

# Vigilance and Trend Analysis

Dan O'Leary CBA, CQA, CQE, CRE, SSBB, CIRM  
President

Ombu Enterprises, LLC

[Dan@OmbuEnterprises.com](mailto:Dan@OmbuEnterprises.com)  
[www.OmbuEnterprises.com](http://www.OmbuEnterprises.com)



**FDANEWS**

©2019, Ombu Enterprises, LLC

# Topics

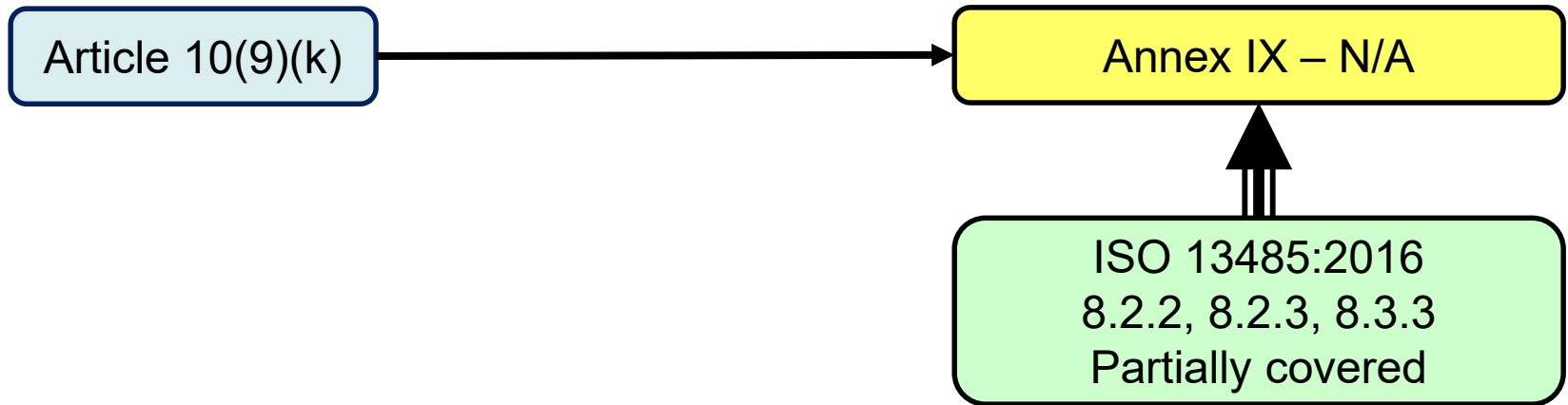
- Vigilance Overview
- Incident Classification
- IMDRF Coding System
- Serious Incident Reporting
- Field Safety Corrective Action
- Trend Reporting (Non-serious Incidents)
- Exercise F1 – Classifying Incidents
- Questions

# Vigilance Overview

# Vigilance

- Article 10(9)(k)
  - The quality management system shall address processes for reporting of serious incidents and field safety corrective actions in the context of vigilance.

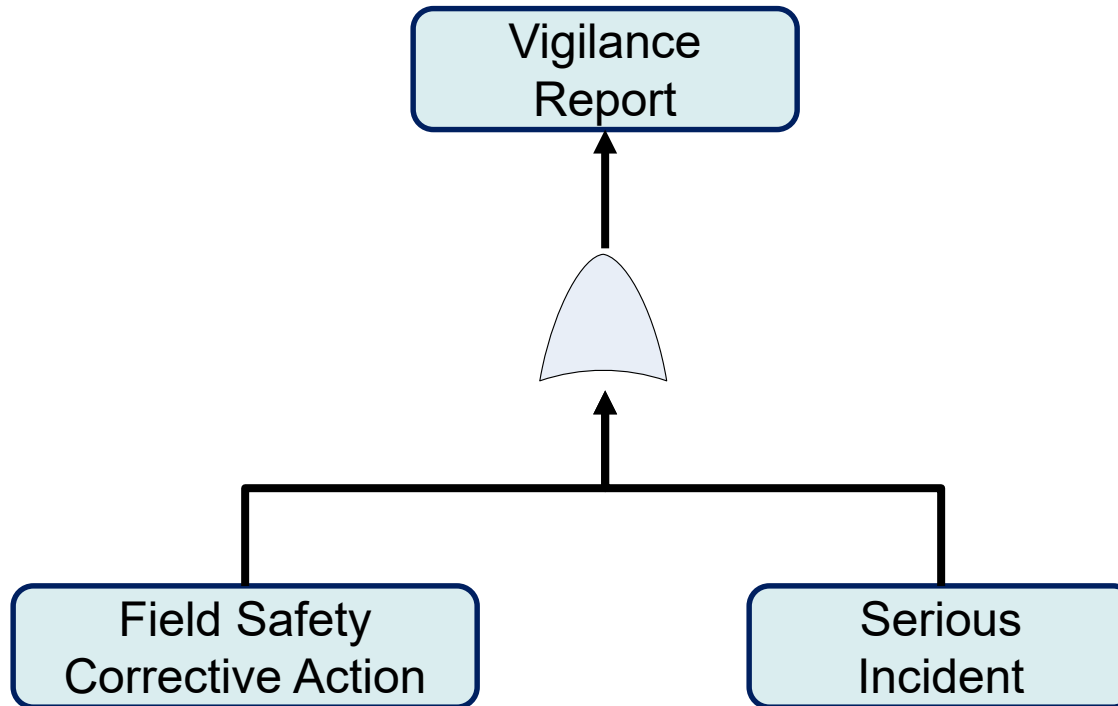
# Vigilance



# Vigilance

- Annex IX
  - N/A
- ISO 13485:2016
  - 8.2.2 Complaint handling
  - 8.2.3 Reporting to regulatory authorities
  - 8.3.3 Actions in response to nonconforming product detected after delivery
- CEN/TR 17223:2018
  - Partially covered. The standard requires processes for reporting events in accordance with regulatory requirements. However, it does not include the details or timelines for the EU vigilance system.

# Vigilance



# MEDDEV 2.12-1 Rev 8

- This MEDDEV applies to the MDD, AIMD, and IVDD. Expect an update for the MDR and IVDR.
- The MEDDEV provides details for:
  - Incident Reports
  - Periodic Summary Reports
  - Trend Reports
  - Field Safety Corrective Action
  - Field Safety Notice



# Incident Classification

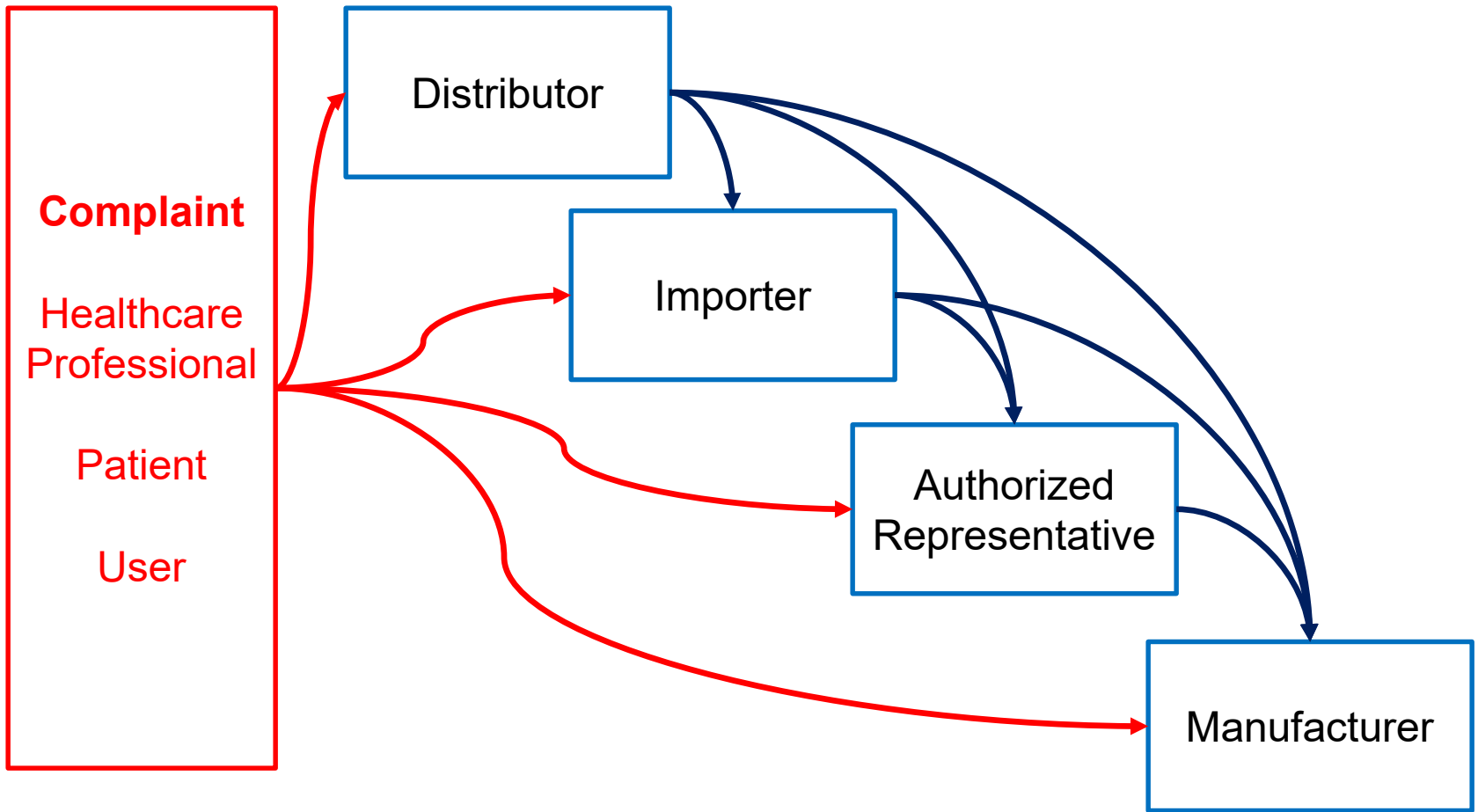
# Complaint Definition

- *Complaint* means any written, electronic, or oral communication that alleges deficiencies related to the identity, quality, durability, reliability, usability, safety, or performance of a medical device that has been released from the organization's control or related to a service that affects the performance of such medical devices. [ISO 13485:2016, 3.4]

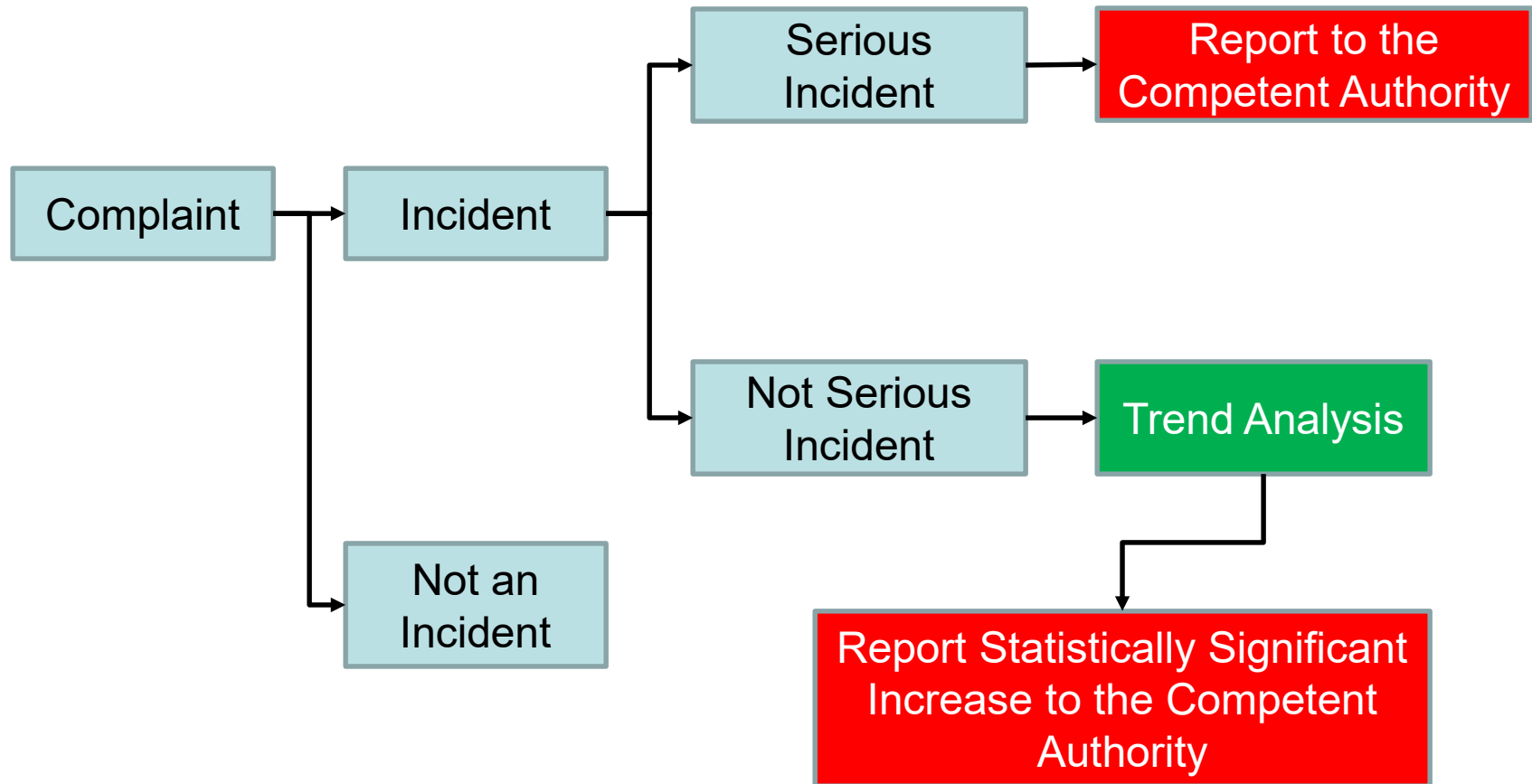
# MDR Definitions

- *Incident* means any malfunction or deterioration in the characteristics or performance of a device made available on the market, including use-error due to ergonomic features, as well as any inadequacy in the information supplied by the manufacturer and any undesirable side-effect [Art. 2(64)]
- *Serious Incident* means any incident that directly or indirectly led, might have led or might lead to any of the following:
  - (a) the death of a patient, user or other person
  - (b) the temporary or permanent serious deterioration of a patient's, user's, or other person's state of health
  - (c) a serious public health threat [Art. 2(65)]

# Complaint Flow



# Incident Reporting



# IMDRF Coding System

# The IMDRF Consultations

- The IMDRF work is organized into consultations, which deal with a specified topic.
  - The consultations may close as progress is made followed up another consultation to advance the effort
- The consultations of interest here are:
  - IMDRF Terminologies for Categorized Adverse Event Reporting (AER): terms, terminology structure and codes [Closed Dec. 2, 2016]
  - IMDRF Terminologies for Categorized Adverse Event Reporting (AER): terms, terminology structure and codes - Annex B [Closed May 31 2017]
  - Terminologies for Categorized Adverse Event Reporting: Terms, terminology structure and codes [Open – Scheduled to close Oct. 12, 2018]

# Documents

- The documents are in two groups, based on the consultation status.
- Edition 2 documents are final
- Edition 3 documents are proposed
  - The Edition 3 documents are open for public comment
  - The comment period closes on October 12, 2018



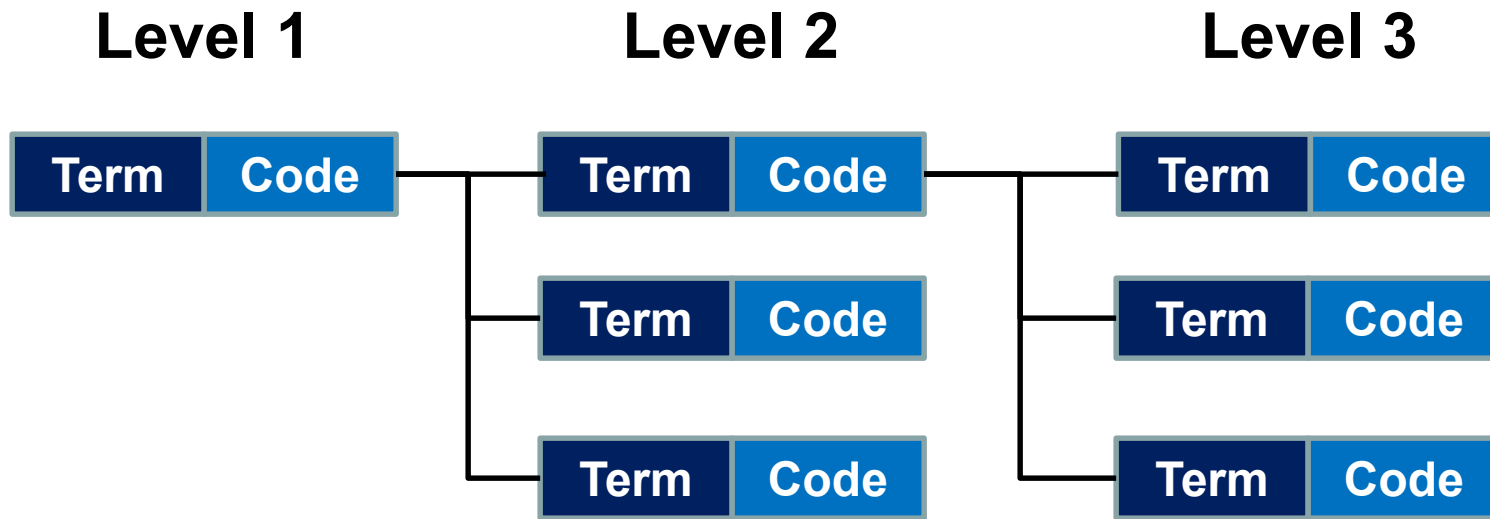
# Documents

- The primary document is *IMDRF Terminologies for Categorized Adverse Event Reporting (AER): Terms, Terminology Structure, and Codes*
  - IMDRF/AE WG/N43FINAL:2017 (Edition 2), September 21, 2017
  - AE WG(PD1)/N43Edition 3)R1, July 12, 2018
- The document provides globally harmonized terminology and associated codes
  - Improve signal detection by adverse event management systems
  - Improve accuracy for capturing and reporting adverse events
  - Increase the accuracy and reliability of information exchanged between regulators

# Terminology

- The system provides four sets of *terminology*:
  - Medical device problem
  - Cause investigation
  - Health effect
  - Component
- Each terminology set has *terms* and associated *definitions*
  - Each term has a unique alphanumeric *code*
- The terms (and codes) are organized in a hierarchical structure
  - Generally, there are three levels in the structure

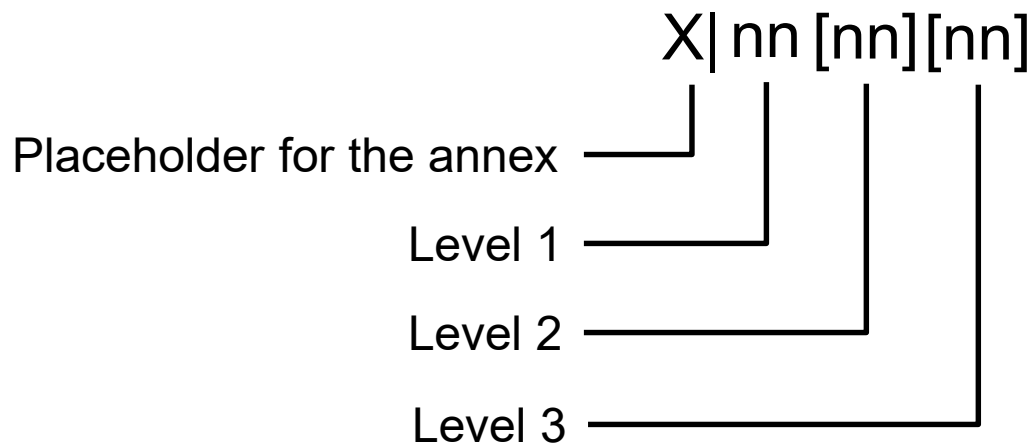
# Schematic Diagram



# IMDFR Code Types

# Terminology, Terms, and Codes

- The system has four sets of terminology represented by terms, definitions, and codes
- The main document uses seven annexes (Annex A to annex G) for the terms, definitions, and codes
  - The annexes are formatted as Excel workbooks
- The alphanumeric codes use the following structure



# Terminology, Terms, and Codes

Terminology	Annex	Code
Medical Device Problem	A	A 00[00][00]
Cause Investigation		
Type of Investigation	B	B 00
Investigation Findings	C	C 00[00][00]
Investigation Conclusion	D	D 00[00]
Health Effects		
Clinical Signs, Symptoms, and Conditions	E	E 00[00][00]
Health Impact	F	F 00[00][00]
Component	G	G  ... To be defined

# Serious Incident Reporting

# Reporting

- Article 87(1)
- Report any serious incident involving a device available on the EU market except:
  - Expected side-effects
  - Documented in the product information
  - Quantified in the technical documentation
  - Subject to trend reporting
- Report using Eudamed



# Reporting Timeline

- Report serious incidents immediately, but not later than 15 days after becoming aware of the incident

The reporting time in MEDDEV 2.12-1 Rev 8 for the MDD is 30 days.

- In the event of a serious public health threat report immediately, but not later than 2 days after becoming aware of the incident
- In the event of death or an unanticipated serious deterioration in a person's state of health the report shall be provided immediately, but not later than 10 days after becoming aware of the incident
- Submit incomplete initial reports on time and then a complete follow-up report

# Periodic Summary Reports

- Article 87(9)
- Periodic summary reports are allowed when:
  - {There are similar serious incidents AND
  - The device or device type is the same}
  - The cause is identified or a FSCA implemented OR
  - Incidents are common and well documented
- The Competent Authorities involved and manufacturer agree on the format, content, and frequency

# Eudamed

- Eudamed automatically sends incident reports to the Competent Authority of the member state where the incident occurred.
- Eudamed automatically sends periodic summary reports to the Competent Authority of:
  - Member states coordinating in the report
  - Member state in which the manufacturer has a place of business
- In both cases, Eudamed sends the information to the NB that issued the certificate for the device.

# Serious Incident Analysis

- Article 89 – Manufacturer's Actions
- After reporting a serious incident, the manufacturer must conduct an investigation.
- The manufacturer's investigation includes a risk assessment of the incident
- The manufacturer provides a final report to the Competent Authority
  - The report includes findings, conclusions, and corrective action

# Serious Incident Analysis

- Article 89 – Competent Authority Actions
- The Competent Authority evaluates the serious incident in consultation with the NB and the manufacturer
- The Competent Authority may require the manufacturer to provide documents
- The Competent Authority monitors the manufacturer's investigation and may intervene
- The Competent Authority notifies other Competent authorities of the manufacturer's corrective action.

# Field Safety Corrective Action

# Definitions

- *Field Safety Corrective Action* means corrective action taken by a manufacturer for technical or medical reasons to prevent or reduce the risk of a serious incident in relation to a device made available on the market. [Art. 2(68)]
- *Field Safety Notice* means a communication sent by a manufacturer to users or customers in relation to a field safety corrective action. [Art. 2(68)]

# Reporting

- Article 87(1)
- Report any field safety corrective action involving a device available on the EU market
  - Include corrective action in a third-country when the device is also available in the EU
- Report using Eudamed



# Field Safety Notice

- For each FSCA the manufacturer prepares an FSN.
- The FSN is in the languages of the member state where the FSCA applies
- The manufacturer submits the FSN to the Competent Authority
- The FSN explains the reason for the FSCA and clearly indicates the actions to take
- The FSN clearly identifies the devices covered including any UDIs and the manufacturer's SRN
- The manufacturer enters the FSN in Eudamed so it is available to the public

# FSCA Analysis

- Article 89 – Manufacturer's Actions
- After reporting an FSCA, the manufacturer must conduct an investigation.
- The manufacturer's investigation includes a risk assessment of the incident
- The manufacturer provides a final report to the Competent Authority
  - The report includes findings, conclusions, and corrective action

# FSCA Analysis

- Article 89 – Competent Authority Actions
- The Competent Authority evaluates the FSCA in consultation with the NB and the manufacturer
- The Competent Authority may require the manufacturer to provide documents
- The Competent Authority notifies other Competent authorities of the manufacturer's corrective action.

# Trend Reporting (Non-serious Incidents)

# Reporting

- Article 88 Trend Reporting
- Manufacturers report any statistically significant increase in the frequency or severity of:
  - Incidents that are not serious incidents
  - Expected undesirable side-effects
- The manufacturer reports through Eudamed

# Methods and Protocols

- Annex III(1.1)(b)(5<sup>th</sup> indent)
- The PMS plan includes:
  - The methods and protocols to manage the events subject to trend reporting
  - The methods and protocols to establish any statistically significant increase in the frequency or severity of incidents
  - The observation period
- Article 88(1)
- Establish the significant increase compared to the foreseeable frequency or severity
- Specify the period in the technical documentation and the product literature

# Exercise

# Exercise F1

- Classifying Incidents
- Use complaints and other post-market information to apply the elements of the incident classification system.





# ***QUESTIONS***