Consultation Paper

Diagnostic Imaging

and the

PCEHR System

25th June 2014
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1. The purpose & audience of this document

The purpose of this paper is to present a model for including community based diagnostic imaging reports in the Personally Controlled Electronic Health Record (PCEHR) system. The model’s development is based on requirements by the healthcare community, combined with feedback received from health stakeholders in a consultation process that took place in the second half of 2013. It seeks to gain further input from stakeholders on the appropriate way forward for solution design and build.

The paper provides:

- A background to the PCEHR system and the consultation process to date;
- Objectives and benefits sought by all parties (from Government, the health sector and the community);
- A starting point for further consultation; and
- Issues for further discussion.

The information you supply in response to this document will be used to refine the model further (as described below in section 4).

2. Background

The PCEHR system connects individuals and healthcare providers, to streamline services and provide ready availability of important health information such as diagnoses and medications. It facilitates more accessible, efficient and effective healthcare in a system that utilises healthcare identifiers, authentication services, standards (and information exchange) and secure messaging.

On 19 May 2014, the Government released the report on the Review of the PCEHR system. The report found strong support for continued development and implementation of the electronic health record system and recommends, among other things, to proceed with the integration of pathology and diagnostic imaging reports into the PCEHR system.

2.1. The PCEHR System in 2014

The PCEHR system currently provides access to the following types of health care documentation:

- Shared health summaries – a clinically reviewed summary prepared by an individual’s key healthcare provider;
- Event summaries – to capture key information about a key healthcare event relevant to ongoing care;
- Discharge summaries – to capture information about an acute healthcare event relevant to ongoing care;
- Specialist letters – to capture key information about specialist visits;
- Referrals – currently from GPs to specialists; and
- Prescription and dispense records.

The system also enables individuals to add Medicare information, and to create their own personal health summary and health notes. It provides access for participating individuals (people to whom the record relates, including authorised or nominated representatives) and healthcare providers via the following services:

- **Individual (including nominated & authorised representatives):** Assessed via the National Consumer Portal and viewed through a compatible web browser; and
- **Healthcare Provider:** Accessed via the National Provider Portal, an integrated Clinical Information System, or a Patient Administration System, with specialist clinical software in use to create these.

Information in the PCEHR system can be accessed as individual documents or through views which bring together clinical documents (such as prescription and dispense records) and displays them in a predictable way.
2.2 Diagnostic Imaging within Australia

Diagnostic imaging providers are responsible for a diverse, and at times complex, range of procedures and examinations. Diagnostic imaging services in Australia are provided across a variety of settings.

For community based diagnostic imaging, diagnostic imaging requests are typically initiated by GP’s and medical specialists. A limited range of diagnostic imaging can also be ordered by other healthcare professionals. The imaging is performed by a diagnostic imaging provider of the patient’s choice (although the healthcare provider may select a provider and may transmit an electronic request). There is a small percentage of diagnostic imaging performed by the healthcare providers themselves.

In the fiscal year 2012/13 there was 21,393,931 Medicare items claimed for referred diagnostic imaging services.¹

2.3 Consultation to date

Consultation on the inclusion of diagnostic imaging information in the PCEHR system has been undertaken during 2009-2011. Further consultation was undertaken as part of developing the PCEHR Concept of Operations.

Two stakeholder workshops (as well as technical and clinical sessions) were held between July and December 2013. This work was paused, following the announcement of the PCEHR review in late 2013. Further feedback on the value of diagnostic imaging information in the PCEHR was received and the Review Report recommended proceeding with the integration of diagnostic imaging reports into the PCEHR system.

3. Objectives & benefits of diagnostic imaging reports in the PCEHR

Objectives and benefits of diagnostic imaging reports in the PCEHR are supported by the following high level objectives, identified by NEHTA’s Diagnostic Services Reference Group (DSRG) in 2011, in consultation with key stakeholders. These objectives continue to guide the design and implementation of diagnostic imaging functions in the PCEHR system.

1. Improving access to information for providers who do not currently have access.
   Providers involved with an individual’s care may not currently get access to diagnostic imaging reports unless they are the requester or the patient is able to provide the report with the images. Giving all providers greater access to diagnostic imaging reports may reduce time spent on collection of information and result in better continuity of care for the individual.

2. Improving timeliness of information.
   Sharing of diagnostic imaging information via the PCEHR will be more time-efficient in many cases, as it will provide a single endpoint to which documents can be sent.

3. Maintaining individual control over access to information.
   As with other areas within the PCEHR, it is important that control over diagnostic imaging information remains with the individual concerned, and that an adequate set of controls are provided for this purpose.

4. Reducing unnecessary duplicate testing.
   Better availability of information about diagnostic imaging tests that have been completed has the potential to reduce the occurrence of unnecessary duplicate tests.

5. Better engagement of individuals with their own healthcare.
   Giving individuals visibility of their own diagnostic imaging information will have the potential to yield improved safety, and will also assist with increasing the ability for individuals to manage their own healthcare.

   Quality and integrity of diagnostic imaging information will be critical to ensuring safety when sharing diagnostic imaging information via the PCEHR.

4. The upcoming feedback process

The Department will be engaging with a broad range of stakeholders in the healthcare sector to further progress the design for the inclusion of diagnostic imaging reports in the PCEHR. A series of workshops with key stakeholders are planned, commencing in July 2014, at which agreements reached in the previous rounds of consultation held in 2013 will be confirmed and outstanding issues progressed. A further workshop is planned for early August with a third workshop to occur in early September if required.

A written submission process is also being undertaken with responses due by **18 July 2014**. Feedback should be provided via email to ehealth.consultations@health.gov.au. The outcomes of the written submission process will be summarised and brought to the August consultation workshop for further discussion.

To enable detailed technical discussion to occur on issues and design options identified, a co-design technical working group is being established through a nomination process. They will be tasked with reviewing and providing input to the design of the integration solution that supports the inclusion of pathology and diagnostic imaging reports in the PCEHR system. The groups will consider the following aspects within their remit:

- Clinical and technical workflows;
- Design, appearance and functions of screens involved (portal and desktop);
- Implementation, education and communication issues for both end users and software vendors;
- Processes to assure that the solution is usable and appropriate, complementing existing clinical functional testing and usability programmes; and
- Processes to support the evaluation and assessment of outcomes following implementation.

The co-design technical working groups will also be a key input to resolving technical issues identified through broader consultation. Nominations for the co-design technical working group have already been sought. The working group is anticipated to have short regular meetings, the outcomes of which will inform the design process and will be discussed at consultation workshops. The first meeting of the working group will be held in mid July 2014.

The information you supply in response to this document will be used to refine the model further for exposure and testing in the feedback process outlined above.
5. Proposed model

The proposed model presented within this section was established during consultation in 2013 and is broadly aligned with the model developed by DSRG in 2009/11. The key premise behind it is that an ‘Authority-to-Post’ (ATP) message must be provided by a reviewing healthcare provider prior to the diagnostic imaging provider making a report available in the PCEHR system. The review process lessens the likelihood that sensitive reports are made available on an individual’s PCEHR. It also provides assurance to a healthcare provider that a report has already been clinically reviewed.

During the previous round of consultation, consensus was not reached on the proposed model. There are still outstanding issues around the clinical workflow and the technical changes that would be required to support the proposed ATP model.

This feedback process seeks confirmation on what has been agreed so far as well as formal feedback on the proposed ATP model. We also require your input on the identified issues (described in section 5.3) including detail on any further concerns that you have in relation to the proposed model.

5.1. What has been agreed so far

The following provides a summary of the high level design principles agreed during consultation that underpin the provision of diagnostic imaging reports in the PCEHR:

1. The design should leverage existing technical infrastructure wherever possible.
2. The design should aim to integrate with existing clinical workflow and be aligned with medico legal responsibilities wherever possible.
3. The development and implementation of standards, including terminology, is required before diagnostic imaging reports that include atomic data can be made available through the PCEHR.
4. The report will be made available in the PCEHR in immutable format (PDF). The image will not be available for viewing in the PCEHR; however information about the location of the image may be provided. Key information that supports the searching, viewing and auditing of reports will also be provided (Appendix C).
5. The authoring diagnostic imaging provider is responsible for ensuring that:
   - All reports (that they make available) in the PCEHR have been authorised for upload.
   - Outdated (and potentially inaccurate reports) are not available in the PCEHR.
   - Only one copy of a report is available in the PCEHR.
6. A mechanism for uniquely identifying a specific version of a report is required across the integrated solution.
7. Healthcare Identifiers (for individuals and healthcare providers) to be used across the integrated solution wherever possible, to ensure that only the right people have access to patient information and to ensure that newly acquired patient information is matched correctly with existing patient records.
8. The PCEHR will only use standard terms for filtering, grouping or searching of diagnostic imaging reports in the National Provider and Consumer Portals. Guidance and conformance requirements will be provided to software vendors on how diagnostic imaging report views should be displayed and managed in their systems.
9. Healthcare providers will be able to view a history of an individual’s diagnostic imaging reports using the National Provider Portal and Clinical Information Systems.
10. Individuals will be able to view and remove diagnostic imaging report(s) from their PCEHR using the National Consumer Portal.

5.2. Proposed ATP model - high level design principles

The following high level design principles relate directly to the proposed ATP model. While they have not been agreed they are included here to invite feedback and promote discussion.
1. The decision on what diagnostic imaging reports should be made available in the PCEHR rests with the treating clinician and the individual.
2. When reviewing a report a healthcare provider may choose to authorise that a report is made available in the PCEHR, by sending an Authority-to-Post (ATP) message to the diagnostic imaging provider. The healthcare provider may choose whether or not they need to consult with the individual prior to sending the ATP message.
3. The ATP message can be provided by any healthcare provider reviewing a report, including copy-to healthcare providers.
4. A new national technical specification to support the electronic transfer of ATP messages between healthcare providers and diagnostic imaging providers will be required.

5.3. Proposed ATP Model - high level process flow

This section describes the high level process flow for the proposed model.

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**Key steps:**

1. Consultation between healthcare provider and individual occurs.
2. Healthcare provider determines that a diagnostic imaging examination is required. The diagnostic imaging request is printed and provided to individual and may also be sent to the diagnostic imaging provider electronically.
3. Diagnostic imaging report is generated by the diagnostic imaging provider (including a PDF version) and is sent to the requesting healthcare provider and any other copy-to healthcare providers.
4. Diagnostic imaging report is reviewed by a healthcare provider and communicated to the patient as per current practice, e.g. results as expected so no follow up consultation with patient required, or abnormal result so follow up phone call or consultation with patient required.
5. The healthcare provider sends an ATP message to the diagnostic imaging provider to authorise the report’s upload to the PCEHR.

6. The diagnostic imaging provider validates the ATP message.

7. The diagnostic imaging provider ensures that the report (specified in the ATP) is made available in the PCEHR.

8. Upon receipt of an ATP message revoking a previously provided ATP, the diagnostic imaging provider will remove the specified report from the PCEHR. When a report is superseded the diagnostic imaging provider will also be responsible for removing the outdated (and potentially inaccurate report) from the PCEHR.

6. Issues for further discussion

The suitability of the proposed ATP based model was not agreed during the last round of consultation. This section highlights issues that were raised and as part of the formal feedback process we seek your advice regarding these issues and associated open questions. The Department appreciates that you may have further issues regarding the proposed model and would encourage you to provide details so that they may also be considered.

6.1. Authority-to-Post Process – clinical issues

1. Impact on clinical workflow

Concerns were raised about potential impact of the ATP process on clinical workflow, in particular:

- How the ATP process would fit with existing clinical workflows associated with reviewing reports.
- The processes for authorising or removing reports from the PCEHR.
- Copy-to healthcare provider scenarios, e.g. how healthcare providers will inform other healthcare providers when consent is withdrawn by an individual for a report to be made available in the PCEHR.

It is recognised that more work needs to be done with clinicians and software vendors to ensure that design of the ATP workflow in clinical systems integrates well with existing practices. It is proposed that the co-design technical working group will review the proposed workflow and provide input to design of clinical information systems.

Open Questions:

Do you have any other specific concerns in relation to the potential impact on clinical workflow?
Do you have any recommendations on how the clinical workflow issues could be addressed?

2. Medico legal concerns

During consultation concerns were raised about potential additional medico legal responsibilities implied under the proposed ATP model, in particular, where clinical curation of a report has not been provided by a healthcare provider and the ATP decision remains outstanding.

As well as seeking your feedback on this issue, advice will be sought from the Medical Defence Organisations (MDO) regarding the medico legal responsibilities associated with the proposed solution.

Open Questions:

Do you have any other specific concerns in relation to medico legal responsibilities?
Do you have any recommendations on the proposed model that may help to alleviate medico legal concerns?

3. Requirement for clinical review/curation and the provision of an ATP message may impact on the number of reports available in the PCEHR

Concern was raised during consultation that reports may not be uploaded in a timely manner (or at all) due to the dependency on healthcare providers having to provide an ATP prior to a report being made available in the PCEHR. In particular many specialists and allied health professionals do not have the IT infrastructure to provide an
ATP message. Note approximately 40% of DI examinations are ordered by specialists and only 53% of specialists view reports electronically².

This is considered to be a broader eHealth issue which probably cannot be addressed within the scope of this project.

6.2. Authority-to-Post Process – technical issues

1. Capability of software vendors to make the required modifications to their products

During consultation the following technical issues were raised on the proposed ATP based solution:

- The majority of diagnostic imaging provider software vendors are overseas based and not necessarily focused on requirements specific to the Australian market place. As a consequence any changes required to get diagnostic imaging reports into the PCEHR may take some time;
- The model requires a two-way messaging capability between healthcare providers and diagnostic Imaging providers. During consultation diagnostic imaging provider software vendors advised that the majority of diagnostic imaging providers only support outbound messaging and that implementation of an inbound messaging capability (clinical information system → diagnostic imaging provider) would come at significant cost and impact on time to market. It is also understood (to be confirmed) that the majority of clinical information system software products do not support an outbound messaging capability required for ATP (message from clinical information system → diagnostic imaging provider); and
- Diagnostic imaging provider software vendors also advised that they may need technical or other support to assist them to integrate with the PCEHR owing to limited capability and knowledge of PCEHR compatible messaging specifications and formats (particularly CDA) within their organisations. NEHTA have advised that they are able to provide technical assistance and guidance to software vendors to assist them integrate with the PCEHR and implement the ATP model.

Open Questions:
Do you have any feedback on the type of technical support that software vendors might require?
Do you have any other concerns in relation to software vendor capabilities?
Do you have any recommendations on the integration model that may help to alleviate any technical implementation issues?
If you are a clinical information system software vendor do you support an outbound HL7 messaging capability (clinical information system → diagnostic imaging provider)?
If you are a diagnostic imaging provider software vendor do you support an outbound HL7 messaging capability (clinical information system → diagnostic imaging provider)?

2. Authority-to-Post - technical specifications

While broad consensus was not reached on the suitability of the ATP model there was agreement from a technical perspective that any new messaging capability required for ATP should be based on the existing HL7 messaging framework.

It was also agreed that a new national technical specification to support the electronic transfer of ATP messages between healthcare providers and diagnostic imaging providers would be required. It is proposed that NEHTA will draft a new National ATP messaging specification based on input received during consultation. It is also proposed that NEHTA and the Department will seek feedback on the draft specification from the co-design technical working group.

At the time broad agreement was also reached on the type of metadata accompanying a diagnostic imaging report and an ATP message (Appendix C).

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² eHealth Readiness of Australia’s Medical Specialists – Report commissioned by the Department of Health and Ageing – 30th May 2011
**Open Questions:**
Do you have any feedback from a technical perspective on the following:

- Proposed metadata for diagnostic imaging reports and ATP messages (Appendix C)?
- Proposal to use the PCEHR Document ID as the unique report identifier across the integrated solution (described in Appendix C)?
- Proposal that a diagnostic imaging report may include details of one or more tests?
- Proposal that the IHI is verified by the healthcare provider and passed onto the diagnostic imaging provider in the ATP message?
- During consultation it was proposed that the metadata associated with a diagnostic imaging report could optionally include a link to the actual image. Do you have any recommendations as to the best approach for supporting this feature taking into account potential security risks (malicious content etc.) and the user experience for the healthcare provider, i.e. logging-on to the diagnostic imaging provider site?
- Currently the maximum file size for clinical documents in the PCEHR is 10 MB – will this be adequate?
- Proposed process for developing the new national ATP specification?

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### 6.3. Authority-to-Post - alternate approach

**1. Support for the upload of diagnostic imaging event information**

During consultation it was proposed that it may be useful if the PCEHR could support the upload of information associated with a diagnostic imaging event, i.e. date, location, type of examination / procedure and details of the imaging facility. It was proposed that event type information was generally not sensitive in nature (given that the individual is already aware of the service), so could be made available without the need for an ATP from a reviewing healthcare provider. As with the ATP model the individual should be able to withdraw consent for event information to be made available in their PCEHR, at any point in the process.

The key benefit of this approach is that event information related to a diagnostic imaging examination / procedure would be available to an individual’s treating healthcare provider (via the PCEHR). Based on this information the healthcare provider could contact the diagnostic imaging provider to get a copy of the report (or gain access to the image) rather than having to re-order an examination / procedure which may expose the patient to unnecessary radiation.

The diagnostic imaging report could also be made available in the PCEHR by the diagnostic imaging provider once an ATP message is received from a healthcare provider.

This approach provides a pathway for software vendors – starting with uploading event type information in the short term (with immediate clinical benefit) with the more complex changes associated with ATP and the uploading of reports implemented in the medium term.

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**Open Questions:**
Do you have any feedback or concerns on the proposed approach whereby the PCEHR supports diagnostic imaging event information being made available in the PCEHR (without an ATP from a healthcare provider)?
6.4. Viewing Diagnostic Imaging Reports in the PCEHR

1. Absence of underpinning standards and terminology may make it difficult to locate diagnostic imaging reports in the PCEHR.

   Given the lack of underpinning standards, careful consideration was given during the previous round of consultation in regard to the type of metadata that should accompany an ATP message and a diagnostic imaging report. Through clinical and technical working groups, significant progress was made in terms of reaching agreement on the type of metadata that could accompany a diagnostic imaging report and an ATP message (Appendix C).

   Taking into account clinical safety, usability and the lack of underpinning standards the Department has drafted key design principles for PCEHR Diagnostic Imaging Report Views for your consideration (Appendix A). Sample Diagnostic Imaging Report views based on the proposed key design principles are also provided at Appendix B.

Open Questions:
- Do you have any feedback on the proposed design principles for viewing diagnostic imaging reports in the PCEHR as detailed in Appendix A?
- Do you have any feedback on the sample Diagnostic Imaging Report Views as provided in Appendix B?
- Do you have any feedback from a clinical perspective on the proposed metadata for diagnostic imaging reports and ATP messages (Appendix C)?
APPENDIX A: Viewing Diagnostic Imaging Reports in the PCEHR – Proposed Key Design Principles

Taking into account clinical safety, usability and the lack of underpinning standards the Department has drafted the following key design principles for PCEHR Diagnostic Imaging Report Views for your review and feedback.

Refer to Appendix B for sample Diagnostic Imaging Report views based on the proposed key design principles.

1. **Diagnostic Imaging Report List – Proposed Column Headings**
   - Imaging Date (should always be displayed first);
   - Diagnostic Imaging Organisation;
   - Requesting Organisation;
   - Report Status: preliminary, final or corrected;
   - Modality;
   - Examination; and
   - Local Report ID – Identifier assigned to a diagnostic imaging report by the diagnostic imaging provider. It is used today in communications (between healthcare providers and diagnostic imaging providers). It is usually printed on the diagnostic imaging report and can be used as a reference for follow up communications between a healthcare provider and the diagnostic imaging provider.

   **Note:**
   - Standard terminologies are not currently available for ‘Modality’ and ‘Examination’.
   - Other metadata included in the clinical document will be available when the report is opened for viewing. Refer to Appendix C for a full list of proposed metadata for diagnostic imaging reports.

2. **‘Group-By’ Options**
   - Diagnostic Imaging Report - in this grouping the view will show all diagnostic imaging examinations belonging to the same Diagnostic Imaging Report grouped together;
   - No Grouping (Default View) – in this grouping the view will show a list of all diagnostic imaging tests ordered by reverse chronological Imaging Date;
   - Diagnostic Imaging Organisation Name; and
   - Requesting Organisation Name.

   **Note:**
   - Grouping by ‘Modality’ and ‘Examination’ is not supported due to lack of standard code sets for these terms.

3. **Filters for Diagnostic Imaging Report Views**
   - Due to lack of standard code sets it is proposed that the only filter that could be safely applied is one based on the ‘Imaging Date’; and
   - The default date range for the filter is proposed to be 5 years.

4. **Ordering of Diagnostic Imaging Reports in Views**
   - It is proposed that ordering within views should only be provided on the following fields:
     - Diagnostic Imaging Organisation Name;
     - Requesting Organisation Name; and
     - Imaging Date.
APPENDIX B: Sample Diagnostic Imaging Report Views

The following sample PCEHR Diagnostic Imaging Report Views have been drafted based on the proposed key design principles for Diagnostic Imaging Report Views (detailed at Appendix A).

### Group by Diagnostic Imaging Report

<table>
<thead>
<tr>
<th>Date</th>
<th>Imaging Organisation</th>
<th>Report Status</th>
<th>Modality</th>
<th>Examination</th>
<th>Report ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 Nov 2012</td>
<td>Northern Imaging</td>
<td>5 Examinations (Imaging Date from 29 Nov 2012 to 25 Nov 2012)</td>
<td></td>
<td></td>
<td>12-356660G:HE-1</td>
</tr>
<tr>
<td>23 Nov 2012</td>
<td>Northern Imaging</td>
<td></td>
<td></td>
<td>X-Ray Head</td>
<td>12-3566662-HIE-1</td>
</tr>
<tr>
<td>25 Nov 2012</td>
<td>Northern Imaging</td>
<td></td>
<td></td>
<td>X-Ray Neck</td>
<td>12-3566662-HIE-1</td>
</tr>
<tr>
<td>14 Nov 2012</td>
<td>Northern Imaging</td>
<td>2 Examinations (Imaging Date from 14 Nov 2012 to 16 Nov 2012)</td>
<td></td>
<td></td>
<td>12-356660C:BE-2</td>
</tr>
<tr>
<td>16 Nov 2012</td>
<td>Northern Imaging</td>
<td></td>
<td></td>
<td>CT-Scan</td>
<td>12-3566693-BIB-2</td>
</tr>
<tr>
<td>18 Nov 2012</td>
<td>Northern Imaging</td>
<td></td>
<td></td>
<td>X-Ray Leg</td>
<td>12-3566606-BIB-2</td>
</tr>
<tr>
<td>19 Nov 2012</td>
<td>Northern Imaging</td>
<td>2 Examinations (Imaging Date from 19 Nov 2012 to 15 Nov 2012)</td>
<td></td>
<td></td>
<td>12-1316-HG22</td>
</tr>
</tbody>
</table>

### No Grouping (Proposed default view)

<table>
<thead>
<tr>
<th>Date</th>
<th>Imaging Organisation</th>
<th>Report Status</th>
<th>Modality</th>
<th>Examination</th>
<th>Report ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Nov 2012</td>
<td>South Sydney Scanners</td>
<td></td>
<td></td>
<td>X-Ray Neck</td>
<td>12-4506-00PL</td>
</tr>
<tr>
<td>22 Nov 2012</td>
<td>North Ryde Imaging</td>
<td></td>
<td></td>
<td>CT-Scan</td>
<td>12-354234-YYT-1</td>
</tr>
<tr>
<td>21 Nov 2012</td>
<td>Name Warren Imaging</td>
<td></td>
<td></td>
<td>X-Ray Hand</td>
<td>12-3566950-BIE-2</td>
</tr>
<tr>
<td>21 Nov 2012</td>
<td>Name Warren Imaging</td>
<td></td>
<td></td>
<td>X-Ray Leg</td>
<td>12-3566950-BIE-2</td>
</tr>
<tr>
<td>20 Nov 2012</td>
<td>North Ryde Imaging</td>
<td></td>
<td></td>
<td>MRI Head</td>
<td>12-354234-YYT-1</td>
</tr>
<tr>
<td>19 Nov 2012</td>
<td>South Sydney Scanners</td>
<td></td>
<td></td>
<td>CT-Scan</td>
<td>12-3555550-K11-1</td>
</tr>
<tr>
<td>18 Nov 2012</td>
<td>North Ryde Imaging</td>
<td></td>
<td></td>
<td>X-Ray Leg</td>
<td>12-354234-YYT-1</td>
</tr>
</tbody>
</table>
APPENDIX C: Proposed metadata for PCEHR diagnostic imaging reports & ATP messages

PCEHR Diagnostic Imaging Reports

Broad consensus was reach during consultation on the type of metadata that should be associated with a diagnostic imaging report. The list below includes a new field 'PCEHR Document ID' - not previously discussed during consultation. It is proposed that the PCEHR Document ID is used as the unique identifier for a report across the integrated solution.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Details</td>
<td>IHI, First Name (if available), Last Name, DOB, Gender.</td>
</tr>
<tr>
<td>Local Report ID</td>
<td>Identifier assigned to a diagnostic imaging report by the Authoring Diagnostic Imaging Organisation. It is used in communications between healthcare providers and the diagnostic imaging provider.</td>
</tr>
</tbody>
</table>
| PCEHR Document ID                 | In previous consultation it was proposed that the LSPN, Local Report ID and Request ID could be combined to constitute a unique identifier for a report. However further advice received has indicated that this approach may not be feasible for the following reasons:  
- Request ID will probably only be available for electronic requests.  
- The Local Report ID may not always be globally unique.  
- Some diagnostic imaging providers may use the same Local Report ID for the initial and subsequent versions of a report, i.e. Interim, Final, Corrected.  
When a clinical document is made available in the PCEHR the author is responsible for assigning a globally unique document ID (PCEHR Document ID). It is proposed that the PCEHR Document ID is assigned at the same time that the report is generated so that it can be used as the key identifier for the document across the integrated solution. |
| LSPN                              | The unique Location Specific Practice Number (LSPN) for the Authoring Diagnostic Imaging Provider Organisation, if available.                  |
| Examination procedure             | Details of imaging examination(s) or procedure(s) associated with the report. For the report as a whole, a value for Report Status.          |
| Report Status                     | The date and time the report was generated as a PDF by the diagnostic imaging provider.                                                     |
| Report Release Date Time          | For each examination provide the date and time (time where available) the diagnostic imaging service was performed.                         |
| Imaging Service Date Time         | For each examination provide modality, e.g. X-Ray, CT Scan. For each examination provide description, e.g. CT Head Scan, if available.        |
| Modality                          | For each examination provide anatomical location, e.g. head, neck, and leg, if available.                                                   |
| Examination Result Name           | For each examination provide laterality, e.g. left, posterior, medial, if available.                                                       |
| Anatomical Location               | Information provided by the diagnostic imaging provider advising how to get access to the image, e.g. diagnostic imaging provider contact details or URI pointing to the diagnostic image location. |
| Diagnostic Image Location Information | The Healthcare Identifier (HPI-O) and name of Authoring Diagnostic Imaging Provider Organisation.                                          |
| Authoring Radiologist             | The Healthcare Identifier (HPI-I) and name of the Authoring Radiologist.                                                                     |
| Authoring Diagnostic Imaging Organisation | The Healthcare Identifier (HPI-O) and name of the organisation that made the report available in the PCEHR.                                |
| Uploading Healthcare Professional Request ID | The Healthcare Identifier (HPI-I) and name of the Uploading Healthcare Professional. Identifier assigned to the request by a Requester (if available). |
| Requesting Healthcare Provider Organisation | The Healthcare Identifier (HPI-O – if available) and name of the Requesting Healthcare Provider Organisation.                              |
| Requesting Healthcare Professional | The Healthcare Identifier (HPI-I – if available) and name of the Requesting Healthcare Professional (where available).                     |
### ATP messages

Broad consensus was reached during consultation on the type of metadata that should be associated with an ATP message. Note that the list below includes two new fields that were not previously discussed during consultation:

- PCEHR Document ID: It is proposed that this identifier is used as the unique identifier for a report across the integrated solution; and
- Report status change date time: Advice received post consultation indicated that this information could be used by the Diagnostic Imaging Provider in combination with other information in the message to uniquely identify a specific version of a report.

Depending on advice received from industry in regards to the mechanism for uniquely identifying reports these new fields may or may not be required.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requested DateTime</td>
<td>The date and time (time if available) the diagnostic imaging service was requested. The Healthcare Identifier (HPI-O) and name of the Reviewing Healthcare Provider Organisation.</td>
</tr>
<tr>
<td>Reviewing Healthcare Provider Organisation</td>
<td>The Healthcare Identifier (HPI-I) and name of the Reviewing Healthcare Professional.</td>
</tr>
<tr>
<td>Reviewing Healthcare Professional</td>
<td>The Local System Identifier of the Reviewing Healthcare Professional providing the ATP, if available.</td>
</tr>
<tr>
<td>ATP message - unique identifier</td>
<td>The date and time when the ATP message was sent from the Reviewing Healthcare Provider to the Diagnostic Imaging Provider.</td>
</tr>
<tr>
<td>ATP message - date and time generated</td>
<td>The date and time when the ATP message was sent from the Reviewing Healthcare Provider to the Diagnostic Imaging Provider.</td>
</tr>
</tbody>
</table>

### Field Name | Description
--- | ---
Individual Details | Information about the individual for whom the report is generated: IHI, First Name (if available), Last Name, DOB, Gender. |
Request ID | Identifier assigned to the request by a Requester (if available). |
Local Report ID | Identifier assigned to a diagnostic imaging report by the Authoring Diagnostic Imaging Organisation. It is used in communications between healthcare providers and the diagnostic imaging provider. |
PCEHR Document ID | When a clinical document is made available in the PCEHR the document author is responsible for assigning a globally unique document ID (PCEHR Document ID). It is proposed that the PCEHR Document ID is assigned at the same time that the report is generated so that it can be used as the key identifier for the document across the integrated solution. |
LSPN | The unique Location Specific Practice Number (LSPN) for the Authoring Diagnostic Imaging Provider Organisation, if available. |
Reviewing Healthcare Provider Organisation | The Healthcare Identifier (HPI-O) and name of the Reviewing Healthcare Provider Organisation. |
Reviewing Healthcare Professional | The Healthcare Identifier (HPI-I) and name of the Reviewing Healthcare Professional. |
Reviewing Healthcare Professional - Local System Identifier | The Local System Identifier of the Reviewing/Authorising Healthcare Professional providing the ATP, if available. |
Authorisation instruction | Used to indicate whether the ATP is authorising a specific report to be uploaded or revoking a previously provided ATP. |
ATP message - unique ID | The unique identifier (UUID) assigned to the ATP message. |
ATP message - date and time generated | The date and time when the ATP message was sent from the Reviewing Healthcare Provider to the Diagnostic Imaging Provider. |