

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

Goksu BOZDERELI BERIKOL, MD, MSc, PhD(cand)

Istanbul Dr. Sadi Konuk Training and Research Hospital, Istanbul, TUR

Akdeniz University, Dept. of Biostatistics and Medical Informatics, Antalya, TUR

## EUSEM



- Born 1994 - Multidisciplinary 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

# EUSEM



## CORE

- **Luis Garcia 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

## EXTENDED

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

(\*in alphabetical order)

# EFMI\*



- **Catherine Chronaki, Belgium (Chair)**
- Alfred Winter, Germany
- Ariel Benis, Israel
- Doupi Persephone, Finland
- Efthyvoulos Kyriacou, Greece
- John Mantas, Greece
- Kaija Saranto, Finland
- Lacramioara Stoicu-Tivadar, Romania
- Louise Pape-Haugaard, Denmark
- Mihaela Mihaela Crişan-Vida, Romania
- Thomas Deserno, Germany
- Thomas Schmidt, Denmark

(\*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.



The screenshot shows the EUSEM website header with navigation links: HOME, ABOUT EUSEM, NEWS, MEMBERSHIP, SECTIONS & COMMITTEES, EDUCATION, EBEM, RESEARCH, CALENDAR, CONGRESS, CONTACT US. The main content area features the headline: "EFMI and EUSEM cooperate to advance the digital transformation of Emergency Departments". Below the headline is a breadcrumb trail: Home > Membership > Content > EFMI and EUSEM cooperate to advance the digital transformation of Emergency Departments.

## 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**

18.02.2019

Introduction to  
Minimum Data Set - Chief Complaint  
in EM

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

A service of the U.S. National Library of Medicine | National Institutes of Health



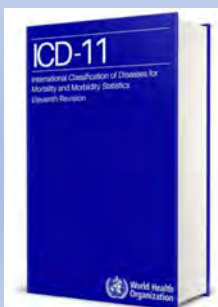
Unified Medical Language System<sup>®</sup>

## UMLS Terminology Services

[UTS Home](#)
[Applications](#)
[SNOMED CT](#)
[Resources](#)
[Downloads](#)
[Documentation](#)
[UMLS Home](#)

<b>A1412439</b>	headaches (BI)
<b>S1459113</b>	headaches
<b>A2882187</b>	Headache (SNOMED)
<b>A0066000</b>	Headache (MeSH)
<b>S0046854</b>	Headache
<b>L0018681</b>	headache
<b>A1641293</b>	Cranial Pain (MeSH)
<b>S1680378</b>	Cranial Pain
<b>L1406212</b>	cranial pain
<b>A0418053</b>	HEAD PAIN CEPHALGIA (DxR)
<b>S0375902</b>	HEAD PAIN CEPHALGIA
<b>L0290366</b>	cephalgia head pain
<b>C0018681</b>	Headache

# CHIEF COMPLAINTS IN ICD



[https://icd.who.int/ct11\\_2018/icd11\\_mms/en/release#/](https://icd.who.int/ct11_2018/icd11_mms/en/release#/)

## ICD-11 Coding Tool

Mortality and Morbidity Statistics (MMS)  
December 2018

chief complaint

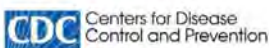
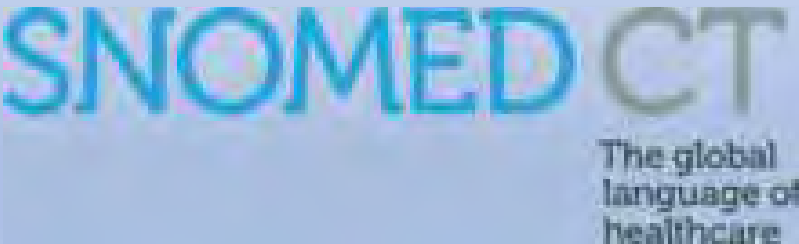
Guessing the word being typed...

- MC1D** Symptom or **complaint** of contact lens 
- MD34** Symptom or **complaint** of the nose 
- MD35** Symptom or **complaint** of the sinus 
- MD3...** Other specified symptom or **complaint** of the throat 
- MD36.Z** Symptom or **complaint** of the throat, unspecified 
- MD3Y** Other specified symptoms or signs involving the respiratory system 
- Other symptom or **complaint** of breathing
- MD80.0** Symptom or **complaint** of the teeth or gum 
- ME66.4** Symptom or **complaint** relating to nails 
- ME66.5** **Complaint** of abnormal sweating 
- ME86.0** Symptom or **complaint** of the ankle 
- ME86.1** Symptom or **complaint** of the arm 
- ME86.22** Symptom or **complaint** of the low back 
- ME86.2Y** Other specified symptom or **complaint** of the back 
- ME86.2Z** Symptom or **complaint** of the back, unspecified 
- ME86.3** Symptom or **complaint** of the chest 
- ME86.4** Symptom or **complaint** of the elbow 

# CHIEF COMPLAINTS IN SNOMED



Leading healthcare terminology, worldwide



National Center for Health Statistics

About NAMCS/NHAMCS

# CHIEF COMPLAINTS IN RVC-NAMCS

Principal reason for visit and RVC code <sup>1</sup>	
All visits	
Stomach and abdominal pain, cramps, and spasms	S545
Chest pain and related symptoms (not referable to body systems)	S050
Fever	S010
Cough	S440
Headache, pain in head	S210
Back symptoms	S905
Pain, site not referable to a specific body system	S055
Shortness of breath	S415
Accident, not otherwise specified	J810
Vomiting	S530
All other reasons <sup>2</sup>	...
All visits under age 15 years	
Female	
Fever	S010
Cough	S440
Stomach and abdominal pain, cramps, and spasms	S545
Vomiting	S530
Skin rash	S860
Symptoms referable to throat	S355
Accident, not otherwise specified	J810
Earache or ear infection	S355
Injury, other and unspecified type—head, neck, and face	J505
Headache, pain in head	S210
All other reasons <sup>2</sup>	...
Male	
Fever	S010
Cough	S440
Vomiting	S530
Skin rash	S860
Earache or ear infection	S355
Injury, other and unspecified type—head, neck, and face	J505
Stomach and abdominal pain, cramps, and spasms	S545
Laceration or cut of facial area	J210
Accident, not otherwise specified	J810
Symptoms referable to throat	S455
All other reasons <sup>2</sup>	...

**ICPC-2 – English**  
International Classification of  
Primary Care – 2nd Edition  
Worcester International  
Classification Committee  
(WICC)

**Blood, Blood Forming  
Organs and Immune  
Mechanism** **B**

**Eye** **F**

**Musculoskeletal** **L**



**Process codes**

30 Medical Exam/Visit-Complete  
31 Medical Examination/Health Evaluation-  
Partial/Pre-Op check  
32 Sensitivity Test  
33 Microbiological/Immunological Test  
34 Blood Test  
35 Urine Test  
36 Feces Test  
37 Histology/Cytology  
38 Other Laboratory Test NEC  
39 Physical Function Test  
40 Diagnostic Endoscopy  
41 Diagnostic Radiology/Imaging  
42 Diets/Trainers  
43 Other Diagnostic Procedures  
44 Preventive Immunizations/Medications  
45 Observe/Educate/Advise/Diet  
46 Consult with Primary Care Provider  
47 Consultation with Specialist  
48 Clarification/Discuss Patient's RFE  
49 Other Preventive Procedures  
50 Medical Script/Receipt/Review/Inject  
51 Intra/Drain/Flush/Aspirate  
52 Excise/Remove/Biopsy/Deconstruction/  
Dilate  
53 Instrument/Catheter/Intubate/Dilate/  
Repair/Repair-Settle/Canal/Prosthetic/  
Local Injection/Refill/Inject  
54 Dress/Prise/Compress/Tamp/soak  
55 Physical Medicine/Rehabilitation  
56 Therapeutic Counseling/Listening  
57 Other Therapeutic Procedure NEC  
58 Results Tests/Procedures  
59 Family Exam/Visit/Record  
60 Administrative Procedure  
61 Follow-up Encounter Unspecified  
62 Encounter Initiated by Provider  
63 Encounter Initiated third person  
64 Refer to Other Provider (EXCL. M.D.)  
65 Referral to Physician/Specialist/  
Clinic/Hospital  
66 Other Referrable NEC  
69 Other Reason for Encounter NEC

**PROCESSES**

**SYMPTOMS/COMPLAINTS**

**INFECTIONS**

**NEOPLASMS**

**INJURIES**

**CONGENITAL ANOMALIES**

**OTHER DIAGNOSES**

**Digestive** **D**

D01 Abdominal pain/cramps general  
D02 Abdominal pain epigastric  
D03 Heartburn  
D04 Rectal/anal pain  
D05 Perianal itching  
D06 Abdominal pain localized other  
D07 Dyspepsia/indigestion  
D08 Flatulence/vault/belching  
D09 Nausea  
D10 Vomiting  
D11 Diarrhea  
D12 Constipation  
D13 Jaundice  
D14 Haematemesis/vomiting blood  
D15 Melena  
D16 Rectal bleeding  
D17 Incontinence of bowel  
D18 Change faeces/bowel movements  
D19 Teeth/ging symptoms/complaint  
D20 Mouth/ tongue/lip symptoms/compl  
D21 Swallowing problem  
D22 Hepatomegaly  
D23 Abdominal mass NOS  
D25 Abdominal distention  
D26 Fear of cancer of digestive system  
D27 Fear of digestive disease, other

F01 Eye pain  
F02 Red eye  
F03 Eye discharge  
F04 Visual floaters/spots  
F05 Visual disturbances other  
F10 Eye sensation abnormal  
F14 Eye movements abnormal  
F15 Eye appearance abnormal  
F16 Eyelid symptoms/complaint  
F17 Glaucoma symptoms/complaint  
F18 Contact lens symptoms/complaint  
F19 Contact lens symptoms/complaint  
F20 Fear of eye disease  
F21 Limited function/disability (F)  
F29 Eye symptoms/complaint other  
F70 Conjunctivitis infectious  
F71 Conjunctivitis allergic  
F72 Blepharitis/eye/catharion  
F73 Eye infection/inflammation other  
F74 Neoplasm of eye/adnexa  
F75 Cornea/conjunctiva eye  
F76 Foreign body in eye  
F79 Injury eye other  
F80 Ruptured lacrimal duct of infant  
F81 Congenital anomaly eye other  
F82 Detached retina  
F83 Retinopathy  
F84 Macular degeneration  
F85 Corneal ulcer  
F86 Trachoma  
F91 Refractive error  
F92 Cataract  
F93 Glaucoma  
F94 Blindness  
F95 Strabismus  
F96 Eye/adnexa disease, other

L01 Neck symptoms/complaint  
L02 Back symptoms/complaint  
L03 Low back symptoms/complaint  
L04 Chest symptoms/complaint  
L05 Hand/wrist symptoms/complaint  
L07 Jaw symptoms/complaint  
L08 Shoulder symptoms/complaint  
L09 Arm symptoms/complaint  
L10 Elbow symptoms/complaint  
L11 Wrist symptoms/complaint  
L13 Hand/finger symptoms/complaint  
L14 Hip symptoms/complaint  
L15 Foot/toe symptoms/complaint  
L16 Ankle symptoms/complaint  
L17 Foot/toe symptoms/complaint  
L18 Muscle pain  
L19 Muscle symptoms/complaint NOS  
L20 Joint symptoms/complaint NOS  
L26 Fear of musculoskeletal  
L27 Fear musculoskeletal disease other  
L28 Limited function/disability (L)  
L29 Sympt/compl. Musculoskeletal other  
L70 Infections musculoskeletal system  
L71 Malpignar neoplasm musculoskeletal  
L72 Fracture: radius/ulna  
L73 Fracture: tibia/fibula  
L74 Fracture: hand/foot bone  
L75 Fracture: femur  
L76 Fracture: other  
L77 Sprain/strain of ankle  
L78 Sprain/strain of knee  
L79 Sprain/strain of joint NOS  
L80 Distortion/subluxation  
L81 Injury musculoskeletal NOS  
L82 Congenital anomaly musculoskeletal  
L83 Neck syndrome  
L84 Back syndrome with radiating pain  
L85 Acquired deformity of spine  
L86 Back syndromes with radiating pain  
L87 Humeral/shoulder/synovial NOS  
L88 Rheumatoid/infective arthritis  
L89 Osseous fracture of hip  
L90 Osseous fracture of knee  
L91 Osteoarthritis other  
L92 Shoulder syndrome  
L93 Osteoporosis  
L94 Acute internal damage knee  
L97 Rectus abdominis/oblique muscles  
L98 Acquired deformity of limb  
L99 Musculoskeletal disease, other

**General and  
Unspecified** **A**

A01 Pain general/multiple sites  
A02 Chills  
A03 Fever  
A04 Weakness/tiredness general  
A05 Fainting/ill  
A06 Fainting/syncope  
A07 Coma  
A08 Swelling  
A09 Sweating problem  
A10 Bleeding/haemorrhage NOS  
A11 Chest pain NOS  
A13 Chest/heart medical treatment  
A16 Irritable infant  
A19 Concern about appearance  
A20 Exhilarant request/discussion

**Ear** **H**

H01 Ear pain/earache  
H02 Hearing complaint  
H03 Tinnitus, ringing/buzzing ear  
H04 Ear discharge  
H05 Bleeding ear  
H10 Concern with appearance of ears  
H11 Concern with appearance of ears  
H12 Fear of ear disease  
H13 Limited function/disability ear  
H14 Ear symptoms/complaint other  
H15 Otitis externa  
H16 Acute otitis media/otitis  
H17 Serous otitis media  
H18 Eustachian tube/otitis  
H19 Chronic otitis media  
H20 Nerve deafness  
H21 Foreign body in ear  
H22 Perforated ear drum  
H23 Impacted wax in ear  
H24 Ear injury other  
H25 Congenital anomaly of ear  
H26 Eucoustic ear wax  
H27 Vertiginous syndrome  
H28 Oculocardiac  
H29 Presbycusis  
H30 Acoustic trauma  
H31 Deafness  
H32 Ear/mastoid/weakness  
H33 Pressure/tightness of ear  
H34 Cardiovascular pain NOS  
H35 Palpitations/awareness of heart  
H36 Irregular heartbeat other  
H37 Prominent veins

**Cardiovascular** **K**

K01 Heart pain  
K02 Pressure/tightness of heart  
K03 Cardiovascular pain NOS  
K04 Palpitations/awareness of heart  
K05 Irregular heartbeat other  
K06 Prominent veins

**Neurological** **N**

N01 Headache  
N02 Pain face  
N03 Restless legs  
N04 Paresthesia/numbness/tingling  
N05 Sensation disturbance other  
N06 Convulsion/seizure  
N07 Abnormal involuntary movements  
N08 Disturbance of smell/taste  
N09 Vertigo/dizziness  
N10 Paralysis/weakness  
N11 Speech disorder  
N12 Fear of acute neurological system  
N13 Fear of neurological disease other  
N14 Speech disorder  
N15 Neurological symptom/compl. other  
N16 Polio/myelitis  
N17 Meningitis/encephalitis  
N18 Tetanus

CHIEF COMPLAINTS IN ICPC



CHIEF COMPLAINTS IN CEDIS

Canadian Emergency Department Information System (CEDIS) Presenting Complaint List (V2.0)						
Effective Date: April 2012		#	Environmental (201-250)	#	Genitourinary (301-350) cont'd	#
Cardiovascular (001-050)			001 Frostbite/cold injury	201	Polyuria	309
			002 Noxious inhalation	202	Genital trauma	310
			003 Electrical injury	203	<b>Mental Health (351-400)</b>	<b>#</b>
			004 Chemical exposure	204	Depression/suicidal/deliberate self-harm	351
			005 Hypothermia	205	Anxiety/situational crisis	352
			006 Near drowning	206	Hallucinations/delusions	353
			007 <b>Gastrointestinal (251-300)</b>	<b>#</b>	Insomnia	354
			008 Abdominal pain	261	Violent/homicidal behaviour	355
			009 Anorexia	252	Social problem	356
			010 Constipation	253	Bizarre behaviour	358
			011 Diarrhea	254	Concern for patient's welfare	359
			012 Foreign body in rectum	255	Pediatric disruptive behaviour	360
<b>ENT—Ears (051-100)</b>		<b>#</b>	026 Groin pain/hips	256	<b>Neurologic (401-450)</b>	<b>#</b>
			051 Nausea and/or vomiting	257	Altered level of consciousness	401
			052 Rectal/perineal pain	258	Confusion	402
			053 Vomiting blood	259	Vertigo	403
			054 Blood in stool/melena	260	Headache	404
			055 Jaundice	261	Seizure	405
			056 Hiccoughs	262	Gait disturbance/ataxia	406
<b>ENT—Mouth, Throat, Neck (101-150)</b>		<b>#</b>	101 Anal/rectal trauma	264	Tremor	408
			102 Oral/oropharyngeal foreign body	265	Extremity weakness/symptoms of CVA	409
			103 Feeding difficulties in newborn	266	Sensory loss/paresthesia	410
			104 Neonatal jaundice	267	Flappy child	411
			105 <b>Genitourinary (301-350)</b>	<b>#</b>	<b>OB/GYN (451-500)</b>	<b>#</b>
			106 Flank pain	301	Menstrual problems	451
			107 Hematuria	302	Foreign body, vagina	452
			108 Genital discharge/lesion	303	Vaginal discharge	453
			151 Penile swelling	304	Sexual assault	454
			152 Scrotal pain and/or swelling	305	Vaginal bleed	455
			153 Urinary retention	306	Labial swelling	456
			154 UTI complaints	307	Pregnancy issues, <20 weeks	457
			155 Oliguria	308	Pregnancy issues, >20 weeks	458

<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**

# DICTIONARY



- The need for a **standardised medical terminology** was identified as important by (EFMI) & (EUSEM).



# DICTIONARY

- Important terms aimed to be **constructed as a dictionary** which are needed to be **standardized for the understanding.**



Patient's reason for seeking care or attention, expressed in terms as close as possible to <b>those used by patient or responsible informant</b>	DEEDS 1.0
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 <b>the care professional first assessing the patient</b>	SNOMED
Chief complaint records the patient's primary complaint (the <b>patient's own description</b> )	LOINC
Presenting complaint that is the chief sign or symptom <b>identified by the patient or carer</b>	MANCHESTER

# 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

## 4<sup>th</sup> 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**



## 4<sup>th</sup> 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](mailto: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.

## 4<sup>th</sup> 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

The logo for HeTOP, with 'He' in orange and 'TOP' in green.

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

# HeTOP Agreement

The logo for HeTOP, with 'He' in orange and 'TOP' in green.

- 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)**

## 4<sup>th</sup> 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

### J'aide HeTOP

Terminologies selection  filter translated concepts

Your queries

18 matches in 0,09 s

Top terms

MeSH (12)

EUSEM & EFMI (6)

Chief Complaint (6)

### Chief complaints (Chief Complaint)

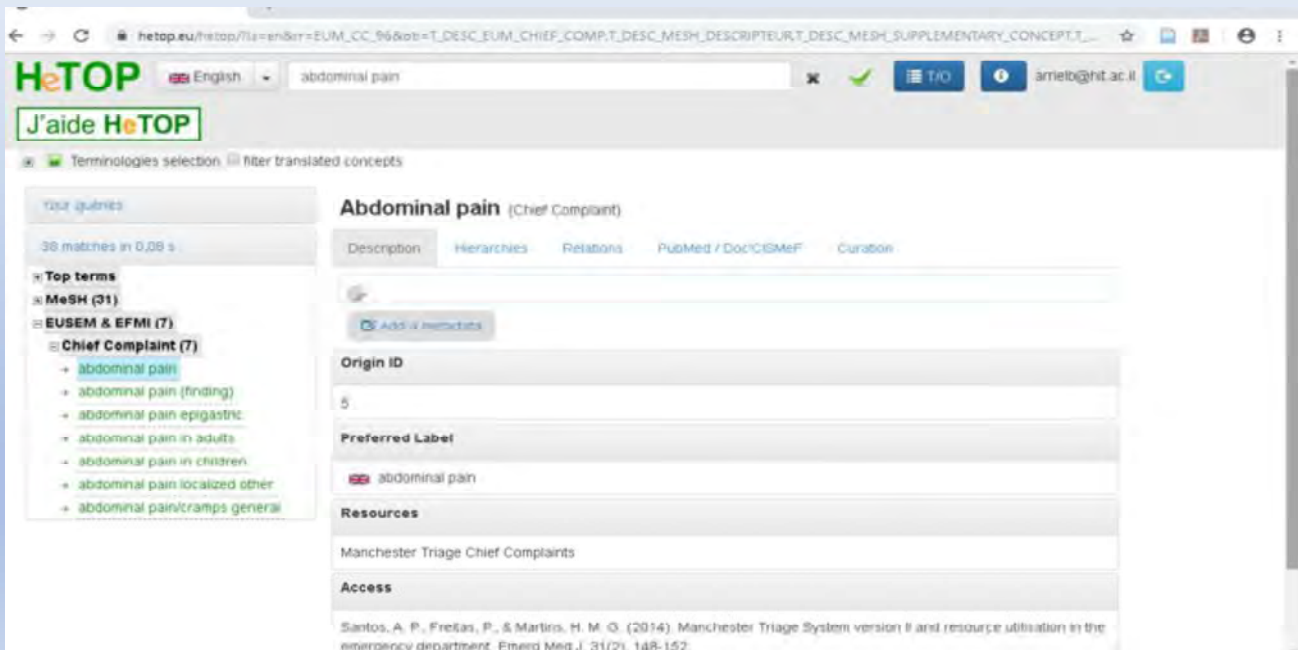
Description Hierarchies Relations PubMed / DocCISMeF Curation

Simple tree

EUM EFMI top tree

Chief complaints

Terms



hetop.eu/hetop/?la=en&rr=EUM\_CC\_96&dot=T\_DESC\_EUM\_CHIEF\_COMPT\_DESC\_MESH\_DESCRIPTEUR\_T\_DESC\_MESH\_SUPPLEMENTARY\_CONCEPT\_T...

## HeTOP

English abdominal pain

### J'aide HeTOP

Terminologies selection  filter translated concepts

Your queries

36 matches in 0,08 s

Top terms

MeSH (31)

EUSEM & EFMI (7)

- Chief Complaint (7)
  - abdominal pain
  - abdominal pain (finding)
  - abdominal pain epigastric
  - abdominal pain in adults
  - abdominal pain in children
  - abdominal pain localized other
  - abdominal pain/tramps general

### Abdominal pain (Chief Complaint)

Description Hierarchies Relations PubMed / DocCISMeF Curation

Add a synonym

Origin ID

5

Preferred Label

abdominal pain

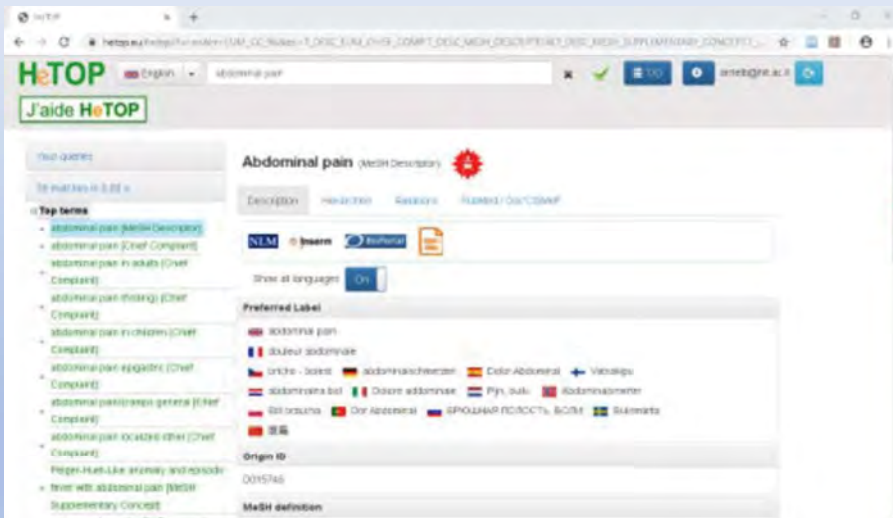
Resources

Manchester Triage Chief Complaints

Access

Santos, A. P., Freitas, P., & Martins, H. M. O. (2014). Manchester Triage System version II and resource utilization in the emergency department. Emerg Med J. 31(2), 148-152.

# HeTOP



## EFMI 1<sup>st</sup> EU-China Health Summit on Medical Innovation and Technology Transfer Blueprint for a joint Research and Innovation Mission on Aging Co-Organized by EFMI and CMIA with MedInfo 2019, Lyon, France, 25 Aug 2019, 9:00-18:30



**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, ECHAlliance  
Challenges in Geriatric Medicine for Emergency Departments in Europe, Prof Mehmet Karamercan, 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 Garcia-Castrillo Riesgo, President EUSEM

# 5<sup>th</sup> 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 **M**edical Record Adaption Model)method for Emergency medicine

STAGE	<b>HIMSS Analytics EMRAM</b> EMR Adoption Model Cumulative Capabilities
7	Complete EMR; External HIE; Data Analytics, Governance, Disaster Recovery, Privacy and Security
6	Technology Enabled Medication, Blood Products, and Human Milk Administration; Risk Reporting; Full CDS
5	Physician documentation using structured templates; Intrusion/Device Protection
4	CPOE with CDS; Nursing and Allied Health Documentation; Basic Business Continuity
3	Nursing and Allied Health Documentation; eMAR; Role-Based Security
2	CDR; Internal Interoperability; Basic Security
1	Ancillaries - Laboratory, Pharmacy, and Radiology/Cardiology information systems; PACS; Digital non-DICOM image management
0	All three ancillaries not installed

## 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)



**EUSEM** PRAGUE 2019  
12-16 OCTOBER  
THE EUROPEAN EMERGENCY MEDICINE CONGRESS

IN COLLABORATION WITH 



Join the EUSEM-EFMI Working Group!