Results of an analysis of the terminology of dose forms of the European Directorate for Quality in Medicines (EDQM) Standardized Terms for Dose Form by Work Package 8 / Task 8.1 (under the leadership of I-HD) In the EU Action Program UNICOM (Global Identification of Medicinal Products)

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WG6 Pharmacy ISO/CEN : of systematic review of ISO 11239 and ISO/TS 20440

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Questions to be answered

- How are we going to use EDQM (and derived SPOR)
  to determine the (administrable) dose form
  for the production of the Pharmaceutical Product Identification (PHPID) ?

- What is needed to make the characteristics of EDQM dose forms definitional ?

- What would be the right granularity
  for building unique combinations of characteristics of EDQM
  for a global terminology of dose form ?

How are we going to use EDQM (and derived SPOR) to determine the (administrable) dose form for the production of the Pharmaceutical Product Identification (PHPID) ?

428 PDFs for human (and Veterinary) use (excluded : veterinary only 79; rejected 23; deprecated 27; pending 2)

285 PDFs (Pharmaceutical Dose Form) have no transformation (PDF and ADF are the same)

143 PDFs need to be transformed in ADF (Administrable Dose Form)

22 have multiple transformations (range 2 to 4)

(12 a combination with “no transformation”)

7 PDFs where the result is clear in all possibilities

15 PDFs have one transformation where the resulting ADF is not clear

(5 possibly resulting in different ADFs)

121 PDFs have only one single transformation possibility

7 where the resulting ADF is not identifiable

approx. 20 where the unit of presentation of the resulting ADF is not obvious

(e.g. Effervescent tablet becoming oral liquid (or oral solution ?) of (50 ?) ml

$\Rightarrow$ Each of the 428 PDFs (with its BDF and SOM) received an explicit ADF (with ADF_BDF and ADF_SOM)

What is needed to make the characteristics of EDQM dose forms definitional ?

- the ADF_BDF and ADF_SOM should be made explicit
  BDF/SOM and ADF_BDF/ADF_SOM are different in 116 of the 143 PDFs where there is transformation
- Values should be concatenated values characteristics with multiplicity
  In 22 PDFs there were multiple TRAs, now concatenated in 11 different combinations
  In 28 PDFs there were multiple ISIs, now concatenated in 14 different combinations
  In 44 PDFs there were multiple AMEs concatenated in 18 different combinations
- the ISI value “cutaneous/transdermal” should be split where possible
  In 44 PDFs this value was originally cutaneous/transdermal, now split in
  23 cutaneous AND 10 cutaneous/transdermal AND 11 transdermal
- The distinction “local” versus “systemic” can be made where needed and possible
  229 local
  169 systemic
  11 Local/systemic + 19 others

=> Using all characteristics (except PDF), we arrive at 420 unique combinations (still 4 pairs of 2 PDFs).

- **What would be the right granularity for building unique combinations of EDQM for a global terminology of dose form ?**

		BDF	SOM	ADF_ BDF	ADF_ SOM	TRA	RC	ISI	AME	SYS	Count UC	Doubles >1	Sum Doubles
1	x	x	x	x	x	x	x	x	x	x	420	4	8
2	x	x	x	x	x	x	x	x	x		402	12	26
3	x			x	x	x	x	x	x	x	381	21	47
4	x			x	x	x	x	x	x		380	21	48
5	x					x	x	x	x	x	378	22	50
6	x					x	x	x	x		377	22	51
7		x	x	x	x	x	x	x	x	x	350	33	78
8		x	x	x	x	x	x	x	x		340	37	88
9				x	x	x	x	x	x	x	306	51	122
10				x	x	x	x	x	x		293	56	135
11						x	x	x	x	x	128	78	300
12						x	x	x	x		113	79	315
UMC/FDA+sys				x			x	x	x	x	197	77	231
UMC/FDA				x			x	x	x		179	82	249

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		BF	SOM	ADF_ BDF	ADF_ SOM	TRA	RC	ISI	AME	SYS	Count UC	Doubles >1	Sum Doubles
1	x	x	x	x	x	x	x	x	x	x	420	4	8
2	x	x	x	x	x	x	x	x	x		402	12	26
3	x			x	x	x	x	x	x	x	381	21	47
4	x			x	x	x	x	x	x		380	21	48
5	x					x	x	x	x	x	378	22	50
6	x					x	x	x	x		377	22	51
7		x	x	x	x	x	x	x	x	x	350	33	78
8		x	x	x	x	x	x	x	x		340	37	88
9				x	x	x	x	x	x	x	306	51	122
10				x	x	x	x	x	x		293	56	135
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UMC/FDA+sys				x			x	x	x	x	197	77	231
UMC/FDA				x			x	x	x		179	82	249

Conclusion

With a bit of micro-surgery, EDQM can be turned into a global terminology, suitable for :

- a crucial part of the PHPID Production,
  namely the administrable dose form,
  currently not enough explictit
- a more clear relationship between administrable dose form and strenght
- a the basis for a simple, transparent ontology
  for higher aggregations of dose forms
  (INN prescribing and transposition to other countries, substitution)
- the formulation of broad and precise rules for decision support
- the identification of dose forms to be used for systemic intent
  (to allow polypharmacy statistics)
- the alignment (not mapping) for dose forms between
  IDMP/SPOR/EDQM/CDISK/RxNorm/SNOMED/MEDDRA

Next steps

Towards UNICOM

Discuss the analysis internally with a wider group of stakeholders

Toward EDQM

We submit our analysis to the EDQM experts.

Listen to their comments and critiques

Decide together on the way forward.

Towards the UMC/FDA/EMA Collaboration

Idem

Towards WG6 ISO/CEN systematic review

Hopefully present a common proposal for recommendations for change

(probably only to the Technical Specifications)