Preparation for eHR - Briefing on eHR content

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By Hung Hung TSUI

Health Informatics Analyst I, eHRISO

Domains

- Radiology examination
- Referral

RADIOLOGY EXAMINATION

Radiology examination

- Radiology result would include radiology report and images
  - *Images: to be implemented in later phases*

- Sub-classified according to radiology modality, e.g.
  - plain x-ray, ultrasound, CT, MRI …

Mind map: Radiology examination

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

Radiology Examination

- Radiology Request
- Radiology Examination Datetime
- Radiology Modality Code
- Radiology Examination Name
- Radiology Examination Performing Institution
- Radiology Examination Healthcare Staff
- Radiology Report
- *Radiology Imaging (Not yet implemented)*
- Radiology Examination Remark

Not yet implemented in phase 1

Mind map: Radiology examination

- **Radiology Examination**
  - Radiology Request
    - Radiology Request Healthcare Institution
      - Radiology Request Healthcare Institution Identifier
      - Radiology Request Healthcare Institution Long Name
      - Radiology Request Healthcare Institution Local Name
    - Radiology Request Number
  - Radiology Examination Datetime
  - Radiology Modality Code
  - Radiology Examination Name
  - Radiology Examination Performing Institution
    - Radiology Examination Performing Institution Identifier
    - Radiology Examination Performing Institution Long Name
    - Radiology Examination Performing Institution Local Name
  - Radiology Examination Healthcare Staff
    - Radiology Examination Healthcare Staff English Name
    - Radiology Examination Healthcare Staff Chinese Name
    - Radiology Examination Healthcare Staff Type
      - Radiology Examination Healthcare Staff Type Code
      - Radiology Examination Healthcare Staff Type Description
      - Radiology Examination Healthcare Staff Type Local Description
  - Radiology Report
    - Radiology Report Title
    - Radiology Report Date
    - Radiology Report - Reported By
      - Radiology Report - Reported By Healthcare Staff English Name
      - Radiology Report - Reported By Healthcare Staff Chinese Name
    - Radiology Report (PDF)
    - Radiology Report (Text)
  - *Radiology Imaging (Not yet implemented)*
  - Radiology Examination Remark

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 – Level 1 (Radiology examination)

Entity Name	Code Table	Data requirement (Certified Level 1)	Example (Certified Level 1)
Radiology request number		O	53215
Radiology examination datetime		M	6/12/2010
Radiology modality code	Radiology modality	M	CT
Radiology examination name		O	brain
Radiology report title		O	CT brain report
Radiology report date		O	6/12/2010
Radiology report (PDF)		O	
Radiology report (Text)		O	
Radiology image accession number		O	A12234
Radiology examination remark		O	abc

Example – Level 2 (Radiology examination)

Entity Name	Code Table	Data requirement (Certified Level 2)	Example (Certified Level 2)
Radiology request healthcare institution local name		O	Dr. Chan Clinic
Radiology request number		O	53256
Radiology examination datetime		M	6/12/2010
Radiology modality code	Radiology modality	M	MRI
Radiology examination name		O	Head and neck
Radiology examination performing institution local		O	Dr. Chan Clinic
Radiology examination healthcare staff English name		O	Dr. Chan Tai Man
Radiology examination healthcare staff Chinese name		O	陳大文教授
Radiology examination healthcare staff type local		O	Supervisor
Radiology report title		O	MRI on Head and Neck report
Radiology report date		O	6/12/2010
Radiology report - reported by healthcare staff English name		O	Dr. Chan Tai Man
Radiology report - reported by healthcare staff Chinese name		O	陳大文教授
Radiology report (PDF)		O	
Radiology report (Text)		O	
Radiology image accession number		O	A12235
Radiology examination remark		O	abc

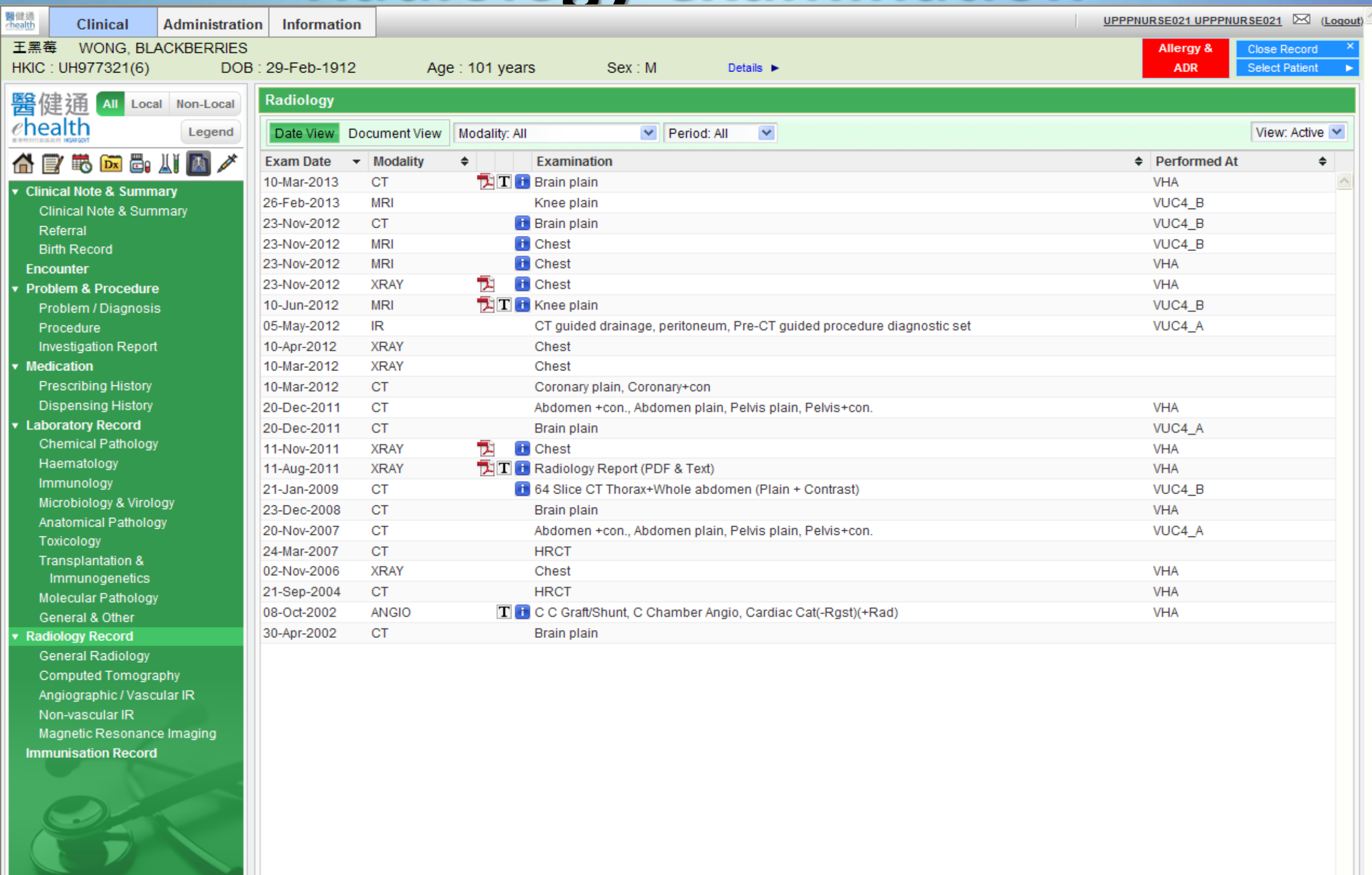
Example – Level 3 (Radiology examination) (1)

Entity Name	Code Table	Data requirement (Certified Level 3)	Example (Certified Level 3)
Radiology request healthcare institution identifier		O	KH
Radiology request healthcare institution long name		M if [Radiology request institution identifier] is given NA if [Radiology request institution identifier] is blank	Kowloon Hospital
Radiology request healthcare institution local name		M if [Radiology request institution identifier] is given NA if [Radiology request institution identifier] is blank	Kowloon Hospital
Radiology request number		O	123546
Radiology examination datetime		M	6/12/2010
Radiology modality code	Radiology modality	M	MRI
Radiology examination name		O	Abdomen and pelvic
Radiology examination performing institution identifier		O	KH
Radiology examination performing institution long name		M if [Radiology performing institution identifier] is given NA if [Radiology performing institution identifier] is blank	Kowloon Hospital
Radiology examination performing institution local name		M if [Radiology performing institution identifier] is given NA if [Radiology performing institution identifier] is blank	Kowloon Hospital

Example – Level 3 (Radiology examination) (2)

Entity Name	Code Table	Data requirement (Certified Level 3)	Example (Certified Level 3)
Radiology examination healthcare staff English name		O	Dr. Chan Tai Man
Radiology examination healthcare staff Chinese name		O	陳大文教授
Radiology examination healthcare staff type code	Procedure healthcare	O	C
Radiology examination healthcare staff type description	Procedure healthcare staff type	M if [radiology examination healthcare staff type code] is given NA if [radiology examination healthcare staff type code] is blank	Chief procedure healthcare staff
Radiology examination healthcare staff type local description		M if [radiology examination healthcare staff type code] is given NA if [radiology examination healthcare staff type code] is blank	Chief in-charge
Radiology report title		O	MRI on abdomen and pelvic report
Radiology report date		O	6/12/2010
Radiology report - reported by healthcare staff English name		O	Dr. Chan Tai Man
Radiology report - reported by healthcare staff Chinese name		O	陳大文教授
Radiology report (PDF)		O	
Radiology report (Text)		O	
Radiology image accession number		O	A12236
Radiology examination remark		O	abc

eHR viewer:
Radiology examination



Next Domain

Related files: Radiology examination

- Data schema
  - Radiology examination
- Codex
  - Radiology modality
  - Procedure healthcare staff type

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Data schema: Radiology examination (2)

eHR Sharable Data - Radiology Examination

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)
Radiology Examination	Radiology request healthcare institution identifier	1003483	The healthcare institution where the radiology request was created. It is the [HCI identifier] in the eHR Healthcare Provider index.	CE	Coded element				NA	NA	O			KH
Radiology Examination	Radiology request healthcare institution long name	1003484	The healthcare institution where the radiology request was created. It is the [HCI displayed English long name] or the [HCI displayed Chinese long name] in the eHR Healthcare Provider index. It should be the corresponding description of the selected [HCI identifier].	ST	String				NA	NA	M if [Radiology request institution identifier] is given NA if [Radiology request institution identifier] is blank			Kowloon Hospital
Radiology Examination	Radiology request healthcare institution local name	1003485	Local description of the healthcare institution where the radiology request was created	ST	String				NA	O	M if [Radiology request institution identifier] is given NA if [Radiology request institution identifier] is blank		Dr. Chan Clinic	Kowloon Hospital
Radiology Examination	Radiology request number	1003486	A unique identifier issued by the healthcare institution who requested the radiology examination	ST	String				O	O	O	53215	53256	123546
Radiology Examination	Radiology examination datetime	1003487	Date / time when the radiology examination was performed. If the radiology procedure examination date / time is not available, can use the report creation date; if report creation date is not available, can use the submission date to eHR.	TS	Time stamp				M	M	M	6/12/2010	6/12/2010	6/12/2010
Radiology Examination	Radiology modality code	1003488	[eHR value] of the "Radiology modality" code table, to define modality of the radiology examination	CE	Coded element			Radiology modality	M	M	M	CT	MRI	MRI
Radiology Examination	Radiology examination name	1003489	The name of the radiology examination such as the examination region(s) or site(s)	ST	String				O	O	O	brain	Head and neck	Abdomen and pelvic
Radiology Examination	Radiology examination performing institution identifier	1003490	The healthcare institution where the radiology examination was performed. It is the [HCI identifier] in the eHR Healthcare Provider index.	CE	Coded element				NA	NA	O			KH
Radiology Examination	Radiology examination performing institution long name	1003491	The healthcare institution where the radiology examination was performed. It is the [HCI displayed English long name] or the [HCI displayed Chinese long name] in the eHR Healthcare Provider index. It should be the corresponding description of the selected [HCI identifier].	ST	String				NA	NA	M if [Radiology performing institution identifier] is given NA if [Radiology performing institution identifier] is blank			Kowloon Hospital
Radiology Examination	Radiology examination performing institution local name	1003492	Local description of the healthcare institution where the radiology examination is performed	ST	String				NA	O	M if [Radiology performing institution identifier] is given NA if [Radiology performing institution identifier] is blank		Dr. Chan Clinic	Kowloon Hospital
Radiology Examination	Radiology examination healthcare staff English name	1003493	Full English name (with title, where applicable) of the healthcare staff who performed the radiology examination	ST	String		R		NA	O	O		Dr. Chan Tai Man	Dr. Chan Tai Man
Radiology Examination	Radiology examination healthcare staff Chinese name	1003494	Full Chinese name (with title, where applicable) of the healthcare staff who performed the radiology examination.	ST	String		R		NA	O	O		陳大文教授	陳大文教授
Radiology Examination	Radiology examination healthcare staff type code	1003495	[eHR value] of the "Procedure healthcare staff type" code table which is used to identify the healthcare staff type who is chiefly responsible for the radiology examination	CE	Coded element		R	Procedure healthcare staff type	NA	NA	O			C
Radiology Examination	Radiology examination healthcare staff type description	1003496	[eHR description] of the "Procedure healthcare staff type" code table which is used to identify the healthcare staff who is chiefly responsible for the radiology examination. It should be the corresponding description of the selected [radiology examination healthcare staff type code].	ST	String		R	Procedure healthcare staff type	NA	NA	M if [radiology examination healthcare staff type code] is given NA if [radiology examination healthcare staff type code] is blank			Chief procedure healthcare staff
Radiology Examination	Radiology examination healthcare staff type local description	1003497	Local description of the type of the healthcare staff who performed the radiology examination	ST	String		R		NA	O	M if [radiology examination healthcare staff type code] is given NA if [radiology examination healthcare staff type code] is blank		Supervisor	Chief in-charge
Radiology Examination	Radiology report title	1003498	The title of the radiology report	ST	String				O	O	O	CT brain report	MRI on Head and Neck report	MRI on abdomen and pelvic report
Radiology Examination	Radiology report date	1003499	The documentation date of the radiology report, first use the last endorsed date; if not available, use first endorsed date; if not available, use radiology examination date.	TS	Time stamp				O	O	O	6/12/2010	6/12/2010	6/12/2010
Radiology Examination	Radiology report - reported by healthcare staff English name	1003500	Full English name (with title, where applicable) of the healthcare staff who reported the radiology examination information	ST	String				NA	O	O		Dr. Chan Tai Man	Dr. Chan Tai Man
Radiology Examination	Radiology report - reported by healthcare staff Chinese name	1003501	Full Chinese name (with title, where applicable) of the healthcare staff who reported the radiology examination information.	ST	String				NA	O	O		陳大文教授	陳大文教授
Radiology Examination	Radiology report (PDF)	1003502	Report of the radiology examination in Portable Document Format (PDF)	ED	Encapsulated data				O	O	O			
Radiology Examination	Radiology report (Text)	1003503	Report of the radiology examination in text format	TX	Text				O	O	O			
Radiology Examination	Radiology image accession number	1003504	The reference number of the radiology image(s)	ST	String				O	O	O	A12234	A12235	A12236
Radiology Examination	Radiology image		The images of the radiology examination											
Radiology Examination	Radiology examination remark	1003505	The additional information about the radiology examination record	TX	Text				O	O	O	abc	abc	abc

Codex: Radiology modality

Mind map

Back

Radiology Modality

Purpose : To identify the modality of the radiology examination, the type of radiology examination so that the report can be filed in the e-HR automatically

Reference : HA

Term ID	eHR Value	eHR Description	Full Description
	XRAY	General radiology	General radiology
	FLUOR	Fluoroscopy	Fluoroscopy
	US	Ultrasonography	Ultrasonography
	CT	Computed tomography	Computed tomography
	BI	Breast imaging	Breast imaging
	ANGIO	Angiographic / vascular IR	Angiographic examination / vascular interventional radiology
	IR	Non-vascular IR	Non-vascular interventional radiology
	MRI	Magnetic resonance imaging	Magnetic resonance imaging
	NM	Nuclear medicine	Nuclear medicine
	PET/CT	PET / CT fusion imaging	Positron emission tomography / computed tomograhy fusion imaging
	PET/MR	PET / MR fusion imaging	Positron emission tomography / magnetic resonance fusion imaging
	OTHER	Other radiology modality	Other radiology modality

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Codex: Procedure HC staff type

Mind map

Back

Procedure Healthcare Staff Type Table

Purpose : To indicate the healthcare staff who chiefly responsible for performing the procedure

Source : HA

Term ID	eHR Value	eHR Description
	C	Chief healthcare staff of the procedure
	A	Assistant healthcare staff of the procedure

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REFERRAL

Referral

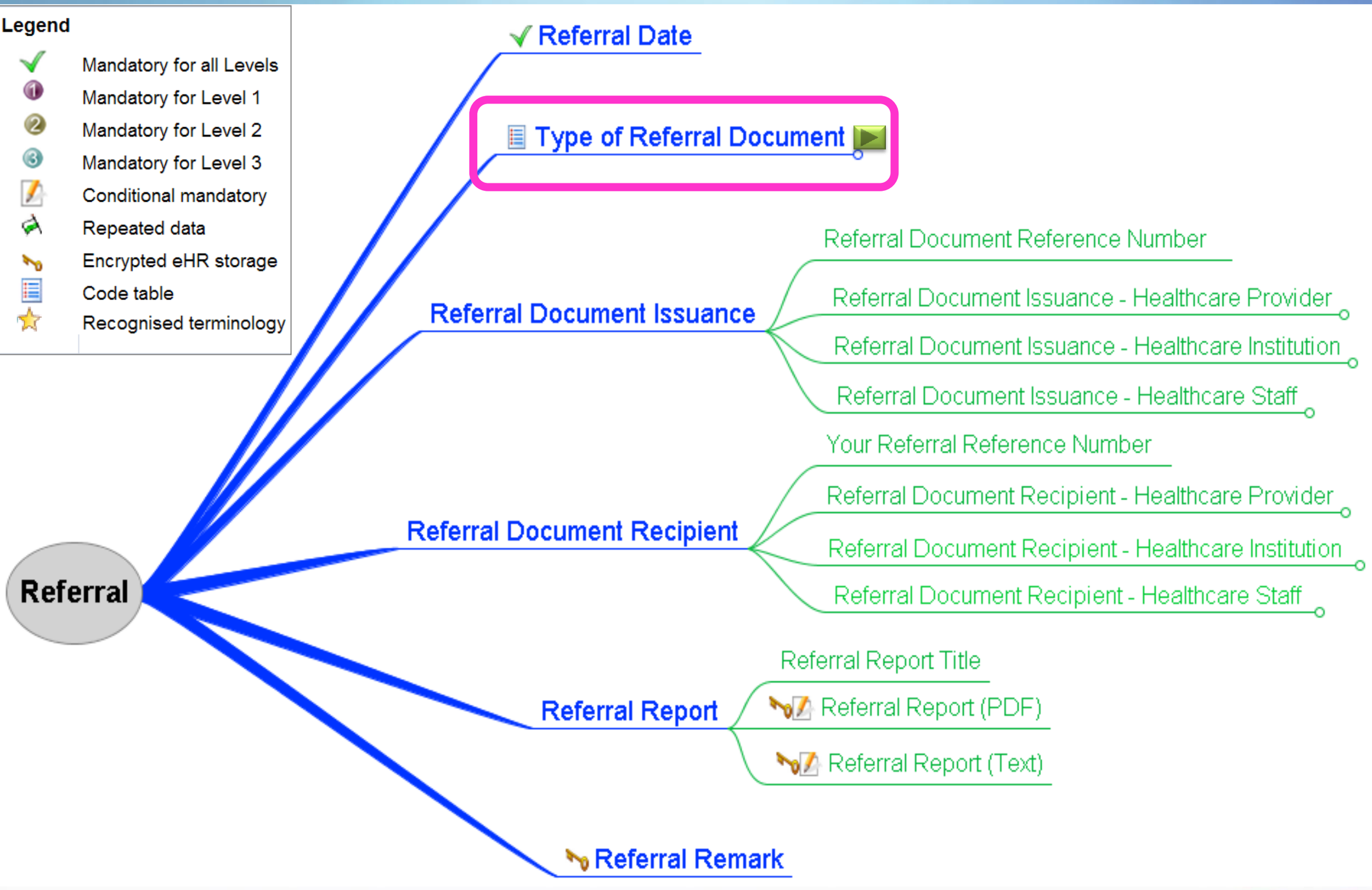
- Referral documents the information that is required when a healthcare provider refers all or a portion of an eHR recipient's care to another healthcare provider, and the reply from the receiving healthcare provider to the referrer

- **Level 1 data only**

Mind map: Referral

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 – Level 1 (Referral) (1)

Entity Name	Code Table	Data requirement (Certified Level 1)	Example (Certified Level 1)
Referral date		M	2/1/2011
Type of referral document code	Type of referral document	O	Request
Type of referral document description	Type of referral document	M if [Type of referral code] is given NA if [Type of referral code] is blank	Request referral
Type of referral document local description		M if [Type of referral code] is given NA if [Type of referral code] is blank	Referral request

Example – Level 1 (Referral) (2)

Entity Name	Code Table	Data requirement (Certified Level 1)	Example (Certified Level 1)
Referral document reference number		O	125600
Referral document issuance - healthcare provider identifier		O	HA
Referral document issuance - healthcare provider long name		M if [From healthcare provider identifier] is given NA if [From healthcare provider identifier] is blank	Hospital Authority
Referral document issuance - healthcare provider local name		M	Hospital Authority
Referral document issuance - healthcare institution identifier		O	KH
Referral document issuance - issued healthcare institution long name		M if [From healthcare institution identifier] is given NA if [From healthcare institution identifier] is blank	Kowloon Hospital
Referral document issuance - healthcare institution local name		M	Kowloon Hospital
Referral document issuance - healthcare staff identifier		O	88888
Referral document issuance - healthcare staff English name		M if [From healthcare staff Chinese name] is blank	Dr. Chan Tai Man
Referral document issuance - healthcare staff Chinese name		M if [From healthcare staff English name] is blank	陳大文醫生

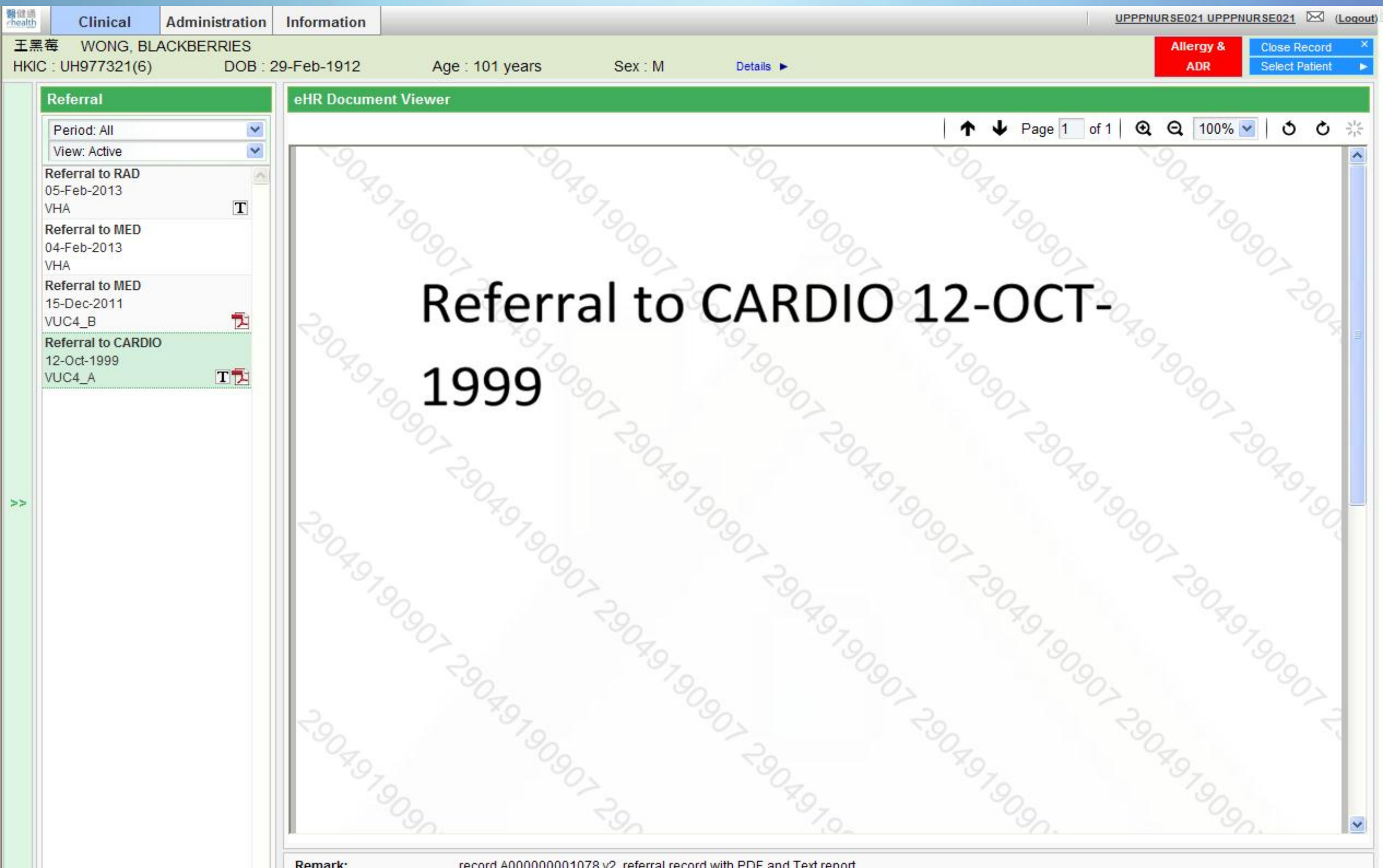
Example – Level 1 (Referral) (3)

Entity Name	Code Table	Data requirement (Certified Level 1)	Example (Certified Level 1)
Your referral reference number		O if [Type of referral] = "Reply Referral" NA if [Type of referral] <> "Reply Referral"	125600
Referral document recipient - healthcare provider identifier		O	HKSHL
Referral document recipient - healthcare provider long name		M if [To healthcare provider identifier] is given NA if [To healthcare provider identifier] is blank	Hong Kong Sanatorium & Hospital Limited
Referral document recipient - healthcare provider local name		O	HKSHL
Referral document recipient - healthcare institution identifier		O	HKSH
Referral document recipient - healthcare institution long name		M if [To healthcare institution identifier] is given NA if [To healthcare institution identifier] is blank	Hong Kong Sanatorium & Hospital
Referral document recipient - healthcare institution local name		O	Hong Kong San
Referral document recipient - healthcare staff identifier		O	99999
Referral document recipient - healthcare staff English name		O	Dr. David Wong
Referral document recipient - healthcare staff Chinese name		O	王大文醫生

Example – Level 1 (Referral)

Entity Name	Code Table	Data requirement (Certified Level 1)	Example (Certified Level 1)
Referral report title		O	Referral to MCH
Referral report (PDF)		M if [Referral report (Text)] is blank	
Referral report (Text)		M if [Referral report (PDF)] is blank	
Referral remark		O	abc

eHR viewer: Referral



Related files: Referral

- Data schema
  - Referral
- Codex
  - Type of referral

Data schema: Referral

Form	Entity Name	Entity ID	Definition	Data Type (code)	Data Type (description)	Validation Rule	Repeated Data	Code Table	Data requirement (Certified Level 1)	Example (Certified Level 1)
Referral	Referral date	1001773	Date when the referral / reply to the referral was issued	TS	Time stamp				M	2/1/2011
Referral	Type of referral document code	1003361	[eHR value] of the "Type of referral document" code table. Type of referral document is to define whether it is a referral or a reply to a referral.	CE	Coded element			Type of referral document	O	Request
Referral	Type of referral document description	1003362	[eHR description] of the "Type of referral document" code table, it should be the corresponding description of the selected [Type of referral document code]. Type of referral document is to define whether it is a referral or a reply to a referral.	ST	String			Type of referral document	M if [Type of referral code] is given NA if [Type of referral code] is blank	Request referral
Referral	Type of referral document local description	1003363	Local description created by the healthcare provider for the type of referral document. Type of referral document is to define whether it is a referral or a reply to a referral.	ST	String				M if [Type of referral code] is given NA if [Type of referral code] is blank	Referral request
Referral	Referral document reference number	1003360	A reference number for the referral / reply record issued by the healthcare institution	ST	String				O	125600
Referral	Referral document issuance - healthcare provider identifier	1003463	The healthcare provider who issued the referral / reply record. It is the [HCP identifier] in the eHR Healthcare Provider Index.	ST	String				O	HA
Referral	Referral document issuance - healthcare provider long name	1003464	The healthcare provider who issued the referral / reply record. It is the [HCP displayed English long name] or the [HCP displayed Chinese long name] in eHR Healthcare Provider Index. It should be the corresponding description of the selected [HCP identifier].	ST	String				M if [From healthcare provider identifier] is given NA if [From healthcare provider identifier] is blank	Hospital Authority
Referral	Referral document issuance - healthcare provider local name	1003465	Local description of the healthcare provider who issued the referral / reply record	ST	String				M	Hospital Authority
Referral	Referral document issuance - healthcare institution identifier	1003466	The healthcare institution who issued the referral / reply record. It is the [HCI identifier] in the eHR Healthcare Provider Index.	ST	String				O	KH
Referral	Referral document issuance - issued healthcare institution long name	1003467	The healthcare institution who issued the referral / reply record. It is the [HCI displayed English long name] or the [HCI displayed Chinese long name] in eHR Healthcare Provider Index. It should be the corresponding description of the selected [HCI identifier].	ST	String				M if [From healthcare institution identifier] is given NA if [From healthcare institution identifier] is blank	Kowloon Hospital
Referral	Referral document issuance - healthcare institution local name	1003468	Local description for the healthcare institution who issued the referral / reply record	ST	String				M	Kowloon Hospital
Referral	Referral document issuance - healthcare staff identifier	1003469	The healthcare staff who issued the referral / reply record. It is the [HCS identifier] in the eHR Healthcare Staff Index.	ST	String				O	88888
Referral	Referral document issuance - healthcare staff English name	1003470	Full English name (with title, where applicable) of the healthcare staff who issued the referral / reply record	ST	String				M if [From healthcare staff Chinese name] is blank	Dr. Chan Tai Man
Referral	Referral document issuance - healthcare staff Chinese name	1003471	Full Chinese name (with title, where applicable) of the healthcare staff who issued the referral / reply record.	ST	String				M if [From healthcare staff English name] is blank	陳大文醫生
Referral	Your referral reference number	1003472	[Your referral reference number] is used in replying a referral request. It is the reference number of the referral request issued by the referring healthcare provider.	ST	String	Applicable only if [Type of referral] = "Reply			O if [Type of referral] = "Reply Referral" NA if [Type of referral] <> "Reply Referral"	125600
Referral	Referral document recipient - healthcare provider identifier	1003473	The healthcare provider to whom the referral / reply record is sent. It is the [HCP identifier] in the eHR Healthcare Provider Index.	ST	String				O	HKSHL
Referral	Referral document recipient - healthcare provider long name	1003474	The healthcare provider to whom the referral / reply record is sent. It is the [HCP displayed English long name] or the [HCP displayed Chinese long name] in the eHR Healthcare Provider Index. It should be the corresponding description of the selected [HCP identifier].	ST	String				M if [To healthcare provider identifier] is given NA if [To healthcare provider identifier] is blank	Hong Kong Sanatorium & Hospital Limited
Referral	Referral document recipient - healthcare provider local name	1003475	Local description of the healthcare provider to whom the referral / reply record is sent	ST	String				O	HKSHL
Referral	Referral document recipient - healthcare institution identifier	1003476	The healthcare institution to whom the referral / reply record is sent. It is the [HCI identifier] in the eHR Healthcare Provider Index.	ST	String				O	HKSH
Referral	Referral document recipient - healthcare institution long name	1003477	The healthcare institution to whom the referral / reply record is sent. It is the [HCI displayed English long name] or the [HCI displayed Chinese long name] in the eHR Healthcare Provider Index. It should be the corresponding description of the selected [HCI identifier].	ST	String				M if [To healthcare institution identifier] is given NA if [To healthcare institution identifier] is blank	Hong Kong Sanatorium & Hospital
Referral	Referral document recipient - healthcare institution local name	1003478	Local description for the healthcare institution to whom the referral / reply record is sent	ST	String				O	Hong Kong San
Referral	Referral document recipient - healthcare staff identifier	1003479	The healthcare staff to whom the referral / reply record was sent. It is the [HCS identifier] in the eHR Healthcare Staff Index.	ST	String				O	99999
Referral	Referral document recipient - healthcare staff English name	1003480	Full English name (with title, where applicable) of the healthcare staff to whom the referral / reply record is sent	ST	String				O	Dr. David Wong
Referral	Referral document recipient - healthcare staff Chinese name	1003481	Full Chinese name (with title, where applicable) of the healthcare staff to whom the referral / reply record is sent.	ST	String				O	王大文醫生
Referral	Referral report title	1003364	The title of the referral / reply record	ST	String				O	Referral to MCH
Referral	Referral report (PDF)	1003366	Referral / reply record in Portable Document Format (PDF)	ED	Encapsulated data				M if [Referral report (Text)] is blank	
Referral	Referral report (Text)	1003367	Referral / reply record in text format	TX	Text				M if [Referral report (PDF)] is blank	
Referral	Referral remark	1003368	The additional information about the referral / reply record	TX	Text				O	abc

Codex: Type of referral

Type of referral document
Purpose : To define the type of referral document
Source :

Term ID	eHR Value	eHR Description	Definition
	Request	Request referral	The request referral document is made by a healthcare provider (referring provider) to refer a patient to other healthcare providers such as specialists for ongoing care.
	Reply	Reply referral	The reply document to a request referral is made by the referred healthcare provider.
	Unknown	Unknown type of referral	The type of referral document is not known.

THANK YOU