Global Health Challenge

Stefan Darmoni

Personal and Social Communication Services for Health and Lifestyle Monitoring Jean Bacon1, Jatinder Singh, et.

Enhanced Home-Based Medical Care Services Through Mobile Technology Walid Hassan, Ayman Dayekh, Hasan Bazzi,

Bassam Hussein, Denise Kerbaj, Hassan M. Khachfe

Introducing the Global Advocacy Leadership Academy (GALA): Training Health Advocates around the World to Champion the Needs of Health Care Consumers

Gary L. Kreps, et.

Extending the US Health Information National Trends Survey to China and Beyond: Promoting Global Access to Consumer Health Information Needs and Practices

Gary L. Kreps, et

Development of a New Interface System
for Elderly People in Daily Life
Shunji Shimizu, Inoue Hiroaki
Fundamental Study to New Evaluation Method Based
on Physical and Psychological Load in Care
Hiroaki Inoue, Shunji Shimizu, et.

---- Global Health 2012 ---- 24th Oct. 2012

360 Degree View on Global Health Challenges

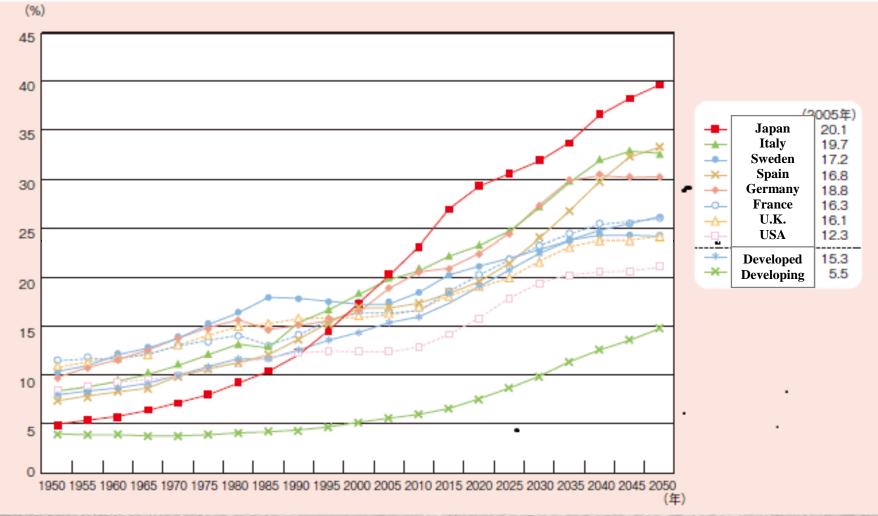
Support System for Human (ex. Elderly or Disabled)

S. Shimizu Tokyo University of Science, Suwa, (Visiting Researcher of Jichi Medical University)

Contents of this presentation

- Introduction
- Support System for Elderly People in Daily Life
 Efficacy of this New System form Concrete Cases
 Conclusion of this work
- New challenge based on this work
- My consideration about "Support System for Human"

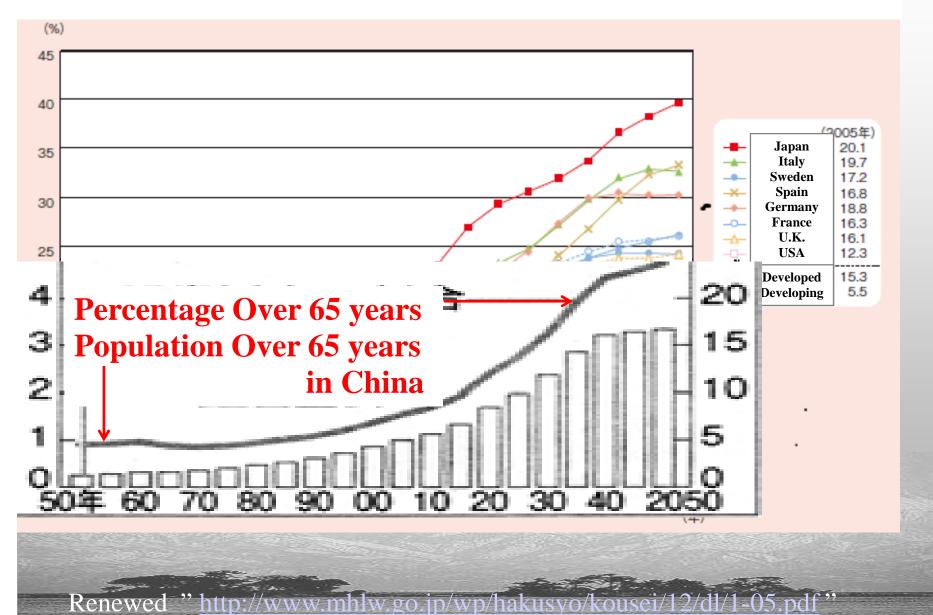
Population of Elderly People over 65 years in some Countries



Over 75 years \rightarrow 9%(2000) 20%(2030) 27%(2050) in Japan

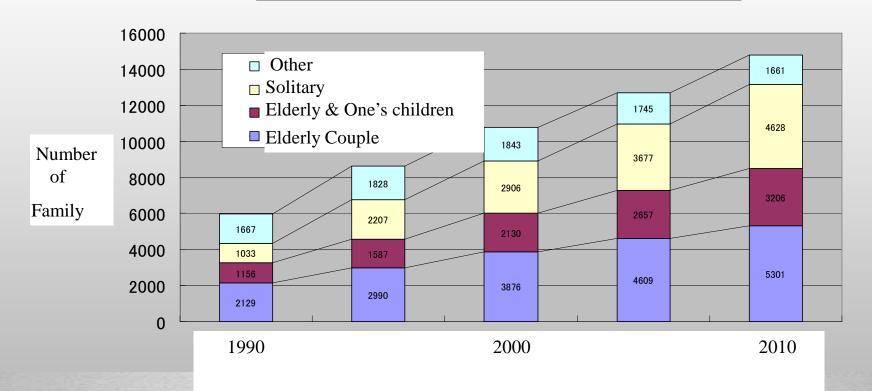
Renewed "http://www.mhlw.go.jp/wp/hakusyo/kousei/12/dl/1-05.pdf"

Population of Elderly People over 65 years in some Countries with China

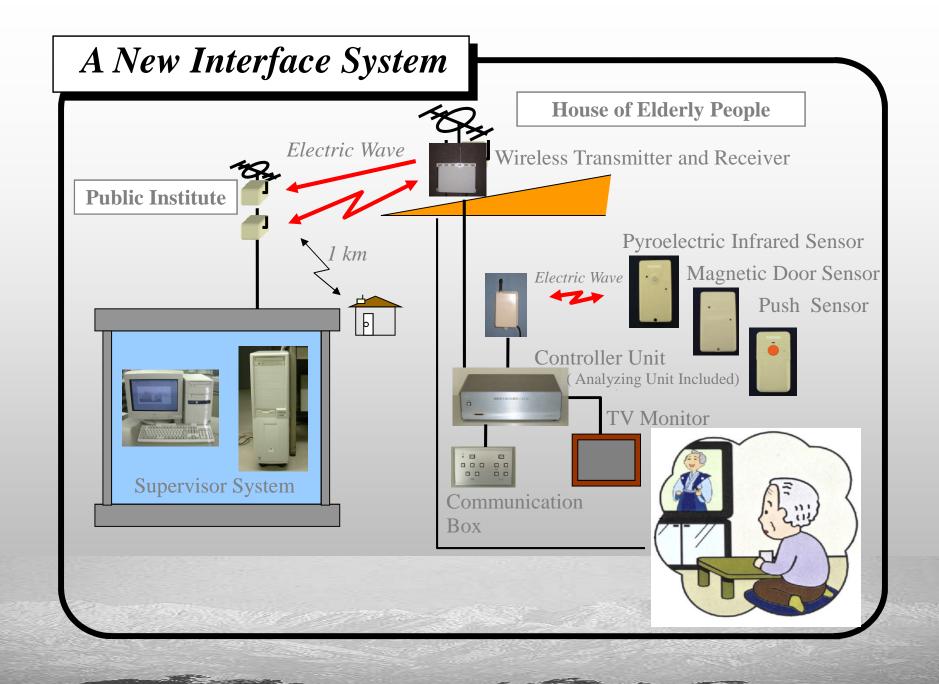


Composition of the family included elderly in Japan

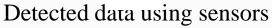
From Change of amount of elderly (From Ministry of Health, Labour and Welfare in Japan)

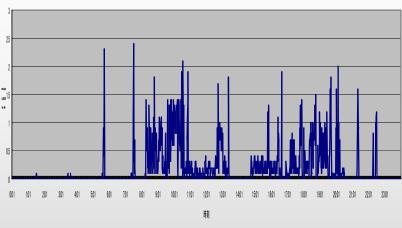


Solitary Elderly >> 40% Elderly of Dementia >> 10% in Japan at 2030.

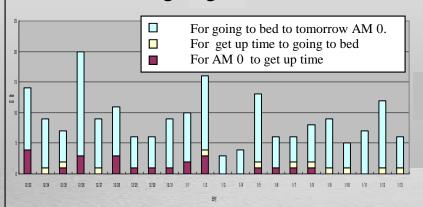


Examples of data analyzed using the New Interface System

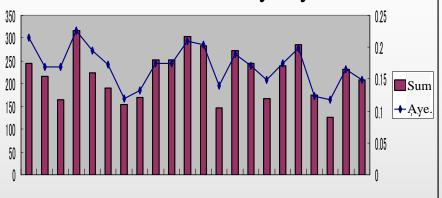




Number of going to the rest room

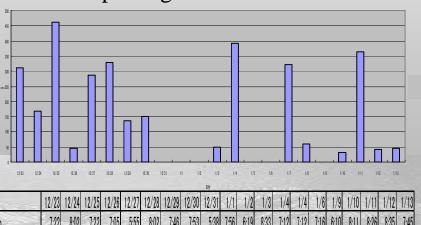


Sum of detected data by day



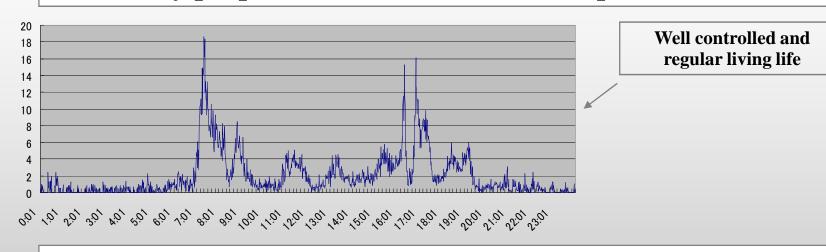


The time that elderly people go out, wake up and go to a bed.

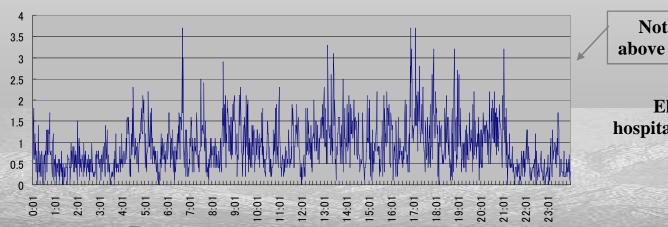


Ex. for changing a health condition No.1

Elderly people No.1 from March 14 to April 29 in 2000

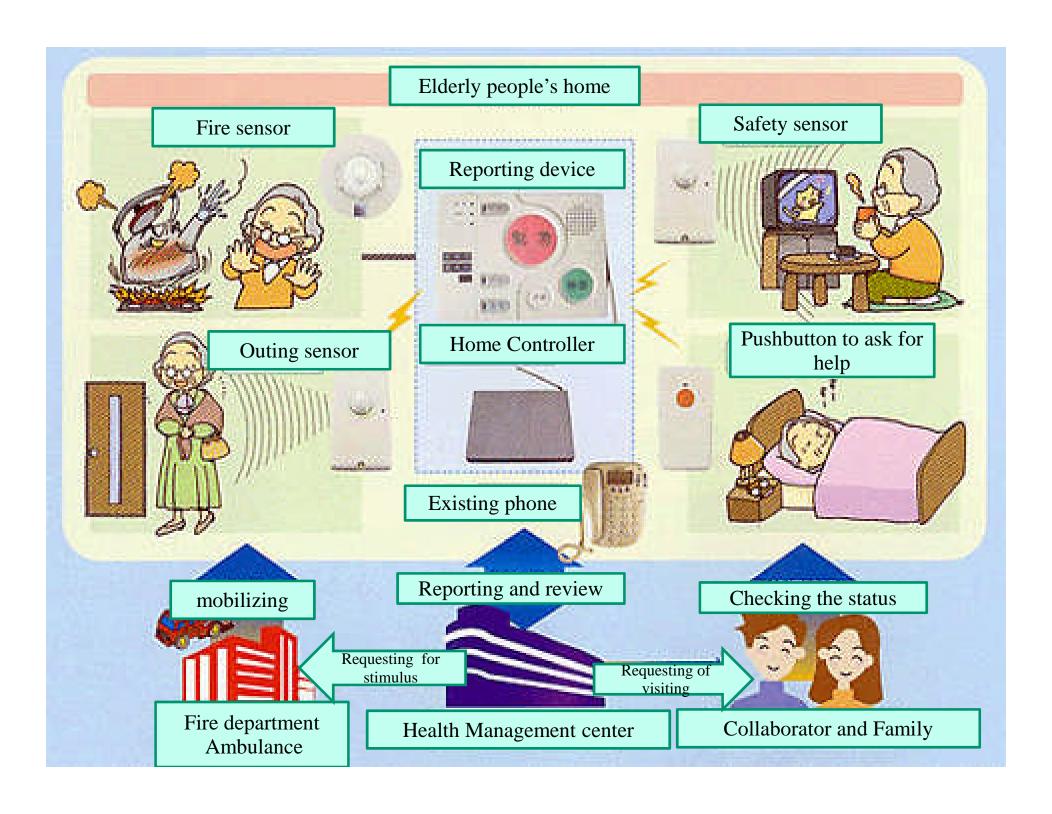


Elderly people No.1 from May 1 to May 26 in 2000



Not be able to detect above pattern in life cycle

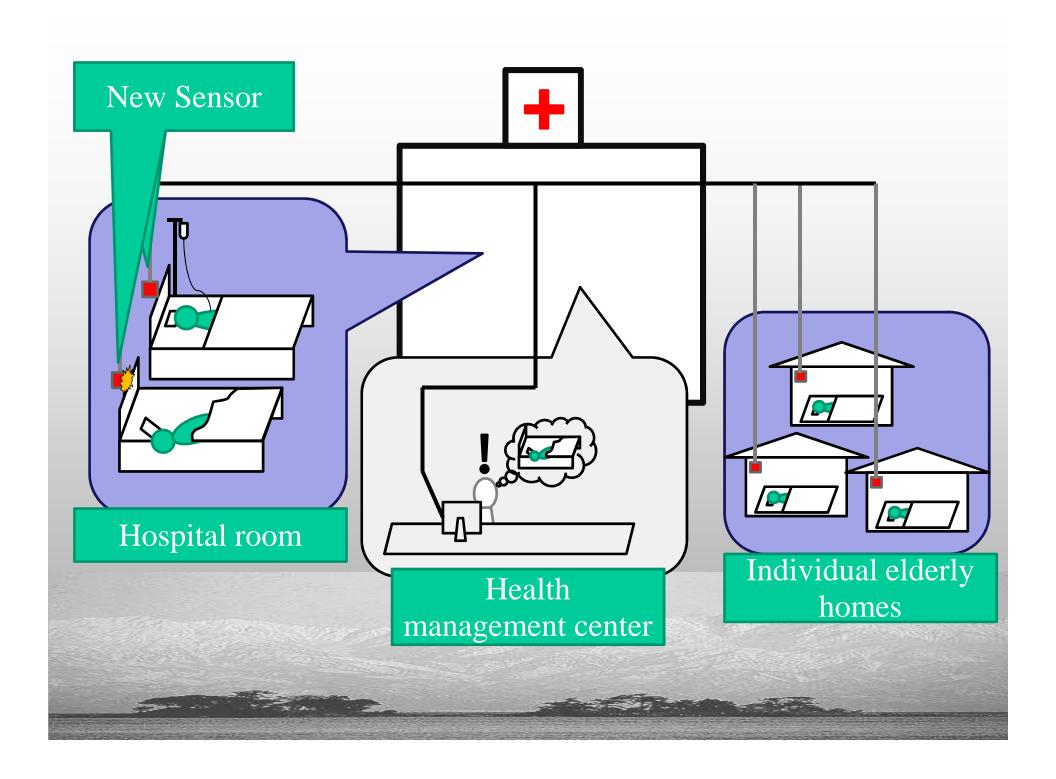
Elderly people was hospitalized in May 26 2000.



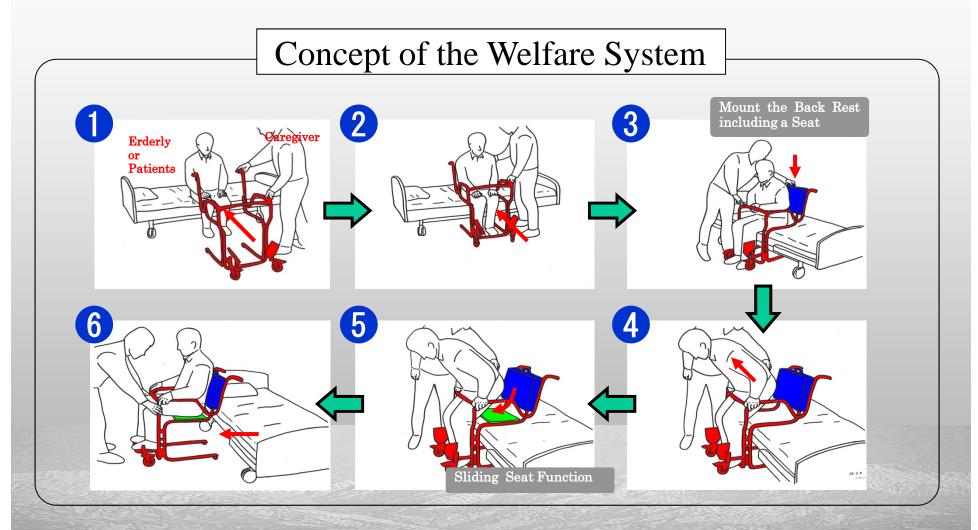
New Challenge:

Much more how to care a Health of Elderly people and Patients in their Home

- O Develop New sensor and devices system for the support system.
- O Build and Modify Social system and Community not only for the support system but also other system etc.
- O Change the Limitation by law.

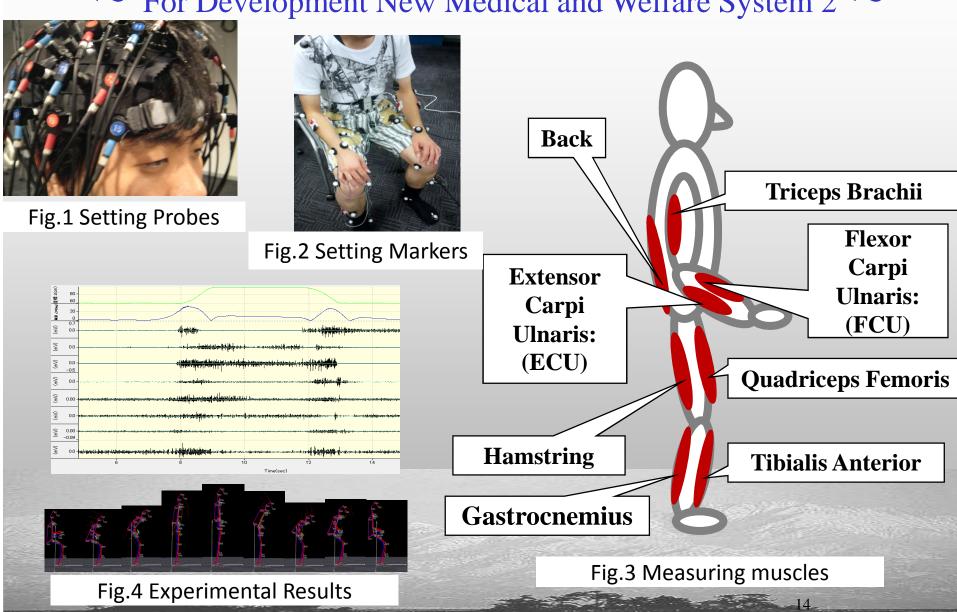


New Assistive System for Patient and Elderly People 1



FBRAIN INFORMATICS

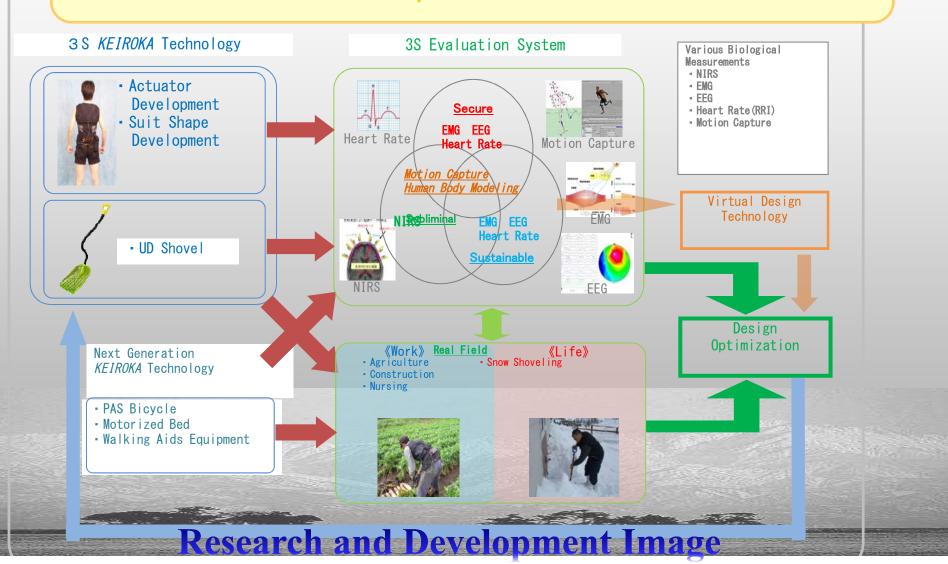
~ For Development New Medical and Welfare System 2 ~



Innovative KEIROKA Technology Concept



- Secure Secure assistance
- Sustainable Assistance to maintain bodily functions
- Subliminal Not dull the senses, unaware assistance



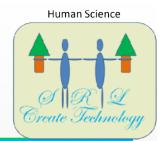
About Support System for Human

- Business Model (Medical or Welfare)
- Universal Design and Barrier Free
- Related Social system
- Supporting the Independence (of Elderly people or Persons with Disabilities)

Thank you for your attention and kindness.

Human Science region

Human Based Technology



Cooperated with

University of Tokyo, Hokkaido University, Mitsubishi Eng., Shimazu Corp., National Ins. of Advanced Indus.

Science and Tech. (

AIST) and etc.

Main Work

Brain Science

S-inove of JST Program
(Ministry of Education,
Culture, Sports, Science
and Technology)

Cooperated with

RIKEN BSI,
Jichi Medical School
(Brain Surgery),
NAC corp.,
Medical and Health
Care Device and System
Society in SUWA
and etc.

Welfare Technology

In our Past work supported from NEDO (Ministry of Economy, Trade and Industry)

Cooperated with
Jichi Medical School
(Psychiatry),
Kissei Comtec corp.,
Japanese Red Cross
Society Suwa and

etc.

Medical System

Scope Program (Ministry of Public Management, Home Affairs, Posts and Telecommunication)



Extending the US Health Information National Trends Survey to China and Beyond: Promoting Global Access to Consumer Health Information Needs and Practices

Gary L. Kreps*, Guoming Yu**, Xiaoquan Zhao*, Wen-Ying (Sylvia) Chou***, Xu Zihao**, Meijie Song**, Bradford W. Hesse***, and Richard Moser***

George Mason University

- * Renmin University of China
- ** National Cancer Institute, NIH



The HINTS (Health Information National Trends Survey) Program

- ◆ HINTS is the first nationally representative, repeated measure (every two to three years) survey of the American public's access to and use of cancerrelated health information; (it is conducted by the National Cancer Institute, NIH)
- HINTS is a key source of evidence for directing public health interventions
- ◆ The HINTS survey was first conducted in 2003
- ◆ The current (4th) administration of HINTS was administered in 2012

HINTS is Designed to Tell Us

- Where the public gets health information
- How consumers use health information
- What they know and don't know (information gaps)
- What difference health information access has
- What their information preferences are





Lessons Learned from HINTS for Disseminating Cancer Information

- Segment target audiences by key behavioral factors
- Design interventions to meet unique audience needs/beliefs
- Involve consumers in campaign design & implementation
- Build social and structural support for behavior change
- Provide appropriate training and support
- Help reduce uncertainty through interaction
- Provide multiple reinforcing messages and channels
- Refine strategies based on new HINTS evaluation data
- Institutionalize and sustain best programs







Cancer is a Serious Public Health Issue in China

- Cancers are a leading cause of death in China
- Cancer incidence and mortality rates are going up
- Significant public fear and concerns about cancer
- Limited information about cancer prevention
- Limited information about cancer detection
- Late stage diagnoses limit treatment effectiveness
- Inequalities in access to cancer care
- Increasing cancer burden in China
- Information needs of cancer survivors





HINTS-China can Provide a Clearer Picture of Cancer Information Needs

- Where do people get cancer information?
- How accurate is the information they gather?
- What are typical information seeking practices?
- What are cancer information needs and gaps?
- What channels do people use to get information?
- What channels do they prefer to use?
- How do they use the cancer information gathered?
- What information sources are preferred?

Identify Critical Audiences for Cancer Information in China

- Which groups of consumers have the greatest cancer information needs (urban, rural, gender, age, etc.)?
- Which groups are at greatest risk for cancers?
- How well informed are health care providers?
- How well do providers share health information?
 - ✓ With consumers?
 - ✓ With other providers?
- How well informed are policy makers?
- How effective are health educators?





Identify Key Channels and Strategies for Cancer Communication in China

- Which channels are most effective at disseminating cancer information to different groups?
- What are the strengths and weaknesses of different media for disseminating health information?
- How do different groups prefer to receive health information?
- Which communication strategies are most influential in influencing health behaviors?
- Which strategies are most cost-effective?

HINTS-China Data can Guide

- Evaluation of current health education programs
- Identification of major health information needs
- Development of targeted health education programs
- Tracking of health information trends over time
- Comparisons among sub-groups in China
- Comparisons with HINTS-USA findings
- Tracking of progress with new health promotion and education programs in China

HINTS-China can Address Major Cancer Issues & Information Needs

- Increase awareness and understanding about cancers
- Reduce cancer incidence and mortality in China
- Reduce the national cancer burden in China
- Increase public health focus on cancer prevention
- Increase rates of cancer screening and early detection
- Improve accuracy of cancer diagnoses
- Promote timely and effective cancer treatments
- Increase participation in clinical cancer research



HINTS-China can Provide Important Information About

- Health information needs and gaps
- Major at-risk populations who need support
- Best strategies for reaching and influencing groups
- Effectiveness of current health education programs
- Directions for new health interventions
- Changing information needs and uses
- Influences of new interventions
- Opportunities for refining public health policies, training providers, and educating policy makers
- Strategies to reduce the cancer burden in China



Implications for Promoting Global Health

- Compare health information needs in US and China
- Identify common information needs and problems
- Develop shared strategies for information provision
- Share intervention strategies and resources
- Expand HINTS research to other nations
- Develop multi-national systems for addressing global health information needs



Interoperability & Emerging Health Services

Jat Singh
UNIVERSITY OF
CAMBRIDGE

Healthcare Systems

- Healthcare is data driven
 - Technology can assist
- Health technology lags behind
 - Enterprise systems, some telehealth, => clinical focus
- Interoperability recognised as important
 - Systems/data level
 - Data exchange standards
 - HL7, OpenEHR, SNOMED, etc...
 - Clinical exchange

Emerging Healthcare

- Moving to a preventative care model
 - Patient empowerment
 - No-longer just clinical systems!
 - Homecare, assisted-living, self-monitoring systems, informal care management (communities)
 - Patient (user) centric
- Technological aspect => ubiquitous computing
 - Leverage everything available (internet of things)
 - Patients (users) will differ
 - Conditions, uses, available technology, care budget, ...

Some questions

- General "interoperability" is important
 - Comms formats, data dictionaries, schemata
- a) More than interoperability: coordination
 - Situations (events) determine interactions
 - Components used/reused for many purposes
 - Need a common way to manage interactions?
- b) How could/should such standards emerge?
 - "For free" as part of ubiquitous computing?
- c) Regulation everything a 'medical device'?

Now is the time!



360 Degree View on Global Health Challenges: Cultural-Sensitivity, Participation, and Adaptation

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Director, Center for Health and Risk Communication

George Mason University, Fairfax Virginia, USA

gkreps@gmu.edu



Global Health Efforts need to be CULTURALLY-SENSITIVE

- Recognize and adapt to the unique cultural factors influencing health behaviors in different nations:
 - Languages used
 - ✓ Health beliefs
 - ✓ Health care delivery systems
 - Government influences on health care
 - ✓ Health care infrastructure
 - Accepted health care/promotion practices
 - Primary health challenges



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Global Health Efforts need to be PARTICIPATIVE:

- Build local/global collaborations to promote:
 - Resource sharing
 - Coordination of efforts
 - ✓ Buy-in and commitment
 - Understanding about local/global issues and opportunities
 - Institutionalization and sustainability of innovations
 - Collection of evaluation data



PANEL SUMMARY SLIDE 360 Degree View on Global Health Challenges

- Global Health Promotion is Complex, but Essential
- Information Technology Energizes Global Health
- Assistive Technologies are Needed as Populations Age
- International Collaboration is Critically Important
- Open Access to Health Information Must be Promoted
- Scientists from Different Countries Must Work
 Together to Promote Global Health Coordination
- International Health Information Regulations are Needed

Introducing the Global Advocacy Leadership Academy (GALA): Training Health Advocates Around the World to Champion the Needs of Health Care Consumers

Gary L. Kreps*, Paula Kim*, Lisa Sparks**, Linda Neuhauser***, Carol Daugherty*, Mollie Rose Canzona*, Sunny Kim*, and Jungmi Jun****

George Mason University

- * Chapman University
- ** University of California, Berkeley
- *** University of Northern Iowa



Health Advocacy Organizations are Needed to Help Consumers

- Address their health information and support needs
- Navigate the <u>bureaucratic</u> modern health care system
- Influence development of <u>responsive policies/practices</u>
- Make informed and participative health decisions
- Identify/access relevant <u>clinical research</u> programs
- Reduce suffering from difficult treatment side effects
- Develop strategies for successful survivorship
- Cope with morbidity and mortality threats

Yet, Achieving Health Advocacy Goals are Complex and Demands

Disseminating accurate, relevant health information Promoting and funding needed basic health research Educating policy makers, consumers, & providers Influencing local/global health policies and practices Supporting caregivers, family members, and loved ones Promoting cooperation within the medical community Promoting prevention and early detection Influencing clinical research programs **Coordinating with advocacy groups (globally)**

Advocates Must Cope with Complex Health Information Environments

- Health information is <u>complex</u> (many kinds of health issues, each with unique symptoms, causes, and treatments)
- Changing health information environment (advances expand knowledge about etiology/prognosis, prevention, screening, treatment & survivorship)
- Significant <u>barriers</u> to disseminating health information (information access, health literacy, education levels, motivation)

Disseminating Timely, Relevant, and Accurate Health Information:

- Providers, consumers, & policy makers need relevant health information to <u>make good decisions</u> about prevention, detection, treatment, and survivorship
- Salient and motivating information can <u>influence</u> <u>health behaviors</u> & improve outcomes
- Relevant health information can <u>reduce uncertainty</u> and enhance quality of life for patients, caregivers, and providers

Effective Advocacy Demands Updated Knowledge About

- The key (local/global) players in health communities
- Processes for <u>health research and translation</u> of research into practice
- Current health care delivery practices and policies
- Influences on government funding and legislation
- Corporate influences on health care
- The role of non-government and not-for-profit organizations in health care



Effective Health Advocacy Demands Strong Leadership to

- Establish active collaborations
- Recruit and serve needs of members
- Raise, invest, and leverage funds
- Influence legislation and health policies
- Manage personnel and resources
- Plan and implement strategic health campaigns





The Need for a Global Advocacy Leadership Academy (GALA)

- Supplement <u>limited advocacy leadership experience</u>
- Bring best practices to grassroots advocacy groups
- Provide insights into the political/financial landscape
- Connect leaders to key organizations and individuals
- Promote strategic constituent communication
- Support collaborative advocacy across disease areas and across advocacy groups locally and globally



and assist facilitation PK, 10/11/2011 **P6**

The GALA Program will Educate Advocates about the Intricacies of

- Media Relations
- Government Relations
- Corporate Relations
- Stakeholder Relations
- Research Community Relations
- Health Care Delivery System Relations
- International Relations
- Fund Raising and fiscal management
- Organizational administration





Slide 9

do we want to include anything on training about some of the science?? It is important, particularly in areas of genetics, biospecimens etc.....not anything heavy duty, but to create basic competencies etc.??

PK, 10/11/2011

The Advocacy Academy will Initiate Meetings & Connections with Key

- Government representatives
- Corporate representatives
- Health care system representatives
- Researchers and scientists
- Successful cancer <u>advocacy leaders</u>
- Legal advisers & administration <u>experts</u>
- Campaign planners and fundraisers
- Leaders of other advocacy groups





The Advocacy Academy will Model Effective Leadership Strategies for:

- Establishing advocacy organizations
- Recruiting volunteers and members
- Collaborating with other advocacy groups
- Working with government agencies/legislators
- Partnering with key organizations/corporations
- Supporting relevant <u>health research</u>
- Promoting awareness and education
- Raising and using funds
- Promoting needed change!

An Online Collaboratory will Extend GALA Programs & Provide Ongoing:

- Educational updates to build on training
- Advising and consulting services
- Networking and collaboration opportunities
- Social support opportunities
- Relevant reports, documents, and legislation
- Key contacts and connections
- New funding opportunities
- Reports on best practices





Current GALA Development Steps

- Seeking corporate and government support
- Collecting relevant advocacy needs data
- Recruiting leading experts to serve as trainers
- Connecting with key individuals/organizations
- Refining training modules/instructional guides
- Producing educational materials (print & media)
- Building the <u>online collaboratory</u>
- Publicizing GALA to advocates
- Tracking performance and outcomes



Medical Informatics: a field for 'bastards'

Prof. SJ. Darmoni, MD, PhD

CISMeF, TIBS, LITIS Lab Rouen University Hospital & Rouen Medical School, Normandy, France

Email: Stefan.Darmoni@chu-rouen.fr





Medical Informatics

- Intersection between medicine and computer science
- 'bastard' because double cursus: MD, PhD...
- Rather broad field
 - ✓ Hypernym: health informatics, e-health, ICT
 - ✓ Contains
 - Medical imaging
 - Health/hospital information systems
 - Computer aided decision system
 - Knowledge representation in health





Convergence Medical Informatics Bioinformatics

- Creation of a new discipline: biomedical informatics
- Exemple: managing 'clinomics' information
 - ✓ Information retrieval, extraction, indexing
- Multiple objectives:
 - ✓ Care
 - ✓ Epidemiology
 - ✓ Detection of clinical trial (EHR4CR 7FP)
 - ✓ Quality indicators
- Personalized medicine
- Preventive medicine





Health Multi-Terminology Portal (HeTOP; PTS)

- URL: http://pts.chu-rouen.fr/
- Access for humans and coumputers (Web services)
 - ✓ Since September 2010, daily used by CISMeF team to index manually and automatically Web resources
 - ✓ Since January 2011, MeSH is freely available (600 unique users per working day)
- Restricted access to the other terminologies (860 registred)
- Current objective: to become the European Health Terminology & Ontology Portal (EHTOP)
 - ✓ Cross-linguality (June 2011); European T/O (e.g. ATC)
 - ✓ Cooperation with BioPortal: Clement Jonquet & Mark Musen





Interest of PTS

- Access to MEDLINE
 - ✓ Main application
 - ✓ Already exists for French, German; potential extension to 15 languages (mainly European languages: e.g. Swedish or Norvegian; need to translate 83 subheadings: just done for Norvegian => thanks to Sigrun –Norvegian Health Library-)
 - ✓ Taught in half of French medical schools
- Teaching
 - ✓ Information science (Montreal)
 - ✓ Medicine (anatomy; rare diseases) in second year med students
 - Satisfaction = 7.5/10; easy to use = 5.5/10



Interest of PTS (cont.)

- Translation +
 - ✓ Many subscribers are translaters
- Audit of T/O
 - ✓ Exemple of HPO & Orphanet





Terminologies/Ontologies (n=43)

- MeSH: Medical Subject Headings (2011)
- CISMeF : Catalogue et Index des Sites Médicaux Francophones : extension du MeSH
- SNOMED int: Systematized Nomenclature of Medicine (version 3.5, internationale)
- CIM-10 : Classification statistique International des Maladies et des problèmes de santé connexes (version 10)
- CCAM : Classification Commune des Actes Médicaux (v.22)
- CISP-2 : Classification Internationale des Soins Primaires (v.2)
- DRC: Dictionnaire des Résultats de Consultation (2007)
- ATC : classification Anatomique, Thérapeutique et Chimique (2010)
- CIF: Classification Internationale du Fonctionnement et du handicap (2001)
- Cladimed : Classification de Dispositifs Médicaux (v.6)
- IUPAC: International Union for Pure and Applied Chemistry (2009)
- LPP : Liste des Produits et des Prestations (2011)
- MEDLINEplus : Thésaurus patients
- MedDRA: Medical Dictionary for Regulatory Activities Terminologies (2007)
- Orphanet : Classification des maladies rares (2010)
- **■** WHO-ART: WHO Adverse Reaction Terminology (1997)
- WHO-ICPS: WHO International Classification of Patient Safety (1.1)





Terminologies/Ontologies (2)

- NCCMERP: National Coordinating Council for Medication Error Reporting and Prevention (2001)
- **■ PSIP** taxonomy : (2010)
- Médicaments : Codes CIS, CIP, UCD, DCI, ...
- FMA: Foundational Model of Anatomy (v.3.0: 2009)
- TUV : Thesaurus Unifié du Vidal (2010)
- VCM : Visualisation de Connaissances Médicales (2010)
- NABM : Nomenclature des Actes de Biologie Médicale (2011)
- **■ GO** : Gene Ontology (2011)
- SNOMED CT : Clinical Terms (2010), en cours de validation
- LOINC: Logical Observation Identifiers Names and Codes (2010), en cours de validation
- Interface Terminologies of execution: RIS & LIS Rouen Univ. Hosp. (2011)
- Interface Terminologies of prescription: biologie, radiologie, soins infirmiers, endoscopie...
- BNCI
- => Multi-disciplinary (n=3): since the PlaIR project (FEDER)
- UNIT: Université Numérique Ingénierie et Technologies (2010)
- **IDIT**: Institut du Droit International des Transports (2010)
- Sanofi-Aventis MG : Market Glossary (first industrial application)





Main figures

May 2010

Terminologies	Concepts	Synonyms	Definitions	Relations
25	> 580 000	> 840 000	> 220 000	> 1 200 000

May 2011

Terminologies	Concepts	Synonyms	Definitions	Relations
32	> 980 000	> 2 300 000	> 220 000	> 4 000 000

May 2012

Terminologies Concepts Synonyms Definition	ons Relations
43 1 570 301 3 683 023 192 81	5* 4 891 423

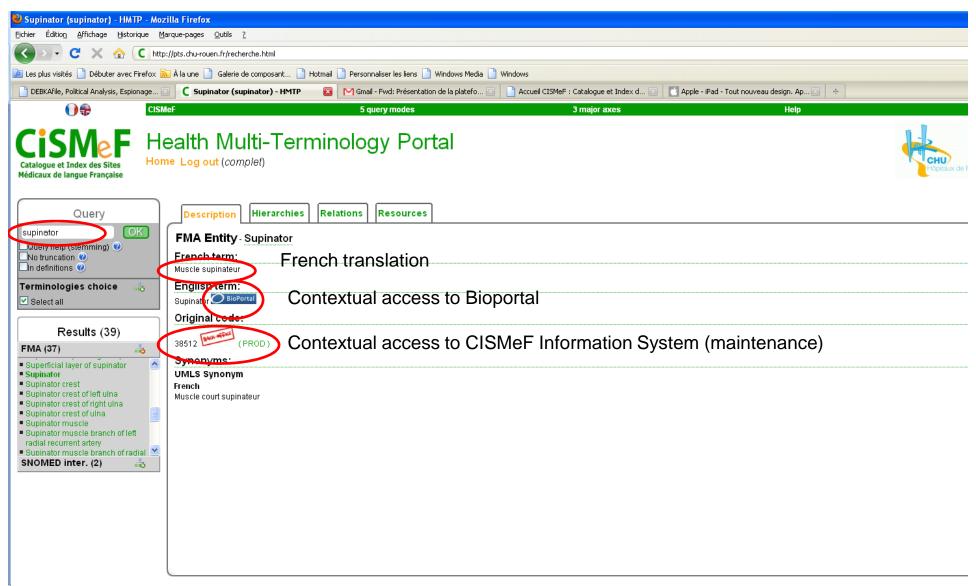
^{*} Deleting automatic MeSH definitions

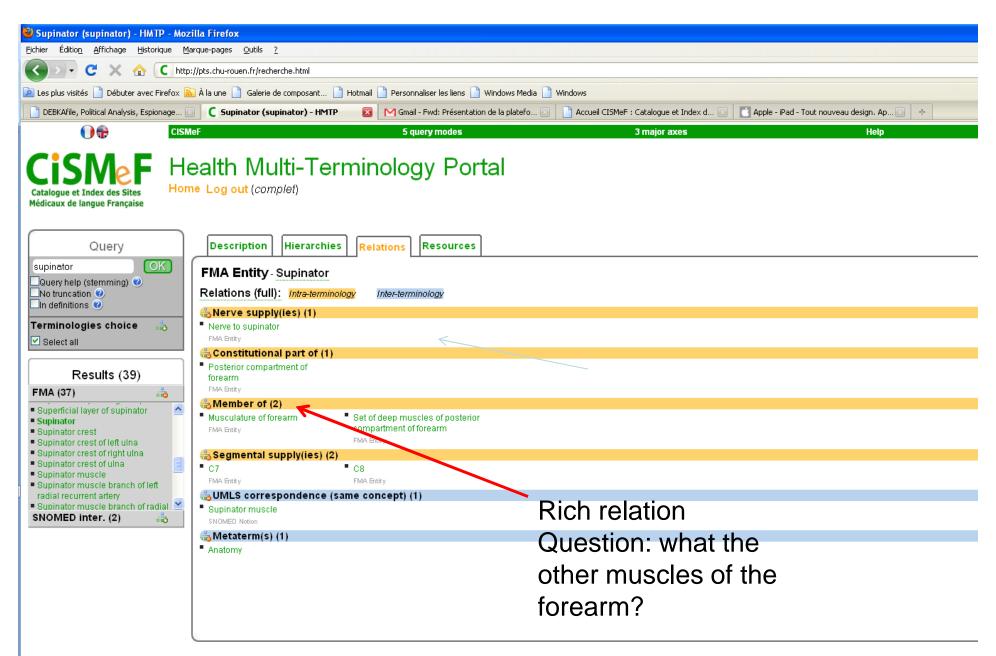


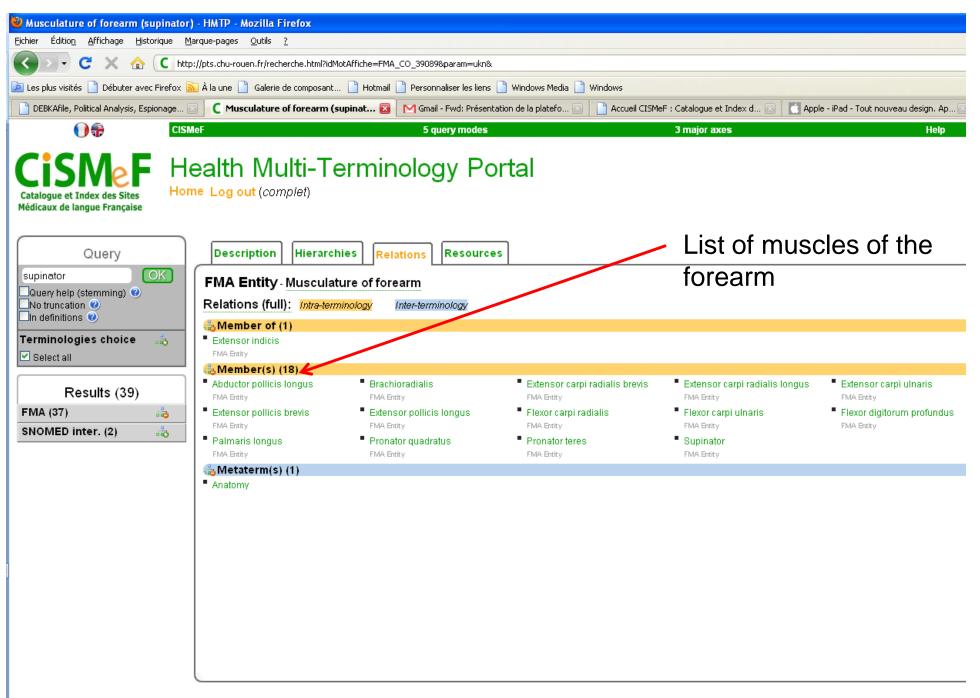
Teaching anatomy using HeHTOP

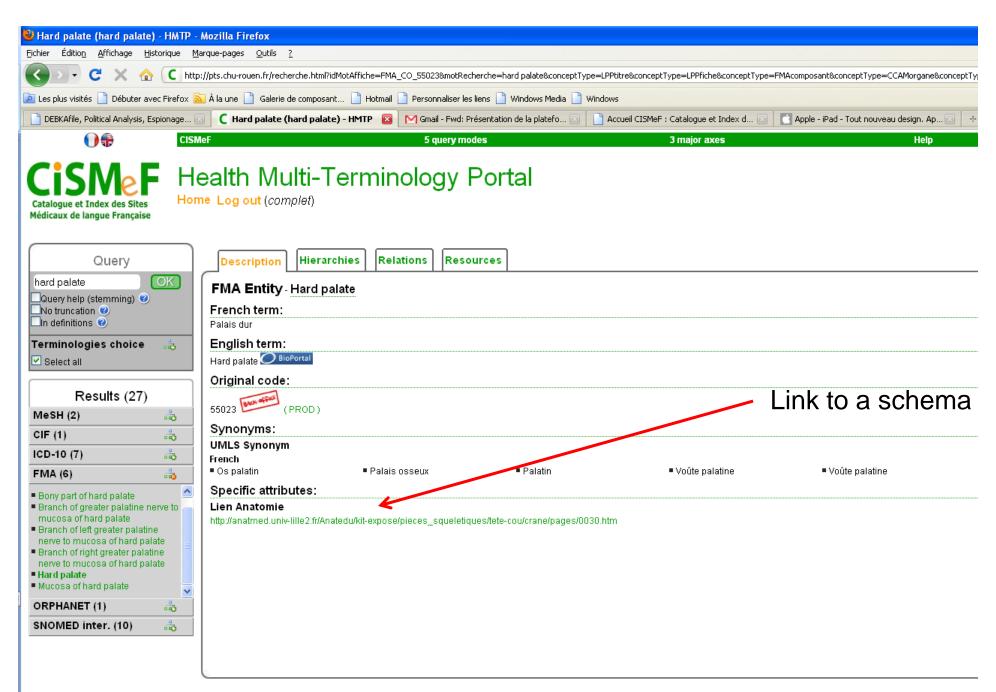
Use of the FMA ontology

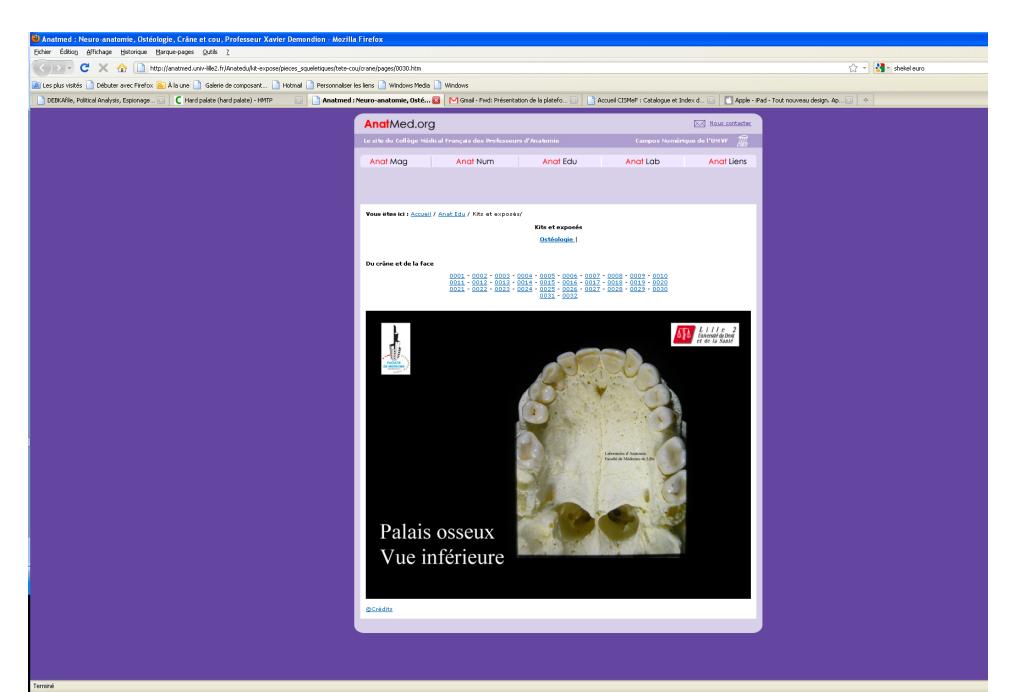
















Multi lingual version of EHTOP

URL: www.ehtop.eu or www.hetop.eu

Click on Log in; id/pwd=fmauser/fmapass

Focus on European languages and Latin alphabet but not only... Japanese, Mandarin, Arabic, Hebrew

In Norvegian, at least two terminologies are available:

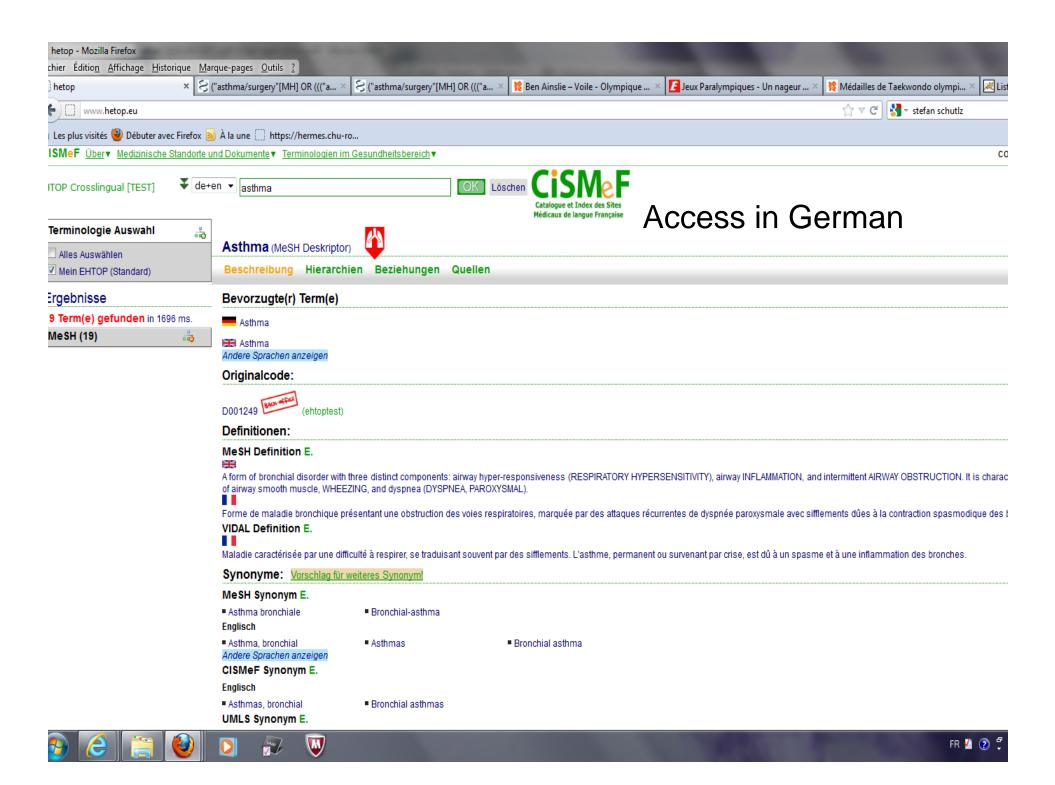
- MeSH (partially)
- ATC

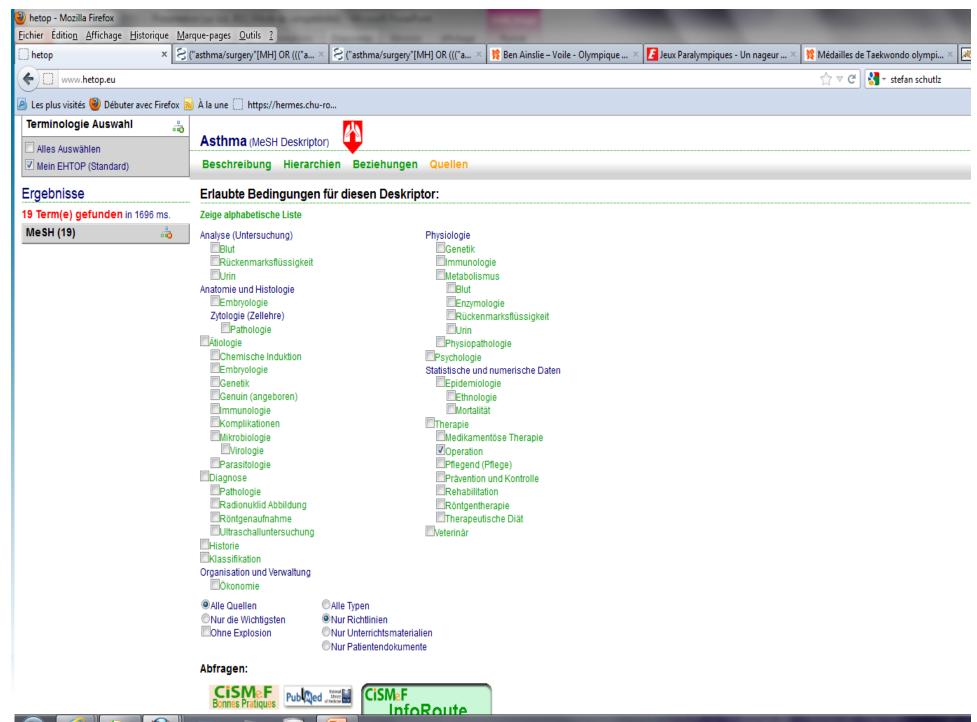


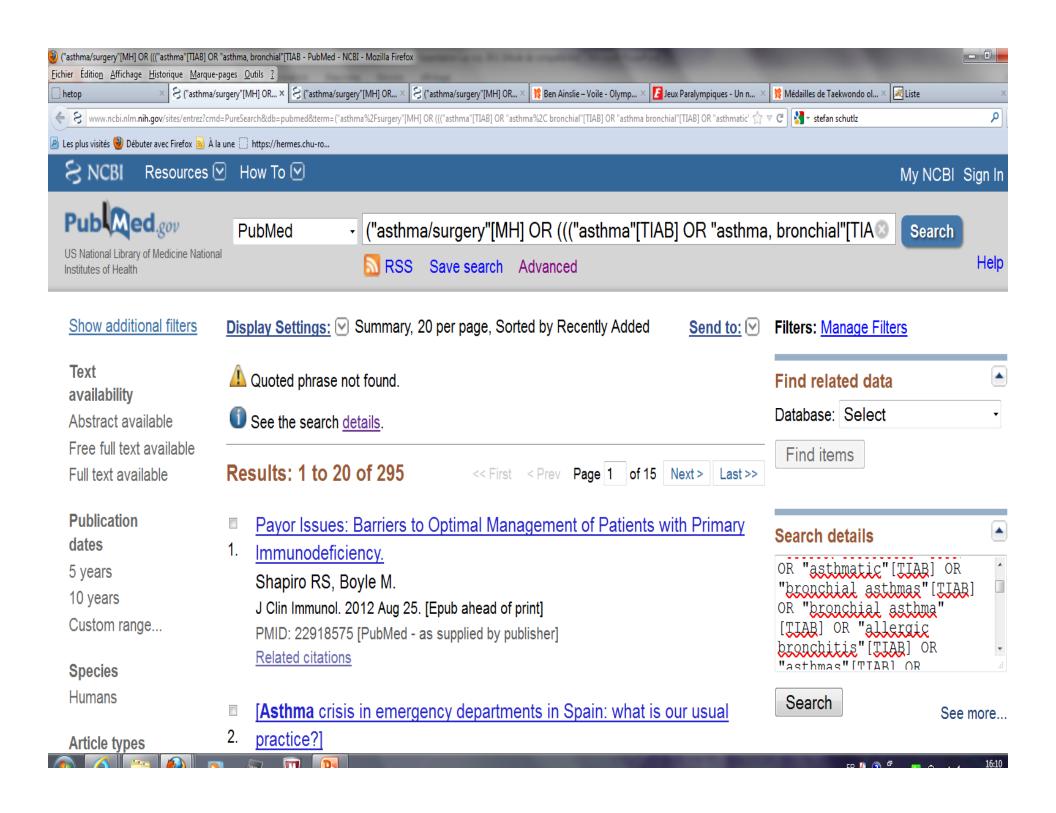
Access to MEDLINE/PubMed in German

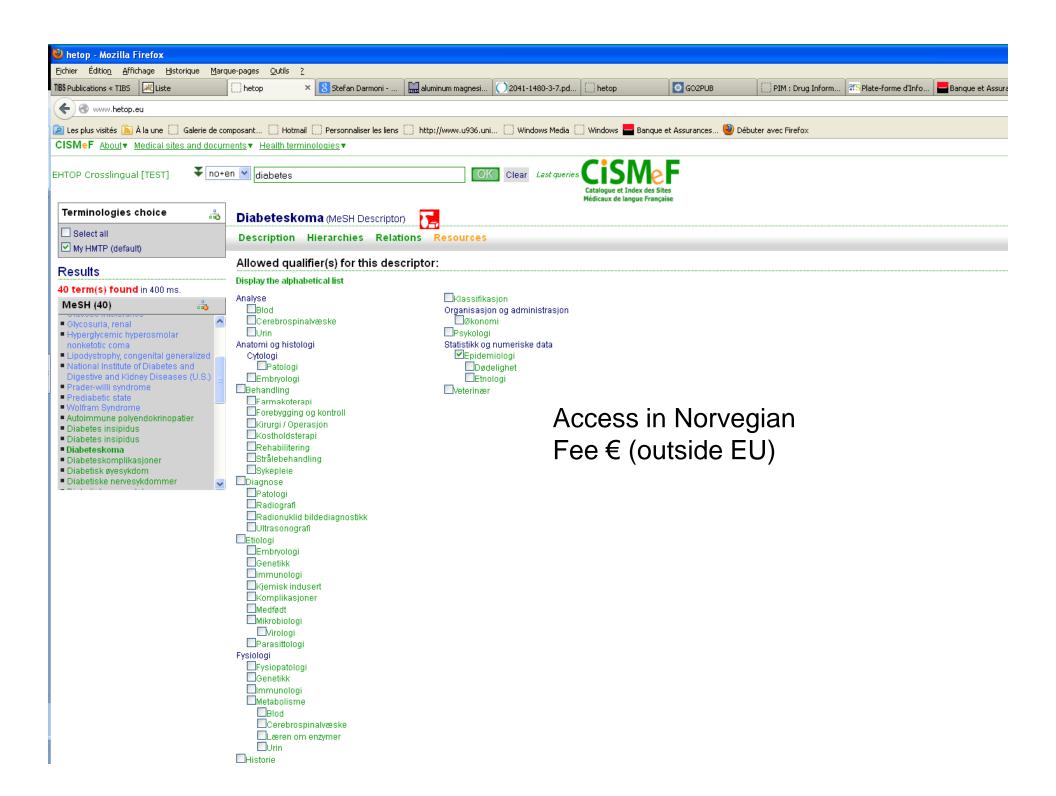
- Querying in a foreign language is more difficult than to read in this foreign language
- Goal of this tool is to provide an access to MEDLINE/PubMed in your native language
 - ✓ Prerequisite: a MeSH translation already exists
 - ✓ Currently, limit to European languages in latin alphabet







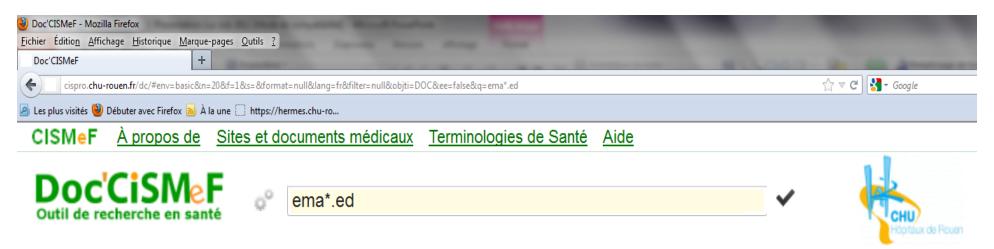






Multi-lingual search engine Example with EMA subset





574 ressource(s) trouvée(s) en 0,15 s ***



 ∇

Zostavax - Zoster vaccine (Live) - virus varicella-zoster attenué - Code ATC : J07BK02 Document - \ EMA - Agence européenne des médicaments Grande-Bretagne 2010

"Dans quels cas ZOSTAVAX est-il utilisé? ZOSTAVAX est utilisé pour vacciner les personnes âgées de plus de 60 ans, contre l'herpès zoster (connu également sous le nom de zoster ou de zona) pour éviter les douleurs neurologiques persistantes qui peuvent suivre la maladie (névralgies post-zostériennes). Le médicament peut uniquement être obtenu sur ordonnance..."; 2 pages

Protopy - Tacrolimus - medicinal product no longer authorised Document - Visité 1 fois.

EMA - Agence européenne des médicaments Grande-Bretagne 2006

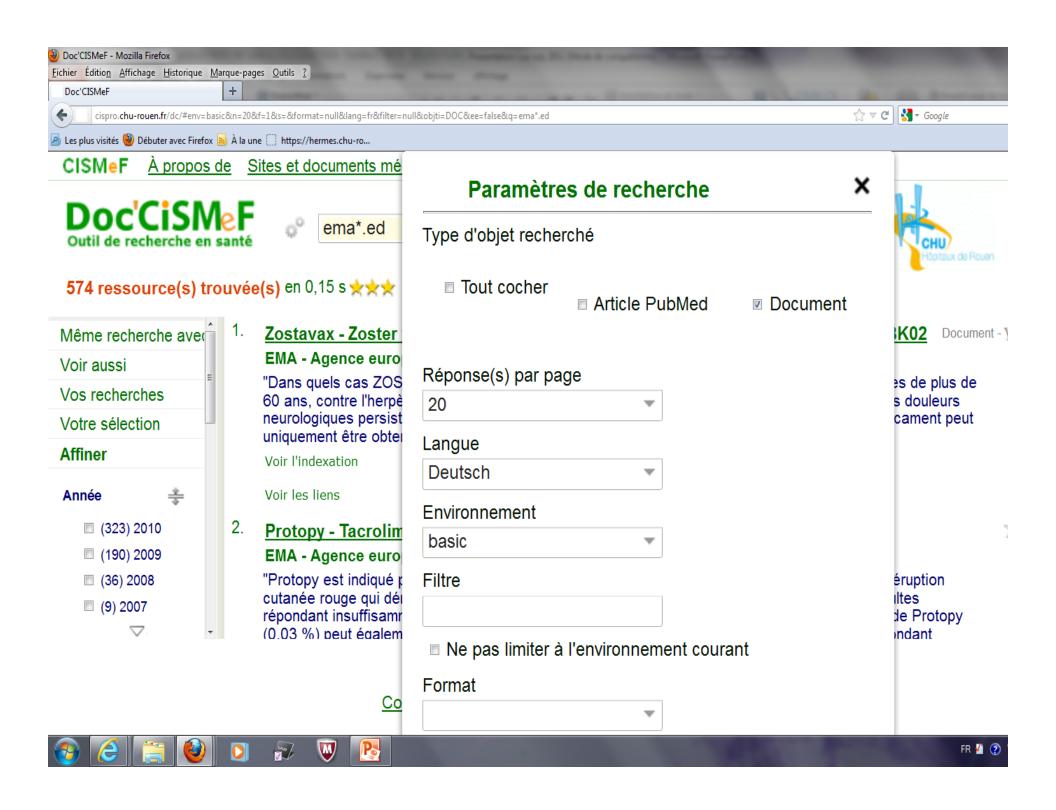
"Protopy est indiqué pour le traitement de la dermatite atopique modérée à sévère (eczéma, une éruption cutanée rouge qui démange ; le terme « atopique » indique un lien avec une allergie) chez les adultes répondant insuffisamment ou ne tolérant pas les traitements classiques. Le dosage le plus faible de Protopy (0.03 %) peut également être utilisé pour cette indication chez les enfants (à partir de 2 ans) répondant

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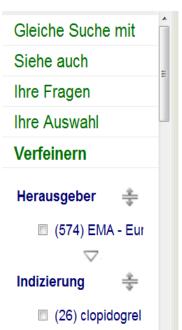








574 Ressource(n) gefunden in 0,13 s ***



(11) irhesartan

1 Zostavax - Zoster-Impfstoff (Live) - abgeschwächten Varicella-Zoster-Virus - Code ATC :

J07BK02 Dokument - Besucht 1 Zeiten.

EMA - Europäische Arzneimittelagentur Großbritannien 2010

"In diesem Fall ZOSTAVAX wird verwendet? ZOSTAVAX wird verwendet, um Menschen über 60 Jahren zu impfen, gegen Herpes zoster (auch unter dem Namen zoster oder Gürtelrose genannt) zu vermeiden persistent Nervenschmerzen, die die Krankheit (Postzosterschmerz) folgen können. Das Arzneimittel ist nur auf ärztliche Verschreibung erhältlich sein ... "; 2 Seiten

Siehe Indexierung ATC: *zoster, live attenuated

MeSH: arzneimittelevaluation
behandlungsergebnis
*herpes zoster
*herpes-zoster-vakzine
*vakzination

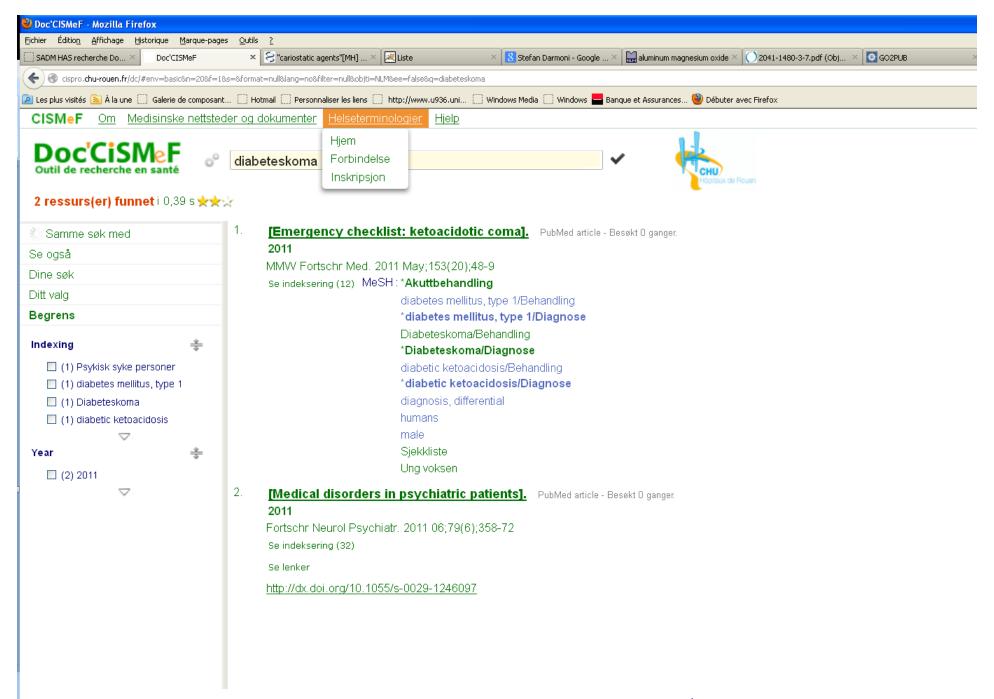
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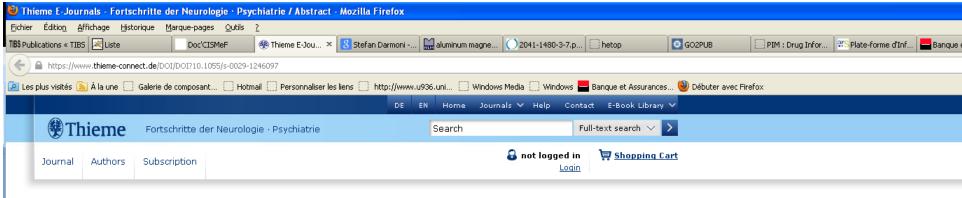
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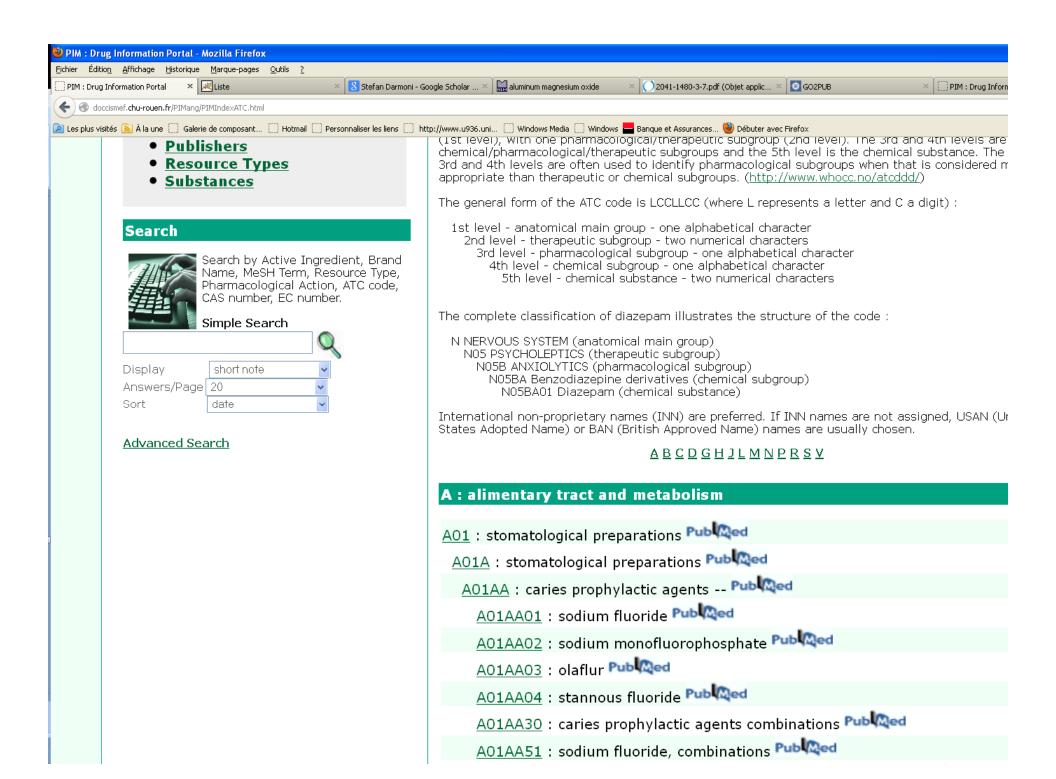


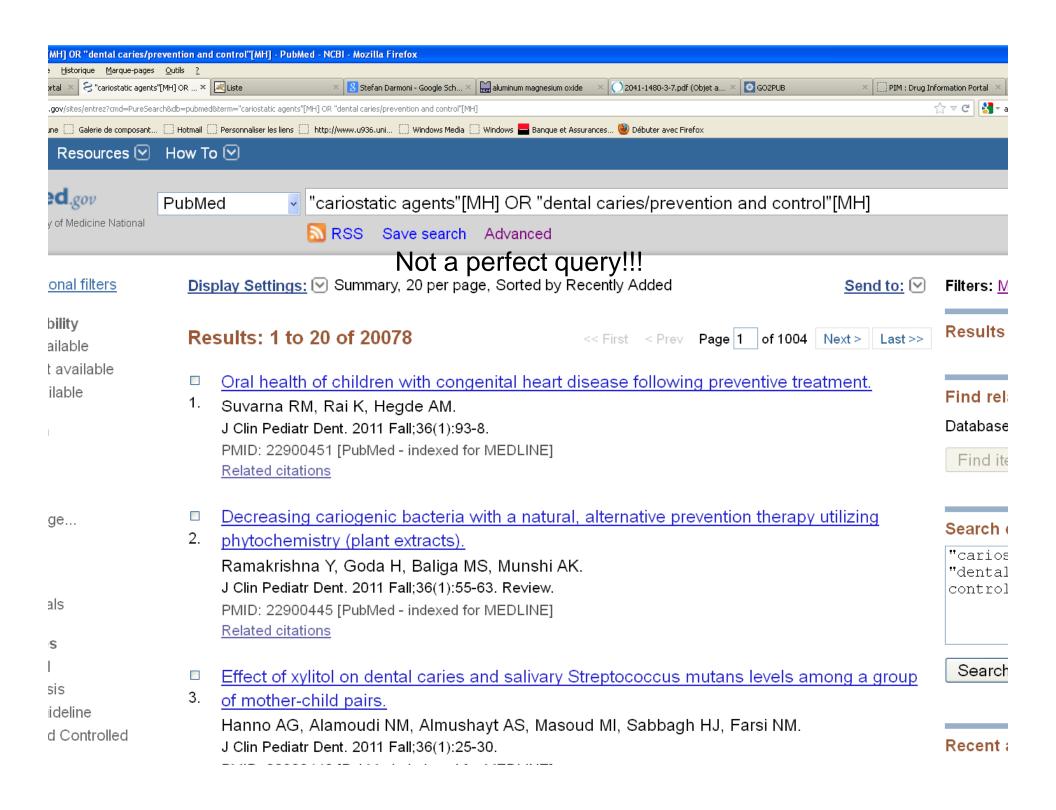
Fortschr Neurol Psychiatr 2011; 79(6): 345-357 ◇ □ < ± 3</p> DOI: 10.1055/s-0029-1246097 Neurobiologie © Georg Thieme Verlag KG Stuttgart · New York Diagnostik und Therapie der Gliedmaßenapraxie How to Diagnose and Treat Limb Apraxia A. Dovern¹, G. R. Fink^{1, 2}, P. H. Weiss^{1, 2} ¹Institut für Neurowissenschaften und Medizin (INM-3), Forschungszentrum Jülich ²Klinik und Poliklinik für Neurologie, Uniklinik Köln > Further Information Full Text Abstract > Buy Article > Permissions and Reprints Zusammenfassung Apraxien sind Störungen der höheren motorischen Kognition, die durch basale sensomotorische Defizite nicht hinreichend erklärt werden. Häufige apraktische Symptome sind eine fehlerhafte Imitation abstrakter und symbolischer Gesten sowie Fehler beim Gebrauch von Gegenständen und Werkzeugen. Trotz der Relevanz der Apraxien für die Rehabilitationsbehandlung und ambulante Versorgung von Schlaganfallpatienten werden Apraxien nach wie vor zu selten diagnostiziert und behandelt. In diesem Übersichtsartikel werden die diagnostischen Instrumente zur Feststellung einer Apraxie evaluiert. Zudem

Apraxien sind Störungen der höheren motorischen Kognition, die durch basale sensomotorische Defizite nicht hinreichend erklärt werden. Häufige apraktische Symptome sind eine fehlerhafte Imitation abstrakter und symbolischer Gesten sowie Fehler beim Gebrauch von Gegenständen und Werkzeugen. Trotz der Relevanz der Apraxien für die Rehabilitationsbehandlung und ambulante Versorgung von Schlaganfallpatienten werden Apraxien nach wie vor zu selten diagnostiziert und behandelt. In diesem Übersichtsartikel werden die diagnostischen Instrumente zur Feststellung einer Apraxie evaluiert. Zudem werden ein Apraxie-Screening-Instrument und ein diagnostisches Testverfahren für die klinische Anwendung empfohlen. Darüber hinaus werden die publizierten Ansätze zur Apraxie-Therapie dargestellt. Trotz der aktuell noch eingeschränkten Evidenz kann das Gesten-Training von Smania und Mitarbeitern zur Behandlung einer Apraxie empfohlen werden, da bei diesem Training sowohl ein Transfer des Therapieeffekts auf alltagsrelevante Tätigkeiten als auch eine Nachhaltigkeit des Therapieeffekts beobachtet werden konnte. Dieser Übersichtsartikel soll die Aufmerksamkeit auf die Bedeutung der Gliedmaßenapraxie im klinischen Alltag lenken und dem interessierten Leser Instrumente an die Hand geben, mit deren Hilfe Apraxien zuverlässig diagnostiziert und therapiert werden können. Dies sind wichtige Voraussetzungen für die weitere Erforschung der neurobiologischen Grundlagen der Apraxien und die Entwicklung neuer Therapiestrategien für eine evidenzbasierte Behandlung von Apraxien.

Related Journals

Abstract







Many thanks

Email: stefan.darmoni@chu-rouen.fr

