Minutes of the 1st meeting of the IHE-Pathology-Europe Working Group
September 5, 2005, Paris

1   IHE-Pathology-Europe Symposium

Chairpersons : D. Henin (Paris, France), **M.G Rojo** (Ciudad Real, Spain), **C. Daniel-Le Bozec** (Paris, France)
9:30 - 10:00
10:00 - 10:20 Introduction to IHE (Integrating the Healthcare Enterprise) initiative **K. Bourquard** (GMSIH, Paris, France)
10:20 - 10:40 Workflow and Users needs in pathology **C.Le Bozec** (Paris, France)
10:40 - 11: 00 Patient registration **J.C Cauvain** (Medasys, France)
11:00 - 11:20 Patient order entry **F. Lecertisseur** (Technidata, France)
11:20 - 11: 40 Image acquisition **J. Klossa** (Tribvn, Paris, France)
11:40 – 12:00 DICOM in pathology **D.Adelh** (Samba Technologies, France)
12:00 – 12:20 DICOM in pathology : the spanish experience **M.G Rojo** (IHE-Pathology Spain)
12:20 - 13:00 IHE Japan **I. Tofukuji**

The slides will be soon available on the ihe-europe web site (http://www.ihe-europe.org/)

2   IHE-Pathology-Europe workshop: **DICOM extensions for pathology**

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With the creation of IHE Pathology (an IHE Europe priority), IHE Pathology Groups from France, Spain and Japan agreed that DICOM extensions for pathology were needed urgently.

Charles Parisot led a first discussion about specific needs according to image type.

 For **macroscopic images**, a link between each image and the corresponding block is needed. The localization of the block has to be drawn in the macroscopic image(s) (annotation with specific coded values)

For **microscopic images**, it is important to define the acquisition context and the corresponding coded terminology: e.g light temperature, etc. This terminology is technology oriented, since the ADICAP deals only with specimen & lesions; it has been discussed to create SNOMED new terms.

There are two different types of microscopic images: still images (regions of interst (ROI)) and "virtual slides" (VS).

Vendors have slightly different ways to implement virtual slides. There is a need to extend the DICOM standard beyond the currently available Visible Light images, to include whole slide Microscope Images, which are now available from a variety of pathology imaging vendors.

It is not obvious that a new DICOM object is needed. It has been discussed whether the subset of Jpeg2000 (part 1) adopted by DICOM is the optimal method for storing, selecting and retrieving portions of these images.

Another issue is to define the organization of a study including both ROIs and VS produced by different equipments (study- series-images). Registering a reference image with localization of ROIs and using slide coordinates for co-localization of images (eventually with different magnifications) are also important points. It has been agreed that the hierarchical organization of the diagnostic path has not to be stored in the imaging file (perhaps in a structured report) since it is interpretation.

3   Points to be approached in the future

- Tissue Micro Array (one slide corresponds to several hundred of patient)
- Using presentation states for annotations management
- Using structured reports to link images and/or text to images (radio, macro, histo, etc)
- Coupling pathological images and radiological
- Compression issues
- Including image analysis in the workflow (G.Bueno)

4   Agenda

4.1   IHE-Europe working group

- Defining the working group
Coordination : C. Daniel Le Bozec & K. Bourquad
France : TECHNIDATA (F. Lecertisseur), ADICAP (D. Hénin, B. Fabiani),
Spain : M.G Rojo, AGFA ?
Japan : has to be defined
Other countries : UK, germany, italy ?

- Key dates
November 2006 : translation of the document "Users' needs and workflow in pathology"
January 2006 : Technical Framework - scheduled workflow : first draft (Vol 1 : general specifications & Vol 2 : transactions & messages)

4.2   DICOM extension for pathology WG

- Defining a working group
Users : Spain : Dr Marcial Rojo, France : ADICAP (F.Capron, C.Daniel Le Bozec)
Vendors : 3DHISTECH : V. Varga ; TRIBVN : J. Klossa ; SAMBA : D. Adelh; OLYMPUS : T. Okuno
Reanimating the histo-cytopathology and cytohematology workgroup : WG 13 (Visible light) **- the integration of Whole Slide Imaging in histo and cytopathology**

- Key dates
26 & 28 September 2005, Budapest : The DICOM 2005 International Conference and workshop (http://medical.nema.org/Dicom/DCW-2005/Announce_2005-08-08_Color.pdf). Presentation of a workitem to the Strategic committee of DICOM.