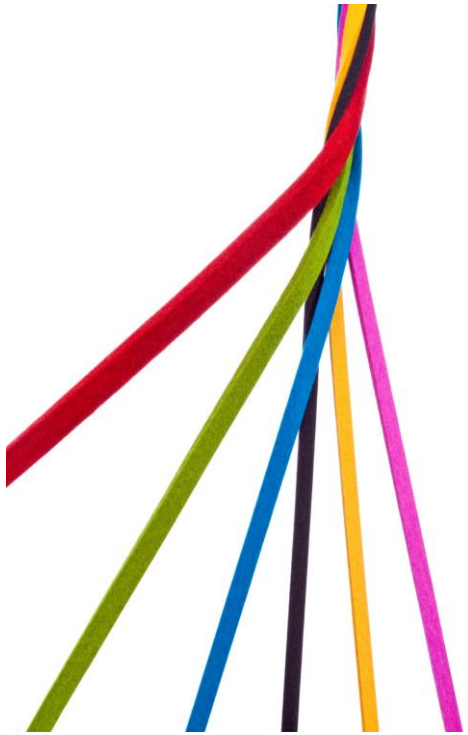
- MDL pending in U.S. District Court for the Eastern District of Pennsylvania
  - 2,914 cases pending as of September 30, 2025
  - Cases are before Judge Karen Marston
- The court bifurcated discovery into three "cross-cutting" issues:
  - Gastroparesis diagnostic testing
  - Preemption and adequate warnings
  - General causation
- Judge Marston rejected plaintiff attorneys' attempt to conduct extensive discovery on marketing while "cross-cutting" issues are pending

Ronald V. Miller, Jr., *Ozempic Lawsuit*, Lawsuit Information Center, November 4, 2025, available at https://www.lawsuit-information-center.com/ozempic-naion-gastroparesis-lawsuit.html (last visited November 21, 2025); Eric Alexander, *Plaintiffs Fail to Backdoor Expansive Early Discovery in GLP-1 MDL,* October 24, 2024, Drug and Device Law Blog, https://www.druganddevicelawblog.com/2024/10/plaintiffs-fail-to-backdoor-expansive-early-discovery-in-glp-1-mdl.html (last visited November 21, 2025).

MEDMARC

GLP-1s—MDL, cont'd

- Two recent decisions on "cross-cutting" issues
- Plaintiffs' design defect claims are preempted:
  - Preemption—state tort law design claims cannot be brought because they are preempted by federal law approving the drug/device
  - Court found that preemption applied to design defect claims and did not agree with plaintiffs' attempts to avoid preemption by placing these lawsuits in common preemption "exceptions"
- Plaintiffs cannot claim gastroparesis without a gastric emptying study:
  - Experts for both sides agreed that gastroparesis requires evidence of delayed gastric emptying confirmed with an objective, gastric emptying study
  - Plaintiffs said gastroparesis could be shown with a differential diagnosis
  - Defendants said that accepted, objective testing was needed to prove gastroparesis
  - Court agreed with the defendants
- Numerous lawsuits have since been dismissed where gastroparesis evidence was only a differential diagnosis
- Discovery continues in the MDL



Eric Alexander, *Design Defect Claims Preempted in GLP-1 MDL*, August 28, 2025, available at https://www.druganddevicelawblog.com/2025/08/design-defect-claims-preempted-in-glp-1-mdl.html (last visited November 21, 2025).

MEDMARC

GLP-1s—what are compounding pharmacies?

503a

- Regulated by states
- Drugs must be must manufactured pursuant to U.S. Pharmacopeia standards
- Intent is to manufacture drugs that are specific to the patient using the medicine
  - Example—patient is allergic to eggs and needs a flu shot that doesn't contain eggs

503b

- Regulated by FDA
- Drugs must be manufactured in accordance with Good Manufacturing Practices
- Intent is to manufacture drugs for which there is a shortage or those that need large amounts due to clinical need.

Pharmacist's Corner: 503a vs. 503b Pharmacies, University of Illinois College of Veterinary Medicine, August 8, 2000, available at https://vetmed.illinois.edu/2020/08/08/503a-vs-503b-pharmacies/#:~:text=This%20guarantee%20is%20due%20to,are%20essentially%20manufacturing%20compounded%20products. (last visited November 24, 2025); *FDA clarifies policies for compounders as national GLP-1 supply begins to stabilize*, April 28, 2025, U.S. Food & Drug Administration, available at https://www.fda.gov/drugs/drug-safety-and-availability/fda-clarifies-policies-compounders-national-glp-1-supply-begins-stabilize (last visited November 24, 2025).

MEDMARC

GLP-1s—why are compounding pharmacies involved?

- The explosion in GLP-1 usage caused a drug shortage that placed the drug on the FDA's drug shortage list in 2022
  - This permitted compounding pharmacies to make larger batches of GLP-1s under 503b
  - GLP-1 compounding was big business and provided cheaper (although less regulated) alternatives
- The FDA removed GLP-1s from the drug shortage list in early 2025

Marina Plotkin, Megan Pollastro, Judi Abbott Curry, *GLP-1 Weight-Loss Drugs Off Shortage List; Deadlines to Stop Compounding*, Harris Beach Murtha, March 24, 2025, available at https://www.harrisbeachmurtha.com/insights/glp-1-weight-loss-drugs-off-shortage-list-deadlines-to-stop-compounding/#:~:text=Some%20strengths%20of%20these%20drugs,a%20competitor%20to%20Ozempic%C2%AE. (last visited November 25, 2025).

MEDMARC

GLP-1s—what now?

- Three major consequences
- **(1) No more 503b manufacturing**
  - FDA enforcement against 503b GLP-1 manufacturing started on May 22, 2025
- **(2) Only 503a compounding of GLP-1s is permitted**
- **(3) Brand-name manufacturers are pursuing compounders who are still mass producing GLP-1s**
  - *Eli Lilly and Company v. Adonis Health, Inc.*, No. 25-cv-03536 (N.D. Cal. September 24, 2025)
    - Court found that Eli Lilly sufficient alleged that the compounders claim that mass produced GLP-1s are "personalized" was false and permitted the case to proceed
  - Other similar lawsuits. Compounders have a trade group called the "Outsourcing Facilities Association" who have filed lawsuits against FDA for removing GLP-1s from drug shortage list

Nyah Phengsitthy, *Eli Lilly Suit Over 'Personalized' Obesity Drugs Gets Go-Ahead*, Bloomberg Law, September 25, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/XEGUMO24000000?bc=7683bf60b8555675b709369a2aefb3b6&bna_news_filter=litigation&search32=YWzPq8TzXfCjdBt_k0uxMA%3D%3D1YfjS_xSdb9G9LoNp4XKqY2uUsk-kZ4GTcECdIRTrwpnhnw2jiyS23-pVaPMRc07hw7gZdEDzdq_u3fBb7T-QA%3D%3D (last visited November 25, 2025); Nyah Phengsitthy, *Judge Drops Eli Lilly's Suit Over Compounded Zepbound, Mounjaro*, Bloomberg Law, October 8, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/XDBMETNS000000?bc=7683bf60b8555675b709369a2aefb3b6&bna_news_filter=litigation&search32=4844K-_7e4UreHwk1mtKnw%3D%3DR6KxJsn_L4DYEKQbE01pECb_qKYT87y_EXMLA8Azxrd6wUgbm-N4zLwM1xPCy3fElsS8NPkrwHYc_rwMuL8hOg%3D%3D (last visited November 25, 2025).

MEDMARC

GLP-1s—what now, cont'd?

FDA NEWS RELEASE

FDA Launches Green List to Protect Americans from Illegal Imported GLP-1 Drug Ingredients

The U.S. Food and Drug Administration today established a "green list" import alert to help stop potentially dangerous GLP-1 (glucagon-like peptide-1) active pharmaceutical ingredients (APIs) from unverified foreign sources from entering the U.S. market. This is part of the agency's decisive steps to safeguard consumers from illegal GLP-1 active ingredients imported from overseas to ensure patient safety and a secure drug supply chain.

"Our priority is protecting public health by ensuring all active ingredients used in GLP-1 drugs are obtained from compliant manufacturers," **said George Tidmarsh, M.D., Ph.D., Director of the FDA's Center for Drug Evaluation and Research.** "Targeting illegal foreign GLP-1 active ingredients at the border is a critical part of this work."

The FDA previously identified serious concerns with compounded versions of semaglutide and tirzepatide, including dosing errors, use of unapproved salt forms and adverse events —some requiring hospitalization.

https://www.accessdata.fda.gov/CMS_IA/importalert_1186.html

FDA Launches Green List to Protect Americans from Illegal Imported GLP-1 Drug Ingredients, U.S. Food & Drug Administration, September 5, 2025, available at https://www.fda.gov/news-events/press-announcements/fda-launches-green-list-protect-americans-illegal-imported-glp-1-drug-ingredients (last visited November 25, 2025).

MEDMARC

Loper Bright—a year later

What is *Loper Bright?*—a refresher

- **Out with the old . . .**
- *Chevron*
  - 1984 U.S. Supreme Court case
  - Courts had to defer to federal agency interpretations if federal legislation was ambiguous or left a gap
  - Intent was to allow federal agencies to advance regulatory priorities
- **In with the new**
- *Loper Bright*
  - 2024 U.S. Supreme Court case
  - Courts must 'exercise independent judgment' when deciding if 'an agency has acted within its statutory authority . . . '
  - Courts can no longer defer to an agency interpretation if a law is ambiguous

Kevin Dunleavy, *SCOTUS overturn of Chevron doctrine opens a Pandora's box for biopharma industry expert says*, Augst 27, 2024, https://www.fiercepharma.com/pharma/scotus-overturn-chevron-doctrine-opens-pandoras-box-biopharma-industry (last visited November 26, 2025).

MEDMARC

Loper Bright—one year later

- A mixed bag
- The question for lower courts: How do we apply *Loper Bright*?
  - Some courts are leaning on agency interpretations for things involving technical issues
    - Many rely, explicitly or implicitly, on a pre-*Chevron* case called *Skidmore*
    - *Skidmore* says agency interpretations can persuade courts as to proper outcome of issue, but agency interpretations don't control
  - Others are completely ignoring agency interpretations in making their decisions
  - These types of questions may make their way back to U.S. Supreme Court

Abbe R. Gluck, *A year after Loper Bright: textualism, shadow Skidmore, and a new major questions exception*, SCOTUSblog (Oct. 16, 2025, 9:30 AM), https://www.scotusblog.com/2025/10/a-year-after-loper-bright-textualism-shadow-skidmore-and-a-new-major-questions-exception/ ; *Skidmore: Agency Persuasion, Not Deference*, available at https://www.bloomberglaw.com/document/X7RFJ404000000 (last visited December 2, 2025).

MEDMARC

Loper Bright—what's going on in the drug and device world?

- ***In re Suboxone (Buprenorphine/Naloxone) Film Products Liability Litigation***
- Plaintiff attorneys argued that *Loper Bright* eliminated preemption
  - "[I]f Congress wants to make a law, or to displace a State law, it must explicitly say so"
- The court was unimpressed and rejected the argument
  - *Loper Bright* "says little, if anything, about preemption doctrine . . . [i]nstead, *Loper Bright*, involves questions of deference to agency interpretations of ambiguous statutes, and preemption involves determining the intent of Congress, not an agency"

In re Suboxone (Buprenorphine/Nalaxone) File Products Liability, PLC's Response to Partial Motion to Dismiss for Failure to State a Claim (ECF No. 12), Br. at pp. 41-51 (filed Aug. 23, 2024); Shweta, Watwe, *Suboxone Film Makers Get Tooth Decay Litigation Claims Trimmed,* Bloomberg Law, January 2, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/product-liability-and-toxics-law/X11GR7OC000000?bc=883fd916c3f80d24ab3070110bc28817&bna_news_filter=product-liability-and-toxics-law&search32=1Pb1DqLcUSHJYrCPeRkjtw%3D%3DNfnyU2zlEnkMhYBAVWHlaEn6DTt5K0I5t4FTg2Q55fjzTWyA2Jrjz4m7jHf5HFx2ii7MhGCWVr31fZmP95GFAQ%3D%3D (last visited November 29, 2025).

MEDMARC

Loper Bright—what's good for the federal courts is good for the state courts?

- *Loper Bright* applies to federal law, not state law
  - State courts are not required to follow *Loper Bright*
- 34 states give some level of deference to state agencies
- A shift away from deference in state courts
- In 2025, North Carolina, Missouri, Louisiana, Oklahoma, Utah, and Kentucky either limited or eliminated deference to state agencies
  - Hawaii is the outlier—"[i]n Hawai'I, we defer to those agencies with the na'auao (knowledge/wisdom) on particular subject matters to get complex issues right"

Varu Chilakamarri, David R. Fine, Michael S. Heard Snow, *Litigation Minute: A Year After Loper Bright Part II: States Follow Suit*, K&L Gates Hub, October 13, 2025, available at https://www.klgates.com/Litigation-Minute-A-Year-After-Loper-Bright-Part-II-States-Follow-Suit-10-13-2025 (last visited November 29, 2025); *Rosehill v. State*, 155 Haw. 41, 58 (2024).

MEDMARC

Recent developments with LDTs

Regulatory background

- The 1988 Clinical Laboratory Improvement Amendments (“CLIA”), 42 U.S.C. § 263a et seq., established regulatory framework for laboratory developed tests (“LDTs”)
- CLIA had been administered by the Centers for Medicare & Medicaid Services (“CMS”)
- LDT services have been regulated for decades by CMS
- The Food and Drug Administration (“FDA”) announced its intent to regulate LDTs as medical devices with its final rule published on May 6, 2024 (the “2024 Final Rule”)
- On March 31, 2025, a Texas federal court summarily ruled “[LDT] services did not constitute medical ‘devices’ subject to regulation by FDA.” *American Clinical Laboratory Association v. U.S. Food and Drug Administration*, 776 F.Supp.3d 554, 554 (E.D. Tx. 2025)

The 2024 final rule

ACTION:

Final rule.

SUMMARY:

The Food and Drug Administration is issuing a final rule to amend its regulations to make explicit that in vitro diagnostic products (IVDs) are devices under the Federal Food, Drug, and Cosmetic Act (FD&C Act) including when the manufacturer of the IVD is a laboratory. In conjunction with this amendment, the Food and Drug Administration is phasing out its general enforcement discretion approach for laboratory developed tests (LDTs) so that IVDs manufactured by a laboratory will generally fall under the same enforcement approach as other IVDs. This phaseout policy includes enforcement discretion policies for specific categories of IVDs manufactured by a laboratory, including currently marketed IVDs offered as LDTs and LDTs for unmet needs. This phaseout policy is intended to better protect the public health by helping to assure the safety and effectiveness of IVDs offered as LDTs, while also accounting for other important public health considerations such as patient access and reliance.

DATES:

This rule is effective July 5, 2024.

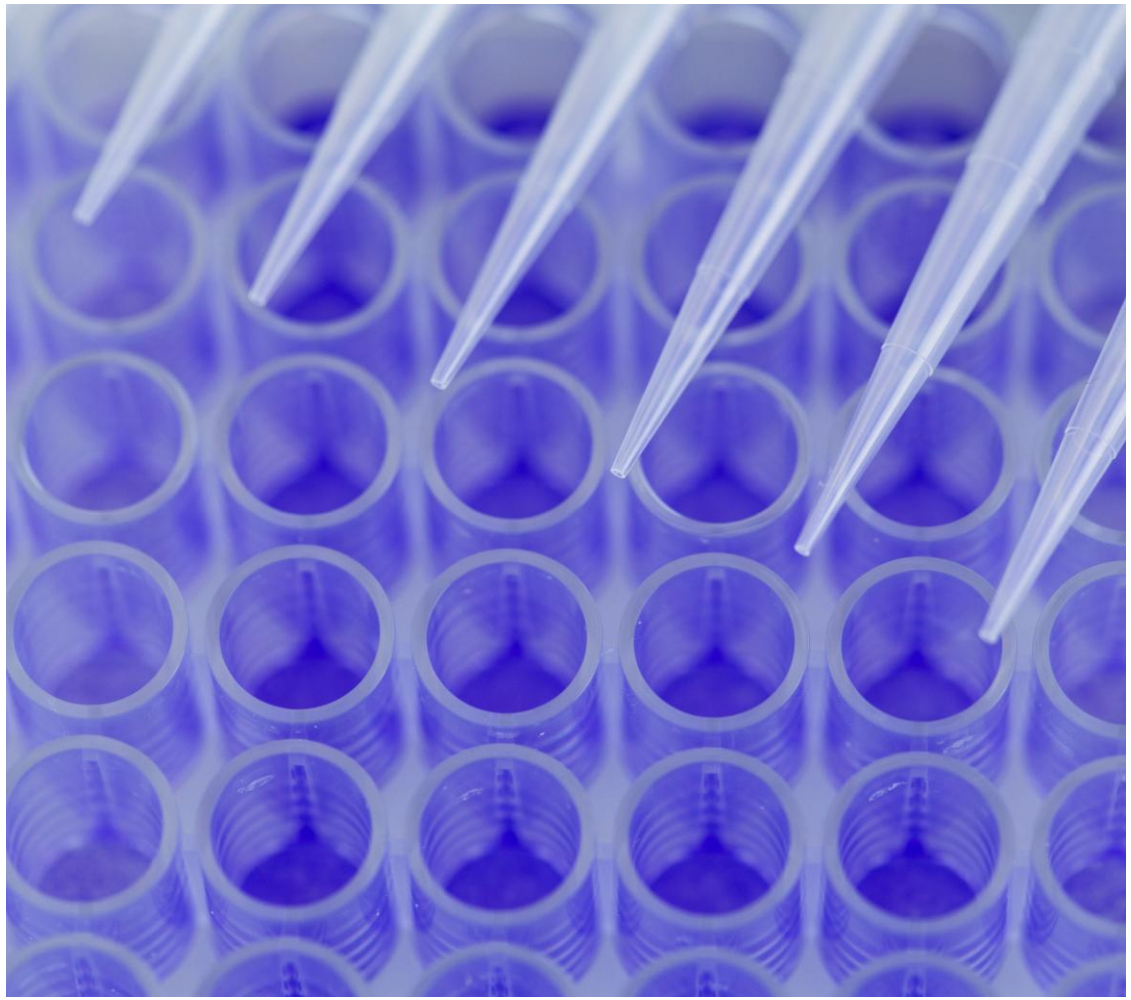
Available at https://www.federalregister.gov/documents/2024/05/06/2024-08935/medical-devices-laboratory-developed-tests (last accessed October 30, 2025).

FDA seen as conflating two concepts

- Test products for commercial distribution—like the COVID-19 test kit—which are subject to reasonable FDA regulation as devices

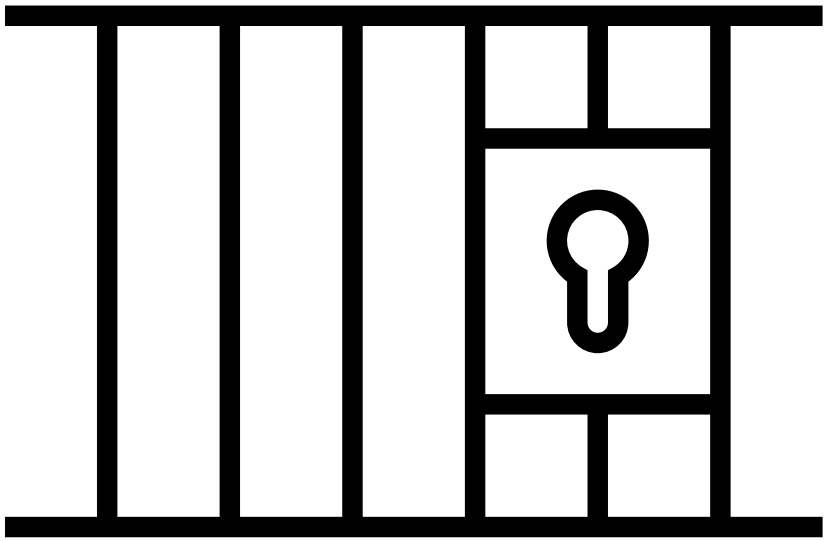
CONFLATED WITH:

- The physical tools that laboratory professionals use to deliver a service—which are not subject to FDA regulation because they are services, not devices



MEDMARC

A cautionary tale



- Elizabeth Holmes, Chief Executive Officer of Theranos
- Gained fame and notoriety and once led a billion-dollar valuation company
- Convicted of federal fraud and conspiracy for knowingly making false claims regarding the accuracy and reliability of blood tests (e.g., for HIV and Hba1C)
- **This perceived lapse in FDA regulatory oversight is seen by the LDT industry as justification for increasing CLIA oversight, and not FDA oversight—whereas the FDA views the Theranos incident as demonstrating an essential role the FDA should play in addressing problematic IVDs offered as LDTs.**

FDA on the defensive—comments from 2024 final rule

(Comment 16) Several comments asserted that FDA's experience with Theranos is evidence that FDA oversight will not address problematic tests, particularly those that are fraudulent. They pointed out that FDA cleared a 510(k) from Theranos and that the company's fraudulent behaviors were addressed by CMS through the CLIA program.

(Response 16) This comment does not reflect a complete accounting of events. First, FDA cleared one test from Theranos early in our experience with the company. Per standard practice, FDA reviewed the data provided and based our decision on it. We subsequently identified significant device performance concerns based on the data submitted in submissions for other tests of Theranos, including questions about inaccurate results that may put patients at risk. We did not clear those devices. Less than 2 months after the clearance of the one test, we sent investigators to all Theranos sites, where we identified concerns with IVDs offered as LDTs and an unapproved collection device (Ref. 76). Recognizing the immediate risk to patients, we took a strategic compliance approach. Specifically, FDA took quick action that directly led to the firm ceasing distribution of its unapproved collection device. We also alerted CMS to potential CLIA concerns, and CMS promptly confirmed CLIA violations in a follow-up inspection. Thus, FDA was integral to the government's handling of Theranos, and FDA disagrees with the comment's assertions that FDA did not address problematic IVDs offered as LDTs by Theranos.

Available at https://www.federalregister.gov/documents/2024/05/06/2024-08935/medical-devices-laboratory-developed-tests (last visited accessed October 30, 2025).

Federal court vacates 2024 final rule

Reasoning in ACLA v. FDA, 776 F.Supp.3d at 562 & 576

The object of CLIA regulation is thus a facility performing health care services.

A "laboratory-developed test" is a methodology or process by which a laboratory generates biochemical, genetic, molecular, or other forms of clinical information about a patient specimen for use by the treating physician. Each laboratory uses its own unique knowledge of the protocols, performance characteristics, and means of analysis to develop such methodologies and processes. Laboratory-developed tests are offered as *services*. Unlike a drug or device, which is a manufactured and packaged article of commerce with user instructions, a laboratory-developed test service is a proprietary methodology performed by only the developing laboratory. That service generates information from test results and transmits that information to the ordering physician. The testing service is not sold as a kit, and the protocol is not transferred in any manner to other laboratories, hospitals, or other facilities outside the developing laboratory entity. No physical product is sold, and no article of personal property is transferred such that title passes from one party to another.

And just as the use of mechanical tools, instruments, and equipment for a scientific "experiment" or "investigation" does not render the experiment or investigation *itself* an "apparatus" or "contrivance," the use of such products as part of a laboratory-developed test service does not transform this medical *service* into an apparatus or contrivance under the FDCA. Laboratories across the country use equipment of many kinds to perform clinical testing services, but that does not render the services these laboratories perform *themselves* "medical devices." In this regard, FDA's belief that laboratory-developed test services involve the "manufacturing" of a "device," also misunderstands the meaning of the word "manufacture." In common parlance, manufacturing refers to "something made from raw materials by hand or by machinery," or "the process or operation of making wares or other material products by hand or by machinery." WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1378

FDA retreats

On May 6, 2024, the FDA issued a final rule amending the definition of "in vitro diagnostic products" in 21 CFR 809.3(a) to add the words "including when the manufacturer of these products is a laboratory." On March 31, 2025, a federal district court vacated that final rule. On September 19, 2025, the FDA issued a final rule reverting to the text of the regulation as it existed prior to the effective date of the May 2024 final rule.

Available at https://www.fda.gov/medical-devices/in-vitro-diagnostics/laboratory-developed-tests (last accessed October 30, 2025).

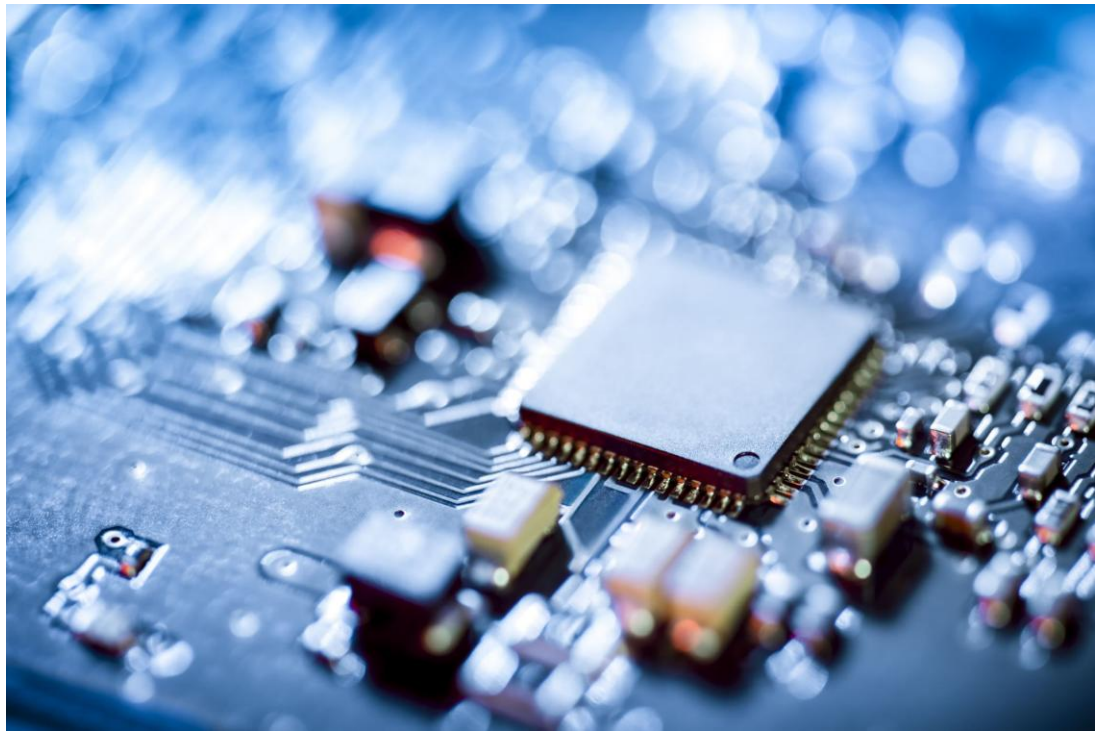
Affect on industry

- Return to status quo
  - Beyond 60-day deadline for agency to appeal federal decision
  - Separate legal challenge not predicted
- Laboratories and their methodologies are currently subject to CLIA regulation by CMS
- Tangible equipment (e.g., COVID kits) providing diagnostic information likely a device subject to FDA regulation
- Despite the legal victory for the laboratory-developed test industry, the battle is likely to ultimately shift back to Congress

Industry component that appears to be untouched by the decision invalidating the FDA's final rule

- The FDA is likely to continue to require the following tests to meet applicable FDA requirements:
  - Direct-to-consumer tests
  - Tests intended for donor screening for blood or human cells, tissues, and cellular and tissue-based products
  - Tests intended for emergency use per Section 564 of the FDCA, and
  - Tests manufactured or used outside of a clinical laboratory

The shifting regulatory landscape



- When the term LDT was first coined, LDTs were primarily made manually and in small batches and, as such, were of lower concern to the FDA
- Due to advancements in technology and increased automation, the FDA sees an increased need for more regulatory scrutiny over LDTs
- The FDA has expressed concerns involving quality control, safety, and efficacy of LDTs as they are becoming increasingly more complex
- That complexity is borne out of software and highly technical instrumentation
- With increased technology, cybersecurity incidents and threat actor attacks soon follow

Section 542B of the FDCA addresses the risk associated with a ‘cyber device’

Products that meet the definition of a “Cyber Device” are subject to additional cybersecurity requirements as part of premarket submissions and as part of some post-market management & monitoring

Adjusting to the regulatory headwinds

- Despite the legal fight over whether FDA or CLIA should regulate LDTs, entities manufacturing LDTs should take care to meet FDA compliance requirements in a broader context
- Those broad and essential compliance concerns are:
  - **Cybersecurity** – LDT manufacturers should confirm which products in their portfolios meet the definition of "cyber device"* and consider any change needed to comply with Section 542B of the FDCA
  - **Research Use Only** – Entities manufacturing products labeled RUO should assess whether any product labeled as RUO is being sold to or used in non-research or diagnostic settings
  - **Medical Device Reporting** – LDT manufacturers should establish a process for receiving and investigating any complaint received involving their products, and create procedures for complying with medical devices reporting requirements and initiating recalls appropriately
  - **Quality System Requirements** – LDT manufacturers need to ensure that their operations, and those of their applicable vendors or suppliers, are compliant with the FDA's current good manufacturing practices, which include quality control requirements

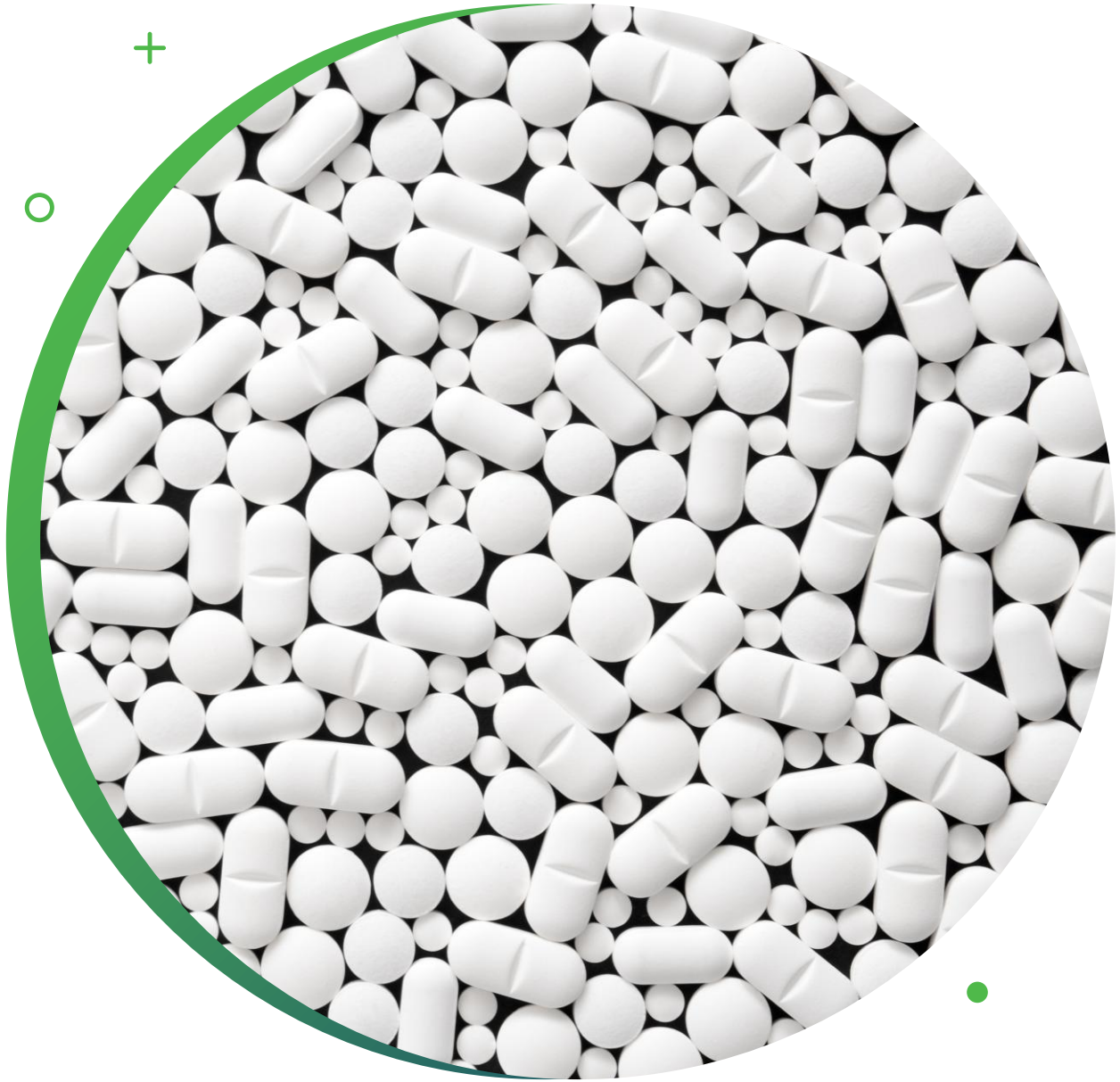
*A "cyber device" is a device which can connect to the internet, including that which is validated, installed, or authorized as a device or in a device, and contains technological characteristics that could be vulnerable to cybersecurity threats.

Acknowledgments

The presenters would like to thank Ahmed-Zayn Mohamed for research and administrative support.

MEDMARC

Autism and Acetaminophen—still an issue?



Acetaminophen/Autism MDL –a review

- MDL formed in Southern District of New York
  - MDL was formed in 2022
  - About 500 cases filed
- Parties agreed to bifurcate discovery
- **Question: Is acetaminophen capable of causing autism or ADHD?**
  - If the answer to this question was “no,” then litigation was over

Acetaminophen/Autism MDL –a review, cont'd

In re Acetaminophen—ASD-ADHD Prods. Liab. Litig., Case 1:22-md-03043-DLC (ECF No. 1381 at 49)(S.D.N.Y. December 18, 2023); *In re Acetaminophen—ASD-ADHD Prods. Liab. Litig.*, 1:22-md-03043-DLC (ECF No. 1494 at 83)(S.D.N.Y. July 10, 2024); Matt Saxon and Patrick Hogan, *Trio of Tylenol Product-Liability Opinions Exemplifies Effective Judicial Gatekeeping*, Washington Legal Foundation, October 7, 2024, available at https://www.wlf.org/2024/10/07/publishing/legal-backgrounders/trio-of-tylenol-product-liability-opinions-exemplifies-effective-judicial-gatekeeping/#easy-footnote-bottom-15-21198 (last visited December 2, 2025).

MEDMARC

Acetaminophen/Autism MDL

Not so fast my friends . . . .

The White House/FDA changes course on Acetaminophen/Autism link

President Trump (September 2025):

"So taking Tylenol is not good—I'll say it—it's not good. For this reason, they are strongly recommending that women limit Tylenol use during pregnancy unless medically necessary."

At this press conference, the White House announces that it has initiated a label change for acetaminophen to state that the drug is associated with a "higher risk of autism" for children whose mother's take acetaminophen during pregnancy

A nationwide "Dear Doctor" will be circulated on the "higher risk of autism" link. The American College of Obstetricians and Gynecologists called President Trump's statements "irresponsible" and still recommend acetaminophen for pregnant women

Rachel Cohrs Zhang, Madison Muller, John Tozzi, *Trump Warns Against Tylenol in Pregnancy Over Unproven Autism Fears*, Bloomberg Law, September 23, 2025, available at https://www.bloomberglaw.com/product/blaw/bloombergterminalnews/bloomberg-terminal-news/T31MTDGOT0JM (last visited December 2025); Megan Crane, Redd Brown, Madlin Mekelburg, *Texas Sues J&J, Kenvue Over Alleged Tylenol Autism Risks*, Bloomberg Law, October 28, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/BNA%200000019a2b09d6a1adbbfb6b2da30004?bna_news_filter=litigation&bc=bd8d6d66e6c5777e3b9ec2db787eb2ee&search32=q198ia5TwgMLTJkqpc20YQ==mWMD4utTO2kutPcKBsrPDUKdOyLn_L7HOFQDLrVJ2EhXSHhgxfhUYER6hrRXAfLzQkMpo_oP_E8zZd6EGmQQBQ== (last visited December 2, 2025).

Texas files a lawsuit against Tylenol manufacturers

- In October 2025, Texas sued Johnson & Johnson and Kenvue in state court in a small Texas county
  - Allegation is that J&J and Kevnue “hid” the risks of autism and engaged in deceptive marketing
- Texas’s Attorney General:
  - “Big Pharma betrayed America by profiting off of pain and pushing pills regardless of the risks . . . ”
- Kenvue:
  - “We are deeply concerned by the perpetuation of misinformation on the safety of acetaminophen and the potential impact that could have on the health of American women and children”

Magan Crane, Redd Brown, Madlin Mekelburg, *Texas Sues J&J, Kenvue Over Alleged Tylenol Autism Risk*, Bloomber Law, October 28, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/BNA%200000019a2b09d6a1adbbfb6b2da30004?bna_news_filter=litigation&bc=bd8d6d66e6c5777e3b9ec2db787eb2ee&search32=q198ia5TwgMLTJkqpc20YQ==mWMD4utTO2kutPcKBsrPDUKdOyLn_L7HOFQDLrVJ2EhXSHhgxfhUYER6hrRXAfLzQkMpo_oP_E8zZd6EGmQQBQ== (last visited December 2, 2025); Madlin Mekelburg, Jef Feeley, Redd Brown, *Judge Denies Texas Bid for Bar on Tylenol Marketing in State*, Bloomberg Law, November 15, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/XAFEIISS000000?bc=bd8d6d66e6c5777e3b9ec2db787eb2ee&bna_news_filter=litigation&search32=q198ia5TwgMLTJkqpc20YQ%3D%3DmWMD4utTO2kutPcKBsrPDUKdOyLn_L7HOFQDLrVJ2EhXSHhgxfhUYER6hrRXAfLzQkMpo_oP_E8zZd6EGmQQBQ%3D%3D (last visited December 2, 2025); Image created in Copilot with Microsoft PowerPoint.

MEDMARC

Recent decisions in Texas lawsuit

- Recent court actions in deceptive marketing case:
  - Judge denied Texas's request for a temporary order restraining prohibiting Kenvue from marketing Tylenol in Texas as being safe for pregnant women
  - Judge rejected Texas's request to prevent Kenvue from issuing dividend to its investors
  - Dismissed J&J from lawsuit
  - Lawsuit otherwise remains pending

Magan Crane, Redd Brown, Madlin Mekelburg, *Texas Sues J&J, Kenvue Over Alleged Tylenol Autism Risk*, Bloomber Law, October 28, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/BNA%200000019a2b09d6a1adbbfb6b2da30004?bna_news_filter=litigation&bc=bd8d6d66e6c5777e3b9ec2db787eb2ee&search32=q198ia5TwgMLTJkqpc20YQ==mWMD4utTO2kutPcKBsrPDUKdOyLn_L7HOFQDLrVJ2EhXSHhgxfhUYER6hrRXAfLzQkMpo_oP_E8zZd6EGmQQBQ== (last visited December 2, 2025); Madlin Mekelburg, Jef Feeley, Redd Brown, *Judge Denies Texas Bid for Bar on Tylenol Marketing in State*, Bloomberg Law, November 15, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/XAFEIISS000000?bc=bd8d6d66e6c5777e3b9ec2db787eb2ee&bna_news_filter=litigation&search32=q198ia5TwgMLTJkqpc20YQ%3D%3DmWMD4utTO2kutPcKBsrPDUKdOyLn_L7HOFQDLrVJ2EhXSHhgxfhUYER6hrRXAfLzQkMpo_oP_E8zZd6EGmQQBQ%3D%3D (last visited December 2, 2025).

MEDMARC

Texas remains undeterred

- Texas's attorney general began investigations on November 14, 2025 (the same day of J&J's dismissal) on the following:
  - Invokana—a type 2 diabetes medication
  - Hernia mesh
  - Silicone breast implants
  - Risperdal—an antipsychotic medication
- Texas has previously investigated hernia mesh and Risperdal
- J&J filed a suit alleging that it doesn't have to produce the voluminous documents sought by Texas in its investigation

Ryan Autullo, *Johnson & Johnson Moves to Block Paxton's Product Investigations*, Bloomberg Law, December 3, 2025, available at https://news.bloomberglaw.com/product/blaw/bloomberglawnews/exp/eyJpZCI6IjAwMDAwMTlhLWU1NDItZDIzMC1hNzlhLWY1NjNhMDNiMDAwMSIsImN0eHQiOiJIUE5XliwidXVpZCI6InFlakMycXptSWZydTdRRVU1enBqN3c9PWFFUk45TlAzM0EwU3Z4S1lPc212YWc9PSIsInRpbWUiOiIxNzY0ODQ5MzIyNTYxIiwic2lnIjoiSlg3YkJPWkg1dTdXNUdFMG1sdnhUbUNHaE1BPSIsInYiOiIxIn0=?source=newsletter&item=headline&region=digest&channel=pharma-and-life-sciences (last visited December 5, 2025).

MEDMARC

Second Circuit Appeal

- Judge Cote's MDL rulings were appealed to the U.S. Court of Appeals for the Second Circuit
  - Plaintiffs appealed Judge Cote's rulings on plaintiffs' experts claiming Judge Cote incorrectly "play[ed] amateur scientist"
- The Second Circuit seemed receptive to plaintiffs' arguments:
  - Judge Guido Calabresi :"I agree the district court did some things incorrectly"
  - Judge Gerard Lynch: "I'm having trouble understanding why the district court was correct to say that this just is nonsense. This is something that no one should hear . . . It just goes out the window, when it seems to me that you have a reputable scientist explaining why each of these judgment calls was made"
- Still waiting on Second Circuit's ruling, but the comments aren't positive
- A reversal would seem to walk back some of the "teeth" of recent revisions to the Federal Rules of Evidence regarding expert testimony

Jef Feeley, Sabrina Willmer, *Tylenol Maker Falls as US Court Weighs Reviving Autism Lawsuits*, Bloomberg Law, November 17, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/XCN9LEAK000000?bc=bd8d6d66e6c5777e3b9ec2db787eb2ee&bna_news_filter=litigation&search32=cZvvSCGCqmuoZI3Ni8tW1Q%3D%3DVc7MRcz0fni9kzVQBjO7MGwdfbYy8twiVEXHvW87QTDhWRwXYnEIJWZO623RckakI8a5KH2OpGuvsRHf78tOIw%3D%3D (last visited December 6, 2025); Mary Kekatos, *Federal judges weigh reviving court cases linking Tylenol to autism*, ABC News, November 21, 2025, available at https://abcnews.go.com/Health/federal-judges-weigh-reviving-court-cases-linking-tylenol/story?id=127668037 (last visited December 6, 2025).

Heavy metals baby food MDL

- MDL pending in the U.S. District Court for the Northern District of California
  - 272 lawsuits in the MDL
  - Allegation is that toxic heavy metals contaminated baby food and caused brain and neurodevelopmental damage to children ingesting the food
- Over 600 baby food types allegedly impacted
- Defendants in the MDL include Celestial's, Earth's Best Organics, Happy Baby and Happy Tota, Plum Organics, Sprout Organic, Amazon
- Week-long (December 8-12, 2025) hearing ongoing on question of whether plaintiff's scientific experts can testify that heavy metals in the baby food cause neurological issues
- Some plaintiff firms are advertising this as an alternative to the Acetaminophen/Autism MDL

Baby Food Autism Lawsuit—December 2025 Update, available at https://lawsuittracker.org/defective-products/baby-food-autism-lawsuit/#:~:text=As%20of%20April%201%2C%202025,as%20the%20litigation%20moves%20forward. (last visited December 6, 2025); Ronald V. Miller, Jr., *Baby Food Autism Lawsuit*, September 22, 2025, available at https://www.lawsuit-information-center.com/baby-food-autism-lawsuit.html (last visited December 6, 2025); Irvin Jackson, *Evidence Linking Toxic Metals in Baby Food to Autism, ADHD To Be Evaluated by Court,* About Lawsuits, available at https://www.aboutlawsuits.com/evidence-linking-toxic-metals-baby-food-autism-adhd/ (last visited December 6, 2025); Jonathan Stempel, *Several Companies must face lawsuit over tainted baby food, US judge rules,* Reuters, April 3, 2025, available at https://www.reuters.com/business/healthcare-pharmaceuticals/several-companies-must-face-lawsuit-over-tainted-baby-food-us-judge-rules-2025-04-03/#:~:text=Parents%20sued%20after%20a%202021%20report%20%2C,some%20baby%20food%20could%20cause%20neurological%20damage. (last visited December 6, 2025); Shweta Watwe, *Amazon to Face Negligence Claims in Heavy Metals Baby Food Suits*, Bloomberg Law, October 2, 2025, available at https://www.bloomberglaw.com/product/blaw/bloomberglawnews/litigation/XV0OM88000000?bc=1648883489bbab9adc8f40953b9fc78e&bna_news_filter=litigation&search32=WrAlsf0C52DsBPI351amRw%3D%3D2ll0QznVSFpwOjE6lxVK16PzY9v-uvJ81hrc_Ei1UEJd5npM9H3xGqj8r3s_YUZ8nQzD9BgCRMbQEG11u0blmA%3D%3D (last visited December 6, 2025).

What are we going to be talking about next year? Questions?

- **Ricky C. Benjamin, Esquire**
  - (404) 541-4904 (Direct)
  - rbenjamin@burr.com
- **Andy Hall, Esquire**
  - (703) 652-1328
  - andrewhall@medmarc.com

MEDMARC