



Integrating the Healthcare Enterprise

Cadre Technique de l'Anatomie Pathologique

C.Daniel (ADICAP) – F.Macary (GMSIH)



● Googlegroup : ihe-anatomic-pathology-committee@googlegroups.com



Google Groupes

 IHE Anatomic Pathology Committee

Accueil Depuis votre dernière visite

Description : This is the mailing list for the members of the IHE Anatomic Pathology Committee

 **Discussions** 10 sur 13 messages [tout afficher »](#)

[Sondra R Renly is out of the office.](#)
De Sondra R Renly - 30 sep - 1 auteur - 0 réponse(s)

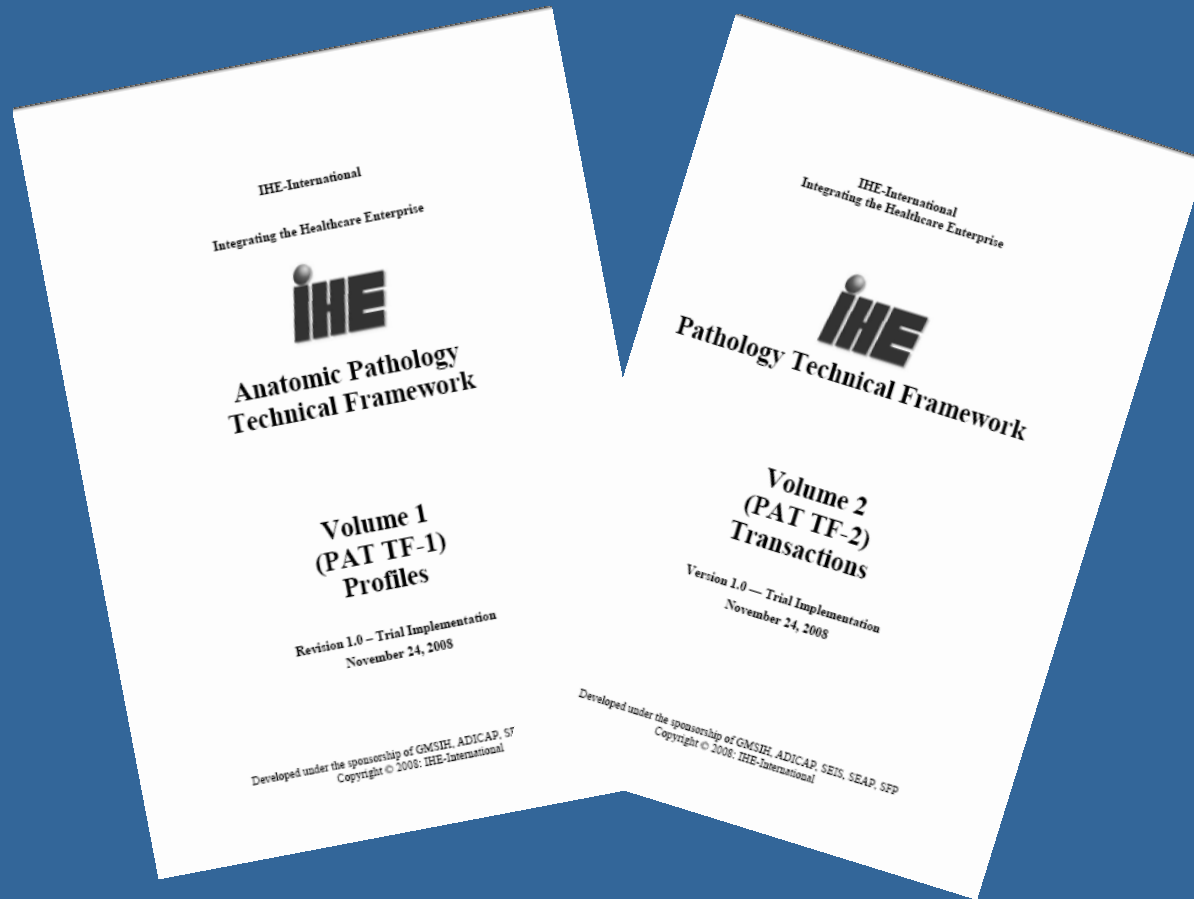
[REMINDER : Next IHE Anatomic Pathology Planning Committee meeting - Evora \(Portugal\), October 2, 2008.](#)
De Christel Daniel - 30 sep - 1 auteur - 1 réponse

[Minutes of the T-conf - IHE A.atomic Pathology Planing and Technical Committee - Tuseday, 9th September 2008](#)
De Christel Daniel - 12 sep - 1 auteur - 0 réponse(s)

[Change Proposals status](#)
De Francois Macary - 12 sep - 1 auteur - 0 réponse(s)

[3 CPs updated for the call today](#)

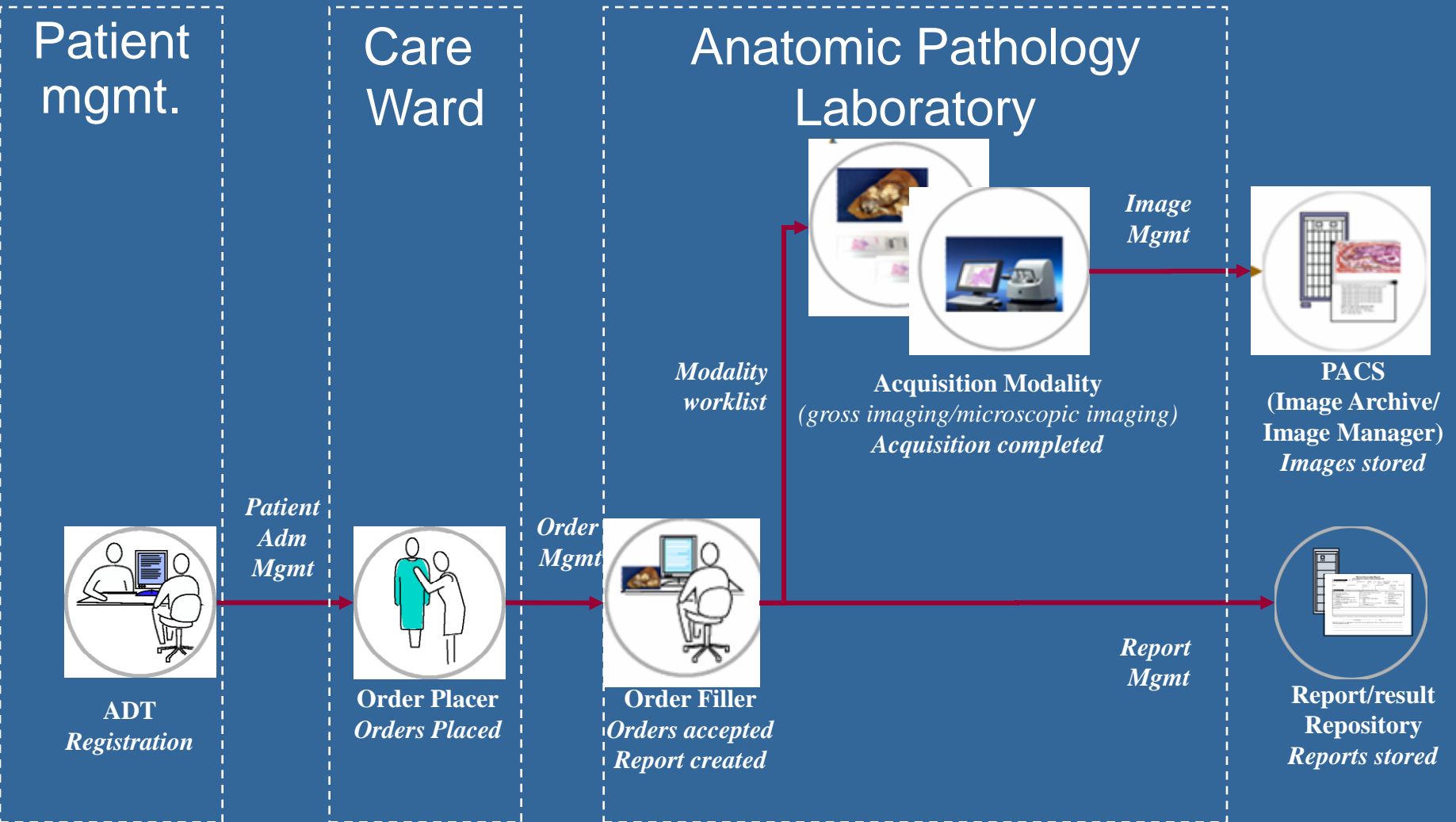
Cadre Technique



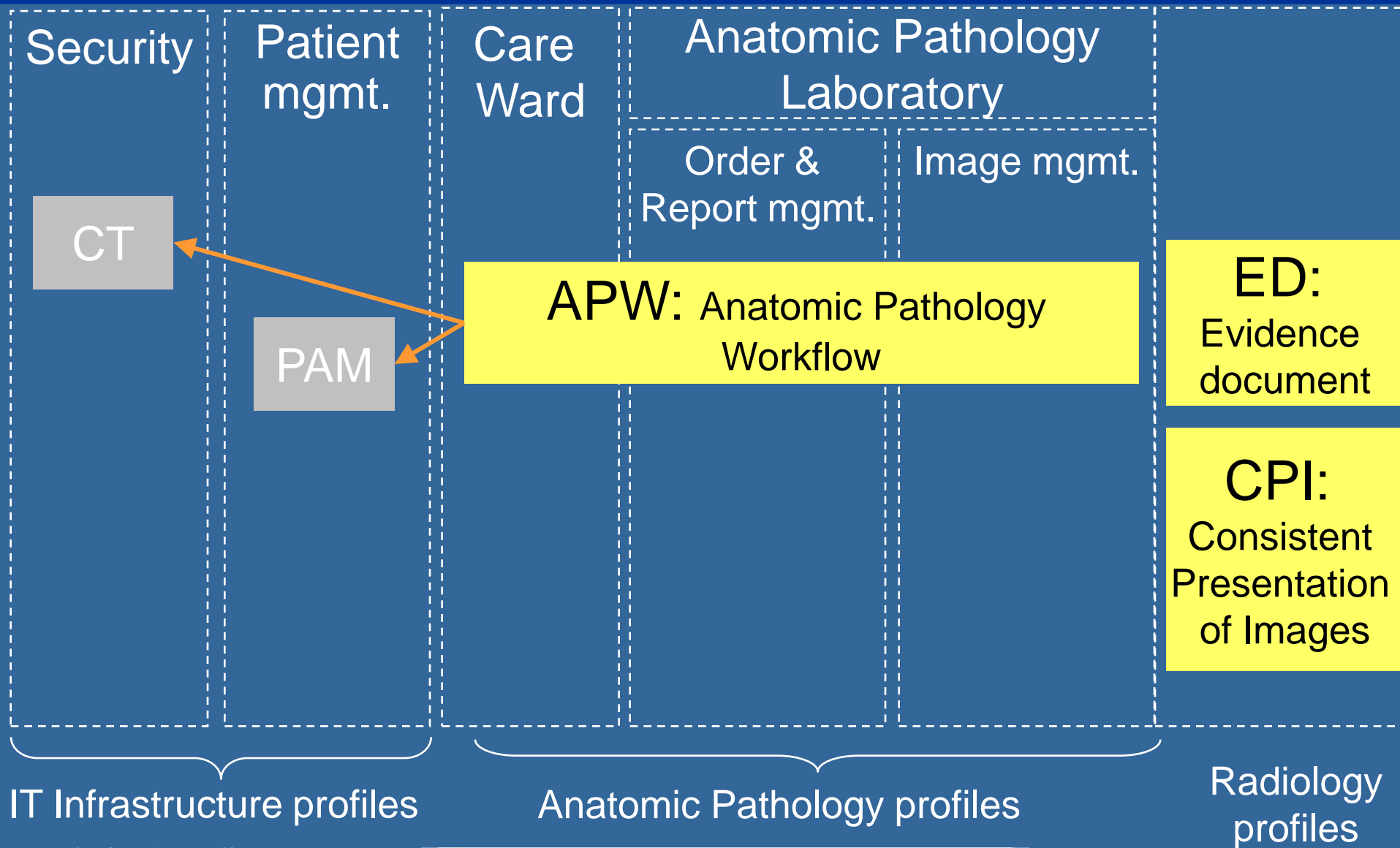
Volume 1 : 42 pages

Volume 2 : 87 pages

Anatomic Pathology Workflow (APW)



Profils d'intégration & dépendances



IHE anatomic pathology - Users

● France

- ADICAP (Association pour le Développement de l'Informatique en Cytologie et Anatomie Pathologique),
- GMSIH (Groupement pour la Modernisation du Système d'Information Hospitalier)

● Espagne

- SEIS (Spanish Society of Health Informatics)
- SEAP (Spanish Society of Pathology), SESCAM
- Servicio de Salud de Castilla-La Mancha

● Allemagne : Charité Universitätsmedizin Berlin

● Italie : Udine University

● US : CAP, CDC, NAACCR

● Japon : IHE-Japan

IHE anatomic pathology - Vendors

- Acquisition modalities: Tribvn/Aperio, Zeiss, VMScope, **Hamamatsu, Aurora**
- LIS: Technidata (Montbonnot Saint Martin, France), Infologic (Valence, France), **Satec, Isoft, Nexus, Paschmann GMBH**
- PACS Vendors: Agfa, GE (US), ETIAM (Rennes)
- EHR: Medasys (Gif/Yvette)

Acteurs et Transactions

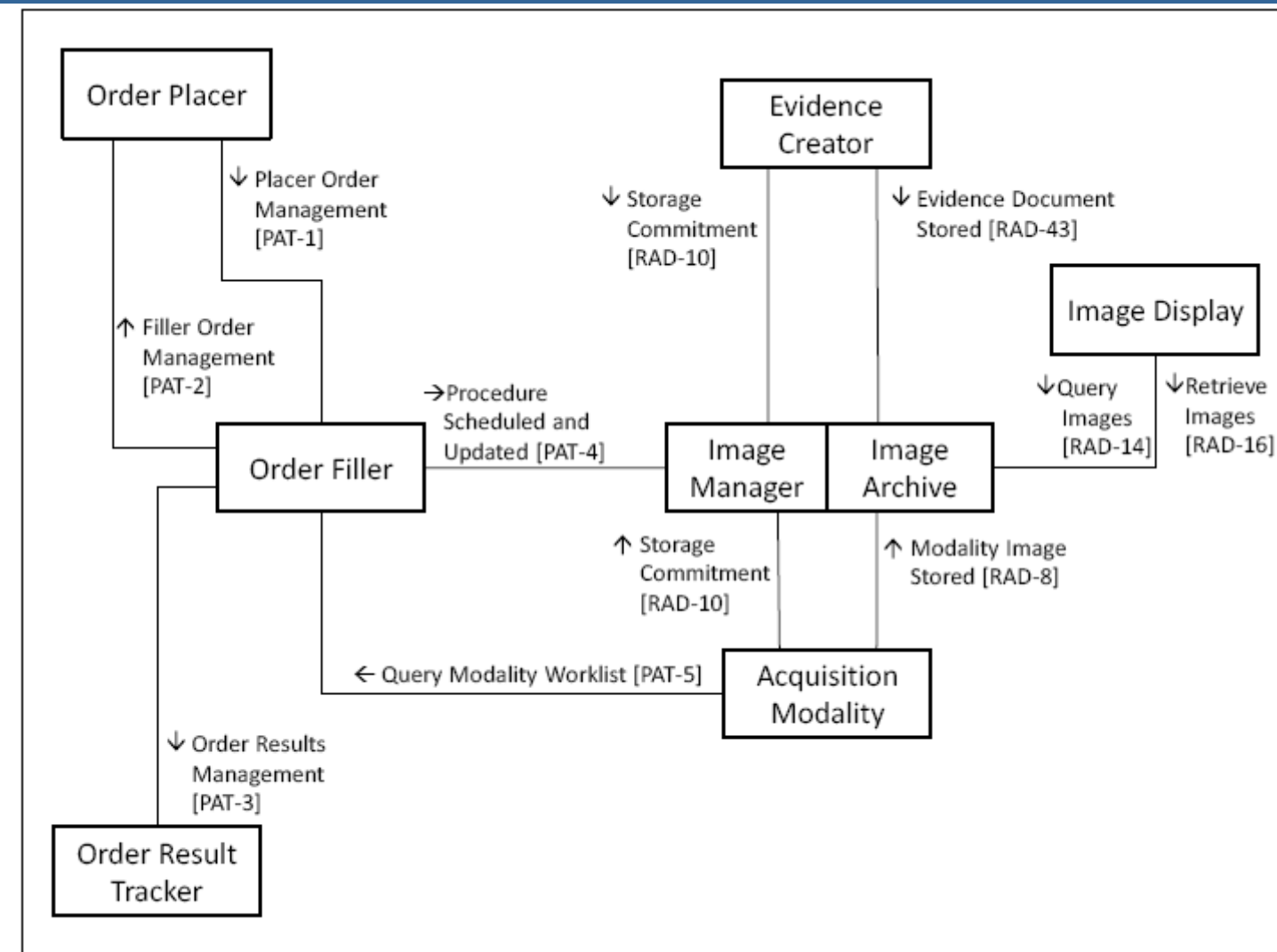


Figure 2.1-1: Anatomic Pathology Workflow (APW)

Standards

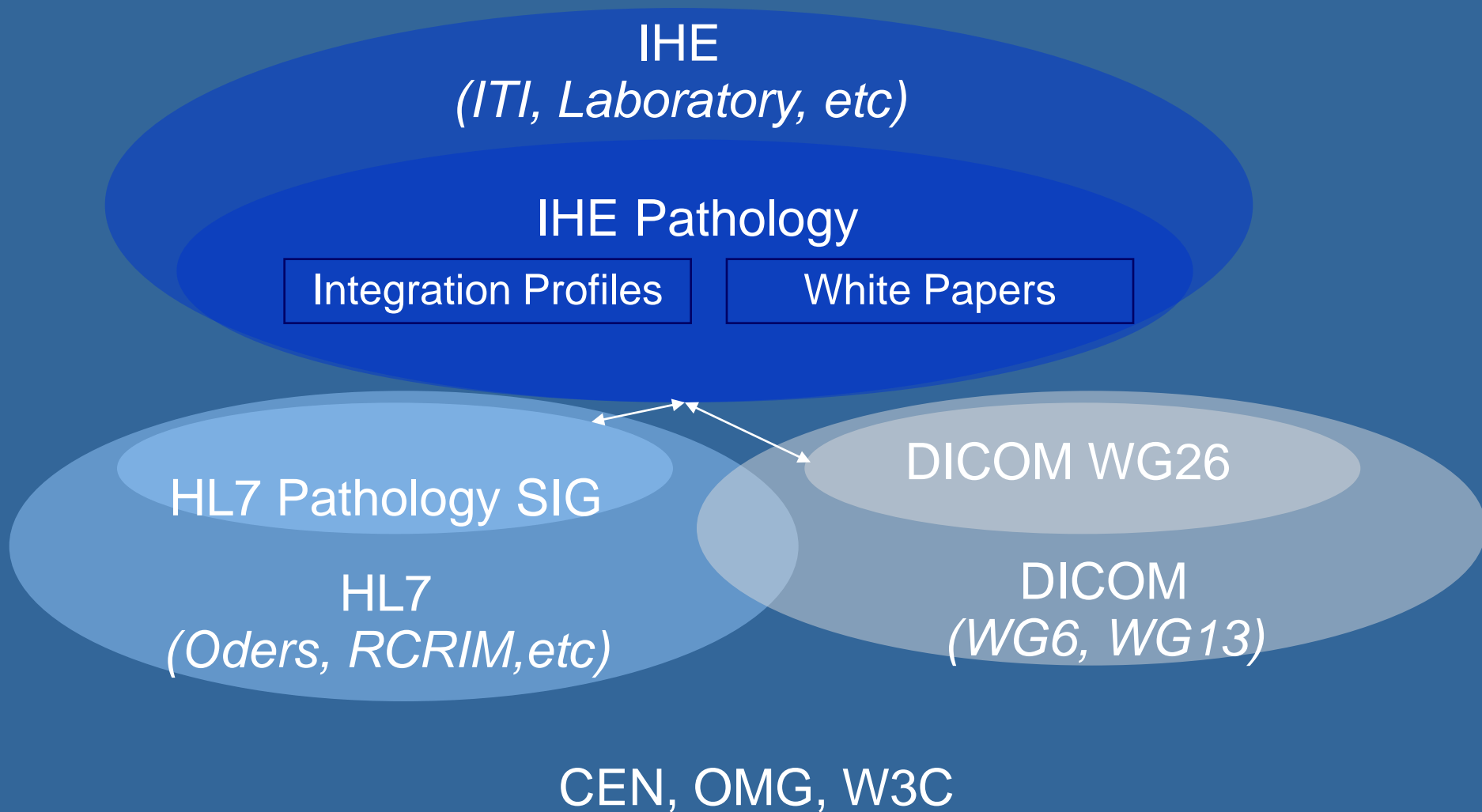
● HL7 v2.5

- OML^O21/ORL^O22 + pièces jointes (PAT-1&4)
- ORU^R01 + compte-rendu(s) joint(s) (PAT-3)

● DICOM

- DICOM 2003 PS 3.4: Modality Worklist SOP Class (PAT-5)
- DICOM 2007 PS 3.4: Storage Service Class
- DICOM 2007 PS 3.4: Storage Commitment Push Model SOP Class
- DICOM 2007 PS 3.4: Query/Retrieve Service Class
- Supplément 122 : Specimen Identification and Revised Pathology SOP Classes

Standards

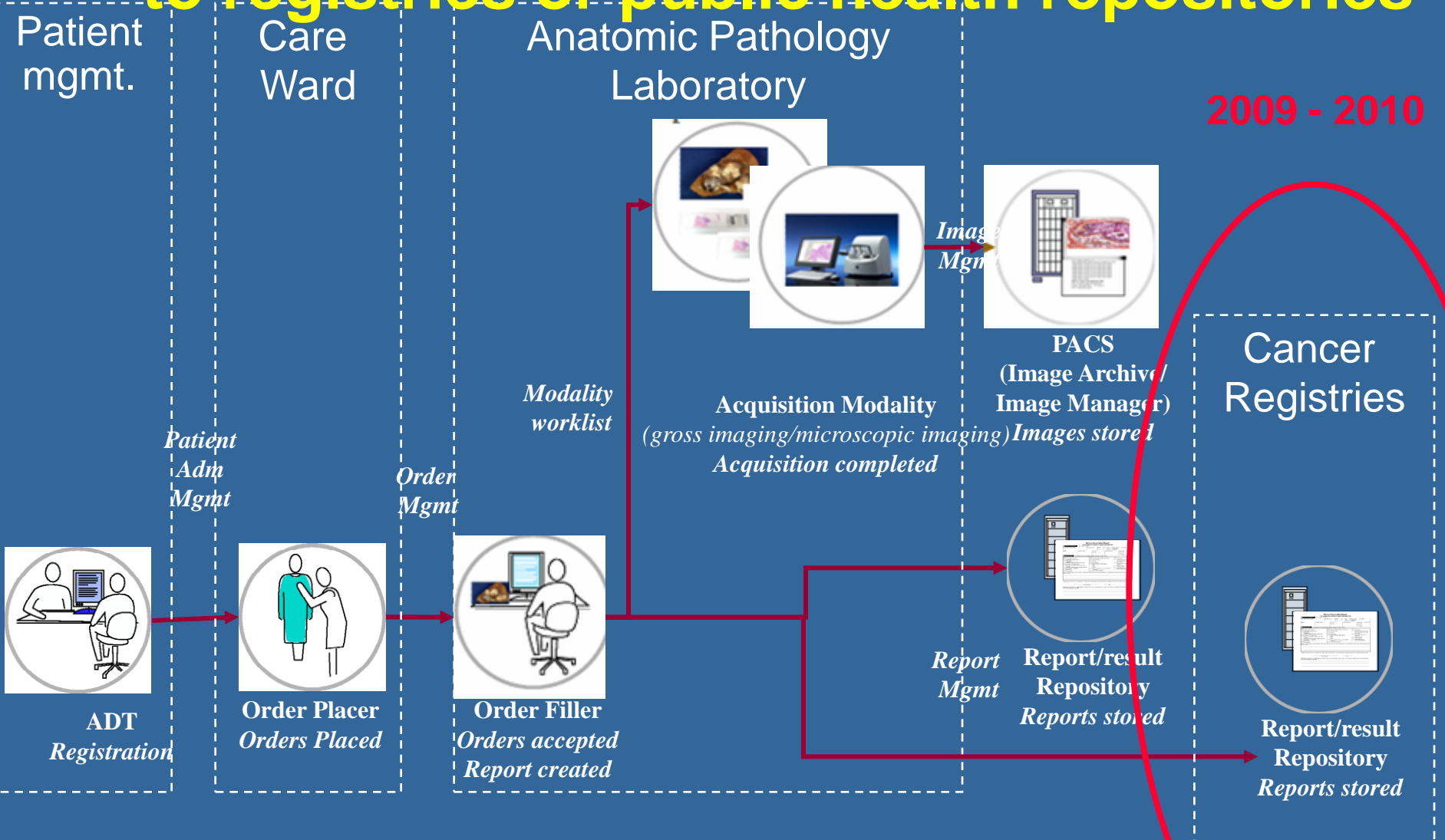


Cas d'utilisations par spécialité

- Pathologie Chirurgicale (4 cas)
- Biopsies (2 cas)
- Cytopathologie (2 cas)
- Autopsies (1 cas)
- TMA (1 cas)
- 1 prélèvement par container
- Plusieurs prélèvements par container
- 2 procédures d'analyse par demande
- Création d'une demande au laboratoire

Reporting Anatomic pathology to registries or public health repositories

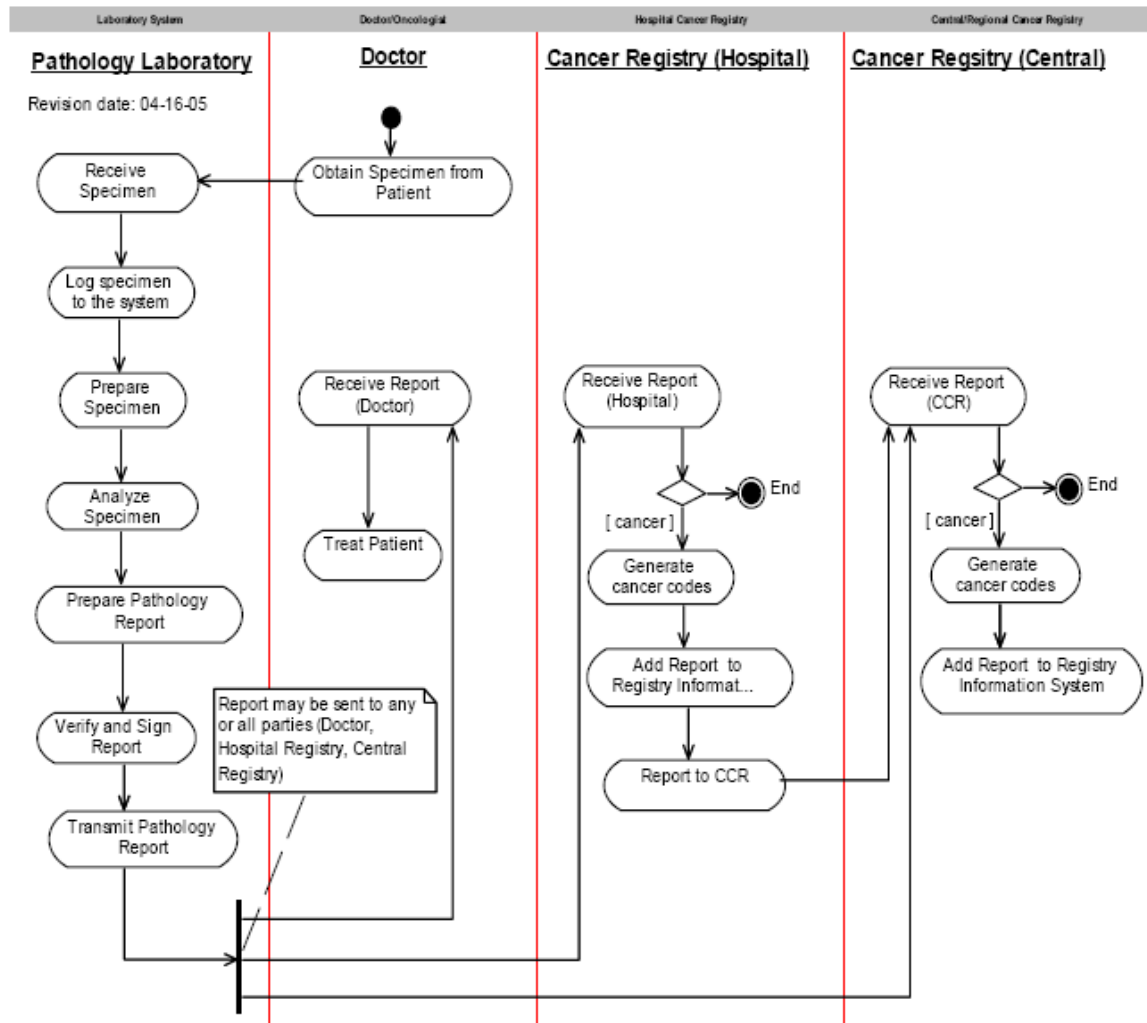
2009 - 2010



Reporting Anatomic pathology

to registries or public health repositories

- **Editors: W.Scharber, C.Daniel**
- **Objective: Cancer Registries are data systems that collect data on the occurrence of cancer (type, extent, and location of the cancer, type of initial treatment).**
 - North American Association of Central Cancer Registries (NAACCR) Electronic Pathology (E-Path) Reporting Guidelines, Dec 2006.
- **Standards & Systems**
 - NAACCR Standards for Cancer Registries Volume V: Pathology Electronic Reporting; Version 2.1



Pathology Reporting Process Overview (cancer registration perspective)

Revision Date: 08-23-06



White paper : Anatomic Pathology Structured Reports

- **Editor: T.Schrader, C.Daniel**

- **Objective**

- Collect, analyze and summarize different initiatives of standard structured architecture for anatomic pathology reports
 - (CEN TC 251 WI 130.1.1:2003, CAP Cancer Protocoles and checklists (US), INCa (France), Royal College (UK), etc))
- Discuss the technical solution to store and share structured reports in anatomic pathology

- **Standards & Systems**

- XDS - CDA cf LAB domain
- HL7 v3 : Domaines Laboratory, Specimen, Observation

White paper : Anatomic Pathology Structured Reports

- **Medical consensus is not easy to achieve at regional/national/international level about important features that should be reported as well as the vocabulary and/or code system to use.**
- **Standard information models (templates) are not available.**
- **"International" code systems are mainly available in English and their content coverage with regards to the content of anatomic pathology reports has not been formally evaluated**
- **Structured reports may be built from different sources (APIS, post processing station ("evidence" creation), etc).**
- **Link each observation or finding to the image(s) or region of interest of image(s) acquired from the specimen source.**
- **Structured reports may be designed for multiple uses : patient care but also "secondary use" (clinical research, cancer registries, cancer multi(disciplinary meetings, etc).**

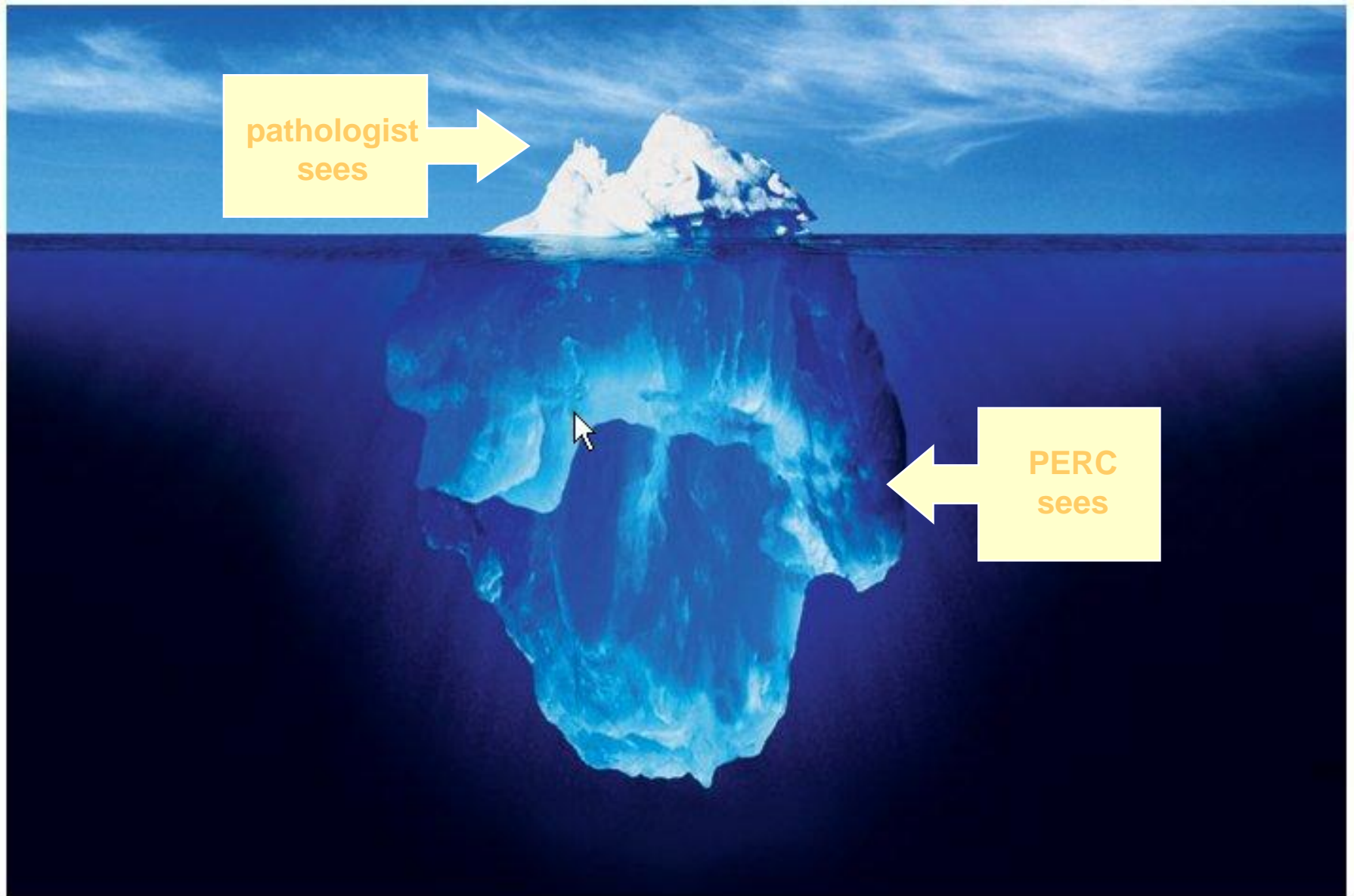
Sharing Value Sets in Anatomic Pathology

- **Editors: V.Della Mea, C.Daniel**
- **Objective: to propose a technical solution to define, manage, maintain and share the value sets corresponding to these coded items.**
 - Defining and sharing value sets or the transactions defined in the IHE Anatomic Pathology TF and/or the e-Path (NAACCR) especially the value sets related to specimen identification and description and to specific anatomic pathology observation and/or diagnostic codes.
- **Standards & Systems**
 - IHE integration profile : "Sharing Value Set".
 - Information models and value sets (HL7 Tables, HL7 v3 models & vocabulary, DICOM model & data dictionary)
 - Code systems (SNOMED CT, LOINC, CPT, ADICAP)
 - Terminology services : Sharing Value Sets , HSSP - CTS2 : The OMG is defining an implementation guide for terminology services based on the specification of Common Terminology Services 2

Pathology Electronic Reporting Committee (PERC)

- **Committee of College of American Pathologists (CAP)**
 - Reports to SNOMED IHTSDO
- **PERC**
 - SNOMED Surgical Pathology Working Group
 - Reviewed and updated the SNOMED Anatomic Pathology subset (took over a year)
 - Work with the CAP Cancer Committee on SNOMED CT-encoding cancer checklists

The PERC Iceberg



PERC Goals (1)

- **To advance the computerized representation of the CAP checklists**
 - Create **FRAMEWORK** for
 - electronic forms (standardized input)
 - data repositories (retrievable output)
 - Ensure electronic versions accurately represent the CAP Cancer Committee's intended meaning
 - Allows for historical representation
 - Is amply designed for addition of medical specialties, coding, and/or staging systems

CAP Cancer Checklists

- Step toward a more structured reporting process
- Establishes consistent collection of information
- Eases or eliminates manual coding if already SNOMED CT encoded
- Improve quality
- Educational tool & guide for infrequent tasks
- Assists Cancer Registrars
- American College of Surgeons Commission on Cancer (CoC) reporting requirements

Examples of checklists



Colon/Rectum Cancer Resection DRAFT Worksheet (adapted from July 2008 CAP Colon Cancer Protocol)

SPECIMEN

Note: Check boxes represent "Check all that apply;" Radio buttons represent "Check one."

Site	Tissue Submitted	Tumor Present	Procedure
Terminal ileum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Right hemicolectomy
Cecum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Transverse colectomy
Appendix	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Left hemicolectomy
Ascending	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Sigmoidectomy
Hepatic flexure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Rectal/rectosigmoid colon
Transverse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Total abdominal colectomy
Splenic flexure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Abdominoperineal resection
Descending	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Transanal disk excision (local)
Sigmoid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Not specified
Rectosigmoid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:
Rectum	<input type="checkbox"/>	<input type="checkbox"/>	
Anus	<input type="checkbox"/>	<input type="checkbox"/>	
Not specified	<input type="checkbox"/>	<input type="checkbox"/>	
Other:			
Cannot be determined:			



Examples also available in:

- InfoPath
- Orbeon
- XAML

CHARACTERISTICS OF PRIMARY TUMOR

<p>Tumor Size</p> <p>Greatest dimension: ____cm</p> <p><input type="checkbox"/> Cannot be determined</p>	<p>Histologic Type</p> <p><input type="radio"/> Adenocarcinoma</p> <p><input type="radio"/> Mucinous adenocarcinoma</p> <p><input type="radio"/> Signet ring carcinoma</p> <p><input type="radio"/> Small cell carcinoma</p> <p><input type="radio"/> Squamous cell carcinoma</p> <p><input type="radio"/> Adenosquamous carcinoma</p> <p><input type="radio"/> Medullary carcinoma</p> <p><input type="radio"/> Undifferentiated carcinoma</p> <p><input type="radio"/> Carcinoma, type cannot be determined</p> <p><input type="radio"/> Other:</p>
<p>Macroscopic Tumor Perforation</p> <p><input type="radio"/> Present</p> <p><input type="radio"/> Absent</p> <p><input type="radio"/> Cannot be determined:</p>	<p>Histologic Grade</p> <p><input type="radio"/> Not applicable</p> <p><input type="radio"/> Cannot be assessed</p> <p><input type="radio"/> Low-grade (well differentiated to moderately differentiated)</p> <p><input type="radio"/> High-grade (poorly differentiated to undifferentiated)</p> <p><input type="radio"/> Other (specify)</p>

TUMOR EXTENSION

<p><input type="radio"/> Cannot be assessed</p> <p><input type="radio"/> No evidence of primary tumor</p> <p><input type="radio"/> Intramucosal carcinoma, invasion of lamina propria</p> <p><input type="radio"/> Tumor invades submucosa</p> <p><input type="radio"/> Tumor directly invades adjacent structures</p> <p>Specify:</p>	<p><input type="radio"/> Tumor invades muscularis propria</p> <p><input type="radio"/> Tumor invades through the muscularis propria into the subserosal adipose tissue or the nonperitonealized pericolic or perirectal soft tissues but does not extend to the serosal surface</p> <p><input type="radio"/> Tumor microscopically involves the serosal surface (visceral peritoneum)</p>
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Cancer Checklist Roadmap

● Current versions

- 60+ based on AJCC 6th edition
- Most SNOMED CT encoded
- Distributed in Word, pdf and Access
- Will be distributed in XML in January 2009

● Future versions – July 2009

- 70+ new or revised to include AJCC 7th edition
- SNOMED CT (partially initially, fully later)
- Distributed in Word, pdf and XML
- Only XML will have SNOMED CT codes

Template Editor

- **Software application and database for creating and distributing computerized checklists**
- **Written specifically for PERC work**
- **Enables automated data capture**
- **Provides mapping to other standards including SNOMED-CT, cancer registry standards (NAACCR)**

Template: >Breast CS2 DRAFT: Specimen Less Than Total Mastectomy (Left) (Includes Wire-Guided Localization Excisions); Total

Template: >Breast CS2 DRAFT: Specimen Less Than Total Mastectomy (Right) (Includes Wire-Guided Localization Excisions); Total

ReNumber (Left Panel) Show All (Left Panel) Checklist Template Versions

Toggle Right Panel Grid Sync Right Panel

MACROSCOPIC {Macroscopic specimen observable (observable entity)}

- SPECIMEN TYPE {Specimen type (observable entity)}**
 - Excision {Specimen from breast obtained by complete excision of lesion (specimen)}
 - Mastectomy {Mastectomy sample (specimen)}
 - Other harvesting procedure (specify) {}
 - Not specified {Tissue specimen from breast (specimen)}
- LYMPH NODE SAMPLING {Type of lymph node submitted (observable entity)}**
 - No lymph node sampling {No lymph node submitted (finding)}
 - Sentinel lymph node(s) only {Lymph node from sentinel lymph node dissection (specimen)}
 - Sentinel lymph node with axillary dissection {Lymph node from sentinel lymph node dissection (specimen)}
 - Axillary dissection {Lymph node from axillary dissection (specimen)}
- SPECIMEN SIZE (for excisions less than total mastectomy) {Specimen size (observable entity)}**
 - Note: The size of the tumor, as measured by gross examination, must be determined (see Comment) {Specimen size cannot be determined (see Comment) (finding)}
 - Greatest dimension (cm) {Specimen size, largest dimension (specimen)}
 - Specimen Dimension (cm) {Specimen size, additional dimension (specimen)}
 - Specimen Dimension (cm) {Specimen size, additional dimension (specimen)}
- LATERALITY {Specimen laterality (observable entity)}**
 - Right {Right breast structure (body structure)}
 - Left {Left breast structure (body structure)}
 - Not specified {Specimen laterality not specified (finding)}
- TUMOR SITE (check all that apply) {Tumor site (observable entity)}**
 - Upper outer quadrant {Structure of upper outer quadrant of breast (body structure)}
 - Lower outer quadrant {Structure of lower outer quadrant of breast (body structure)}
 - Upper inner quadrant {Structure of upper inner quadrant of breast (body structure)}
 - Lower inner quadrant {Structure of lower inner quadrant of breast (body structure)}

Upper outer quadrant

Upper outer quadrant

Structure of upper outer quadrant of breast (body structure)

NAACCR_ItemNum: 400

NAACCR_ItemName: Primary Site

NAACCR_DisplayName: Primary Site

NAACCR_AnswerValue: C504

NAACCR_AnswerKey:

NAACCR_AnswerText: Upper-outer quadrant of breast

NAACCR_TempKey: 57919.1000043

Item Key	Item Type	VisText	FSN
57905.1000043	A Answer	Sentinel lymph node(s) only	Lymph node from
57906.1000043	A Answer	Sentinel lymph node with axillary dissection	Lymph node from
57907.1000043	A Answer	Axillary dissection	Lymph node from
57908.1000043	QQ Question - Mult	SPECIMEN SIZE (for excisions less than total mastectomy)	Specimen size (cm)
57909.1000043	Note	Note: The size of the tumor, as measured by gross examination, must be determined (see Comment)	Specimen size cannot be determined (see Comment)
57910.1000043	A Answer	Specimen size cannot be determined (see Comment)	Specimen size cannot be determined (see Comment)
57911.1000043	QQ Question - Fill-in	Greatest dimension (cm)	Specimen size, largest dimension
57912.1000043	QQ Question - Fill-in	Specimen Dimension (cm)	Specimen size, additional dimension
57913.1000043	QQ Question - Fill-in	Specimen Dimension (cm)	Specimen size, additional dimension
57914.1000043	Q Question - Single-Select	LATERALITY	Specimen laterality
57915.1000043	A Answer	Right	Right breast structure
57916.1000043	A Answer	Left	Left breast structure
57917.1000043	A Answer	Not specified	Specimen laterality not specified
57918.1000043	QQ Question - Mult	TUMOR SITE (check all that apply)	Tumor site (observable entity)
57919.1000043	A Answer	Upper outer quadrant	Structure of upper outer quadrant of breast

Comment Text	Date	Author	Comment Type
*	6/5/2008 8:26:35 AM		

France – INCA - CRFS

Compte rendu-fiche standardisé en pathologie cancérologique : Pièces de résection pancréatique pour cancer du pancréas exocrine¹

Nom :	Prénom :
Nom de jeune fille :	Né(e) le : _ _ / _ _ / _ _ _ _
Code postal domicile : _ _ _ _ _	Code postal commune de naissance : _ _ _ _ _

Nom établissement de prélèvement :	Chirurgien :
Structure/Service/Laboratoire d'ACP:	Pathologiste:
Date d'intervention: _ _ / _ _ / _ _ _ _	Date du compte rendu : _ _ / _ _ / _ _ _ _
N° de dossier : _ _ _ _ _ _ _ _ _ _	N° d'examen : _ _ _ _ _ _ _ _ _ _

Renseignements cliniques

(À remplir par le chirurgien/clinicien et à transmettre, complétés avec la pièce)

Topographie de la tumeur

- | | |
|---|--|
| <input type="checkbox"/> Tête sans précision possible | <input type="checkbox"/> Tête hors crochet |
| <input type="checkbox"/> Crochet ² | <input type="checkbox"/> Isthme ⁴ |
| <input type="checkbox"/> Corps ³ | <input type="checkbox"/> Queue ⁵ |

Multifocalité oui non

Commentaires pour la topographie de la tumeur :

.....
.....

TNM pré-thérapeutique : Tx T1 T2 T3 T4

Questions ?



IHE Changing the Way Healthcare **CONNECTS**

WWW.IHE.NET