



IMDRF International Medical
Device Regulators Forum

PROPOSED DOCUMENT

International Medical Device Regulators Forum

Title: Common Data Elements for Medical Device Identification

Authoring Group: IMDRF RPS Working Group

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81 **Preface**

82

83 The document herein was produced by the International Medical Device Regulators Forum
84 (IMDRF), a voluntary group of medical device regulators from around the world. The document
85 has been subject to consultation throughout its development.

86

87 There are no restrictions on the reproduction, distribution or use of this document; however,
88 incorporation of this document, in part or in whole, into any other document, or its translation
89 into languages other than English, does not convey or represent an endorsement of any kind by
90 the International Medical Device Regulators Forum.

91

92 **1 Introduction**

93 The International Medical Device Regulators Forum (IMDRF) was conceived in February 2011
94 as a forum to discuss future directions in medical device regulatory harmonization. It is a
95 voluntary group of medical device regulators from around the world who have come together to
96 build on the strong foundational work of the Global Harmonization Task Force (GHTF). The
97 Forum will accelerate international medical device regulatory harmonization and convergence.
98

99 Regulators require submission of device identification information at different points in the
100 regulatory lifecycle of a medical device. Structured device identification information is now or
101 expected in the future to be included as part of pre-market submission, post-marketing
102 distribution and use (disposal and discard), adverse event/vigilance reporting, and recall.
103

104 In future postmarket activities, a Unique Device Identification (UDI) system is expected to
105 capture the device identification data elements at the level of a particular device. However, at the
106 point of pre-market submission, specific device identification data elements are not always
107 clearly specified. Therefore it would be useful to establish common data elements, for which
108 values can be provided in the premarket processes and used throughout the lifecycle. Currently
109 these data elements have not been identified resulting in the lack of a consistent nomenclature,
110 definitions and structure for submission of this identifying information. Each type of submission
111 may reference the product differently. For example, a pre-market submission may refer to a
112 product trade name, the data attributes associated with UDI may contain brand name and a recall
113 may refer to proprietary name – all referring to the same device. The identification information
114 is also often submitted as part of unstructured device regulatory submission forms and other
115 unstructured documents. The combination of different ways to identify a product and the
116 unstructured way product information is submitted make it difficult over time to reconcile
117 references to the same product (e.g., the same device may be described one way in a pre-market
118 submission and another way in a post-marketing surveillance report).
119

120 Inconsistency in the format used to identify regulatory products as part of submissions and the
121 lack of a harmonized nomenclature and structure for product identification information, currently
122 result in multiple submissions of data, potential conflicts or inconsistencies in submitted
123 information, and ultimately an inability to compile effective post-market surveillance
124 information about a product. Lack of a common definition for regulatory product device
125 identification information also increases the risk that, for regulatory purposes, a product may be
126 referenced differently in different countries, which limits the ability to compile data or make
127 comparisons across countries.
128

129 Consistent use of a standardized common set of structured data elements for submission of
130 regulated product identification information will aid in long-term regulatory convergence by
131 providing a common way for regulators to refer to what is regulated and as a result to track and
132 report unambiguously on the national regulatory status of a product around the world.

133 2 Scope

134 This document outlines the common data elements for medical device identification that may be
135 used through regulatory activities or process (pre-market, and post-market), including the future
136 possibility of electronic regulatory submission of device identification information. This
137 document will cover the harmonization of terms and their definitions– i.e., the focus is on
138 definition.

139 3 References

140 The following references were used in the development of this document:

- 141 • IMDRF/UDI WG/N7 FINAL:2013, UDI Guidance - Unique Device Identification (UDI)
142 of Medical Devices
- 143 • GHTF/SG1/N70:2011, Label and Instructions for Use for Medical Devices
- 144 • IMDRF/RPS WG/N13FINAL:2014, In Vitro Diagnostic Medical Device Market
145 Authorization Table of Contents (IVD MA ToC)
- 146 • IMDRF/RPS WG/N9FINAL:2014, Non-In Vitro Diagnostic Device Market
147 Authorization Table of Contents (nIVD MA ToC)
- 148 • GHTF/SG2/N87, An XML Schema for the electronic transfer of adverse event data
149 between manufacturers, authorised representatives and National Competent Authorities
150 (Based on GHTF/SG2/N54: 2006)

151 4 Definitions

152 This document contains definitions as part of the contents of the document. Therefore, this
153 section is not applicable.

154 5 Data Elements Commonly Used thorough the Medical Device Life Cycle

155 This document identifies preferable data elements that may be used to identify a medical device
156 through its life span. The data elements resulted from consensus discussions and are still subject
157 to specific regional considerations that are not included in this work item.

158 5.1 Overview

159 For inclusion in this document, each data element had to meet some minimum criteria to be
160 considered harmonized and common across regions and regulatory life cycles. First the data
161 element should be used in the identification of the medical device – i.e., the information should
162 be recognizable and identify the medical device. Second, the data element exists during more
163 than one of the product life cycle phases – and when possible exist in a majority of the life cycle
164 phases. It is important to note that all data elements may be required or optional and that their
165 use may vary based on the regulatory activity and/or regional requirements. In summary, all data
166 elements listed as harmonized means that all of the participating Regulators agree that if the data
167 element is relevant in *current or future regulatory activities* in each jurisdiction, that the term
168 and definition will be considered for use.
169

170 Although the RPS Common Data Elements Working Group discussed other device related terms
171 – i.e., device characteristics and regulatory tracking information that would be useful in the
172 exchange of information between Regulators and Regulated Industry (and for future use by other
173 stakeholders) there was a determination to only include data elements that aid in device
174 identification at this time.

175 5.2 Stakeholders

176 The stakeholders involved in the exchange and/or use of data elements to identify a medical
177 device include, but are not limited to the following:

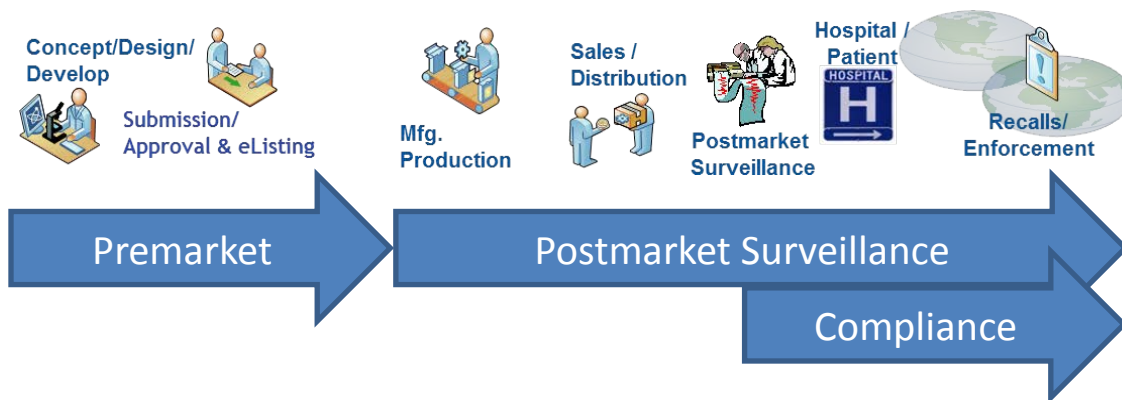
- 178 • Regulators
 - 179 • Regulated Industry (e.g., Sponsors, Applicants, Manufacturers, Labelers, Suppliers and
180 Distributors, Maintenance/Serviceing)
 - 181 • Users of Medical Devices (e.g., Hospitals, Physicians, Patients, Consumers)
- 182

183 5.3 Life Cycle View of Common Data Elements

184 The regulatory activities that are involved in the medical device life cycle span the premarket,
185 postmarket and compliance life cycle phases. These life cycles are important in the evolution of
186 data elements used to identify a medical device throughout its distribution and use (disposal and
187 discard).

188
189

Figure 1: Life Cycle Phases



190 *Premarket Life Cycle*

191 The premarket life cycle includes regulatory activities associated with preparation or
192 authorization to market a medical device, including but not limited to: submission of a request
193 for regulatory feedback, submission of a request to perform clinical studies, submission of
194 regulatory product information to support an application or notification of marketing a device
195 (e.g., submissions of data to ensure safety and effectiveness), labeling information, and any
196 relevant registration or listing information.

198 *Postmarket Life Cycle*

199 The post market life cycle includes activities that follow certain requirements and regulations to
200 ensure safety and effectiveness once devices are on the market. Medical device manufacturers as
201 well as other firms involved in the distribution of devices are responsible for maintaining
202

203 tracking systems (e.g., unique device identification and supply chain tracking), reporting of
204 device malfunctions, and reporting serious injuries and adverse events. Regulators are
205 responsible for postmarket surveillance signal detection, signal assessment, authorizing risk
206 management activities and review of post market commitments.

207

208 ***Compliance Life Cycle***

209 The compliance life cycle includes activities to ensure that medical device manufacturers are
210 complying with medical device regulatory requirements for the medical device in the countries
211 or jurisdictions where it is intended to be made available or sold, and includes monitoring and
212 auditing activities. When a medical device manufacturer fails to comply with these requirements
213 they may either take voluntary actions to correct the violation (e.g., product withdrawal), or
214 regulatory action may be taken that may include removal of marketing authorization, risk
215 communications, warning letters and recalls.

216

217 The data elements provided in this document appear in alphabetical order. In addition, the data
218 elements presented do not imply a “requirement” for the exchange and/or use of the data, but
219 only the potential data to identify a medical device at each life cycle phase based on the
220 regulatory requirements in each of the jurisdictions.

221

222

Table 1: Summary of Data Elements by Life Cycle

Section	Data Element	Applicable Life Cycle Phase
5.4.1	Brand/Trade/Proprietary or Common Name – Type and Value	Premarket, Postmarket, Compliance
5.4.2	Business Entity Address	Premarket, Postmarket, Compliance
5.4.3	Business Entity Identifier	Premarket, Postmarket, Compliance
5.4.4	Business Entity Name	Premarket, Postmarket, Compliance
5.4.5	Business Entity Type	Premarket, Postmarket, Compliance
5.4.6	Component/Embedded Software Name and/or Version	Premarket, Postmarket, Compliance
5.4.7	Contains Cells or tissues	Premarket, Postmarket, Compliance
5.4.8	Control Number	Postmarket, Compliance
5.4.9	Device Identifier (DI)	Postmarket, Compliance
5.4.10	Device Image	Premarket, Postmarket, Compliance
5.4.11	Device Risk Classification	Premarket, Postmarket, Compliance
5.4.12	Device Type	Premarket, Postmarket, Compliance
5.4.13	Expiration Date	Postmarket, Compliance
5.4.14	Kit	Premarket, Postmarket, Compliance
5.4.15	Lot or Batch Number	Postmarket, Compliance
5.4.16	Manufacturing Date	Postmarket, Compliance
5.4.17	Medical Device System	Premarket, Postmarket, Compliance
5.4.18	Method of sterilization	Premarket, Postmarket, Compliance
5.4.19	Model/ Version or Catalog/Reference Number – Type and Value	Premarket, Postmarket, Compliance
5.4.20	Modified Product/Catalog Number for reprocessed devices	Postmarket, Compliance

Section	Data Element	Applicable Life Cycle Phase
5.4.21	Need for sterilization before use	Premarket, Postmarket, Compliance
5.4.22	Packaged sterile	Premarket, Postmarket, Compliance
5.4.23	Production Identifier (PI)	Postmarket
5.4.24	Regulatory Authorization Number	Premarket, Postmarket, Compliance
5.4.25	Regulatory Authorization Status	Premarket, Postmarket, Compliance
5.4.26	Reusable - Multi-Patient use device	Premarket, Postmarket, Compliance
5.4.27	Reusable - Single Patient use device	Premarket, Postmarket, Compliance
5.4.28	Serial Number	Postmarket, Compliance
5.4.29	Single Use	Premarket, Postmarket, Compliance
5.4.30	Submission Number	Premarket
5.4.31	Unique Device Identifier (UDI)	Postmarket, Compliance

223 **5.4 Harmonized Common Data Elements**

224 The following sections are organized by individual common data elements, and provide the
225 harmonized description of each data element, the life cycle (i.e., usage) and implementation
226 information (e.g., data format and any relevant value sets – i.e., structured, controlled
227 vocabulary).

228 **5.4.1 Brand/Trade/Proprietary or Common Name – Type and Value**

229 *Type*

230 Type of value that identifies the name of the device marketed.

231

Implementation Considerations	
Comments:	None
Data Format:	Code
Preferred Value Set:	Brand Trade/Proprietary Common

232

233 *Value*

234 The name under which the device is marketed. If there is a Brand name, a Brand Name must be
235 provided. If not, a Trade or Proprietary Name and finally if there is no Brand/Trade/Proprietary,
236 a Common name would be acceptable.

237

238 **Usage Notes:** Premarket, Postmarket, Compliance

239

240

Implementation Considerations	
Comments:	The brand/trade/proprietary name of a medical device may not be the same in all regions -- i.e., the medical device is branded differently across regions and may vary due to regulatory or marketing decisions. The common name may also be duplicative of the device type in some situations; and device type may be preferred as it is a controlled vocabulary.
Data Format:	Text
Preferred Value Set:	None specified

241

Examples¹:

242

Type: Brand Name

243

Value: Brand X

244

245 **5.4.2 Business Entity Address**

246 The physical and/or mailing/postal location of the business entity.

247

248 **Usage Notes:** Premarket, Postmarket, Compliance

249

Implementation Considerations	
Comments:	The type of address information will need to be clear and consistently provided, especially with international addresses (i.e., address parts need to be defined for each region).
Data Format:	Text
Preferred Value Set:	None specified

250

Examples²:

251

123 Main Street | Anywhere, TX 99999-0000 | USA

252

1-1, Yaesu 1-Chome | Chuo-ku, Tokyo 100-8994

253

Level 6 51 Jacobson St | BRISBANE QLD 4000

254

255 **5.4.3 Business Entity Identifier**

256 The alphanumeric value used to identify the business entity.

257

258 **Usage Notes:** Premarket, Postmarket, Compliance

259

¹ Note: the example is for illustration purposes only

² Note: the example is for illustration purposes only

260

Implementation Considerations	
Comments:	An identifier is preferred to unstructured data (i.e., the name and physical address) as the identifier may be updated in one location and persisted across many different uses for the business entity. However, the identifier may not be available in all situations. See Business Entity Name and Business Entity Address.
Data Format:	Numeric or alphanumeric
Preferred Value Set:	None specified

261

262 **Examples³:**

263 **USFDA:** DUNS Number 123456789, FEI Number

264 **ANVISA:** CNPJ number: 99.999.999/0001-99

265 **CHINA:** Organization Code: 123456-7; Business license registration number:

266 123456789012345

267 **JAPAN:**123456789 (business entity code), 12A3B45678 (MAH license number), AB12345678

268 (Manufacturer registration number)

269 Australia: Client ID, ARTG Number

270 **5.4.4 Business Entity Name**

271 The text value used to identify the business entity.

272

273 **Usage Notes:** Premarket, Postmarket, Compliance

274

Implementation Considerations	
Comments:	None
Data Format:	Text
Preferred Value Set:	None specified

275

276 **Examples⁴:**

277 Device Company A

278 ABC Devices

279 **5.4.5 Business Entity Type**

280 The value assigned to identify the type of business entity.

281

282 **Usage Notes:** Premarket, Postmarket, Compliance

283

Implementation Considerations	
Comments:	The type depending on the regulatory activity undertaken in the exchange or use of the medical device identification data.

³ Note: the example is for illustration purposes only

⁴ Note: the example is for illustration purposes only

Data Format:	Code
Preferred Value Set:	Manufacturer Applicant Marketing Authorization Holder (MAH) Fabricator Original Equipment Manufacturer (OEM) Reprocessor Importer Distributor Supplier Contract Manufacturer Authorized Agent/Representative/Correspondent Labeler Service Agent

284
285 **Examples⁵:**
286 See Preferred Value set.

287 **5.4.6 Component/Embedded Software Name and/or Version**

288 *Type*
289 The type of data being sent for the component/embedded software.
290

Implementation Considerations	
Comments:	None
Data Format:	Code
Preferred Value Set:	Name Version

291
292 *Value*
293 Provides the component software (i.e., embedded software) version name and/or version of the
294 device.
295 **Usage Notes:** Premarket, Postmarket, Compliance
296

Implementation Considerations	
Comments:	The values for this data element will not be structured – i.e, the major, minor and patch numbering may be different across devices. The name may be provided in addition to the version to distinctly identify the device’s component/embedded software.
Data Format:	Text
Preferred Value Set:	None specified

297
298

⁵ Note: the example is for illustration purposes only

299 **Examples⁶:**
300 Version 1.1.17
301 Version 2.0

302 **5.4.7 Contains Cells or tissues**

303 An value that indicates if the device contains cells or tissues that are intended for implantation,
304 transplantation, infusion, or transfer into a human recipient; Note - this does not include IVDs
305

306 **Usage Notes:** Premarket, Postmarket, Compliance
307

Implementation Considerations	
Comments:	None
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

308 **Examples⁷:**
309 Not applicable.

310 **5.4.8 Control Number**

311 A production identifier indicating the Unit lot or batch for the unit of medical devices; may be
312 synonymous with serial number as well.
313

314 **Usage Notes:** Postmarket and Compliance
315

Implementation Considerations	
Comments:	<p>The control number may be a combination of the serial and lot number for the medical device – and is therefore a distinct production identifier.</p> <p>A control number is a production identifier and may be included in the UDI by its application identifier*.</p> <p>*The identifier indicates the type of production identifier that follows. Note that this may be specific to the issuing agency algorithm.</p> <p>Note : The control number is not applicable in all jurisdictions.</p>
Data Format:	Numeric or Alphanumeric (depending on issuing agency algorithm)
Preferred Value Set:	None specified

316 **Examples⁸:**
317 55516551555Q
318

⁶ Note: the example is for illustration purposes only

⁷ Note: the example is for illustration purposes only

⁸ Note: the example is for illustration purposes only

319 **5.4.9 Device Identifier (DI)**

320 A unique numeric or alphanumeric value specific to a model of a medical device. The value
321 provided for this data element must be following ISO/IEC standards

322

323 **Usage Notes:** Postmarket and Compliance

324

Implementation Considerations	
Comments:	Depending on the risk classification of the device, this information may be available prior to commercial distribution. The DI may be parsed from the UDI because the value is concatenated; or may be a separate value (non-concatenated). If the value is concatenated, the algorithm may be used to parse only the DI value.
Data Format:	Numeric or Alphanumeric (depending on issuing agency algorithm)
Preferred Value Set:	None specified

325 **Examples⁹:**

326 (01)10199912345678(10)A12345(21)XYZ123456789

327 (01)10199912345678

328 10199912345678

329 Australia: ARTG 123456

330 **5.4.10 Device Image**

331 An image of the medical device to aid in the identification and visualization of the device.

332

333 **Usage Notes:** Premarket, Postmarket, Compliance

334

Implementation Considerations	
Comments:	The device image may be more useful with certain classes or types of devices. As the device image is meant to provide additional visual aid to the individual – other device data may also be available. The image may be a photo, illustration or schematic drawing to be used for the purpose of aiding in the identification of the device.
Data Format:	Image
Preferred Value Set:	None specified (Note: in this case, no file format has been specified)

335

336 **Examples¹⁰:**

337 None available.

⁹ Note: the example is for illustration purposes only

¹⁰ Note: the example is for illustration purposes only

338 **5.4.11 Device Risk Classification**

339 A classification based on rules derived from the potential of a medical device to cause harm to a
340 patient or user (i.e., the hazard it presents).

341
342 **Usage Notes:** Premarket, Postmarket, Compliance
343

Implementation Considerations	
Comments:	The device risk classifications may vary in regions that have not adopted the GHTF (IMDRF) Risk Classifications. The device risk classification may vary in regions that have not adopted the preferred value set.
Data Format:	Code
Preferred Value Set:	I, II, III, IV

344
345 **Examples¹¹:**
346 See Preferred Value set.

347 **5.4.12 Device Type**

348 *Type*
349 The code system used for device type.
350

Implementation Considerations	
Comments:	The nomenclature system may vary in each jurisdiction – e.g., GMDN, JMDN.
Data Format:	Identifier (text or numeric)
Preferred Value Set:	GMDN Code System

351
352 *Code*
353 The code used to represent the device type.
354

Implementation Considerations	
Comments:	The preferred nomenclature system would be GMDN at the time of this publication. As this is a code system, the code will allow any system to resolve a display value (e.g., GMDN Preferred Term Name) The device type may be preferred over the common name as it is a controlled vocabulary. The device type may vary in regions that have not adopted the

¹¹ Note: the example is for illustration purposes only

	preferred value set.
Data Format:	Code
Preferred Value Set:	GMDN

355
356
357
358
359
360

Value

Name of the common device type associated with a nomenclature system.

Usage Notes: Premarket, Postmarket, Compliance

Implementation Considerations	
Comments:	The name value would be determined by the code value submitted – i.e., this value is the display name of the code.
Data Format:	Text
Preferred Value Set:	GMDN

361
362
363
364
365
366
367
368
369

Examples¹²:

Type: GMDN

Code: 99999

Value: Sample GMDN Name

Type: JMDN

Code: 12345678

Value: Sample JMDN Name

370 **5.4.13 Expiration Date**

371 The expiry date of the device.

372
373
374

Usage Notes: Postmarket and Compliance

Implementation Considerations	
Comments:	An expiration date is a production identifier and may be included in the UDI by its application identifier* or provided as a separate value. *The identifier indicates the type of production identifier that follows. Note that this may be specific to the issuing agency algorithm.
Data Format:	yyyy-mm-dd (ISO standard) or yymmdd
Preferred Value Set:	None specified

375
376
377

Examples¹³:

2020-01-01

¹² Note: the example is for illustration purposes only

¹³ Note: the example is for illustration purposes only

378 (01)10199912345678(17)200101(21)XYZ123456789
379 (17)200101
380 200101

381 **5.4.14 Kit**

382 Indicates that the device is a convenience, combination, in vitro diagnostic (IVD), or medical
383 procedure kit. Kits are a collection of products, including medical devices, that are packaged
384 together to achieve a common intended use and is being distributed as a medical device.
385

386 **Usage Notes:** Premarket, Postmarket, Compliance
387

Implementation Considerations	
Comments:	None
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

388
389 **Examples¹⁴:**
390 Not applicable.

391 **5.4.15 Lot or Batch Number**

392 A value that represents one or more components or finished devices that consist of a single type,
393 model, class, size, composition, or software version that are manufactured under essentially the
394 same conditions and are intended to have uniform characteristics and quality within specified
395 limits.
396

397 **Usage Notes:** Postmarket and Compliance
398

Implementation Considerations	
Comments:	A lot or batch number is a production identifier and may be included in the UDI by its application identifier*or provided as a separate value. *The identifier indicates the type of production identifier that follows. Note that this may be specific to the issuing agency algorithm.
Data Format:	Numeric or Alphanumeric (depending on issuing agency algorithm)
Preferred Value Set:	None specified

399
400 **Examples¹⁵:**
401 (01)10199912345678(10)A12345(21)XYZ123456789
402 (10)A12345
403 A12345

¹⁴ Note: the example is for illustration purposes only

¹⁵ Note: the example is for illustration purposes only

404 **5.4.16 Manufacturing Date**

405 The date the device was manufactured.

406

407 **Usage Notes:** Postmarket and Compliance

408

Implementation Considerations	
Comments:	A manufacturing date is a production identifier and may be included in the UDI by its application identifier* or provided as a separate value. *The identifier indicates the type of production identifier that follows. Note that this may be specific to the issuing agency algorithm.
Data Format:	yyyy-mm-dd (ISO standard) or yymmdd
Preferred Value Set:	None specified

409

410 **Examples¹⁶:**

411 2015-01-01

412 (01)10199912345678(11)150101(21)XYZ123456789

413 (11)150101

414 150101

415 **5.4.17 Medical Device System**

416 A medical device comprising a number of components or parts intended to be used together to
417 fulfill some or all of the device’s intended functions, and is sold as specified by its manufacturer
418 (e.g., under a single name, or sold as one item).

419

420 **Usage Notes:** Premarket, Postmarket, Compliance

421

Implementation Considerations	
Comments:	None
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

422

423 **Examples¹⁷:**

424 Not applicable.

425 **5.4.18 Method of sterilization**

426 If yes is answered to “requires sterilization before use”, then the method of sterilization should
427 be indicated.

428

429 **Usage Notes:** Premarket, Postmarket, Compliance

¹⁶ Note: the example is for illustration purposes only

¹⁷ Note: the example is for illustration purposes only

430

Implementation Considerations	
Comments:	Source: IMDRF UDI Guidance. In some regions, the values are specified in regulations.
Data Format:	Code
Preferred Value Set:	Regional

431

432 **Examples¹⁸:**

433 Dry Heat, Ethylene Oxide, Steam, H₂O₂

434 **5.4.19 Model/ Version or Catalog/Reference Number – Type and Value**

435 *Type*

436 Type of value that identifies the medical device's configuration, features, specifications,
437 performance, size and/or composition.

438

Implementation Considerations	
Comments:	The Model/Version numbers are preferred, but in cases where only a Catalog/Reference number exists it may be used.
Data Format:	Code
Preferred Value Set:	Model Version Catalog/Reference

439

440 *Value*

441 Alphanumeric that identifies each device according to its configuration, features, specifications,
442 performance, size and/or composition.

443

444 **Usage Notes:** Premarket, Postmarket, Compliance

445

Implementation Considerations	
Comments:	None
Data Format:	Text
Preferred Value Set:	None specified

446

447 **Examples¹⁹:**

448 **Type:** Model

449 **Value:** X1000

¹⁸ Note: the example is for illustration purposes only

¹⁹ Note: the example is for illustration purposes only

450 **5.4.20 Modified Product/Catalog Number for reprocessed devices**

451 The reprocessor should be assigning a new or modified product or catalog number to reference
452 their handling of device. The new device identification from the reprocessor is important for the
453 tracking purpose.

454
455 **Usage Notes:** Postmarket, Compliance
456

Implementation Considerations	
Comments:	This value is not known until the device has been reprocessed.
Data Format:	Alphanumeric
Preferred Value Set:	Not applicable

457
458 **Examples²⁰:**
459 X1000-A123

460 **5.4.21 Need for sterilization before use**

461 Need for sterilization before use? (Yes/No) – If yes, then the method of sterilization should be
462 indicated

463
464 **Usage Notes:** Premarket, Postmarket, Compliance
465

Implementation Considerations	
Comments:	Source: IMDRF UDI Guidance
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

466
467 **Examples²¹:**
468 Not applicable

469 **5.4.22 Packaged sterile**

470 Indicates whether or not the device is packaged sterile. E.g., Packaged sterile? (Yes/No)

471
472 **Usage Notes:** Premarket, Postmarket, Compliance
473

Implementation Considerations	
Comments:	Source: IMDRF UDI Guidance
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

474 **Examples²²:**
475 Not applicable

²⁰ Note: the example is for illustration purposes only
²¹ Note: the example is for illustration purposes only
²² Note: the example is for illustration purposes only

476 **5.4.23 Production Identifier (PI)**

477 A numeric or alphanumeric code that identifies the unit of device production including serial
478 number, lot/batch number, Software as a Medical Device (SaMD) version and manufacturing
479 and/or expiration date.

480
481 **Usage Notes:** Postmarket
482

Implementation Considerations	
Comments:	The PI may be parsed from the UDI because the value is concatenated; or may be a separate value (non-concatenated). If the value is concatenated, the algorithm may be used to parse only the PI value.
Data Format:	Numeric or Alphanumeric (depending on issuing agency algorithm)
Preferred Value Set:	None specified

483
484 **Examples²³:**
485 (01)10199912345678(10)A12345(21)XYZ123456789
486 (10)A12345(21)XYZ123456789

487 **5.4.24 Regulatory Authorization Number**

488 A number which is issued when the medical device is authorized for marketing.

489
490 **Usage Notes:** Premarket, Postmarket and Compliance
491

Implementation Considerations	
Comments:	Authorization numbers are assigned by each regulatory authority. A medical device may have many authorization numbers. Note: In some regions, the authorization number is the same as the submission number.
Data Format:	Numeric or Alphanumeric
Preferred Value Set:	None specified

492
493 **Examples²⁴:**
494 **USFDA:** P009999, P010001/S001, K010001
495 **ANVISA:** 80009999991, 10009999991
496 **Health Canada:** 65390
497 **Japan:** 22700BZX00000000
498 **Australia:** ARTG 123456
499

²³ Note: the example is for illustration purposes only

²⁴ Note: the example is for illustration purposes only

500 **5.4.25 Regulatory Authorization Status**

501 The decision or action of the regulatory activity.

502

503 **Usage Notes:** Premarket, Postmarket, Compliance

504

Implementation Considerations	
Comments:	Notes: Regulatory activities and decisions are based on regional requirements.
Data Format:	Code
Preferred Value Set:	Regional

505

506 **Examples²⁵:**

507 Approved, Approvable

508 **5.4.26 Reusable - Multi-Patient use device**

509 The repeated use or multiple use of any medical device including devices intended for reuse on
510 multiple patients, with reprocessing (cleaning, disinfection or sterilization) between uses.

511

512 **Usage Notes:** Premarket, Postmarket, Compliance

513

Implementation Considerations	
Comments:	None
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

514

515 **Examples²⁶:**

516 Not applicable.

517 **5.4.27 Reusable - Single Patient use device**

518 The repeated use or multiple use of any medical device including devices intended for reuse on
519 one patient, with reprocessing (cleaning, disinfection or sterilization) between uses.

520

521 **Usage Notes:** Premarket, Postmarket, Compliance

522

Implementation Considerations	
Comments:	None
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

523

²⁵ Note: the example is for illustration purposes only

²⁶ Note: the example is for illustration purposes only

524 **Examples²⁷:**
525 Not applicable.

526 **5.4.28 Serial Number**

527 A unique sequence of numbers or letter in a series used to identify an individual unit of a medical
528 device.

529
530 **Usage Notes:** Postmarket and Compliance
531

Implementation Considerations	
Comments:	A serial number is a production identifier may be included in the UDI by its application identifier*or provided as a separate value. *The application identifier indicates the type of production identifier that follows. Note that this may be specific to the issuing agency algorithm.
Data Format:	Numeric or Alphanumeric (depending on issuing agency algorithm)
Preferred Value Set:	None specified

532
533 **Examples²⁸:**
534 (01)10199912345678(10)A12345(21)XYZ123456789
535 (21)XYZ123456789
536 XYZ123456789

537 **5.4.29 Single Use**

538 A single-use device, also referred to as a disposable device, intended for use on one patient
539 during a single procedure.

540
541 **Usage Notes:** Premarket, Postmarket, Compliance
542

Implementation Considerations	
Comments:	None
Data Format:	Boolean (Y/N)
Preferred Value Set:	Yes/No

543
544 **Examples²⁹:**
545 Not applicable

²⁷ Note: the example is for illustration purposes only

²⁸ Note: the example is for illustration purposes only

²⁹ Note: the example is for illustration purposes only

546 **5.4.30 Submission Number**

547 A tracking number which is issued to the regulatory activity when submitted by the applicant.

548

549 **Usage Notes:** Premarket

550

Implementation Considerations	
Comments:	Submission numbers are assigned by each regulatory authority. A medical device may have many submission numbers, e.g., initial submission, amendments and renewals. Note: In some regions, the submission number is the same as the authorization number.
Data Format:	Numeric or Alphanumeric
Preferred Value Set:	None specified

551

552 **Examples³⁰:**

553 **USFDA:** P009999/S001/A001, K010001/S001

554 **ANVISA:** 3590009/15-9

555 **Health Canada:** 201235

556 **Japan:** 1234567890123

557

558 **5.4.31 Unique Device Identifier (UDI)**

559 A series of numeric or alphanumeric characters that is created through a globally accepted device
560 identification and coding standard. The UDI is comprised of the device identifier (DI) and
561 production identifier (PI). It allows the unambiguous identification of a specific medical device.

562

563 **Usage Notes:** Postmarket, Compliance

564

Implementation Considerations	
Comments:	The UDI may be available as one string value (concatenated) or may be parsed into its parts (see DI and PI).
Data Format:	Numeric or Alphanumeric (depending on issuing agency algorithm)
Preferred Value Set:	None specified

565 **Examples³¹:**

566 (01)10199912345678(10)A12345(21)XYZ123456789

³⁰ Note: the example is for illustration purposes only

³¹ Note: the example is for illustration purposes only

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No Appendices available in this document