

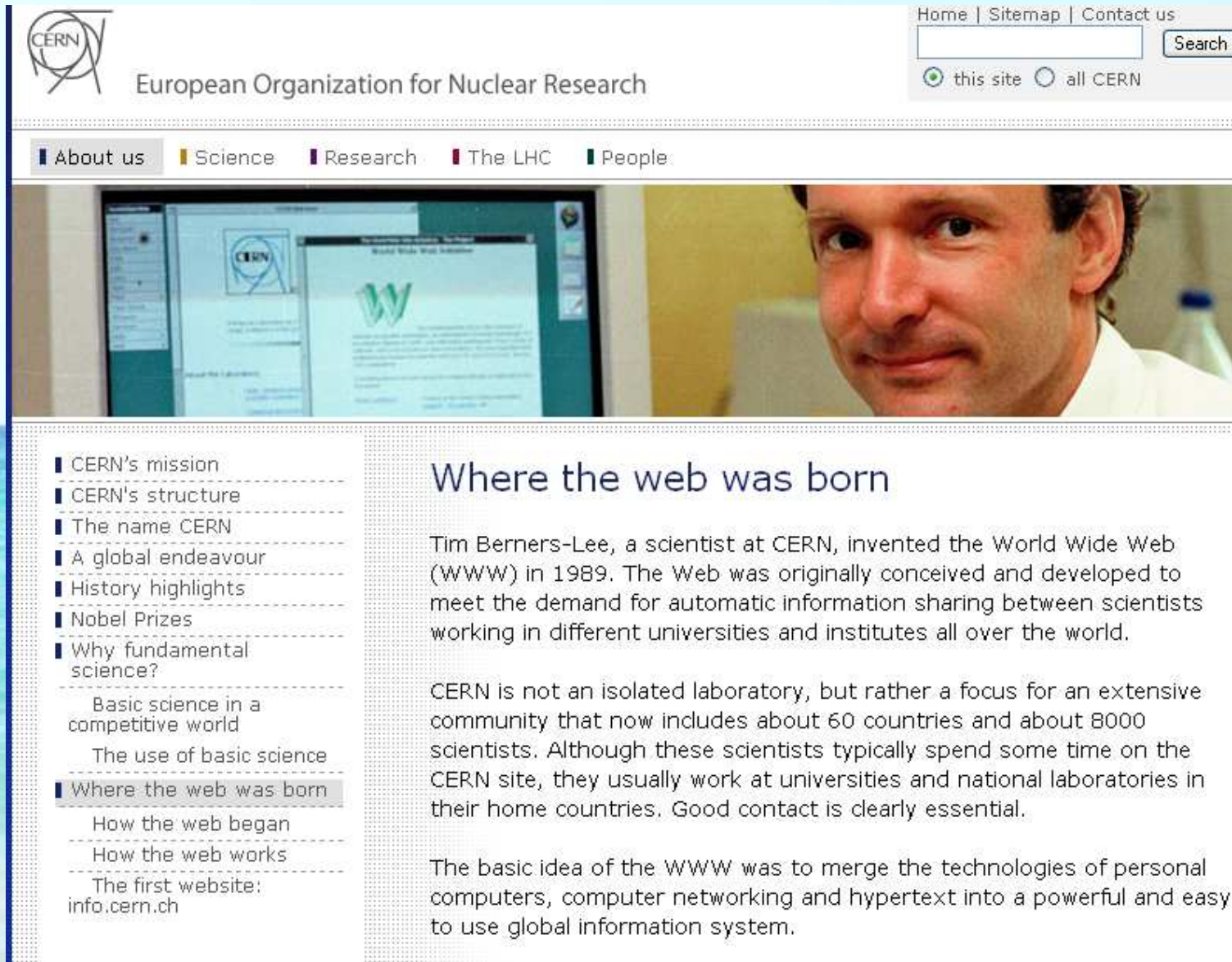
2° international workshop on interim PET in lymphoma

Menton, April 8, 2010

The GITIL network

S. Chauvie, P Cerello, A Stancu, A Biggi, A Gallamini

WEB imaging exchange



The image is a screenshot of the CERN website. At the top left is the CERN logo and the text 'European Organization for Nuclear Research'. At the top right are links for 'Home', 'Sitemap', and 'Contact us', along with a search bar and radio buttons for 'this site' and 'all CERN'. Below the header is a navigation menu with 'About us', 'Science', 'Research', 'The LHC', and 'People'. The main content area features a photograph of Tim Berners-Lee looking at a computer monitor displaying the CERN website. Below the photo is a table of contents with the following items: 'CERN's mission', 'CERN's structure', 'The name CERN', 'A global endeavour', 'History highlights', 'Nobel Prizes', 'Why fundamental science?' (with sub-items 'Basic science in a competitive world' and 'The use of basic science'), 'Where the web was born' (with sub-items 'How the web began', 'How the web works', and 'The first website: info.cern.ch'), and 'Where the web was born' (with sub-item 'The basic idea of the WWW').

Home | Sitemap | Contact us

Search

this site all CERN

■ About us ■ Science ■ Research ■ The LHC ■ People

■ CERN's mission

■ CERN's structure

■ The name CERN

■ A global endeavour

■ History highlights

■ Nobel Prizes

■ Why fundamental science?

Basic science in a competitive world

The use of basic science

■ Where the web was born

How the web began

How the web works

The first website: info.cern.ch

Where the web was born

Tim Berners-Lee, a scientist at CERN, invented the World Wide Web (WWW) in 1989. The Web was originally conceived and developed to meet the demand for automatic information sharing between scientists working in different universities and institutes all over the world.

CERN is not an isolated laboratory, but rather a focus for an extensive community that now includes about 60 countries and about 8000 scientists. Although these scientists typically spend some time on the CERN site, they usually work at universities and national laboratories in their home countries. Good contact is clearly essential.

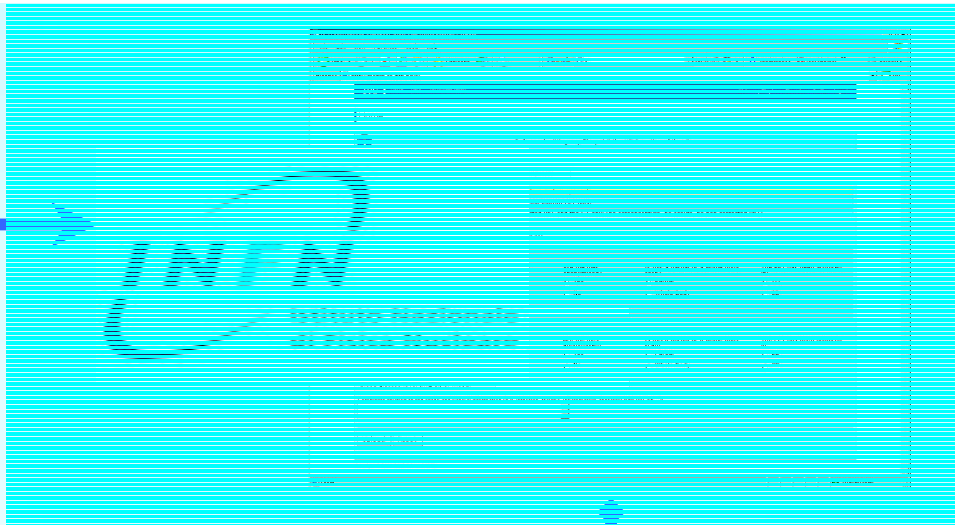
The basic idea of the WWW was to merge the technologies of personal computers, computer networking and hypertext into a powerful and easy to use global information system.

WEB based toolkit

- 1) *To be user friendly: as an internet page*
- 2) *To permit **fast** image exchange: some minutes through the net*
- 3) *To assure security of patients' data: anonymisation*
- 4) *To be cheap/free: freeware SW, no HW needed*
- 5) *To bypass "hospital network": use internet*



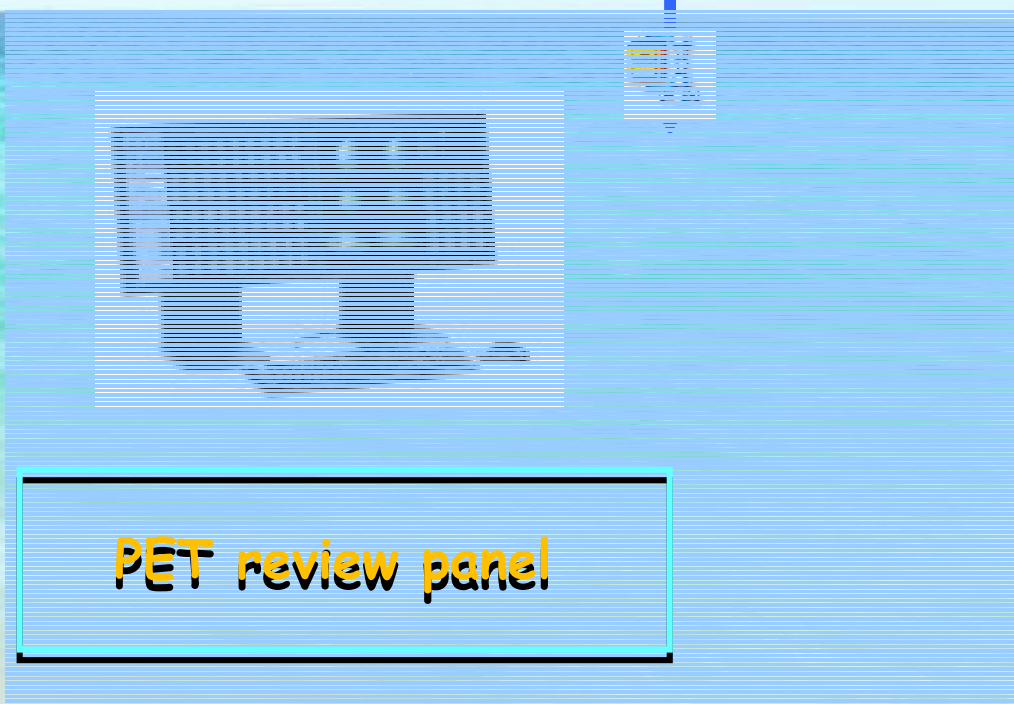
Local centre



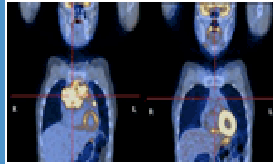
Logistic of image exchange



**Everything
within 3
days**



PET review panel



GITIL

Gruppo Italiano Terapie Innovative nei Linfomi

Local centre log into site

Login

Email:

Password:

Login

[[Forgot password](#)]

INFO

You need to login in order to access the site's resources.

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Case ID	Type	Downloaded on	Valid until	Download	Your result
_missing	--	17/09/2008	01/01/1970	--	--
_missing	--	14/08/2008	01/01/1970	--	--
_missing	Baseline	06/06/2008	01/01/1970	--	--
_missing	--	05/06/2008	01/01/1970	--	--
_missing	Baseline	06/02/2009	01/01/1970	downloaded	no

[[Change your password](#)]

Upload exams

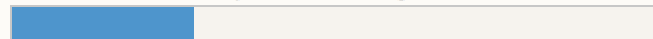
If you have difficulties visualizing the images on your computer, you can use the following programs: [DicomWorks](#) or [MIPAV](#)

Submitted cases:

You haven't submitted any cases yet.

Upload new case files

Upload In Progress



Percent Complete:	28%
Files Uploaded:	0 of 1
Current Position:	356 / 1287 KBytes
Elapsed Time:	00:00:03
Est Time Left:	00:00:10
Est Speed:	89 KB/s.

All fields are required!

The Case ID should contain only alphanumeric characters and no spaces!

Type:

- Test (Fake)
 Baseline

[How to insert the diagnostic](#)
[How to change your password](#)

RESOURCES

- [Accreditamento tomografo PET-TAC](#)
- [Criteri generali per partecipare allo studio multi-centrico](#)
- [Esecuzione esame PET-TAC](#)
- [iPET interpretation criteria - biggi](#)
- [Modulo accreditamento tomografo PET-TAC Mod. A](#)
- [newsHD0607-Firenze 21 Marzo 2009](#)

ADMIN

To access the administrator resources, [click here](#).



reviewers receive
e-mail and SMS with links

Outlook Express interface showing an email message.

Received	From	Subject
24/01/2008 9.34	cerello@to.infn.it	Re: site linfomi
24/01/2008 9.06	Cyrril Burger (PMOD)	Re: Dr. Kaufmann :-)
24/01/2008 8.37	valentina d'Alesio	R: consiglio appassionato
24/01/2008 8.29	Alex Stancu	Re: site linfomi
23/01/2008 22.42	Cyrril Burger (PMOD)	Dr. Kaufmann :-)
23/01/2008 22.02	Alex Stancu	site linfomi
23/01/2008 17.50	elspc@elsevier.com	Elsevier Health Science Periodicals - January 23, 2008
23/01/2008 16.53	Roberto Cirio	Seminario della Scuola di Specializzazione in Fisica Sanitaria
23/01/2008 15.47	Emiliano Spezi	The UK forum for users of Monte Carlo Neutron, Electron and Gamma r...
23/01/2008 14.47	Roberto Cirio	

From: Alex Stancu **To:** chauvie Stephane **Cc:** Piergiorgio Cerello
Subject: Re: site linfomi

ok, since you are not receiving any mails, in order to test the download process, here are some links:

- <http://magic5.to.infn.it/site/linfo/accept.php?fid=beb4965cb9a0e5647f1041db075b512c>
- <http://magic5.to.infn.it/site/linfo/accept.php?fid=01da56ef74e8378c174cb1404cea44df>
- <http://magic5.to.infn.it/site/linfo/accept.php?fid=4249c0cf9a310ad591c985d2ef81b3b2>
- <http://magic5.to.infn.it/site/linfo/accept.php?fid=50347b308d2654f2b563f32ac1fcc374>
- <http://magic5.to.infn.it/site/linfo/accept.php?fid=09561d1080378b3c8f68f21239b499dc>

the files below are the ones that you have uploaded. since you are the up-loader, you are not allowed to download them. however, you can download the files above.

- <http://magic5.to.infn.it/site/linfo/accept.php?fid=87aa43f5df51c82ffdf650ef0461bb46>
- <http://magic5.to.infn.it/site/linfo/accept.php?fid=e148534ba7b2ca130adc5039bba91a86>

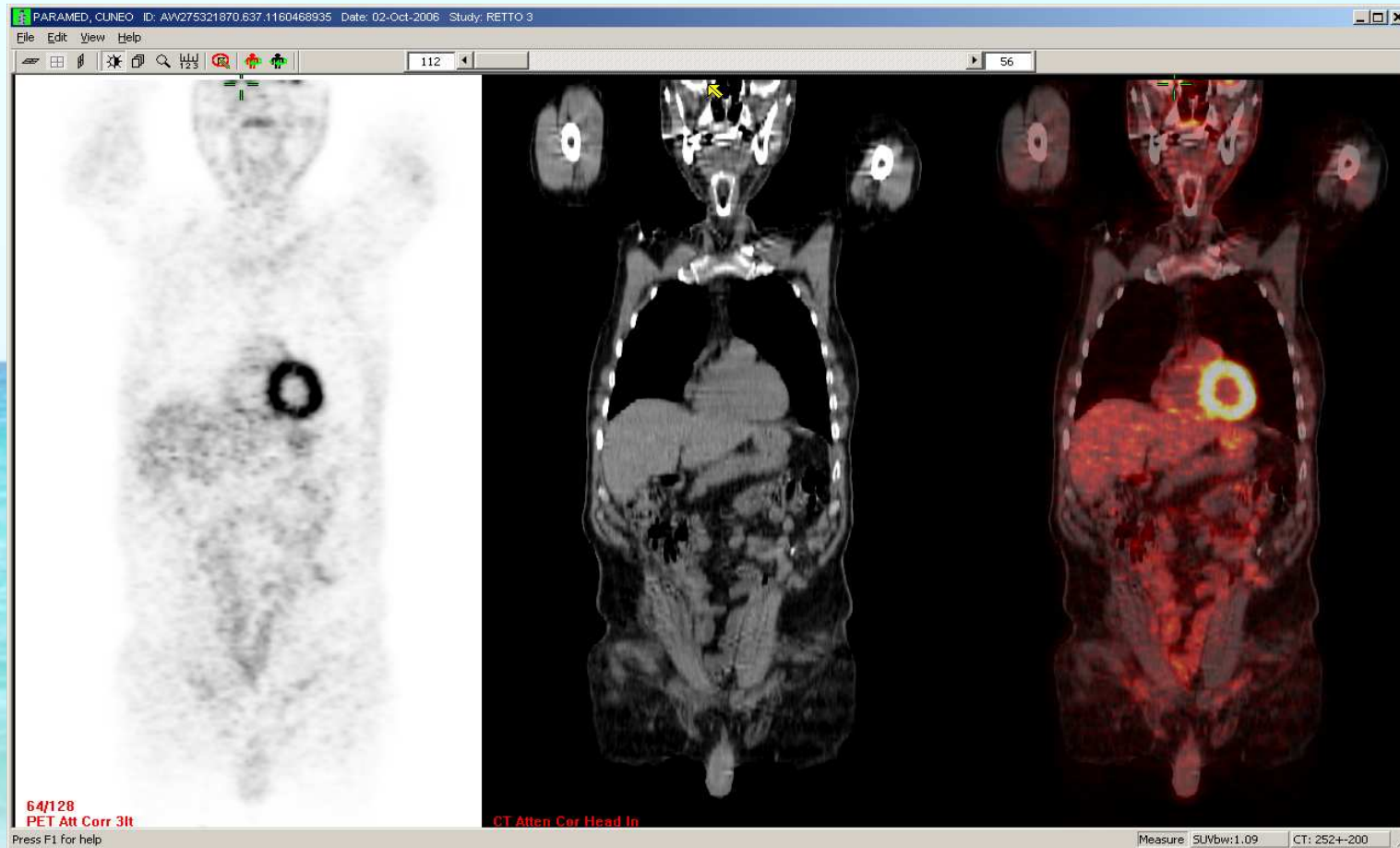
for testing purposes you can use also the user test@test.com with the password **test**

On Jan 24, 2008 8:52 AM, chauvie Stephane <chauvie@ceanpds.cea.fr> wrote:

67 message(s), 8 unread

Working Online

PET reviewers use their own SW to evaluate images



Or use: http://bidmc.harvard.edu/content/bidmc/Departments/Radiology/nm_download.asp

Insert results

The case *22121212* is:

- Negative
- Positive

LOGIN

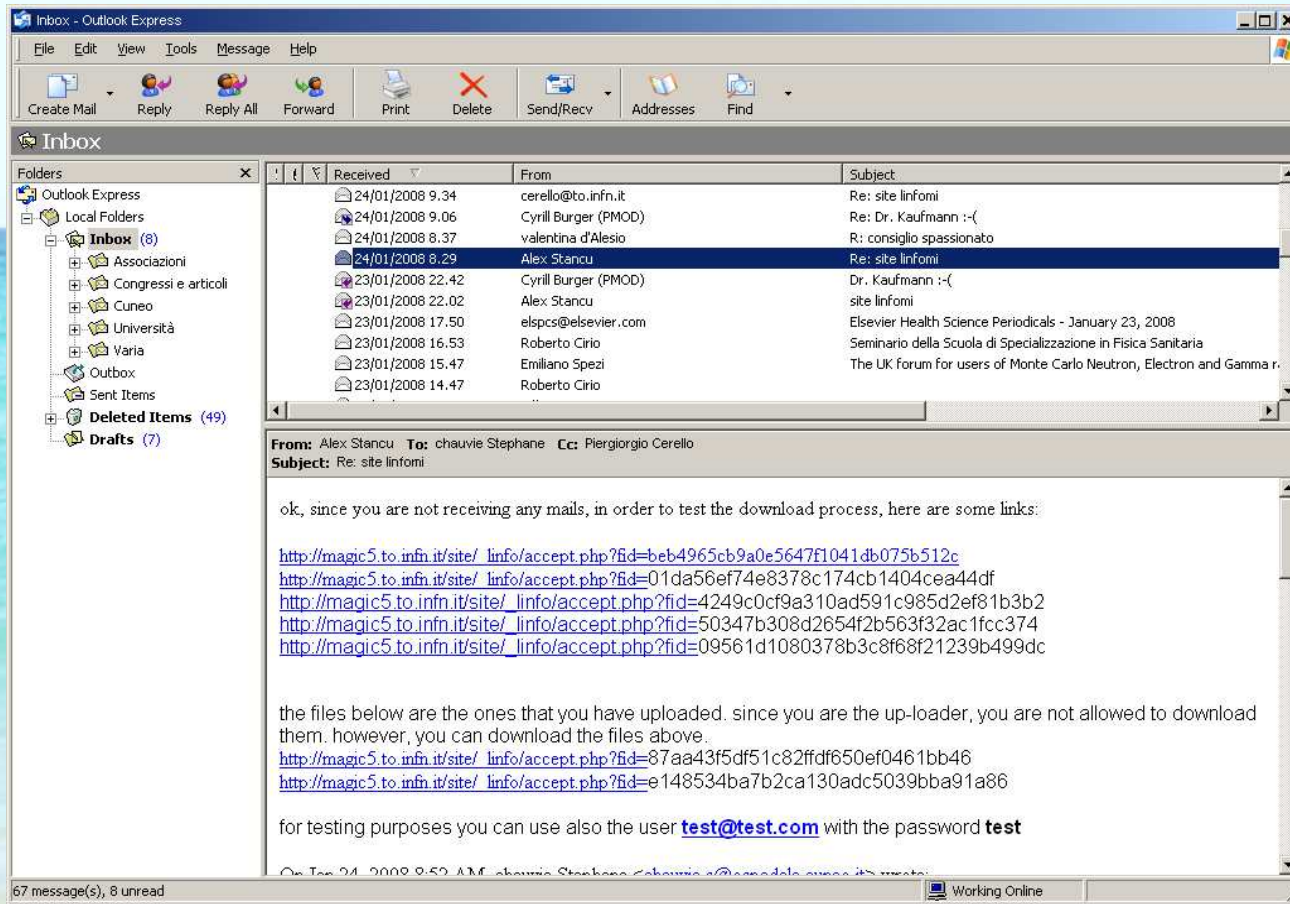
You are logged in.
[Logout](#)

[\[Change your password \]](#)

Reviewer inserts
PET result +/- and
their analysis

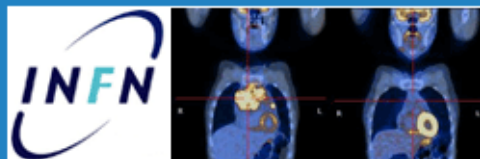


Haematologist receive e-mail and SMS with PET results



Users

- 1) Prospective GITIL trial
- 2) Retrospective IVS HD study
- 3) Retrospective ABVD-BEACOPP study
- 4) Observational PLRG study
- 5)



GITIL

Gruppo Italiano Terapie Innovative nei Linfomi

[BACK TO SITE](#) | [ADMINISTRATION](#)

[LOGOUT](#)

[Cases](#) [Patients](#) [Centers](#) [Users](#) **[Statistics](#)** | [Settings](#) [Utilities](#) [Docs](#)

Study statistics

PATIENTS & CASES:

	Total	Males	Females	Min age	Max age	Median age
Patients included in the study	168	81	87	18	59	31
Patients out of the study	5	3	2	22	56	37
Cases submitted so far*	48	28	20	19	59	31
Cases evaluated so far	45	26	19	—	—	—
Negative cases	25	12	13	—	—	—
Positive cases	20	14	6	—	—	—

* Excluding the cases of the patients that opted out of the study at some point.

USERS & CENTERS:

	Total	Submitters	Reviewers	Hematos	Study Admins	Super Admins	Testers
Number of users	99	35	8	36	4	4	12
Number of centers	35						

UPLOAD / DOWNLOAD TIMES:

	Min	Max	Median
Upload time ¹	0:00:17	1:22:31	0:05:12
Download time ²	0:00:00	0:54:44	0:02:07

1. Time is per case (two files).

2. Time is per file.

Image upload

Submitters: some problem the first time tricky theans straightford

Reviewers are very fast (same day)

Admin utilities – case upload times

case upload times | reviewer's time frames | results per reviewer

Case ID	Starting time	Ending time	Upload time	Files size
00123	01/02/2010 10:20:29	01/02/2010 10:20:46	0:00:17	72.2 MB
00125	26/01/2010 09:03:25	26/01/2010 09:04:56	0:01:31	85.4 MB
00088	20/01/2010 15:22:45	20/01/2010 15:28:53	0:06:08	149.0 MB
00111	22/12/2009 09:29:00	22/12/2009 09:38:21	0:09:21	99.4 MB
00113	17/12/2009 08:29:34	17/12/2009 08:30:49	0:01:15	153.5 MB
00112	15/12/2009 15:08:11	15/12/2009 15:09:32	0:01:21	147.1 MB
00102	27/11/2009 09:29:08	27/11/2009 09:33:47	0:04:39	127.4 MB
00101	24/11/2009 18:18:06	24/11/2009 18:23:38	0:05:32	151.4 MB
00119	20/11/2009 10:42:21	20/11/2009 12:04:52	1:22:31	123.4 MB
00106	14/11/2009 10:48:11	14/11/2009 10:53:45	0:05:34	152.0 MB
00098	10/11/2009 11:47:26	10/11/2009 11:52:19	0:04:53	133.4 MB
00091	26/10/2009 11:51:53	26/10/2009 11:55:48	0:03:55	108.9 MB
33eotPET	07/10/2009 15:09:27	07/10/2009 15:19:45	0:10:18	79.4 MB
00075	30/09/2009 20:16:23	30/09/2009 21:18:15	1:01:52	469.1 MB
00087	30/09/2009 11:08:13	30/09/2009 11:15:33	0:07:20	106.5 MB
00092	11/09/2009 11:46:23	11/09/2009 11:48:19	0:01:56	125.2 MB
00071	09/09/2009 12:49:27	09/09/2009 12:56:03	0:06:36	294.5 MB
00072	21/08/2009 12:55:45	21/08/2009 12:56:54	0:01:09	136.0 MB
00059	13/08/2009 17:48:48	13/08/2009 17:53:09	0:04:21	117.4 MB

Cohen's Kappa:

	1	2	3	4	5	6
1	1,00	0,84	0,70	0,63	0,53	0,74
2	0,84	1,00	0,94	0,66	0,84	0,84
3	0,70	0,94	1,00	0,58	0,72	0,88
4	0,63	0,66	0,58	1,00	0,63	0,58
5	0,53	0,84	0,72	0,63	1,00	0,68
6	0,74	0,84	0,88	0,58	0,68	1,00

GITIL concordance



Agreement between reviewers: reviewers

Concordance at 100%:

44 cases

Average Concordance:

0.96

Summary statistics:

1	2	3	4	5	N	Median	Mean	Variance
119	88	55	27	9	298	2.000	2.057	1.219
22	3	17	5	1	48	2.000	2.167	1.418
25	11	7	2	4	49	1.000	1.959	1.582
10	25	11	6		52	2.000	2.250	0.819
14	18	9	3	1	45	2.000	2.089	0.992
17	24	8	4	1	54	2.000	2.037	0.942
31	7	3	7	2	50	1.000	1.840	1.607

Agreement between reviewers

Cohen's Kappa

<0.2 = poor

$0.21-0.40$ = fair

$0.41-0.60$ = moderate

$0.61-0.80$, = substantial

>0.81 = almost perfect

1	0.48	0.67	0.77	0.79	0.36
0.48	1	0.53	0.71	0.65	0.54
0.67	0.53	1	1.00	0.89	0.52
0.77	0.71	1.00	1	1.00	0.52
0.79	0.65	0.89	1.00	1	0.57
0.36	0.54	0.52	0.52	0.57	1

Liver in IVS HL study

SUVmax in liver

Baseline	Interim
2.81±0.61	2.63±0.71
2.39	2.54

Thanks for the attention

