

# Medical Device Update: 2025 Year in Review

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# Agenda



Premarket Issues



Recalls and Inspections



Warning Letters and Enforcement



Legislation, Rulemaking, and Guidance



Staffing and Shutdowns

# Premarket Issues



Key Developments



Notable Trends



2026 Predictions

# Premarket Issues: Developments

- **Falsified Data from Chinese Testing Laboratories**

- FDA issued General Correspondence Letters to Mid-Link Technology Testing (Feb. 26, 2025) and Sanitation & Equipment Technology Institute (May 8, 2025) after determining biocompatibility, animal, and performance testing conducted by these companies were falsified or otherwise invalid
- FDA will reject testing data generated by these entities if used in any premarket device submissions
- Follows 2024 Warning Letters citing these companies for GLP and data integrity issues

- **Breakthrough Designations**

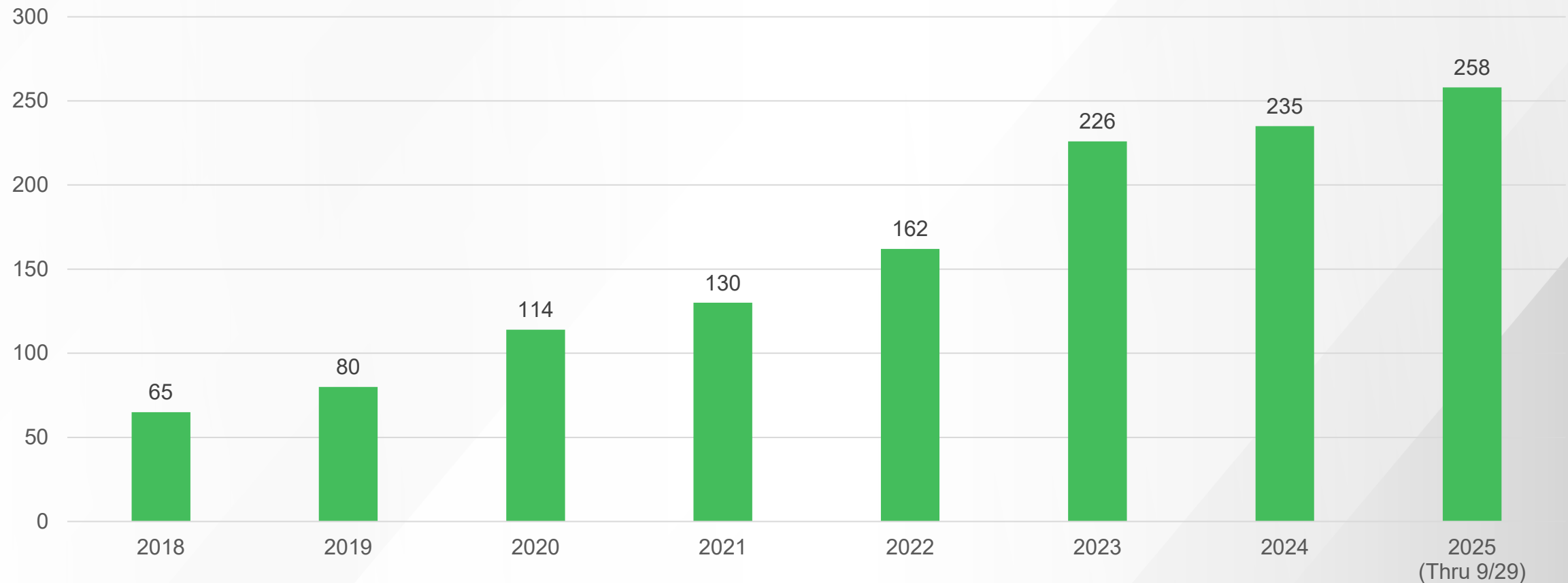
- BDD granted to 1,176 devices since 2015
- Only 160 ultimately received FDA authorization (13.6%)
- Disconnect between promising early feasibility data and FDA's pivotal study expectations

- **eSTAR Required for De Novo**

- Mandatory as of Oct. 1, 2025

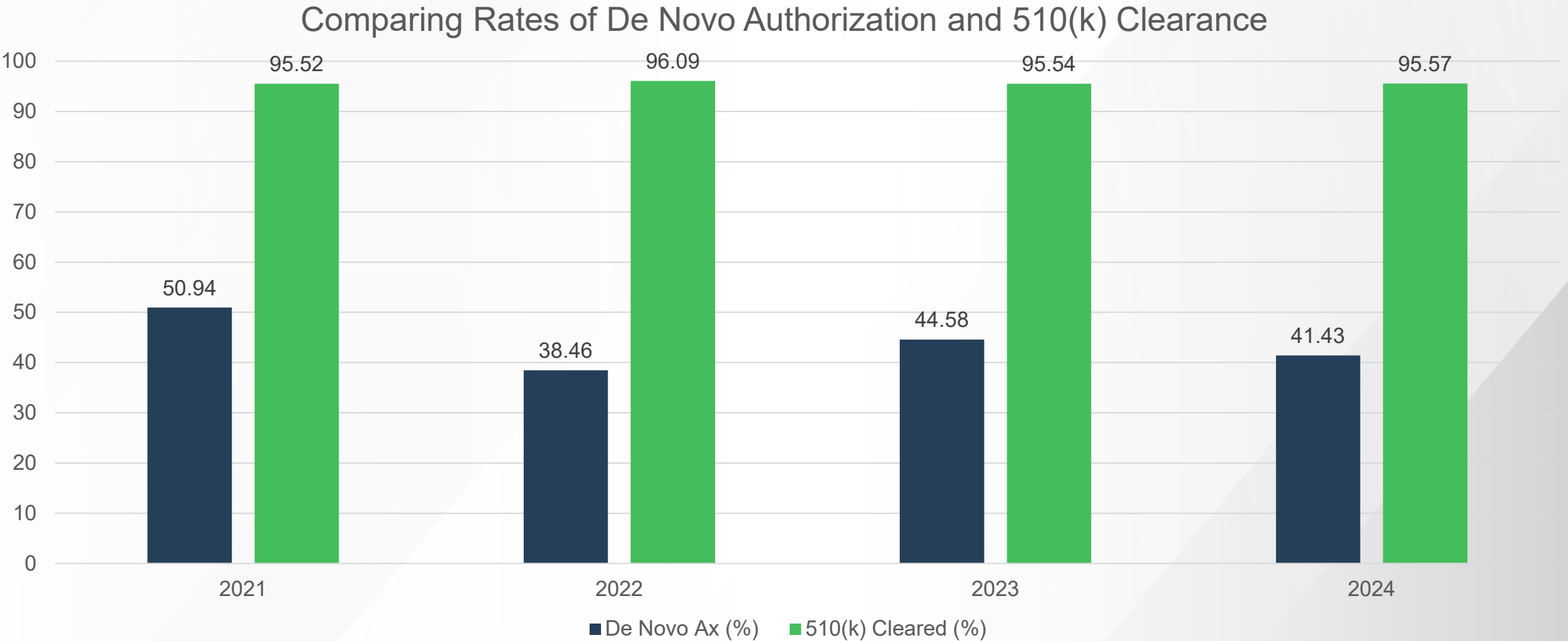
# Premarket Issues: Trends

AI-Enabled Device Authorizations (By Year)



**Number of Devices Containing AI is Accelerating**

# Premarket Issues: Trends



**De Novo Pathway Has Lower Chance of Success than 510(k)**

# Premarket Issues: Predictions

- **Technology-Enabled Meaningful Patient Outcomes (TEMPO) for Digital Health Devices Pilot**
  - Digital health devices offered to or by participants in the CMMI ACCESS model—a new payment option emphasizing patient outcomes—can request FDA enforcement discretion for premarket review requirements
  - TEMPO participants need to collect real-world data on the intended uses subject to enforcement discretion, share the data with FDA, and use that data to seek marketing authorization from FDA
  - FDA will collect statements of interest for pilot participation beginning in 2026
- **FDA Announces Broader Use of AI for Premarket Review**
  - FDA announced in Dec. 2025 that it will offer FDA staff a broader set of AI tools to use in premarket reviews (and other purposes)
  - Previously, anonymous FDA officials reported the AI hallucinated and cited studies that did not exist

# Recalls and Inspections



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# Recalls: Developments

## Top 5 Root Causes for Recall Events

- Device design
- Process controls
- Software design
- Nonconforming material/component
- Lack of marketing application

## Early Alert Program

FDA expanded the pilot Early Alert system to include all serious medical device recalls

- Pilot program was initiated in Nov. 2024 – limited to Class I recalls involving cardiovascular, gastrorenal, general hospital, obstetrics and gynecology, and urology devices
- Allows FDA to publicize a potentially high-risk recall within 1-3 weeks of a customer notification
- Database of all recalls subject to the early alert program is available on FDA's website – searchable and updated with new information

**Number and reasons for recalls remained steady in FY2025**

# Recalls: Trends

Recall Events by Classification (FY)



# Recalls: Predictions

- **Increased Use of FDA's Communications Platforms**

- Initial post of recall action in FDA's Medical Device Recall Database; updated after classification
- FDA will post a company's press release about a recall, market withdrawal, or safety alert
- FDA also can post its own press release about a product recall - Safety Communication and Early Alert system
- Recalls monitored by FDA will be published in the weekly Enforcement Report, available electronically

- **Enhanced Coordination Between District Offices and Within CDRH**

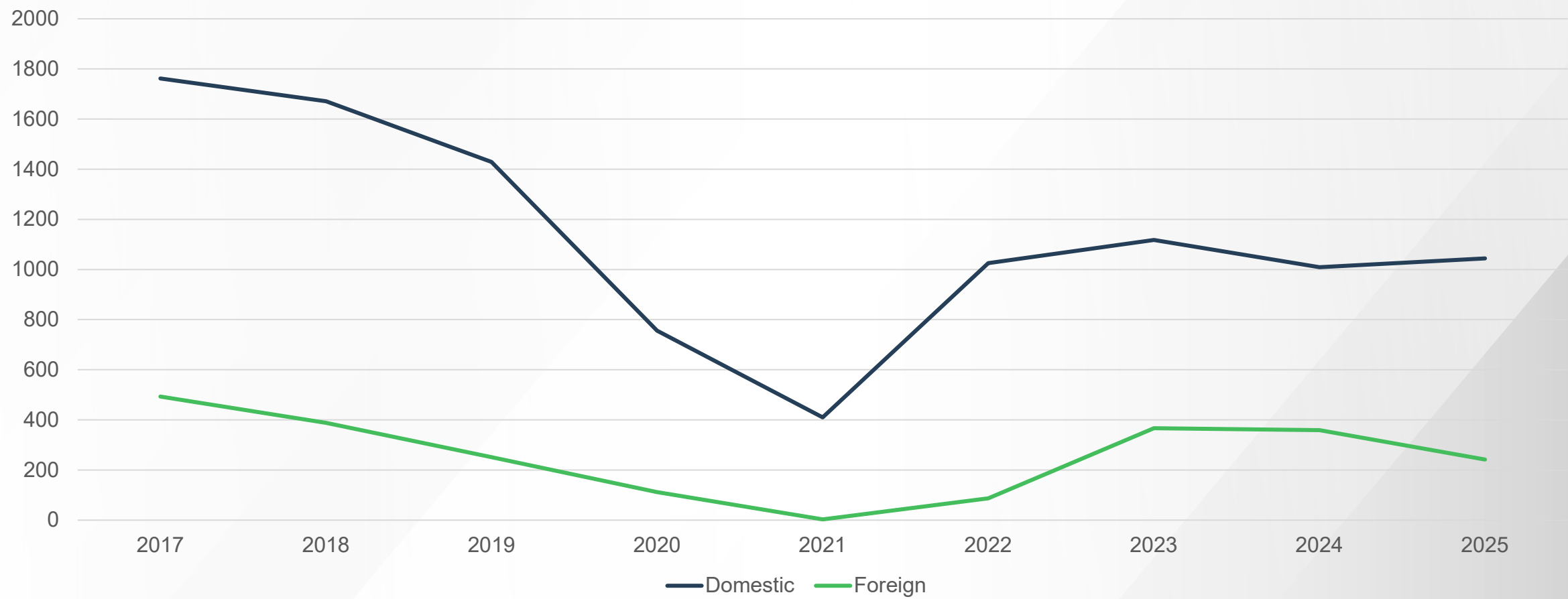
- FDA recall coordinators are located in "Inspectorates" across the country – 4 Medical Device Inspectorates in the US (Midwest, Northeast, South, West)
- Office of Product Evaluation and Quality coordinates the stakeholders within CDRH
  - Classify the recall, request revisions to the customer notification about the recall or the corrective action to address the underlying issue, and monitor the status of the recall activities

# Inspections: Developments

- **Top 5 Citations (FY2025)**
  - CAPA (25.4%)
  - Complaints (19.8%)
  - Purchasing Controls (10.7%)
  - Nonconforming product (8.8%)
  - Process Validation (7.4%)
- **Unannounced Foreign Inspections**
  - Following EO 14293, FDA announced in May 2025 that it would increase the frequency of unannounced inspections at foreign facilities
- **Use of Remote Regulatory Assessments (Q&A issued June 2025)**
  - Q&A Guidance updated from 2024
  - Does not appear to be as often used for medical device firms as for with drug firms

# Inspections: Trends

Device Inspections (FY)



Fewer Domestic Inspections Post-COVID

# Inspections: Predictions

- **OII Reorganization**

- FDA will merge all its medical product and clinical research inspectorates
- More generalists, less subject matter expertise
- Reverses 2017 effort to do the inverse

- **QMSR**

- By Feb. 2, 2026, manufacturers need to have established procedures that comply with new QMSR requirements
- ISO 13485 harmonization + select QSR requirements
- Key areas of focus for FDA will be incorporating risk-based decision-making throughout QMS and supplier controls

# Warning Letters and Enforcement



Key Developments



Notable Trends



2026 Predictions

# Warning Letters: Developments

- **Top Citations in 2025**

- CAPA (820.100)
- Complaint Handling (820.198)
- Purchasing (820.50)
- Process Validation (820.75)
- Medical Device Reporting (803.17)
- Unique Device Identifier (830.300)



# Warning Letters: Developments

- **DRG Instruments (3/31/25)**

- RUO-labeled assay intended for clinical use
- Customer certification insufficient to cure issue (FDA notes one customer did not sign)
- FDA's "review of these customers' websites strongly suggests that these customers are engaged in clinical diagnostic testing"

- **Visgeneer, Inc (6/13/25)**

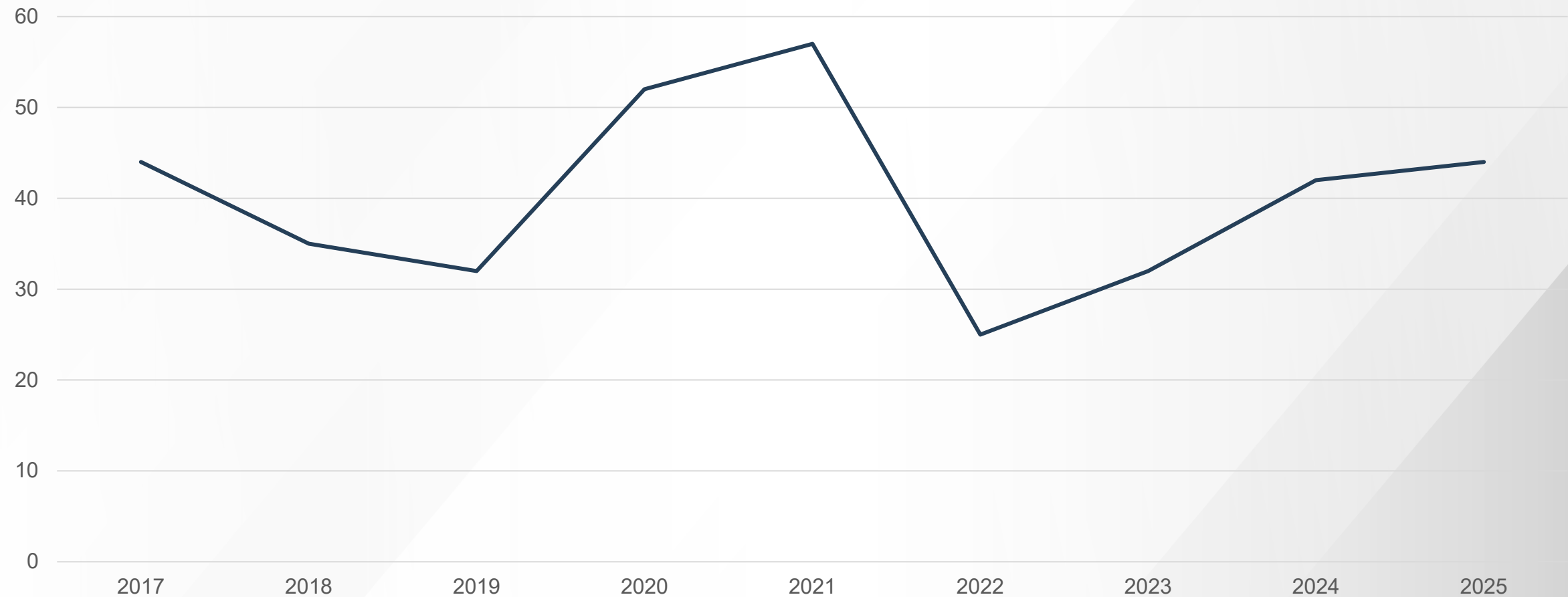
- eBchek Blood Glucose Monitoring System and eBuricacid/Uritouch Blood Uric acid Monitoring System
- Design control deficiencies, validation data does not match 510(k) submission, changes not assessed for new 510(k)
- Even though product no longer marketed after FDA said new 510(k) needed, did not conduct a recall
- Import alert to refuse all product until WL remedied

# Warning Letters: Developments

- **Exer Labs, Inc. (2/10/25) & SeniorLife Technologies (8/21/25)**
  - AI software that analyzes patient movement to diagnose musculoskeletal and neurological disorders
  - Listed under 21 CFR 890.5360 Measuring Exercise Equipment as 510(k) exempt
  - FDA found both exceed .9 limitations
- **WHOOP, Inc. (7/14/25)**
  - Wearable “blood pressure insights” – daily systolic and diastolic blood pressure estimates
  - Positioned as general wellness
  - FDA’s states BP measurement is “inherently associated with the diagnosis of hypo- and hypertension and is therefore intended for use in the diagnosis of a disease or other condition, or in the cure, mitigation, treatment, or prevention of disease”

# Warning Letters: Trends

Device Warning Letters (FY)



Minor Fluctuations

# Warning Letters: Predictions

- **Longer Letters, More Citations**
  - Ease of digital document requests and review
  - Potential use of AI for review and drafting
- **More Foreign Warning Letters**
  - Increased frequency of unannounced foreign inspections and focus on data integrity may increase share of warning letters to foreign facilities
- **Use of AI to Generate More Warning Letters Overall**
  - CDER used AI to identify violations and issue a large bolus of Warning Letters regarding prescription drug direct-to-consumer advertising
  - Likelihood that these AI tools will be used by CDRH for similar surveillance and identification of violations

# Enforcement: Developments and Predictions

- **Import Alerts**

- Likely to be an increase in the number of Import Alerts detaining foreign devices, including components
- Protect impact on supply chain

- **DOJ Changes**

- May 12, 2025 Criminal Division memo, FD&C Act remains a priority area of enforcement
- Reorganization of DOJ Consumer Protection Branch

- **Novel Uses of the False Claims Act**

- Illumina settled with DOJ for \$9.8M
- Alleged FCA claims related to cybersecurity *vulnerabilities* in genomic sequencing systems
- Focused on deficient process/design, not actual breach

## CDRH Enforcement Priorities

- Risk-based enforcement
- Repeat OAI firms
- Unapproved device enforcement
- Data Integrity/Quality
- Unique Device Identifier
- Surveillance activities

# Legislation, Rulemaking and Guidance Documents



Key Developments



Notable Trends



2026 Predictions

# Legislation and Rulemaking: Developments

- **LDT Rule**

- U.S. District Court vacated rule (3/31/25)
- FDA final rule reverting 21 C.F.R. § 809.3 to prior language (9/19/25)
- Questions remain: e.g., definition of LDT, components, CDx
- Seemingly no proposed legislation (VALID Act)

- **IVD Reclassifications**

- Class III → II
- **Final:** Hep B Assays (9/18/25)
- **Proposed:** In situ hybridization (ISH) test systems (6/11/25) and nucleic acid-based test systems (11/25/25), each indicated for use with a corresponding approved oncology therapeutic product

# Legislation and Rulemaking: Predictions

- **“Unified Agenda” Spring 2025**

- Reclassification of unclassified wound dressings/washes containing antimicrobials or other chemicals (proposed 11/30/23) – Class III for medically important antimicrobials
- No Unified Agenda for 2026 yet

- **MDUFA VI Underway**

- FDA held first meeting August 2025, kicking off negotiations
- New bill needs to be passed by September 30, 2027

- **BIOSECURE Act Reintroduced**

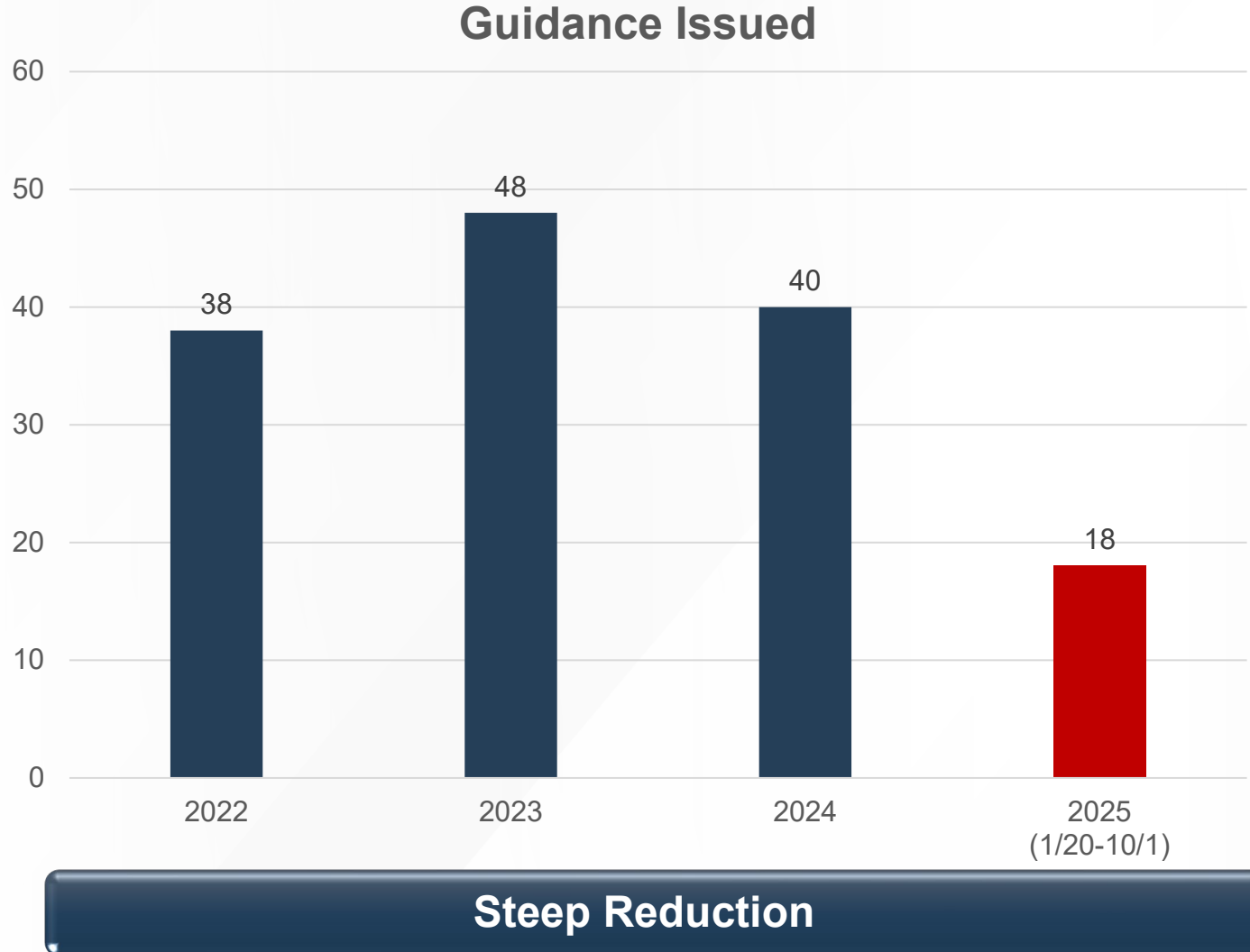
- Restricts the use of certain biotechnology equipment and services from biotechnology companies of concern in performance of federal contracts or grants
- Passed in Senate NDAA (10/9/25); House originally omitted, but revised NDAA text includes it (12/8/25)
- Revised from last year’s version that did not pass
  - In addition to OMB mechanism to identify BCOCs, DOD’s 1260H list added
  - WuXi not currently named, although multiple processes by which they could be added
  - Mass spectrometry and PCR machines omitted from scope
  - Struck “has reason to know” – FCA scienter



# CDRH Guidance (2025)

eCopy Program for Medical Device Submissions	Transfer of a Premarket Notification (510(k)) Clearance – Questions and Answers: (Draft)
Cross-Center Master Files: Where to Submit (Draft)	Requests for Feedback and Meetings for Medical Device Submissions: The Q-Submission Program
Menstrual Products - Performance Testing and Labeling Recommendations: (Draft)	Electronic Submission Template for Medical Device Q-Submissions: (Draft)
Quality Management System Information for Certain Premarket Submission Reviews: (Draft)	Evaluation of Sex-Specific Data in Medical Device Clinical Studies
Computer Software Assurance for Production and Quality System Software	Institutional Review Board (IRB) Written Procedures
Consideration of Enforcement Policies for In Vitro Diagnostic Tests During a Section 564 Declared Emergency	Premarket Approval Application and Humanitarian Device Exemption Modular Review
Animal Studies for Dental Bone Grafting Material Devices - Premarket Notification (510(k)) Submissions	Notifying FDA of a Permanent Discontinuance or Interruption in Manufacturing of a Device Under Section 506J of the FD&C Act
Marketing Submission Recommendations for a Predetermined Change Control Plan for Artificial Intelligence-Enabled Device Software Functions	Pulse Oximeters for Medical Purposes - Non-Clinical and Clinical Performance Testing, Labeling, and Premarket Submission Recommendations: (Draft)
Medical Device User Fee Small Business Qualification and Determination	Artificial Intelligence-Enabled Device Software Functions: Lifecycle Management and Marketing Submission Recommendations: (Draft)
Cybersecurity in Medical Devices: Quality System Considerations and Content of Premarket Submissions	Communications From Firms to Health Care Providers Regarding Scientific Information on Unapproved Uses of Approved/Cleared Medical Products: Questions and Answers
Unique Device Identifier Requirements for Combination Products: (Draft)	Validation of Certain In Vitro Diagnostic Devices for Emerging Pathogens During a Section 564 Declared Emergency: (Draft)
Conducting Remote Regulatory Assessments Questions and Answers	Study of Sex Differences in the Clinical Evaluation of Medical Products
Hernia Mesh – Package Labeling Recommendations: (Draft)	

# CDRH Guidance: Trends and Predictions



## Why?

- Initial regulatory freeze
- “10-to-1” rule (some guidance marked as “deregulatory” and therefore exempt)
- Agency turnover / RIFs

## Yes but...

- CDRH Proposed Guidances
  - FY2026: 21
  - FY2025: 29

# Staffing and Shutdown Impacts



Key Developments



2026 Predictions

# Staffing

## Impact of Agency RIFs/Turnover

- Early acute issues mitigated by some termination reversals
- No widespread reports of application review delays
- Leadership relatively stable at CDRH compared to CDER/CBER
- Personal experience:
  - Some Offices/Divisions will no longer schedule Q-sub meetings until after written feedback and confirmation that meeting still desired
  - Shortage of statistical review staff led to delay in scheduling SIR
  - Recall could not be closed despite agency determination that it was warranted
  - Other informal feedback could not be provided due to general resource constraints

# Shutdown

## Continued Activities

- During shutdown, ~86% of FDA staff remained at work
- Review of pending applications where user fee has already been paid (510(k), de novo, PMA)
- Review of pre-sub requests and IDEs (new or pending) – do not require user fees but are considered part of the user-fee agreement (may not get in-person meetings)
- Critical safety functions – recalls, shortages, MDRs, for-cause inspections, import screenings

## Paused Activities

- New submissions that require user fees that cannot be processed
- Routine inspections

**Continuing resolution only funds the government through January 30, 2026**



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