Introduction to Medical Device Law and Regulation

April 8-9, 2025| Virtual

Preconference Primer (60 Minutes) **I. Overview of Medical Device Law and Regulation and Organizational Structures**

Learning Objectives

- Learn the current regulatory framework and major statutory underpinnings for medical device regulation
- Discuss the federal agencies that play a role in regulating medical devices
- Address the state role in regulation

McKenzie Cato, Associate, King & Spalding LLP

A. History of FDA Regulation of Medical Devices and Sources of Law

1. Federal Food, Drug, and Cosmetic Act (FDCA)
    a. Pre-1976 statutory authorities for devices
    b. 1976 Medical Device Amendments (key principles and new authorities)
2. Notable Amendments to the FD&C Act
    a. Safe Medical Devices Act of 1990 (SMDA)
    b. Food and Drug Administration Modernization Act of 1997 (FDAMA)
    c. Medical Device User Fee and Modernization Act of 2002 (MDUFMA)
    d. Food and Drug Administration Amendments Act of 2007 (FDAAA)
    e. Food and Drug Administration Safety and Innovation Act of 2012 (FDASIA)
    f. 21st Century Cures Act (2016)
    g. Medical Device User Fee Authorization
    h. Food and Drug Omnibus Reform Act of 2022 (FDORA)
3. Other statues
    a. Public Health Service Act of 1944 (PHSA)
    b. Radiation Control for Health and Safety Act of 1968 (RCHS)
    c. Mammography Quality Standards Act of 1992 (MQSA)
    d. Administrative Procedure Act of 1946 (APA)
4. Device regulations (21 CFR §§ 801 et seq.)
5. Guidance documents and other policy pronouncements
6. FDA website
7. Case law

B. Device Definition and Classification

1. "Device" definition (Section 201(h)(1) of the FDCA)
2. Enforcement discretion categories
    a. Policy for Device Software Functions and Mobile Medical Applications (MMAs)
    b. General Wellness: Policy for Low Risk Devices
3. In Vitro Diagnostics (IVDs)
    a. Laboratory Developed Tests (LDTs); LDT Proposed Rule
    b. Companion Diagnostics
    c. Complimentary Diagnostics
4. Gray area product examples (e.g., physical vs. chemical action; exercise vs. rehabilitation)
5. Device classification and examples
    a. Definitions of Class I, II, III
    b. General controls
    c. Specific controls

C. Center for Devices and Radiological Health (CDRH), Food and Drug Administration (FDA), U.S. Department of Health and Human Services (HHS)

1. Office of the Center Director
2. Office of Product Evaluation and Quality (and Offices and Divisions)
3. Office of Strategic Partnerships and Technology Innovation (and Offices and Divisions (e.g., Digital Health Center of Excellence))
4. Office of Policy
5. Office of Communication and Education (and Divisions)
6. Office of Science and Engineering Laboratories

D. FDA's Office of Inspections and Investigations (OII)

1. Office of Criminal Investigations (OCI)
2. Office of Medical Devices & Radiological Health Inspectorate
3. Office of Bioresearch Monitoring Inspectorate
4. Office of Import Operations

E. FDA's Office of the Chief Counsel (OCC)

F. U.S. Department of Justice, Consumer Protection Branch – FDA's Attorneys

1. Pursues criminal and civil violations of the Food, Drug, and Cosmetics Act

G. Federal Trade Commission

H. Federal Communications Commission

I. State Involvement in Medical Device Regulation

J. Clinical Laboratory Improvement Amendments (CLIA) Program

K. Appeals of FDA Decisions

1. Supervisory review
2. Formal appeals

3. Dispute resolution

L. Working with FDA – How and When to Communicate with FDA

1. CDRH Ombudsman

Preconference Primer (45 Minutes) **II. Combination Products**

Learning Objectives

- Recognize what comprises combination and non-combination products
- Understand the role of the Office of Combination Products (OCP) and how products are assigned to FDA's medical product centers

Megan Robertson, Member of the Firm, Epstein Becker Green

A. What are Combination Products?

1. Statutory provisions
2. 21 CFR Part 4
    a. Single-entity combination products/co-packaged combination products/cross-labeled combination products
    b. Current Good Manufacturing Practice requirements for combination products
    c. Postmarketing safety reporting for combination products

B. Determining Primary Jurisdiction

1. Office of Combination Products (OCP)
2. Primary Mode of Action (PMOA)
3. Pre-Request for Designation (Pre-RFD) and Request for Designation (RFD) Process
4. What goes into a Pre-RFD?
5. What goes into an RFD?
6. OCP's "algorithm" to determine jurisdiction when PMOA is unclear
7. Appeals for RFDs

C. Determining jurisdiction for a non-combination product that is not clearly a drug or device or biologic

Tuesday, April 8, 2025

11:00 AM **FDLI Welcome and Announcements**
Khara L. Minter, Assistant Director, Training Programs, FDLI

11:05–11:50 AM **III. Digital Health**

Learning Objectives

- Define the different forms of digital health technology and understand how digital health products are regulated
- Recognize the related policies that resulted from 21st Century Cures
- Learn what requirements apply to FDA regulated digital health products

Mahnu Davar, Partner, Arnold & Porter LLP
Claire Dennis, Associate, Arnold & Porter LLP

A. What is Digital Health?

B. Definition of Device and Overview of Carve-Outs Arising from 21st Century Cures Act

1. Recap of "device" definition (Section 201(h)(1) of the FDCA
2. Clinical Decision Support (CDS) software
3. Health and Wellness software
4. Administrative Support software
5. Electronic Patient Records software
6. Software to transfer, store, or display data

C. Categories of Regulation

1. Software that does not meet device definition
2. Software that is subject to enforcement discretion
3. Software that is actively regulated

D. What is Clinical Decision Support (CDS)?

1. Statutory definition
2. FDA Guidance
3. Examples

E. Wellness Defined

1. Statutory exemption
2. FDA Guidance
3. Examples

F. Innovative Issues for Digital Health Products

1. Applicable regulatory requirements for digital health products regulated by FDA
2. Digital Health Center for Excellence initiatives
    a. Precertification (Pre-Cert) Pilot Program 2017-2022
    b. Artificial Intelligence/Machine Learning (AI/ML) approach

i. Regulatory pathway
ii. Data support requirements
iii. Population and generalizability
iv. Good Machine Learning Practice (GMLP) Guiding Principles (October 2021)

3. Food and Drug Omnibus Reform Act of 2022 (FDORA) amendments
   a. Predetermined change control plans for devices (Section 3308); Marketing Submission Recommendations for a Predetermined Change Control Plan for Artificial Intelligence/Machine Learning (AI/ML)–Enabled Device Software Functions (April 2023); Predetermined Change Control Plans for Machine Learning-Enabled Medical Devices Guiding Principles (October 2023)
   b. Cyber device requirements (Section 3305)
      i. If a device meets this definition, FDORA requires a premarket submission seeking FDA clearance or approval to include cybersecurity information, such as a software bill of materials, and a plan to address cybersecurity vulnerabilities.
      ii. Sponsor must also design, develop, and maintain processes and procedures that provide "reasonable assurance" that the device and "related systems" are "cybersecure," including making post-market updates and patches available to address "vulnerabilities."
      iii. Failure to comply with these requirements now constitutes a prohibited act under the FDCA.
4. Potential exposure under FTC Breach Notification Rule

11:50 AM–12:00 PM Break

12:00–1:30 PM IV. Clinical Investigations

Learning Objectives

- Determine when an Investigational Device Exemption (IDE) is needed
- Learn the components of Institutional Review Boards (IRBs)
- Recognize the required elements of informed consent
- Understand the responsibilities of a clinical trial sponsor
- Learn what bioresearch monitoring (BIMO) looks for in a clinical trial inspection

Anisa Mohanty, Of Counsel, DLA Piper LLP (US)

A. Overview

B. 'Significant Risk' (SR) vs. 'Nonsignificant Risk' (NSR) Device Studies

C. IDE Exempt Studies

D. Pre-Submission Meetings

E. Submitting an IDE

1. Contents of an IDE application
2. Amendments
3. Acceptance of data from clinical trials conducted outside of the U.S.
    a. Good Clinical Practice (GCP) Compliance
    b. Generalizability to US population
    c. Applicability to US treatment practices
4. Subgroup analysis plans to address potential differences based on demographics (gender, race, ethnicity)
5. Clinical investigator selection

F. FDA Actions (IDE decisions; clinical holds)

G. ClinicalTrials.gov

H. Clinical Trial Equity Issues

I. Institutional Review Board (IRB)

1. Composition
2. Operations
3. Records
4. Reports
5. NSR determination
6. Ongoing review
7. Incentives for Enrollment
8. Vulnerable Populations

J. Informed Consent

1. Required elements
2. Additional elements
3. Waivers
4. Emergency use

K. Clinical Trial Sponsor's Responsibilities

1. Financial disclosure by clinical investigators
2. Financial disclosure requirements by applicants

L. Prohibition on Promotion/Commercialization

M. Bioresearch Monitoring Inspections (BIMO) and Enforcement Actions (e.g. Warning Letters, debarment, etc.)

1:30–1:40 PM	**Break**

1:40–2:55 PM V. Premarket Notification 510(k) and De Novo Requests

Learning Objectives

- Recognize the legal basis and content for a 510(k)
- Learn how to strategize for a 510(k) submission
- Understand FDA's 510(k) review process
- Define substantial equivalence and predicate devices
- Learn what a de novo request is and when it will be accepted

Véronique Li, Senior Medical Device Regulation Expert, Hyman, Phelps & McNamara, PC

A. Overview

B. Premarket Notification 510(k)

1. Predicate Device
2. Substantial Equivalence
3. Pre-amendment Devices
4. When a 510(k) is required to be submitted vs. not required to be submitted
5. Strategic considerations for 510(k) submission
6. User Fees for 510(k) submissions
7. FDA 510(k) review process and timeline
8. Special 510(k) Program
9. Use of Standards in a 510(k) and Abbreviated 510(k)s
10. Confidential, Proprietary, and Trade Secret Information
11. Third Party Review of a 510(k) submission
12. Modifications to a legally marketed device

C. De Novo Request

1. Statutory provisions
2. Medical Device De Novo Classification Final Rule
3. Options for submitting De Novo Requests
4. Strategic considerations for De Novo Requests
5. De Novo Request User Fees
6. FDA De Novo review process and timeline
    a. Acceptance Checklist
    b. Probable risk/probable Benefit analysis

2:55–3:05 PM Networking Break

3:05–4:20 PM **VI. Premarket Approval Application (PMA); Humanitarian Device Exemption (HDE); Breakthrough Devices Program; Safer Technologies Program**

Learning Objectives

- Learn the required elements and FDA review considerations for Premarket Approval (PMA) applications
- Understand the required contents and FDA review considerations for Humanitarian Device Exemption (HDE) applications
- Recognize post-approval and post-marketing considerations for approved PMAs and HDEs

Judith O'Grady, Partner, Troutman Pepper Hamilton Sanders LLP

A. Purpose

B. Content of a PMA

1. Application requirements
2. Clinical data and Real World Evidence
3. Modular PMA
4. Referencing Device Master Files

C. PMA Approval Process and Timelines

D. PMA Amendments

E. PMA Supplements

F. PMA User Fees

G. Meetings with FDA

H. Advisory Panels

1. When panels are convened
2. Role of panel
3. Meeting procedures

I. Humanitarian Device Exemption (HDE)

1. Standards for HDE approval
2. Comparison to PMA standard for approval
3. Limitations and additional requirements for HDEs

J. Breakthrough Devices Program and Safer Technologies Program (SteP)

1. Eligibility
2. Benefits
3. Request and Approval Process

4:20–4:30 PM **Break**

4:30–5:30 PM **VII. Coverage, Coding and Payment – Collaboration Between FDA and the Centers for Medicare and Medicaid Services (CMS)**

Learning Objectives

- Gain a clearer context of the Centers for Medicare and Medicaid Services (CMS) relationship with FDA – specifically regarding reimbursement and approval
- Distinguish the data needs of CMS from FDA
- Learn practical tips to link FDA with reimbursement

Preeya Noronha Pinto, Partner, King & Spalding LLP

A. Harmonizing FDA and CMS Requirements

1. 510(k)
2. IDE/PMA
3. Parallel Review by FDA and CMS
4. Reimbursement implications:
    a. Healthcare Common Procedure Coding System (HCPCS), product codes and picking the predicate device
    b. Coverage of IDE devices
    c. National Coverage Decisions (NCD)

B. Safety and Effectiveness ≠ Reasonable and Necessary

C. Distinguishing FDA Data Needs from CMS Data Needs

D. CMS' Policy on Coverage for Clinical Trials and Research

E. Practical Tips to Link FDA with Reimbursement

1. Selecting the route for approval/clearance
2. Structuring clinical trials
3. Labeling to support coverage and reimbursement

Wednesday, April 9, 2025

11:00 AM **FDLI Welcome and Announcements**
Khara L. Minter, Assistant Director, Training Programs, FDLI

11:05 AM–12:20 PM **VIII. Post Marketing Issues**

Learning Objectives

- Learn how medical device manufacturers are required to evaluate and report post-market adverse events and product problems
- Recognize when to conduct a recall and how corrections and removals are reported to the FDA
- Understand how medical device manufacturers are required to monitor device performance following clearance or approval

Kaitlin Alexander, Senior Scientist, Exponent, Inc.

A. Complaint Handling
1. Definition of "Complaint"
2. Source of complaints; Service report as input to complaint (21 CFR § 820.200)
3. General Requirements
4. Complaint Investigation
5. Complaint Records

B. Medical Device Reporting (MDR) (21 CFR Part 803)
1. Purpose
2. Key Definitions
3. What types of events must be reported to FDA?
4. Who needs to report MDRs and When?
    a. Reporting forms
    Electronic submission of MDRs in Electronic Submissions Gateway (ESG)
5. MDR Procedures and Records
6. Public disclosure (FOIA and MAUDE)
7. Examples

C. Unique Device Identifiers (UDI) - Regulations and Implementation (21 CFR Part 830)
1. Definition
2. General Requirements (§ 830.10 - 830.60)
3. Purpose – traceability
4. Global Unique Device Identification Database (§830.300 - 830.360)
5. Overview of UDI Guidances

D. Product Recalls & Reports of Corrections and Removals (21 CFR Part 806)
1. 21 CFR Part 7 (Enforcement policy)
2. Reports and Records (§ 806.10 - 806.40)
3. Mandatory Medical Device Recall Procedures (§ 810.10 - 810.18)

4. Safety Alerts communication to users, health institutions, public health notification

E. Ongoing Monitoring of Device Performance

1. Post-market Surveillance (21 CFR Part 822) and FDCA Section 522
2. Post-approval study as condition of approval
3. Potential consequences of non-adherence to post-market study conditions
4. Use of post-market data
5. Final Guidance: Postmarket Management of Cybersecurity in Medical Devices (December 2016)

F. Best Practices

1. 21 CFR Part 820 & EN ISO 13485 harmonization
2. Integration of risk management into quality system
3. Integration of Clinical/Risk/Design requirements
4. Post-market Surveillance per European Union Regulation (EU) 2017/745 on medical devices (MDR)
5. International IMDF, World Health Organization (WHO) Guidance

12:20–12:30 PM Break

12:30–1:30 PM IX. Manufacturing and Quality System (QS) Regulation

Learning Objectives

- Identify the purpose of the Quality System Regulation (QSR)
- Learn key requirements of the QSR
- Understand why and how to mitigate QSR noncompliance
- Recognize the changes to come with the Quality Management System Regulation (QMSR)

Cynthia Culmo, Senior Advisor, Covington & Burling LLP
Amy Leiser, Special Counsel, Covington & Burling LLP

A. History, Purpose, and Scope

B. Regulatory Requirements for Device Manufacturing and Distribution

C. Quality System and FDA Expectations

1. Management controls
2. Quality audit and personnel
3. Design controls
4. Production and process controls
5. Complaint handling
6. Corrective and preventive action (CA/PA)
7. Records, documents and change control
8. Equipment and facilities controls
9. Materials controls

D. Third Parties in Manufacturing and Quality Operations

1. Quality Agreements
2. Contract specification developers
3. Contract manufacturers, packagers, labelers
4. Component suppliers

E. Similarities/Differences between International Standards Organization (ISO) and Medical Device Single Audit Program (MDSAP)

F. Overview of the Quality Management System Regulation (QMSR Final Rule)

1:30–1:40 PM Break

1:40–2:40 PM X. Enforcement and Compliance

Learning Objectives

- Learn the types of actions that may trigger FDA enforcement
- Recognize the tools available to FDA to enforce compliance
- Understand the fundamental considerations for FDA inspections

Suzan Onel, Partner, Kleinfeld, Kaplan & Becker LLP

A. FDA Jurisdiction

1. Device
2. Interstate commerce

B. Prohibited Acts and Penalties

1. Prohibited Acts – FDCA Section 301
    a. Adulteration – FDCA Section 501
    b. Misbranding – FDCA Section 502
2. Penalties
    a. Administrative sanctions
        i. Warning and untitled letters
        ii. Civil money penalties
        iii. Cease distribution and notification orders and mandatory recall
        iv. Other remedies under FDCA Section 518
        v. Administrative detention
        vi. Banned Devices
        vii. Import detention/alerts/refusal of admission
        viii. FDA's use of publicity
    b. Seizure
    c. Injunction
    d. Criminal Penalties

C. FDA Inspection

1. Scope
2. FDA procedures

a. Investigations Operations Manual (IOM)
    i. Types of inspections
    ii. Compliance program – levels of inspection
b. Inspection opening/closure
    i. Credentials
    ii. Notice of inspection FORM FDA 482
    iii. Limits, manner
    iv. FORM FDA 483
    v. Discussion with Management
    vi. Annotated 483

3. Facility/Individual
    a. Responsibility and rights
    b. Company or corporate policies/inspection SOP
        i. Affidavits
        ii. Photography
        iii. Electronic document requests
    c. Inspection management
    d. Daily briefings
4. Inspection Refusal
    a. FDA criteria for assessing refusal or obstruction
    b. Consequences under the FDCA and other authorities
5. Possible Outcomes
    a. No FORM FDA 483
        i. Good news/Classification as NAI
    b. FORM FDA 483
        i. Response within timeframe
        ii. Classification as VAI or OAI
        iii. Establishment Inspection Report (EIR)

D. Administrative and Enforcement Options

1. It Has Come to our Attention letters
2. Untitled letters
3. Warning letters
    a. Document response with written response
    b. Possible FDA Regulatory meeting
4. Seizures
5. Injunction/Consent Decree
6. Criminal prosecution

E. Other Enforcement/Remedial Possibilities

1. Department of Justice (DOJ) and/or US Attorneys enforcing FDCA, including forward-looking compliance provisions in DOJ resolutions
2. False Claims Act
3. Office of Inspector General (OIG)
4. Federal Trade Commission (FTC)
5. Securities and Exchange Commission (SEC)
6. State enforcement
    a. Civil (state FDCA; consumer protection; etc.)
    b. Criminal
    c. Tort Liability

2:40–2:50 PM **Break**

2:50–3:50 PM **XI. Promotion and Advertising**

Learning Objectives

- Summarize FDA's authority concerning medical device promotion and advertising
- Define key statutory definitions of "label" and "labeling" and "false and misleading"
- Recognize off-label issues, claims substantiation, and Direct-to-Consumer (DTC) Advertising

Suzanne Levy Friedman, Counsel, Hogan Lovells US LLP

A. Scope of FDA Authority

1. "Label" and "Labeling"
2. Advertising
3. FDA and FTC Jurisdictions
4. FDA and SEC Jurisdictions

B. "False or Misleading"; Misbranding; Adulteration

C. Marketing and Promotion of Unapproved Devices

D. Off-label Issues

1. Off-label use and practice of medicine
    a. FDA definition of "intended use"
2. General vs. specific intended uses
3. Off-label promotion
    a. Justine Manual, 4-8.205 (Rev. 2021)
4. *Amarin*, *Vascular Solutions* and other key decisions
5. Dissemination of clinical and health economic information regarding unapproved uses of approved products

E. Scientific Exchange

1. Draft Guidance: Communications from Firms to Health Care Providers Regarding Scientific Information on Unapproved Uses of Approved/Cleared Medical Products Questions and Answers (October 2023)

F. Claims Substantiation

2. Generally
3. Comparative claims
4. "Establishment" claims
5. Testimonials

G. Direct-to-Consumer (DTC) Advertising

H. Monitoring Compliance

1. Tradeshows
2. Scientific Forums

3. Detailers
4. Internet/Social Media

I. FDA Enforcement vs. Non-FDA Enforcement

1. False Claims Act and Qui tam Actions
2. Internet and social media activity

J. Training Sales Representatives

K. Co-marketing and Licensing Agreements – Specifying Responsibilities

3:50–4:00 PM Break

4:00–5:00 PM XII. International Issues

Learning Objectives

- Understand the legal framework concerning imports and exports of medical devices
- Recall the basis for approved and unapproved devices
- Examine the importation process

Sarah H. Stec, Assistant General Counsel, Regulatory Law, Johnson & Johnson

A. Legal Framework

1. FDCA, Sections 801 and 802
2. Food and Drug Export Reform and Enhancement Act of 1996 (FDERA)

B. Exports

1. Approved devices
2. Unapproved devices
   a. Export under Section 801 (e)(1)
   b. Export under Section 802
   c. Export under Section 801 (e)(2)
3. Investigational devices
4. Certificate of Exportability (COE); Certification for Foreign Government (CFG)

C. Imports

1. Roles of FDA and Customs and Border Protection (CBP); Inspections
2. Import alerts and detentions
3. Reconditioning or destruction
4. Import for export

5:00 PM Adjournment