**20141110\_IHELab\_Committee\_Notes**

Attendees: JD Nolen, Harry Solomon, John Hopson, Ed Heierman, Francois Macary, Bill Williams, Filip Migom, Laurent Lardin, James Wulkan, Andrea Pitkus, Yoshimi Hirasawa, Hiroyoshi Okada, Nobuyuki Chiba, Riki Merrick, Mary Kennedy, Carolyn Knapik, Sabrina Krejci, Jeffrey Carp

+ Via teleconference: Dmytro Rud, Luca Giachetti, , Fabio Clerici, Riccardo Castagna, Riccardo Triunfo, Davide Pedrazzini, Lamine Traore

Welcome by George Fiedler - CAP President

Housekeeping

Introductions in the room and on the phone

Agenda Review:

For AP discussion may be add discussion on the APSR profile (CDA AP structured report) on how to represent processing of derived specimen – and harmonization with the specimen DAM

Folks from Italy who can only attend online, during mornings, like the agenda, because the LAW is in the morning ☺

Joint session AP/LAB:

John Hopson from Automation team at Abbott (*View slides: IHE LAB LDA Scope\_JohnH”*)

Lay groundwork on LDA re-design and then determine scope for next steps

Need to decide on the most useful scenarios to work on and apply the 80/20 rule

Common is container for point in space for single container.

RE-evaluate LAB-21, LAB-22 and LAB-26

For Query LAB-22 hope to reuse LAW, if possible (query plus acknowledgment as we do in LAW), where the work response is part of a different interaction. In LAW we changed to make the queries more efficient – so not to hold up next query until work response has been received, creating asynchronous work steps.

The benefit also was that the device then has to acknowledge the work received – work can be rejected for example in LAW.

LAB-21 is OML^O33 – review the message structure for appropriateness of use in automation- orders are to create 2 aliquots, decap a sample etc – not creating and observations – SWOS only.

Will have to review the vocabulary for requesting this kind of work – relying on LOINC, JLAC10 etc, but here may need new vocab!

Should check with implementers of LDA companies

LIS or AM has to let automation manager know about availability of devices – when analyzer is connected to AM, needs to let know if Analyzer is not ready for testing to change the specimen routing in automation.

Who talks to the AWOS scheduler? Analyzer often has only one line – the diagram is conceptual, not inferring actual data flow scenarios

Sample hand off vs. assay availability = which of these is affected, reconciling SWOS and AWOS needs to be worked out – is there a specialization of products

Abbott: Routing is tightly coupled with use of middleware – scheduler and Analyzer manager – but peri-analytical work is kept separated

Beckman Coulter: has analyzer manager and one device for scheduler and automation manager – separated to sell analyzer manager separately, but not the other way around.

INPECO: *(View slides: FlexLab – DMS Software Architecture\_LucaG)* – analyzer manager connects via automation manager – to do the pre-analytical work – it is also connected to the analyzer. Analyzer is also connected to the AM to receive the AWOS – sold as a single product

Both the analyzer manager and the automation manager need the same information about the AWOS

Lab TF uses LAB-4 to deliver work orders from the order filler to automation manager – so need to clarify in Lab TF – the actor can be either automation manager or analyzer manager – work order is available.

Connection between analyzer manager and automation manager is often proprietary exchange.

In diagram add order filler connection to automation manager as option.

Will keep the sample transport controller as a separate actor, because the sample hand-off is very specific information and interacting with more than one device at a time

What is the thought of the sample controller knowing the AWOS? Sample controller needs to know sample 123 needs to go to analyzer 1 (may not need to know for what test), while the SWOS tells it where the sample will be handled.

Scope:

Automation to analyzer manager SWOS

And sample hand-off and sample transport actor – leave the rest for follow up work

Left part of diagram is represented by LAW

Filip’s slides *(View Slides: 141110\_IHE\_LDA\_FilipM)*

Analyzer directly connects to LIS, which plays the roles of order filler, analyzer manager, automation manager

Request was to connect a chain set up = actor of sample transport controller– how can the LIS inform the pre- or post-processor in this set up?

Chain needs to know where the specimen has to go and if pre-processing is required. What information does it need to know that and what kind of transaction is it – SWOS or AWOS?

If no pre-processing has to be done, AWOS scheduler controls the specimen location – based on tests and knowledge of where those tests are done and which analyzer is available (AWOS scheduler then on the chain), or have only location in the exchange after AWOS Scheduler has determined the analyzer locations for all AWOS.

Use case of specimen work and preprocessing are automated, but last step to the analyzer is manual – no change – we just address the location of the specimen

Discussion about how to exchange assay availability information from analyzer / analyzer manager and sample transport controller.

Maybe rename the AWOS scheduler – not really what is done- it is really the one who knows where things have to be moved to based on availability – so may be more of a SWOS.

Connect the AWOS scheduler to the automation manger and remove the connection from automation manager to the sample transport controller and rename connection from scheduler to the sample controller to SWOS and rename AWOS scheduler to specimen scheduler

Need an actor that can take in AWOS and produce WOS from that to accomplish the pre-analytical work.

Resume discussion tomorrow 9-10 AM CT.

Have LTW that has connection between order filler to automation manager – then use LDA for lab device and LAW for analyzer – then add third actor for sample tracking / specimen scheduler connecting analyzers and devices – so deal with that last, after clean-up of SWOS and sample-hand-off transaction.

Updated slide from Ed

Luca will prepare slides for tomorrow ☺

Nobuyuki proposes to combine Automation manger – Specimen scheduler and sample transport controller into one device

Next step also to identify the work project steps based on the diagram

Physical deployment is into as relevant to decide right now – actors are what we are looking at, rather than the discussion about the physical

Assay availability may not come from the analyzer – can come from the analyzer manager after manual intervention, because the analyzer is down

Sample transport controller could also discover when an analyzer is not available

Maintenance schedules would be known in advance – that is not an AWOS, not a sample hand-off – so may need new transaction for that

Break for 15 min – back at 11:05 AM CT

LAW Topics – see Ed’s slides *(View slides: AutomationActors v2\_EdH)*

CP-223:

Separating the queries for specimen by different characteristics

To be added to draft – actually already done

CP-226:

Result fragments with related observations of a run

CP-229:

Clarifications:

For PV1-3:

Allow more Patient location (PL) components by request of Beckman Coulter

PL could give information what location the patient is at – coded from user defined table HL70305

Make PV1-3 RE and in PL support only PL.2 – IS with HL70303 – no suggested values – make usage R

So no change to existing message, but for the data type change PL.3 from RE to R

If the order is made at the analyzer, may not have patient class information – but may have the room number – analyzers currently don’t capture patient class, but HL7 transaction has that field as required, so need to support at least “U” and “N”, which can be set as default on the analyzer

Just room number may not be the correct for the undefined data element patient location

France uses PL.1 = Care unit code using HL70302 – no suggested value

Beckman Coulter needs capability to enter patient demographics at the analyzer.

Or remove Visit group from OUL^R22 – would ever be a rule be written on patient location?

Do not use “”, as that is an indicator for deleting data

The LAW profile uses PV1-2 as described in the underlying standard including the suggested values – no further constraint has been added.

Clarifications on NTE segment:

Explicitly define in LAW rather than just referring to TF

NTE.2: Vocabulary -

A = created on analyzer manager or other upstream system

Z = created on analyzer

NTE.4:

Restrict to internal remark, because the analyzer does not make decisions who should see the comments – upstream system to make that decision if to show to physician or patient

Can these values be extended? IHE restricts to three values in the TF – uses user defined HL70364

If a system automatically sends what fields are available to be filled, even, when they are not = should not be done.

Make RE – allow to add more types to be created for instructions on what to do with the comments downstream

Has other clarifications, please review and bring back any questions

Lunch ☺

Mary has list for food suggestions for dinner ☺

CP230:

Updates for coding systems – add use of handling CE and CWE data types

For example for comment types could create a 99zzz code system that would have to be published between partners to understand what is transmitted.

Split out CE into 6 rows, as the usage varies for alternate ID / text and code system

Text is always RE – to help facilitate troubleshooting and also to provide information to systems for which these code systems may be new

For SPM-11 added U for Unknown specimen to use to populate the negative query for the R field. As IHELAW code system entry.

Update length for code system to 12

Some coding systems use white space inside the code – ST allows white spaces – do we want to restrict use of white space in code? – at least discourage it.

Only use ASCI printable characters - except the standard delimiters “|^~&\”. Do you use escape characters if you have to use them? Don’t use them!

PID-10 is RE in Lab TF – was set as that to retain received information, but when clinically relevant should be sent as OBX under OBR (AOE)

PID-8 – has similar connotation, but often it is used as it is close enough in most cases.

Make no changes.

CP-231:

Error handling:

Support for enhanced Acknowledgement Mode?

IHE supports only a single acknowledgement at the application level.

Communication ACKs may still occur for CR situation – is the same as AR. So do we want to still support MSH-15? Or change the code we use there from ‘ER’ to ‘NE’?

Eventually, coming back to “original acknowledgement” in LAW. We give up the communication ack.

Functionality if not parsable? Just drop if not understandable HL7.

Riki checking with Austin: We are sitting in the IHE Lab Committee meeting and are stumped a little. We are using original mode, and we understand that when the message is unparsable, because MSH-9, 11 and 12 are not understandable in the order message we received (OML^O33).

In enhanced mode that would be CR, in original mode = AR, right?

Austin – Correct

So would the AR come in an ACK^O33^ACK or an ORL^O34^ORL\_O34?

Austin – I believe it would be the ORL^O34. The ACK is used when there is no application acknowledgement defined for a message. In this case there is one.

Would we set MSH-15 to ‘NE’ and MSH-16 to ‘AL’, is that correct?

Austin – Either that, or make them both empty (or null).

If the transaction is so badly garbled that you can’t tell what it is, then you really need to fall back onto whatever lower layer protocol you are using for communication to deal with the situation. In that case, you might not even be able to tell it was an HL7 message, let alone a particular HL7 message type. That’s when you pick up the phone and talk to someone on the other end.

For RSP: QPD and QAK segments are R in the base – how would those be populated in case of AR?

Not sure that really happens in real life – may be make QPD and QAK C(M/O) CP: When MSA-2 is not valued ‘AA’.

Keep usage for MSH-15 and MSH-16, but change value for MSH-15 to ‘NE’.

If you need to change demographics then you have to cancel the original AWOS and re-submit a new AWOS – it is important that the specimen information is unchanged. This adds risk that analyzer has to become a manager for patient information – challenge is when is it ok to update the patient demographics – don’t update unless clinically actionable – maybe the DOB, admin sex, name change – the analyzer manager must make the decision to cancel an order and re-send – disallow analyzers to reject duplicate AWOS, unless it is already in progress.

Do we need a new order control code or use ‘NW’ for this? When the result has been initiated, then reject the new AWOS request. Example: AWOS with Patient ID, DOB and name. NEW AWOS comes in with same Patient ID, different DOB and same name.

IHE Lab TF requires the actors to be grouped with PAM actors or PDQ actors, but it doesn’t mean the hospital has both systems – this goes to the level of the order filler – patient data always comes upstream of the order filler.

Break ☺

LabTF CPs:

CP 237 from Dmyro Rud for the current LDA in LAB TF, assigned to Riki

Add NTE after PID for OUL, OML and RSP messages in LDA

Roche is implementing LDA for projects that have not switched to LAW.

CP 238 from Jean-Christophe Cauvin for LTW in LAB TF, assigned to François, discussion below:

LAB-3 allows a choice between OUL^R22 and ORU^R01 – in OUL^R22 the specimen group is mandatory

LAB-3 request for ORU^R01 has the specimen group as O

The receiver must be able to treat both messages, when there is a choice of message structures

Request to make specimen group RE

In some cases there is no specimen information, when returning clinical information.

A report is not necessarily related to a single specimen – no change needed for ORU

CP for updating references to micro sections used in the LabTF when sections were moved to 2.x.

How to deal with multiple specimens for the same order?

For functional tests the specimen collection time can be used to differentiate and properly associate to the test in question.

What about creatinine clearance – have both SPM groups under the same ORC/OBR and the OBXs cannot be properly linked to the specimen they were performed on.

Meeting adjourned 4:55 PM CT