Portal Technical Requirements

The CLINT project is going to build an infrastructure to support the conduct of international prospective clinical trials in autologous and allogeneic stem cell transplantation. This will involve building a portal website as the main communication and collaboration facility for information exchange. Also the current EBMT website is outdated and will be renewed with more features to enhance communication and collaboration. The website/portal will be an important tool for the EBMT to communicate with members, general public and other groups and will be the main tool to support collaboration between members with shared documents, calendars, etc. It is important to involve active users in the planning and design of the new solution and to document the established requirements for the new system. This document presents a list of requirements that will be used to select a suitable software product and to guide the implementation.

Stakeholders

Many people within the EBMT have an interest in the development of the portal, for example as users, contributors, managers, funding, etc. Input from these so-called stakeholders is important to create a portal that meets their expectations and fits their needs. Therefore a representative of each stakeholder should be involved in creating the requirements documentation, in product selection, in design and planning of the implementation, in implementation and in evaluation. For the portal project, we identify the following stakeholders:

- The EBMT board.
- CLINT steering group
- Working parties and committees. Questionnaire/ focus meeting?
- Clinical trials and studies management. Zoe, Kim
- Registry
- Members
- National registries
- Audiences, general public, patients, donors, physicians, industry, etc
- The website editors. Stephen, Shelley
Applications / Databases integration. Sunil, Henk Jan, Ronald, Stephen, CIBMTR/AGNIS representative, WMDA, etc

Portal installation/maintenance. Henk Jan

PR: Fiona, Interel

Requirements

0 The portal system must be simple to use

0.1 Implementing the portal will start with the essential functions and keep the system simple. Initial version of the portal will contain the basic html pages and document download.

0.1b Each new feature to the website will be planned as a small project, with a timeline. Responsible people will be identified for creating the solution, creating documentation and for adding and maintaining the content and for monitoring the progress.

0.1c Each new feature must be described as a business case with a clear description of the benefits to the contributors. This will help to have a clear goal and to motivate the users to add the content to the portal. This also helps to measure progress and manage the development in achieving the envisioned goals.

0.1d Implementing new features will be coordinated by the Barcelona office. They will do a sign off after the complete implementation with documentation, instructions to the users and instructions for maintenance, etc. This way the Barcelona office will have full control over functionality and content on the portal. It will also reduce the maintenance for task ad-hoc questions and tasks at the hosting centre.

0.2 For each function on the portal there will be stepwise procedures for the users how they can perform the tasks to maintain the content.

0.3 There should be adequate manuals, training and instructions for the editors of the web system on how they can use the system and what information they will put on the web site.

0.4 People use multiple computer systems, each with a different username and password. It must be made clear to the users which username and password to use (not a local network or Promise pw, etc), how to request an account and get permissions and how to change password, etc
0.5 When workflow is used to process requests than this should be simple. It should not restrict the active work processes. The workflow processes will be used to assist the people involved. It will not be used to implement policies by restrictions. Also changes in work processes should be easily implemented as changes in workflow in the software.

0.6 Editing the texts on the pages should be simple. Wp’s and committees should be able to maintain the content of basic web pages without the need for training. It should be intuitive and a simple manual should be sufficient. Advanced features such as workflow might require more instructions, though the aim is to keep content management as simple as possible.

0.7 Different users have different tasks and permissions on the system. It should be clear to the user what tasks they are required to perform. The website should therefore present a clear list of tasks that a user can perform on the initial page or in the common parts, so he does not have to search the site.

1Repositories for documents
The portal will have repositories to which authorized and registered portal users can upload their documents to:
- Make them available to the general public,
- Make them available to a group of users
- Make them available to a specific audience
- Allow for joint editing (check in/out) and for commenting.
- Support workflow / Sign off
- Provide a central place for documents. E.g. minutes of board meetings
- Versioning
- Reviewing with commenting/discussion

1.1 EBMT groups such as WP’s and committees can upload their own documents, e.g. sop’s, reports, minutes, etc
The EBMT groups can upload their documents without involvement of the offices. However the permission to upload documents has been granted by the offices via role or group membership.

1.2 Documents on the portal are the most up to date version
The current collaboration on documents through sending the documents by email, results in many copies of the same document. This makes it unclear which version is the latest and if it is up to date. The portal site will have only one “active” copy of each document (but will retain previous copies for reference or archiving purposes).
1.3 Documents on the portal can be edited by multiple users, without conflicts in versions
Documents in the repository can be opened for editing. The user can check out a document, so that it is locked for editing for other users, thereby preventing conflicting versions.

1.4 Auditing and versioning
For each document there will be an audit trial to show who has edited the document and the server will keep previous versions of the document. Some questions to be answered: Who can see previous version (which role/group)? Who could restore a document to previous version? Should each modification in the document be audited? Are there legal requirement with respect to clinical trials?

1.5 Automatically created read only version for public (pdf version)
When documents are released for public viewing, then the public version will be (automatically) generated as a pdf version.

1.6 Documents on the portal can be protected to limited access to groups such as members of a wp
The repository can be used for confidential information and for documents that are not (yet) available to general public. Through role and group membership, the users can get permissions on the document such as edit and view. To prevent accidental availability of documents to the general public, each document will only be publicly available after explicit granted permission. It has to be decided who can make a document public available, will this be the author, or only the chair of a wp?

1.7 Notification of document updates should be send to everyone interested
When a document has changed (new version), then everyone who is interested should get an automatic notification. This notification will be send based on group or role membership.

1.8 Documents contain meta information
These meta information can be used for search and to make information available on area’s of fore specific audiences. For example a document tagged for a specific wp will show up on the wp’s area and members of this wp can receive a notification for updates of the document

1.9 Creating new repositories
The offices can create new pages on the portal and add document repositories. Guidelines will be written on: who can request new content to the portal, who can add the content, how will the new content fit in the portal design (keep a consistent and well structured website), how permissions are granted.
1.10 Assigning permissions to the members for document upload
There will be guidelines for user and permission management. For example on who can give read/write permissions on documents and repositories. Will this be the offices or also the chair of a wp?

2 User management
There should be a facility for creating user accounts and registering group/role/audience membership. The policy has to be worked out on how permissions are assigned (who?), revoking permissions, password expiration, etc

2.1 Creating new user accounts. Who will be the users of the system? EBMT members, general public subscribing to news, other?

2.2 Revoking user accounts. How will it be known when a person no longer is working for a centre and therefore the account has to be revoked?

2.2 Creating roles/groups/audiences

2.3 Assigning permissions to roles etc to perform certain tasks or access certain information
  2.3.a viewing documents
  2.3.b commenting documents
  2.3.c editing documents
  2.3.d editing calendars
  2.3.e editing webpage content
  2.3.f editing announcements

2.4 Assigning group/role/audience membership to users

2.5 The Pomise/SQL database contains information on members. This information is also useful for accounts on the portal. Can user account info on the portal be synchronized with Members database

2.6 There should be a good policy and guidelines (SOP’s) to make sure that permissions are only granted to the right people. Board, pw and committee areas could contain sensitive information which may not be accessed by unauthorized people

2.7 Users can specify the (types of) information that they are interested in, so they can receive news letters and other information

2.8 Users can retrieve/reset their password, when they forgot it.
3 Workflow
3.1 Workflow could be used to implement rules for maintaining the content on the site, such as review before publication. Currently these rules will not be implemented. However the system should provide the tools to implement at a later stage.

4 Search the site
4.1 search for website content
4.2 search for documents with text in that document
4.3 search for an event in a calendar based on the text in the event
4.4 search within linked data bases
4.5 Types of search algorithms supported (?)
4.6 Search authorization details

5 Calendars
5.1 private calendars for personal events or events for groups
5.2 global calendar EBMT with public events
5.3 global calendar with events from related organizations
5.4 merge of calendars; audience calendars; group calendars (virtual)
5.5 display public holidays in Europe

6 Content management system (CMS) for efficient maintenance and update of website information and structure
6.1 Requirement is that the underlying portal software is sufficiently “well known” that external parties offering design services to EBMT can effectively build their design using the particular portal software.
6.2 Area’s for wp’s and committees will all have the same structure and functionality (template)
6.3 Maintenance of the content should be intuitive simple so that wp’s and committees can update the content of the site without training. A simple manual should be sufficient.

6.4 Central office needs to have an overview of the information (entire site) and be informed of updates in the content of the site.

6.5 Content should have an expire date, so that owner is notified when the content needs to be checked and updated.

7 EBMT member Information
7.1 If portal membership is linked to the membership data base but also linked to the ProMISe user Authorization tables for access to data in data bases like the Trials, Studies or MEDAB project, a complex situation arises which needs careful consideration.

8 Improve the site
8.1 usage statistics and usage traces should be available to provide insight in the usage of the website. This helps to determine when navigation or email messages can be used to improve the finding of relevant information on the site

8.2 The portal should provide small survey’s to visitors, to collect there information that can be used for improvements to the site

8.3 A form or email address where users can send remarks for improvement or complains on lack of info or functionality

8.4 Improve the site with dynamic and up to date information to give good information to patients, researchers, clinicians and other groups

8.5 A pr tool to inform the visitor about high quality research and results on SCT research by EBMT

8.6 The site requires better navigation to easier find relevant information. E.g. working parties complain that their information is too deep in the site and difficult to find

9 Dynamic interactive website with information targeted to user groups
9.1 Information on the website should be up to date and daily updated to present latest news and information, such as publications and running trials
9.2 use RSS feeds to present news items from other sites

9.3 Allow the visitor to interact with the website: Search, subscription to news/document, small applications, etc

9.4 Dynamic navigation structure based on the membership or interest of the visitor. E.g. links to private wp area's are only visible after logon and having permission to view the area. A patient entering the area for patient information is presented a special navigation structure with links to relevant pages, documents, etc.

9.5 A calendar should display relevant events to the visitor, based on their group membership and interests

10 A generic tool

10.1 A tool that has the features to build a site with the required features, such as dynamic website, document versioning, work flow, news letters, news centre, etc

10.2 Has all common portal functions ‘out of the box’:
- Html pages,
- Document libraries with versioning and checkout, email notification on change and email with links to documents.
- User logon, group membership, permissions
- Wiki
- Blog
- RSS viewer and RSS feeds
- Survey
- Forms
- News centre
- News letters with subscriptions
- Support audiences
- Search
- Multiple navigations, easy to change
- Dynamic navigation, based on users interests and permissions

10.3 Extendable with new functions, so that new ideas for functions on the website can be added in the next coming years

10.4 A software product which does not depend on a single company. Preferable a more standard software for which the hosting can be provided by many companies and for which developers and designers can be contracted from various companies. It would also be nice if there is a community that can provide
information on the use of the software (forums and blogs) and if there are extra tools and web parts (for a reasonable fee)

10.5 A programmer should be able to add custom applications, such as the membership list, outreach, trials, database linking, etc

11 Collaboration areas for working parities, committees and other groups

11.1 Area for each group with functionality to enable collaboration

11.2 Sharing documents and shared editing

11.3 Calendar

11.4 Discussion

11.5 Task lists

11.5 Sending email: Automatic notification of changes in documents

11.6 Sending email: Manually email with link to documents and a custom text. E.g. for a meeting, send the agenda and minutes from previous meeting

11.7 Archive of documents such as minutes of previous meetings

11.8 Maybe nice to incorporate later would be a virtual meeting place with chat, virtual whiteboard, webcams, speech, etc (e.g. live meeting/ communicator server http://office.microsoft.com/en-us/livemeeting/HA102403231033.aspx / http://office.microsoft.com/en-us/communicationsserver/FX101729111033.aspx)

12 Electronic payment and linking to administration

It should be possible to add this at a later time.

13 Coordination role for Barcelona office

13.1 Barcelona office should be able to get an overview of the content of the site, such as a list of all documents

13.2 Some content can only be made public after approval of the Barcelona office, for example public events in the main calendar
14 Specific information for user groups
14.1 The area for patients and family will provide information on treatments and research (running trials and studies) in new treatment

14.2 For each trial and study, the portal will present relevant and actual information, such as the state (design, running, being analyzed, published, etc), deadlines, laws and regulation, etc

14.3 The portal could be used to collect (upload) scanned images and forms. It’s not clear for which application this would be used, a specific trial? Security and legal requirements have to be carefully checked when this is patient data.

14.4 Use the portal in ‘current work processes’ such as informed consent. The portal can provide the information, documents and (electronic) forms

14.5 Portal can be used for questionnaires for scientific research

14.5 Area on the portal where local ethic committees can provide information e.g. on differences on clearance criteria per country and procedures

15 Linking databases and custom web applications
15.1 One of the deliverables of the CLINT project is linking information in several databases such as Promise, AGNIS, MDIS, etc. The details of this linking are not yet know and will be investigated in the second year of the CLINT project. However the portal will have to provide the required functionality, even that details are not know yet.

15.2 Most portal software can present information from database in standard ways, such as list. However the database linking most likely can not be realized and will require custom programming. The portal software must support custom applications

15.3 EBMT currently has three web applications written in asp: membership list, trials overview and outreach. The new portal should be able to include these and allow for adding new custom web applications.

15.4 Custom programmed applications on the portal should be able to use the standard available functions such as logon, permissions, email notifications, linking, navigation, etc