

# **Preparation for eHR – Briefing on eHR Content**

## **Problem & Procedure**

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**eHR Information Standard Office**

# Domains

- Problem
- Procedure

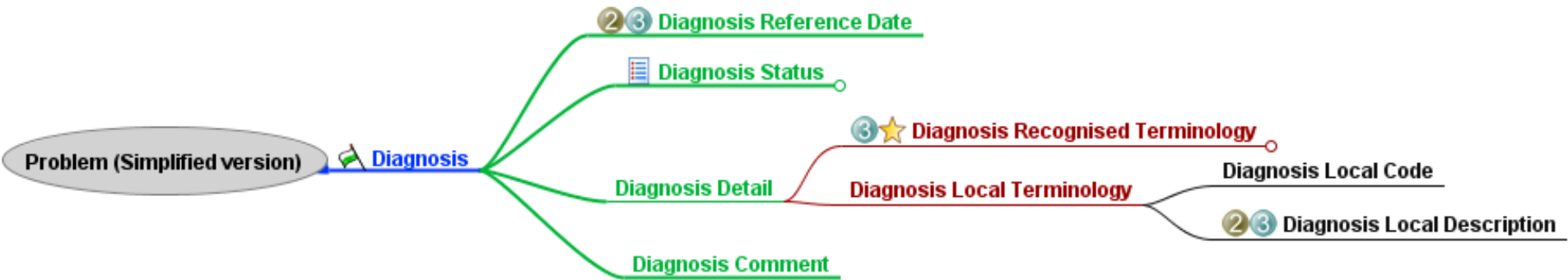


# PROBLEM

# Problem

- Can be
  - diagnosis
  - social issue
  - risk factor
  - allergy
  - significant abnormal physical sign and examination finding
  - pathophysiological state
  - reactions to food or drugs
  - health alert
- Problem list includes all active and inactive significant health and social problems
- **No** free text data or data in PDF will be accepted

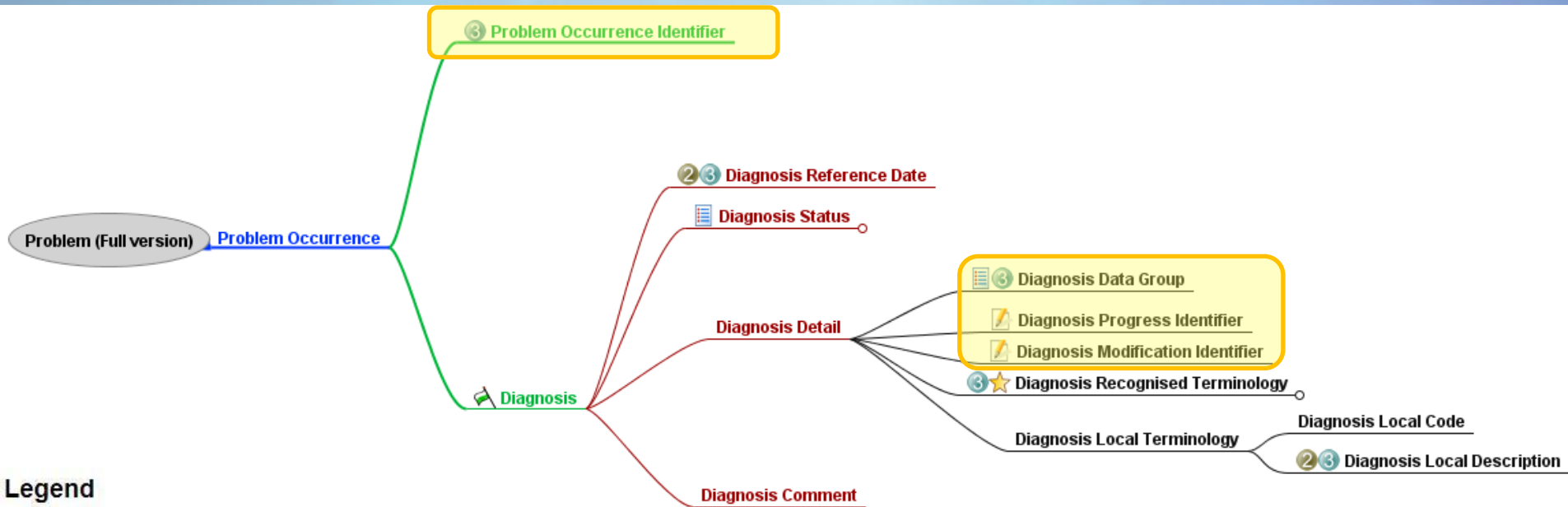
# Mindmap – Problem (Simplified Version)












## Legend

- Mandatory for all Levels
- Mandatory for Level 1
- Mandatory for Level 2
- Mandatory for Level 3
- Conditional mandatory
- Repeated data
- Encrypted eHR storage
- Code table
- Recognised terminology

# Mindmap – Problem (Full Version)










## Legend

-  Mandatory for all Levels
-  Mandatory for Level 1
-  Mandatory for Level 2
-  Mandatory for Level 3
-  Conditional mandatory
-  Repeated data
-  Encrypted eHR storage
-  Code table
-  Recognised terminology

# Example for Problem – Level 2

Entity Name	Data requirement (Certified Level 2)	Example (Certified Level 2)
Diagnosis reference date	M	6/12/2010
Diagnosis local code	O	332
Diagnosis local description	M	Transient ischaemic attack - TIA
Diagnosis comment	O	affect left side of body

# Example for Problem – Level 3

Entity Name	Data requirement (Certified Level 3)	Example (Certified Level 3)
Diagnosis reference date	M	6/12/2010
Diagnosis status code 	O	C
Diagnosis status description 	M if [Diagnosis status code] is given; NA if [Diagnosis status code] is blank	Cancelled
Diagnosis status local description 	M if [Diagnosis status code] is given; NA if [Diagnosis status code] is blank	Wrong
Reason for cancellation of diagnosis 	O if [Diagnosis status code] is "C" ; NA if [Diagnosis status code] is not "C"	Wrong diagnosis as no evidence supported that patient has this condition
Diagnosis -recognised terminology name 	M	HKCTT
Diagnosis identifier - recognised terminology 	M	1234
Diagnosis description - recognised terminology 	M	Transient ischaemic attack
Diagnosis local code	O	332
Diagnosis local description	M	Transient ischaemic attack - TIA
Diagnosis comment	O	affect left side of body





# Codex – Diagnosis Status

eHR Sharable Data - Codex: Diagnosis Status

## Diagnosis Status

Purpose : to indicate the status of the diagnosis

Source : HA

Term ID	eHR Value	eHR Description
	P	Provisional
	A	Active
	I	Inactive
	R	Resolved
	C	Cancelled



# Codex – Recognised Terminology Name (Problem)

eHR Sharable Data - Codex: Recognised Terminology Name - Problem

## Recognised terminology name - problem

Purpose: To define the names of the recognised terminology for problem

Reference: eHR

Term ID	eHR Value	eHR Description	Allowable Values
	HKCTT	Hong Kong Clinical Terminology Table	Nature= Diagnosis
	SNOMED CT	Systematized Nomenclature of Medicine - Clinical Terms	Hierarchy = Clinical finding, Situation
	ICD10-2001	International Statistical Classification of Diseases and Related Health Problems Tenth Revision (2001)	Valid ICD 10 codes
	ICD10-2010	International Statistical Classification of Diseases and Related Health Problems Tenth Revision (2010)	Valid ICD 10 codes
	ICD10-MBD	ICD-10 Mental and Behavioural Disorders: Clinical descriptions and diagnostic guidelines	Valid ICD 10 MBD codes
	ICPC2	International Classification for Primary Care, Second edition	Valid ICPC2 codes - excluding those with last 2 digits in the range of 30-69

3 /4 /5-digit codes are accepted

# eHR Viewer - Problem (Summary View)

王黑莓 WONG, BLACKBERRIES

HKIC : UH9773216

DOB : 29-Feb-1912

Age : 101 years

Sex : M

[Details](#) ▶



All Local Non-Local

Legend



▼ Clinical Note & Summary

- Clinical Note & Summary
- Referral
- Birth Record

Encounter

▼ Problem & Procedure

- Problem / Diagnosis**
- Procedure
- Investigation Report

▼ Medication

- Prescribing History
- Dispensing History

▼ Laboratory Record

- Chemical Pathology
- Haematology
- Immunology
- Microbiology & Virology
- Anatomical Pathology
- Toxicology
- Transplantation & Immunogenetics
- Molecular Pathology

**Problem / Diagnosis Summary** [Details](#) ▶

Date	Description
24-Feb-2013	? Diabetes Mellitus
24-Feb-2013	Type II diabetes mellitus with complication
24-Feb-2013	? Type II diabetes mellitus with triopathy
24-Feb-2013	Type II diabetes mellitus with ischaemic heart...
23-Feb-2013	Vesical pain
28-Feb-2011	Delirium

>>More

**Laboratory Summary** [Details](#) ▶

Date	Description	Institution
24-Dec-2012	AD, RFT	VUC4_A
15-Dec-2012	APTT,PT	VHC4
21-Aug-2012	AD	VHC4
20-Aug-2012	Haematology Result	VHC4
09-Aug-2012	Haematology Laboratory Report (PDF)	QEH
09-Aug-2012	Molecular Pathology Report (PDF)	QEH

>>More

**Encounter Summary** [Details](#) ▶

Start Date	Specialty	Institution
04-Jul-2013	Internal Medicine	VHA
15-May-2013	General Surgery	VHA
15-Apr-2013	Ophthalmology	VHA
15-Mar-2013	General Surgery	VHA

**Allergy & Adverse Drug Reaction**

Allergen	ADR
DOXYCYCLINE	Ce
AUGMENTIN	Ce
PENICILLIN	Su

**ADR Causative Agent**

ADR Causative Agent	ADR
DICLOFENAC	Se
METHYLDOPA	Mi
INDAPAMIDE	Mi
RAMIPRIL	Mi

**Prescribing History Summary**

Date	Medication
04-Jan-2013	Aminoleban (arginine (a
	LORAZEPAM
	PREDNISOLONE
	ADRENALINE
	RIFINAH 300
	CITALOPRAM
03-Jan-2013	ISONIAZID
	CETRIMIDE

# eHR Viewer - Problem (Full List View)

王黑莓 WONG, BLACKBERRIES  
HKIC : UH9773216    DOB : 29-Feb-1912    Age : 101 years    Sex : M    Details ▶    Allergy & ADR

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All Local Non-Local  
Legend

▼ Problem & Procedure  
  Problem / Diagnosis  
  Procedure  
  Investigation Report  
▼ Medication  
  Prescribing History  
  Dispensing History  
▼ Laboratory Record  
  Chemical Pathology  
  Haematology  
  Immunology  
  Microbiology & Virology  
  Anatomical Pathology  
  Toxicology

### Problem / Diagnosis

View: Active ▼

Date	Description	Institution
24-Feb-2013	? Diabetes Mellitus	PMH
24-Feb-2013	Type II diabetes mellitus with complication	PMH
24-Feb-2013	i ? Type II diabetes mellitus with triopathy	PMH
24-Feb-2013	Type II diabetes mellitus with ischaemic heart disease	PMH
23-Feb-2013	Vesical pain	QEH
28-Feb-2011	i Delirium	Dr Chan's clinic
28-Feb-2011	Septic shock	STH
06-Dec-2010	i Transient ischaemic attack - TIA	AHN

Comment: affect left side of body

Click folder to see details

Click  to see comments

# eHR Viewer - Problem (Detailed View)

王黑莓 WONG, BLACKBERRIES  
HKIC : UH9773216    DOB : 29-Feb-1912    Age : 101 years    Sex : M    [Details ▶](#)    **Allergy & ADR**

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Encounter  
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  Anatomical Pathology  
  Toxicology

### Problem / Diagnosis Details

Date	Diagnosis Description	Institution
<b>Septic shock</b>		
28-Feb-2011	Septic shock	STH
01-Feb-2011	Septicaemic shock	HKS

Local descriptions transmitted by HCP

# Data Schema – Problem (Simplified Version)

Form	Entity Name	Entity ID	Definition	Data Type (code)	Data Type (description)	Validation Rule	Repeated Data	Code Table	Data Type in IAMS	Data requirement (Certified Level 1)	Data requirement (Certified Level 2)	Data requirement (Certified Level 3)	Example (Certified Level 1)	Example (Certified Level 2)	Example (Certified Level 3)
Problem (Simplified version)	Diagnosis reference date	1003578	Date when the diagnosis was created. For eHR, if this date is not available, the last update date of the diagnosis should be used when submitting data to the eHR.	TS	Time Stamp		R		Date/Time	NA	M	M		6/12/2010	6/12/2010
Problem (Simplified version)	Diagnosis status code	1003579	[eHR value] of the "Diagnosis status" code table which is used to identify the status of a reported diagnosis.	CE	Coded Element		R	Diagnosis status	CE	NA	NA	O			C
Problem (Simplified version)	Diagnosis status description	1003580	[eHR description] of the "Diagnosis status" code table which is used to identify the status of a reported diagnosis. The [Diagnosis status description] should be the corresponding description of the selected [Diagnosis status code].	ST	String		R	Diagnosis status	ST	NA	NA	M if [Diagnosis status code] is given; NA if [Diagnosis status code] is blank			Cancelled
Problem (Simplified version)	Diagnosis status local description	1003581	Local description of the diagnosis status	ST	String		R		ST	NA	NA	M if [Diagnosis status code] is given; NA if [Diagnosis status code] is blank			Wrong
Problem (Simplified version)	Reason for cancellation of diagnosis	1003582	The stated reason for cancelling the diagnosis	ST	String		R		ST	NA	NA	O if [Diagnosis Status Code] is "C"; NA if [Diagnosis Status Code] is not "C"			Wrong diagnosis as no evidence supported that patient has this condition
Problem (Simplified version)	Diagnosis - recognised terminology name	1003583	Name of the recognised terminology / classification from which the diagnosis is referenced to	CE	Coded Element	If eHR value=1)HKCTT, Nature must be Diagnosis; 2)SNOMED CT, Clinical Finding or Situation with Explicit Context are allowed; 3)ICD10 & ICD10 MBD, all items are allowed; 4)CPC2, all codes except those ended in range 30-59 are allowed.	R	Recognised terminology name - problem	CE	NA	NA	M			HKCTT
Problem (Simplified version)	Diagnosis identifier recognised terminology	1003584	Unique identifier of the reported diagnosis in the recognised terminology	CE	Coded Element	It should be included in the selected terminology of the "Recognised terminology name - Problem" code table: 1)HKCTT should be TermID; 2)SNOMED CT should be ConceptID; 3)CPC2, ICD10 & ICD10 MBD should be code	R		DE	NA	NA	M			1234
Problem (Simplified version)	Diagnosis description - recognised terminology	1003585	The description of the reported diagnosis in the recognised terminology. It should be the corresponding description of the selected [Diagnosis Identifier - recognised terminology].	CE	Coded Element	The description of the selected [Diagnosis Identifier - recognised terminology] should be matched as: 1)HKCTT should be eHR description; 2)SNOMED CT should be Preferred term; 3)ICD10 & ICD10 MBD should be Full name; 4)CPC2 should be Full description	R		DE	NA	NA	M			Transient ischaemic attack
Problem (Simplified version)	Diagnosis local code	1003586	Local code created by the healthcare provider for the reported diagnosis	ST	String		R		ST	NA	O	O		332	332
Problem (Simplified version)	Diagnosis local description	1003587	Local description created by the healthcare provider for the reported diagnosis	ST	String		R		ST	NA	M	M		Transient ischaemic attack - TIA	Transient ischaemic attack - TIA
Problem (Simplified version)	Diagnosis comment	1003588	Comment made on the reported diagnosis	ST	String		R		ST	NA	O	O		affect left side of body	affect left side of body

# Related Tables for Problem

- Data schema
  - Full version
  - Simplified version
- Codex
  - Data Group
  - Diagnosis Status
  - Recognised Terminology Name - Problem

# PROCEDURE



# Procedure










- Can be any significant procedures that are performed for
  - Diagnostic
  - Exploratory
  - Treatment purposes
- **No** free text data or data in PDF will be accepted



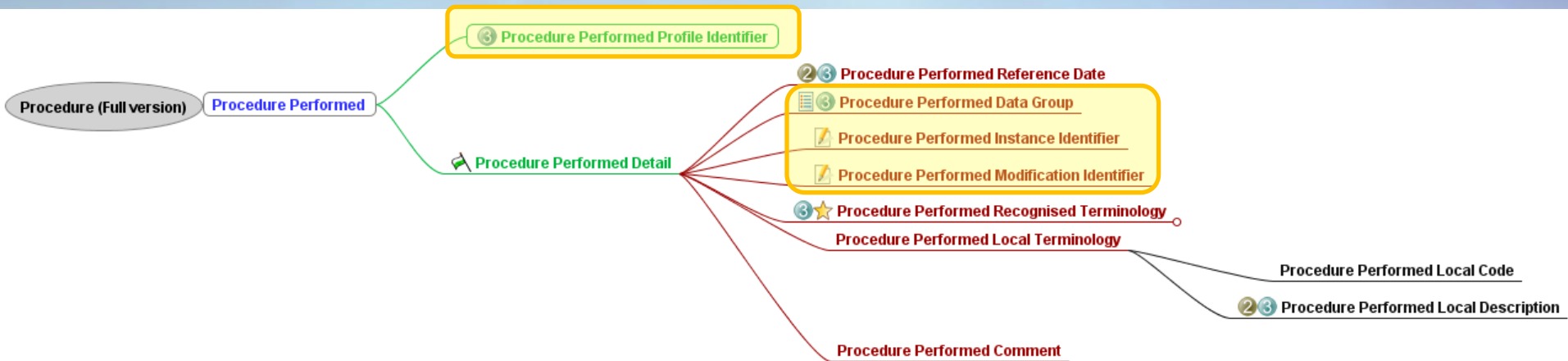
# Mindmap – Procedure (Simplified Version)












## Legend

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-  Mandatory for Level 2
-  Mandatory for Level 3
-  Conditional mandatory
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# Mindmap – Procedure (Full Version)






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-  Mandatory for Level 3
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# Example for Procedure – Level 2

Entity Name <span>▼</span>	Data requirement (Certified Level 2) <span>▼</span>	Example (Certified Level 2) <span>▼</span>
Procedure performed reference date	M	6/12/2010
Procedure performed local code	O	2231
Procedure performed local description	M	Lobectomy of left lung
Procedure performed comment	O	lower lobe

# Example for Procedure – Level 3

Entity Name <input type="text"/>	Data requirement (Certified Level 3) <input type="text"/>	Example (Certified Level 3) <input type="text"/>
Procedure performed reference date	M	6/12/2010
Procedure performed -  recognised terminology name	M	HKCTT
Procedure performed  identifier - recognised terminology	M	23815
Procedure performed  description - recognised terminology	M	Lobectomy of lung - left lower lobe
Procedure performed local code	O	2231
Procedure performed local description	M	Lobectomy of left lung
Procedure performed comment	O	lower lobe



# Codex – Recognised Terminology Name (Procedure)

eHR Sharable Data - Codex: Recognised Terminology Name - Procedure

## Recognised terminology name - procedure

Purpose: To define the names of the recognised terminology for procedure

Reference eHR

Term ID	eHR Value	eHR Description
	HKCTT	Hong Kong Clinical Terminology Table
	SNOMED CT	Systematized Nomenclature of Medicine - Clinical Terms
	ICPC2	International Classification for Primary Care, Second edition



# eHR Viewer – Procedure (Full list View)

王黑莓 WONG, BLACKBERRIES  
HKIC : UH9773216    DOB : 29-Feb-1912    Age : 101 years    Sex : M    [Details ▶](#)

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Legend

▼ Problem & Procedure  
  Problem / Diagnosis  
  **Procedure**  
  Investigation Report  
▼ Medication  
  Prescribing History  
  Dispensing History  
▼ Laboratory Record  
  Chemical Pathology  
  Haematology  
  Immunology  
  Microbiology & Virology  
  Anatomical Pathology  
  Toxicology  
  Transplantation & Immunogenetics  
  Molecular Pathology  
  General & Other

### Procedure

Date	Description	Institution
10-Jan-2013	Rehabilitation	HKBH
05-Jan-2013	Ultrasonogram of abdomen	AHN
04-Jan-2013	Open reduction and fixation – screw to right proximal femur (star drive screw)	PWH
04-Jan-2013	Free skin flap	PWH
04-Jan-2013	Neuroplasty	PWH
06-Dec-2010	Lobectomy of left lung	EH

**Comment:** lower lobe

# eHR Viewer – Procedure (Detailed View)








王黑莓 WONG, BLACKBERRIES  
HKIC : UH9773216      DOB : 29-Feb-1912      Age : 101 years      Sex : M

[Details ▶](#) Allergy & ADR

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Legend

- ▼ Problem & Procedure
  - Problem / Diagnosis
  - Procedure
  - Investigation Report
- ▼ Medication
  - Prescribing History
  - Dispensing History
- ▼ Laboratory Record
  - Chemical Pathology
  - Haematology
  - Immunology
  - Microbiology & Virology
  - Anatomical Pathology
  - Toxicology
  - Transplantation & Immunogenetics

### Procedure Details Return ↩

Date	Procedure	Institution
<b>Ultrasonogram of abdomen</b>		
05-Jan-2013	Ultrasonogram of abdomen	AHN
13-Jan-2010	Ultrasonogram of abdomen	AHN





# Data Schema – Procedure (Simplified Version)

Form	Entity Name	Entity ID	Definition	Data Type (code)	Data Type (description)	Validation Rule	Repeated Data	Code Table	Data requirement (Certified Level 1)	Data requirement (Certified Level 2)	Data requirement (Certified Level 3)	Example (Certified Level 1)	Example (Certified Level 2)	Example (Certified Level 3)
Procedure (Simplified version)	Procedure performed reference date	1003406	Date when the procedure was performed. For eHR, if this date is not available, the create date of the procedure data should be used when submitting data to the eHR.	TS	Time Stamp		R		NA	M	M		6/12/2010	6/12/2010
Procedure (Simplified version)	Procedure performed - recognised terminology name	1003407	Name of the recognised terminology / classification from which the procedure performed is referenced to	CE	Coded Element	If eHR value - 1)HKCTT, nature must be Procedure;2)SNOMED CT, hierarchy must be Procedure;3)ICPC2, allowable items would be all codes ended in the range of 30-59	R	Recognised terminology name - procedure	NA	NA	M			HKCTT
Procedure (Simplified version)	Procedure performed identifier - recognised terminology	1003412	Unique Identifier of the procedure performed in the recognised terminology	CE	Coded Element	It should be included in the selected terminology of the [Recognised Terminology Name - Procedure ] code table - 1)HKCTT should be TermID; 2)SNOMED CT should be ConceptID; 3)ICPC2 should be code	R		NA	NA	M			23815
Procedure (Simplified version)	Procedure performed description - recognised terminology	1003413	The description of the procedure performed in the recognised terminology. It should be the corresponding description of the selected [Procedure performed identifier - recognised terminology]	CE	Coded Element	It should be matched with the corresponding description of the selected [Procedure performed identifier - recognised terminology]; 1) HKCTT should be eHR description; 2) SNOMED CT should be Preferred term; 3) ICPC2 should be Full description	R		NA	NA	M			Lobectomy of lung - left lower lobe
Procedure (Simplified version)	Procedure performed local code	1003414	Local code created by the healthcare provider for the procedure performed	ST	String		R		NA	O	O		2231	2231
Procedure (Simplified version)	Procedure performed local description	1003415	Local description created by the healthcare provider for the procedure performed	ST	String		R		NA	M	M		Lobectomy of left lung	Lobectomy of left lung
Procedure (Simplified version)	Procedure performed comment	1003416	Comment made on the procedure performed	ST	String		R		NA	O	O		lower lobe	lower lobe



# Related Tables for Procedure

- Data schema
  - Full version
  - Simplified version
- Codex
  - Data Group
  - Recognised Terminology Name - Procedure

# Summary

- Problem & Procedure
  - Independent domains
  - Accept Level 2 & Level 3



THANK YOU 