EUSEM working together with EFMI
(The European Federation of Medical Informatics)

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EUSEM

• Born 1994 - Multidisciplinarity group of experts
• Since 2005- 36 European Countries
• Aimed
  • To promote
  • To foster the concept, the philosophy and the art of EM throughout Europe.
• The main objective of EUSEM is
  • to help
  • to support European countries to implement and advance the specialty of EM
European Federation of Medical Informatics – EFMI

• Medical informatics is the study and application of methods to improve the management of
  • patient data,
  • clinical knowledge,
  • population data,
  • other information relevant to patient care and community health.

European Federation of Medical Informatics – EFMI

• Non profit association established Switzerland 1976 - **32 countries** in European region

• EFMI aims to advance
  • the theory and practice of Medical Informatics (MI)
  • research and development in MI
European Federation of Medical Informatics – EFMI

- EFMI encourages
  - high standards in education in the practice of MI
  - Disseminates knowledge in MI working with national associations and members

- Guidelines
  - Accreditation on education and training in MI as the autonomous European Regional Council of IMIA.

Why collaborate?

- The digital transformation of EMS through the application of IT calls for synergies

- Multidisciplinary WGs that
  - examine developments,
  - instrument innovation,
  - disseminate knowledge, through education.
Why collaborate?

• Cross-disciplinary synergies lead to:
  • Knowledge sharing,
  • Fresh ideas
  • Better outcomes
  • Savings in manpower and time savings

Why collaborate?

• **Thus, EUSEM-EFMI collaboration aims at:**
  • Creating
    • Recommendations
    • Education tools for the application of IT in EMS
AIM OF WG

Specific Aim #1:

High quality health data in EDs starting at MINIMUM DATASET.

- “Chief Complaints”
  - list, definitions, format, registration, use
- IT tools and standards
- Feasibility analysis using questionnaires
- Reflections on the next steps towards implementation

AIM OF WG

Specific Aim #2:

EDUCATIONAL MATERIALS orientated to EMS professionals

- Design
- Implement
- Pilot this educational material on the online educational platform of EUSEM
CORE

- Luis García Castrillo Riesgo, Spain (Chair)
- Adrian Stanescu, Romania
- Andrea Fabbri, Italy
- Dominik Brammen, Germany
- Doris Eis, Switzerland
- Eva Genewein, Switzerland
- Goksu Bozdereli Berikol, Turkey
- Kelly Janssens, Ireland
- Senad Tabakovic, Switzerland
- Wilhelm Behringer, Germany

[(*in alphabetical order)]

EXTENDED

- Barbara Hogan, Germany
- Lisa Kurland, Sweden
- Mehmet Akif Karamercan, Turkey
- Rianne Oostenbrink, Netherlands
- Santiago Cortes, Spain

[(*in alphabetical order)]
• 2 F2F
• 6 TCONs

1st Tcon Jan 25

• The first meeting was conducted on Jan 25 via Tcon as the Project launched.

• After defining the Project and deliverables, a public press has been released and approved by EFMI and EUSEM.
2nd Tcon March 7th

- Evaluation of the CC & triage processes and practices in ED
- Concretizing the specific groups of actions
  - Chief complaint and how it is connected to process for triage and guidelines
  - Collection of actual terms in use across ED
  - Forming the Educational material
  - Creating the dictionary of terms

1st F2F April 9

- Review of selected ED practices
- Review of CC connection to processes
- Review of Dictionary terms
- Review of Educational materials
CHIEF COMPLAINTS

• to discuss the processes creating chief complaint list,
  • their association with triage classifications
  • pearls and pitfalls which has been faced during these periods in an international perspective

CONSTITUTION OF CHIEF COMPLAINT LIST FOR EMERGENCY SERVICE MINIMUM DATASET: A LITERATURE REVIEW

CHIEF COMPLAINTS IN DEEDS

HL7 Version 3 Specification: Data Elements for Emergency Department Systems (DEEDS),
CHIEF COMPLAINTS IN UMLS

https://www.nlm.nih.gov/research/umls/new_users/online_learning/Meta_005.html

CHIEF COMPLAINTS IN ICD


CHIEF COMPLAINTS IN SNOMED

CHIEF COMPLAINTS IN RVC-NAMCS
CHIEF COMPLAINTS IN ICPC

CHIEF COMPLAINTS IN CEDIS

https://caep.ca/resources/cedis/cedis-data-elements/
CHIEF COMPLAINTS

• After the review process, evaluating all possible chief complaint lists and studies creating the CC lists

• We concluded that to create a CC list, it should be pointed out that
  • **Recordings of CC are not systematically classified, coded, and stored**
  • **Deciding which common language/vocabulary/terminology/standards to use**
  • **Who** records the reason for visit and **when** it is recorded
  • The diagnosis as the reason for visit only if so stated by the patient.
  • No recordings/non specific complaints are issues
  • Corresponding to what? Triage-Assessment-Diagnosis-Treatment choice

CHIEF COMPLAINTS

• **Multiple complaints** documentation

• **More** PC, more sensitivity and complexity of the system but difficult to analyze; **Less** PC, less reliability and simplicity but not enough information.

• **Validity and reliability** with similar hospitals similar triage systems, and complaints and real scenarios

• PC is **subjective** and can change/dissolve/increase in triage

• **Local dialect** is important, geographically importance

• **Avoid unnecessary data**
The need for a **standardised medical terminology** was identified as important by (EFMI) & (EUSEM).

### Dictionary of important terms

**EUSEM-EFMI project**

<table>
<thead>
<tr>
<th>Term</th>
<th>DEEDS 1.0</th>
<th>SNOMED</th>
<th>LOINC</th>
<th>MANCHESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s reason for seeking care or attention, expressed in terms as close as possible to <strong>those used by patient or responsible informant</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Emergency care chief complaint (SNOMED CT) is the SNOMED® concept id which is used to indicate the nature of the patient’s chief complaint as assessed by the <strong>care professional first assessing the patient</strong></td>
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<tr>
<td>Chief complaint records the patient’s primary complaint (the <strong>patient’s own description</strong>)</td>
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</tr>
<tr>
<td>Presenting complaint that is the chief sign or symptom <strong>identified by the patient or carer</strong></td>
<td></td>
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</tr>
</tbody>
</table>
Review of Educational Material

Prof. Lacramioara Tivadar-Stoicu
Prof. Kaija Saranto
Prof. John Mantas

Educational Material

• Educational materials creation process were reviewed.
• Discussion about the
  • audience,
  • content,
  • learning environment
• materials and modules for teaching/training
  • manequin driven teaching,
  • virtual reality, augmented reality
  • platforms for online learning as in the EUSEM Academy
3rd Tcon May 17

• Discussed for the part of the final report
  • Review of CC association with the nomenclature and relation among
  • ICD9 or 10,
  • ICPC2 or 3,
  • SNOMED CT
  • CEDIS

4th EUSEM-EFMI tCon:
July 3, 2019

• Progress in selecting centers and countries for study
• Built links to the ED database project
• Discussed protocol and possible draft questionnaire
4th EUSEM-EFMI tCon: July 3, 2019

Digital health Innovations in the Emergency Department

Catherine Chronaki
Secretary General

HL7 Foundation, Brussels, Belgium
Contact: euoffice@HL7.org

HL7 Vision: A world in which everyone can securely access and use the right health data when and where they need it.

4th EUSEM-EFMI tCon: July 3, 2019

• Developed 2 dictionaries:
  • chief complaint terms
  • joint dictionary of EUSEM-EFMI

HeTOP was selected for the dictionary of terms
HeTOP Agreement

Health Terminology / Ontology Portal - a **crosslingual terminology** server

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HeTOP Agreement

- **The scope** of HeTOP is health,
  - intended primarily for indexers / librarians, translators, health professionals and students, publishers and medical informatics scientists
- **allows users to search and browse** Health terminologies, in several languages
- **lets navigation** between concepts through their relationships and hierarchies.
- **Features** are available to understand the concepts, their meanings and their uses.
HeTOP Agreement

• EUSEM-EFMI are collaborating with the Dept of Biomedical Informatics (DBI), Rouen University Hospital (RUH), Normandy, France which this two institutions have the intellectual property of HeTOP.

• The taskforce is aimed to freely integrate the CC terms & the joint dictionary of EUSEM-EFMI into HeTOP.

Wednesday, September 04, 2019

MEMORANDUM of UNDERSTANDING BETWEEN
Department of Biomedical Informatics (DBI), Rouen University Hospital (RUH), Normandy, France and European Federation of Medical Informatics (EFMI) & European Society For Emergency Medicine (EUSEM)

4th EUSEM-EFMI tCon:
July 3, 2019

• Reviewed and tested additional of the terms in the dictionary HeTOP.
  • Used for dictionary of terms underpinning the collaboration
  • Presenting and translating the minimum data set for the chief complaint
11:00-12:30 Research and Innovation Challenges in Health Informatics and Technology for Aging
Co-chairs: Prof. Jialin Liu, CMIA Prof. Inge Madsen, Nursing WG, EFMI
Rapporteurs: Siru Liu, CMIA, Diana Zandi, EFMI
Social Media: Paulette Lacroix, EFMI, Adrej Orel, EFMI
Challenges and innovations in improving elderly care, Prof. Ying Wu, Capital Medical University
Challenges in Nursing Homes, Integrating health and social care, Brian O’Connor, ECHAAlliance
Challenges in Geriatric Medicine for Emergency Departments in Europe, Prof Mehmet Karamancer, EUSEM
Challenges in Geriatric Medicine for Emergency Departments in China, Prof. Wei Jie, Chinese College of Emergency Physicians (CCEP)
Q&A panel with speakers and Luis García-Castrillo Riesgo, President EUSEM
5th EUSEM-EFMI tCon: September 9, 2019

- Review of the report on chief complaints throughout the countries.
- Reflected on the questions for the feasibility study
- Discussed HeTOP agreement
- Discussed implementation of codifications
- Reviewed plans for the F2F meeting
- Planned presentation by HIMSS Analytics on their EMRAM that rates hospitals 1-7.

HIMSS-EMRAM

- The questionnaire for the feasibility analysis will be build based on the EMRAM (Electronic Medical Record Adaption Model) method for Emergency medicine
EUSEM-EFMI Joint WG objectives (2019-2020):

- To create recommendations regarding minimum data set for Emergency Departments.
- Specifically, to create recommendations regarding the “Chief Complaints”, considering the list, definitions, and format for registration and use in the ED.
- To investigate IT tools and standards to implement these recommendations.
- To carry out a feasibility analysis using questionnaires to ED, EMS, and industry throughout Europe.
- To reflect on the next steps towards implementing the recommendations.
- To design and implement educational materials orientated to EMS professionals.
- To pilot this educational material on the online educational platform of EUSEM.

EUSEM-EFMI Progress in 2019:

- Reviewed minimum data set for Emergency Departments.
- Selected the most appropriate one Minimum set: CEDIS
- Created dictionary of terms in HeTop
- Reviewed digital health innovation tools for the ED
- Develop questionnaire to investigate practices in EDs regarding Chief Complaint (in progress)
- Select centers for the study (in progress)
- Develop plan for the first educational session (Q4, 2019, in progress)
Join the EUSEM-EFMI Working Group!