Hong Kong Clinical Terminology Table

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Hong Kong Hospital Authority
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Agenda

• Standards for eHR
• Introduction to terminology
• Hong Kong Clinical Terminology Table
• Standards Adoption
Guiding Principles for eHR Development

- Government-led model for development
- Compelling but not compulsory record sharing
- Privacy and security of paramount importance
- Open technical standards for private participation
- Building block approach

Maintain interoperability – ‘ability of two or more systems or components to exchange information and to use the information’

IEEE, 1990
Clinical Documentation

Blood tests:
- Hep B neg
- PT 12.7
- platelet 61
- ALP 252
- albumin 37, ALT 46, bilirubin 32
- normal FBS and lipid
- echocardiogram (Mar 04): normal LV, MV mildly thickened with mild MS and MR. AV mildly thickened with mild AR. increase LA size

No major symptom
- seldom drinks
- no bleeding tendency
- no fluid overload

14/9/07, P. 73
- PE:
  - multiple lipomas over the body and limbs
  - obese abdomen, difficult to palpable, no ascites, spleen not palpable
  - no bleeding tendency
  - no fluid overload

14/9/07, P. 73
- P:
  - multiple lipomas over the body and limbs
  - obese abdomen, difficult to palpable, no ascites, spleen not palpable

HDV related cirrhosis
- Monitoring a disease

Plan of Management:
- note BP next time
- refer liver clinic
- check LFT, ALP, GGT, HbsAg before FU

- Created By: CHEONG TERRENCE
- Updated By: CHEONG TERRENCE
- Updated Date: 14/02/04 8:57:23
Heritage of Continuous Improvement
Central Role of Terminology

Terminology

Clinical Database ➔ Observational Data

Patient Encounters ➔ Medical Knowledge

Expert Systems ➔ Clinical Guidelines

CG Chute 2000
Salmonella enterica subsp. Arizonae

- Arizona
- Salmonella arizonae
- Arizona hinshawii
- Salmonella IIIa
- Salmonella enterica
- Salmonella, subgenus III
- Salmonella, subgroup 3
Practical Concerns

• Numerous standards
• No single terminology covers all domains in breadth & depth
• Local requirements
• Data retrieval
  – Multiple dimension
• Updating
Development of HKCTT

- Terminology principles
- Information as a byproduct of clinical documentation
  - Reference to international standards
  - Essential domain areas
Terminologies in HA

- Diagnosis
- Procedure
- Drug
- Laboratory

ICD 9 CM
ICD 10
Building the HKCTT
Recognised Terminologies

• Compendium of Registered Pharmaceutical Products (HK Drug Compendium)

• Hong Kong Clinical Terminology Table (HKCTT)

• International Classification of Diseases, 10th Revision (ICD 10)

• International Classification for Primary Care (ICPC)

• Logical Observations, Identifiers Names and Codes (LOINC)

• Systematized Nomenclature of Medicine, Clinical Terms (SNOMED CT)
# Type 1 Diabetes Mellitus in eHR

<table>
<thead>
<tr>
<th>Date</th>
<th>Provider</th>
<th>Description</th>
<th>Code</th>
<th>System</th>
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<tbody>
<tr>
<td>3 Jan 2004</td>
<td>Hospital A</td>
<td>Insulin-dependent diabetes mellitus without complications</td>
<td>E10.9</td>
<td>ICD10</td>
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<tr>
<td>4 Feb 2001</td>
<td>Dr Chan</td>
<td>Diabetes mellitus type 1</td>
<td>46635009</td>
<td>SCT</td>
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<td>3 Mar 1999</td>
<td>Hospital B</td>
<td>Type 1 diabetes mellitus</td>
<td>3987</td>
<td>HKCTT</td>
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<tr>
<td>5 May 2003</td>
<td>Hospital C</td>
<td>Pneumonia</td>
<td>8471</td>
<td>HKCTT</td>
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<tr>
<td>6 Dec 2002</td>
<td>Dr Wong</td>
<td>Pneumonia, unspecified</td>
<td>J18.8</td>
<td>ICD 10</td>
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<td>9 Sep 2002</td>
<td>Dr Ho</td>
<td>Insulin-dependent diabetes mellitus</td>
<td>DM1</td>
<td>Ho’s List</td>
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</tbody>
</table>
Adoption of Health Information Standard

HK Clinical Terminology Table (HKCTT) → Mapped Local Code

Local term → Recognised terminologies

HKCTT term
Management of HKCTT

• Governance
  – eHR IS CG, eHR IS DGs, HKCTT EG

• Development
  – Terminology management principles & editorial rules
  – Special handle: nonspecific / vague terms

• Maintenance
  – Information Architecture Management System
  – Quality management
  – Feedback mechanism
  – Regular update
  – Distribution
Preparation for eHR

• Participate
  – eHR Engagement Initiative
  – Domain Groups
  – Training programs
  – Feedback on released standards

• Watch out for release/update of standard documents

• Identify a champion as liaison

• Upgrade system
  – To incorporate eHR standards
    • eHR Data Field / Content value (identifier, description, data type...)
    • HKCTT
Tips for Terminology Management

• Meaningless identifier to allow expansion
• Unique meaning
• To facilitate searching
  – Synonyms
  – Common list (subset)
• Mapping
  – Must be validated
  – Avoid mapping as far as possible
  – ICD rules
• Keep updating
Thank You