CATEGORIZATION SYSTEMS FOR SUBSTANCES (CSS) IN POISONS CENTRES

XXVI INTERNATIONAL CONGRESS OF THE EAPCCT
PRAGUE 20th APRIL 2006

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PCS: 1) ZURICH 2) ERFURT 3) GÖTTINGEN 4) MAINZ
CONTENT

- Preliminary evaluation of the current use of CSS in PCs
- Description of the basic structure of the CSS
- Identification of the interfaces to other parts in PCs
- Presentation of an example with its structural and technical realization
- Introduce a model of multi-centre use, maintenance & update of a harmonized CSS

3 Questions:
- Shall we harmonize CSS?
- Do we want to harmonize CSS?
- Can we harmonize CSS?
SOURCES

- Retrieval of PCs homepages and annual reports
- 13-year experience with software development of the case recording system ADAM©
- 5 year experience with the working group „categorization systems“ within the german TDI-network
- Personal vision of „the optimal structure“ of a PC
CURRENT USE OF CSS

- Categorization of substances in grouping systems plays a crucial role in the work of a PC
- Grouping systems are essential for retrieval and processing of large data volumes
- Current situation in the European PCs reveals different categorization systems for substances (CSS) and only some parts (ATC-Code) are harmonized, but not in every PC
- At present it is not possible to generate a uniform annual report of the EU PCs
PROJECTS -> FOCUS ON CSS

- **TDI-network:**
  (research project, 10 german PCs + Federal Institute for Risk Assessment)
  - 5 year experience with a harmonization process of CSS
  - continual work in completing and maintenance of the System

- **Case recording system ADAM©:**
  - main aspect in development of the system was a comprehensive integration of the CSS for daily work routine
  - System is running in daily work of 3 PCs
**Main Tasks of PCs**

**Provide Information**
- Consultation:
  - Retrieval on substance names and product names to identify toxicologically relevant information for the competent assessment and treatment of poisonings

**Record Cases**
- Case collection:
  - Record of all substances or products, exposed in a poisoning
- Evaluation of poisonings:
  - Find all cases with an exposure to a single/group product/s or substance/s

**Index with Names of Substances**
- Names of substances and products as well as non-ambiguous numbers take a crucial role in the achievement of these main tasks
Role of the CSS

Categorization System for Substances (CSS)

Names of Substances

- Identification of substances (consulting)
- Recording of substances (case collection)

- Content/Sources
- Current Use
- Basic Structure
- Interfaces
- Realization
- Multi-centre
- Conclusion
CATEGORIZATION OF SUBSTANCES

- CONTENT/SOURCES
- CURRENT USE
- BASIC STRUCTURE
- INTERFACES
- REALIZATION
- MULTI-CENTRE
- CONCLUSION

- retrieval of information for a group of products
- processing of substance info.
- processing of new product information from industries for toxicovigilance
- categorization system
- names of substances
- retrieval of cases for scientific evaluations creating monographs
- recording of cases
- 1st time registration of substances (+CATEGORY) when recording a case
- grouping of cases for annual reports
STRUCTURE OF CSS - hierarchical

- **Drugs**
  - **Metoprolol**

ATC-Code 2005
(n = 5300)

ATC-Code 2005 Vet-ATC
(n = 5900 Vet-ATC)

**WHO**

Collaborating Centre for Drug Statistics
Methodology, Oslo
**STRUCTURE OF CSS** - hierarchical

- **Cosmetics**
  - **Nail Polish**

Cosmetic Frame Formulations

**EAPCCT & COLIPA, 2000**

completed by some own categories

(n = 180)
STRUCTURE OF CSS - hierarchical

- Plants
  - Golden Chain Tree

Taxonomical classification according to: Zander, ed.: Dictionary of plant names, Kater pupl. 2000, 16th edition (n = 2'700)
STRUCTURE OF CSS

- Content/Sources
- Current Use
- Basic Structure
- Interfaces
- Realization
- Multi-centre
- Conclusion
INTERFACES

- Management
  - workflow between advisors and experts in the team of a PC
  - cooperation with external partners

- External Partners
  - other PCs (multi-centre)
  - EAPCCT / COLIPA
  - WHO (ATC-/Vet-ATC-Code)
  - industries

- Procedures of a PC
  - establish – maintain – update
  - train the team

- Technique
  - structurally fitting, user-friendly tools
  - integration into the complete system of a PC
  - necessity for daily use
CASE RECORDING SYSTEM ADAM©

- Developed in Mainz PC 1993-1994
- Daily running since
  - 1995 in Mainz PC
  - 1998 in Bonn PC
  - 2000 in Homburg PC
  (Σ 9100 PC-days without any break)
- MS Access Frontend – ORACLE-Backend
- Comprehensive integration of the CSS
- Parallel use: local + harmonized CSS
- 3 Modules:
  - ADM – administration of users, processing of selection lists
  - DOC – recording consultation + follow-up of cases
  - AUS – analysing / exporting of cases
Examples of the system ADAM© are not linked in this presentation!
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- **Content/Sources**
- **Current Use**
- **Basic Structure**
- **Interfaces**
- **Realization**
- **Multi-centre**
- **Conclusion**

**CASE RECORDING SYSTEM ADAM©**

- Retrieval of information for a group of products
- Categorization system
- Recording of cases
  - 1st time registration of substances (+CATEGORY) when recording a case
- Processing of substance info.
- Processing of new product information from industries for toxicovigilance
- Retrieval of cases for scientific evaluations creating monographs
- Grouping of cases for annual reports
Electronic Product Data Exchange in Europe – Start of An International Workgroup

“Vision of a Borderless Rapid Information Network”

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History and Objective:
Access to information on industrial products quantitatively describing their ingredients and physico-chemical properties is an important requirement for high quality work in poison centres (PCs). Starting in the late 1980s, EAPCCT and several European industry organisations (AIS[E]: FIPE: FEA) agreed on a European exchange format for consumer product data on paper. It is used frequently. Today, European poison centres have to handle an increasing number of foreign products due to rising European markets. To handle calls concerning much more products than in the years before a rapid borderless information system would be very helpful.

Experiences within TDI research project
In 2002, an electronic version of the EAPCCT product information format was developed using Extended Markup Language (XML) syntax rules and named XML-ROSETTA (RML) within the TDI research project in Germany (www.tdinetwork.org). The ROSETTA format is

Product data exchange in Europe today
Product information is sent by companies to local PCs in foreign language.

Recent progress
All presentations of the Rome symposium, a description of the XML-ROSETTA format, and a list of workgroup members are published on the TDI-Website. A XML-ROSETTA data package containing data on virtual products has been distributed to all workgroup members since 2004.
## Sectors - Responsible PCs

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MULTI CENTRE CSS

- Responsible PCs develop and maintain sectors (collect problems and suggestions, prepare updates)
- Annually meeting of the working group (discuss controversials, confirm a new version, identify internationally standardized sectors)
- Complete CSS is shared with all participating PCs
- TDI CSS version 1.0 contains 15‘000 categories and covers more than 95% of the substances related to cases
- In 2006 first annual reports with harmonized classification of cases from 2005 will be expected
CONCLUSION

- CSS plays a crucial role for the daily retrieval and data processing in PCs
- CSS is linked to the management, several procedures and the databases of a PC at a central position
- It is possible to integrate the complex hierarchical system in a user-friendly way in the daily routine of a PC (ADAM©)
- Within the TDI-network a first step to a multi-centre CSS was achieved. SOP defines the common work. The first version is in use.
- A parallel use of a local and the harmonized CSS is possible.
- At present: no harmonization of the CSS in the EU PCs
CONCLUSION

QUESTIONS

- Shall we harmonize?
- Do we want to harmonize?
- Can we harmonize?

ANSWERS

- yes
- ? => EAPCCT members
  => resources?

FUTURE

- If the answer of question N°2 = yes
- We should start a working group in the EAPCCT
- Questionnaire to EAPCCT members
  (concerning existing systems and wishes)
- Provide funding for adequate resources
THANKS

- PC Mainz Team
  - LS. Weilemann, HJ. Reinecke, G. Clesius

- TDI-Team
  - PC‘s
    - Bonn: C. Seidel
    - Erfurt: G. Hüller
    - Freiburg: U. Stedtler
    - Göttingen: H. Desel, R. Wagner
    - Mainz: I. Weilemann, H. Zeimentz
  - BfR
    - K. Begemann, A. Hahn, G. Heinemeyer

- PC Zurich Team
  - H. Kupferschmidt, C. Rauber-Lüthy, H. Reust