Information system for Stem Cell Registries – Donor Centers – Transplant centers

Prometheus

Part 2 : Transplant management

Steiner

Marrow Donor Program Belgium – Registry

User documentation MDPB-R Version 5.0 **(2019)**

Changes – upgrade version 2.0 – September 2013.

Change in window panel (user interface/screen-layout).

Other changes

Changes – upgrade version 3.0 – April 2014.

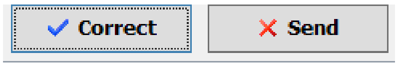
New EMDIS connections. (since 10- 02-2014)
EN: British Bone Marrow Registry / British Bone Marrow Registry – cord blood (Match codes GB4 – BSCB).
RO: Romanian Registry of Hematopoïetic Stem Cells Voluntary Donors (Match code RO).

Maximum of 10 selected patients is stored in the Select button history.
Summary for MatchGrade compatible with the MatchGrade used on the search report.

Changes – upgrade version 4.0 – May 2018.

Update of WMDA forms.

Select patient:	New Select
EMDIS messages:	Panel on second row: Messages and requests.
Typing history:	History of HLA typings better documented (only consultation)
Active patients:	New report.
List of donors:	Display of last activated requests in search result. EMDIS search result options (option to save settings).
Typing history:	(Patient data change history). Option to log a discrepant typing found on the confirmatory typing of a Blood sample you received from EMDIS donors.
EMDREP002	EMDIS Requests without results (report).
EMDREP003	EMDIS requests report – count of requests.
Window screen:	Message will be sent – new visualization. do your want to correct warnings?



Changes – upgrade version 5.0 – March 2019.

NEW items are highlighted in green.

The EMDIS search result table : display of the match level.

The printed search report includes the GRID Code.

GRID: Global registration identifier for donors.

A 19 character identifier. The GRID is composed of 3 elements:

A 4 digit ION, a 13 character Registration Donor Identifier (RDI) assigned by the Issuing Organization, and a 2 digit checksum.

WMDA collaborated with ICCBBA (*International Council for Commonality in Blood Banking Automation)* to create a system for assigning a globally unique identifier for potential volunteer blood stem cell donors.

CMV is included in the search results report.

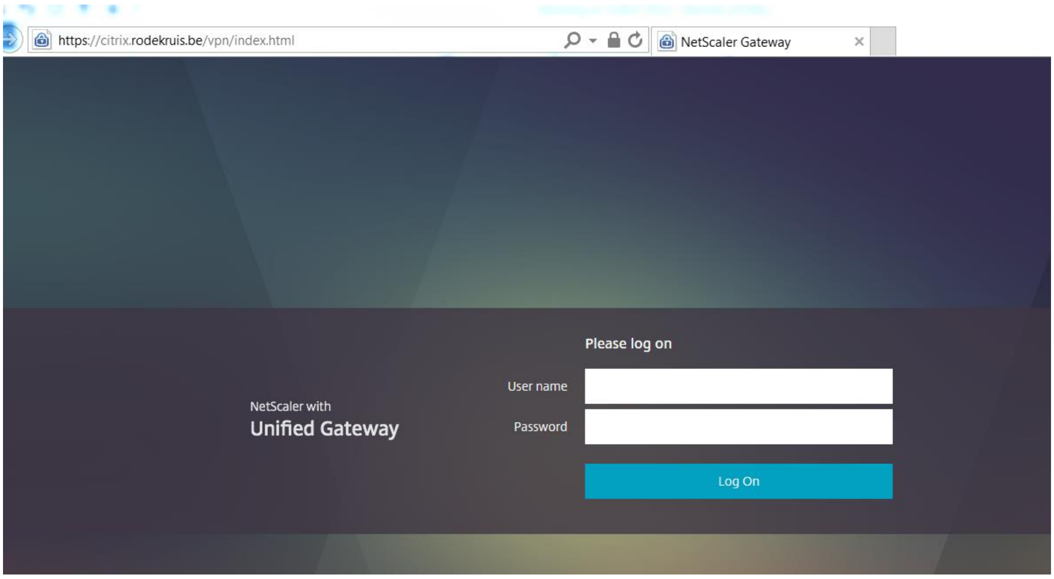
I. INTRODUCTION

I.I. PROGRAM START

I.I.1. Program start up

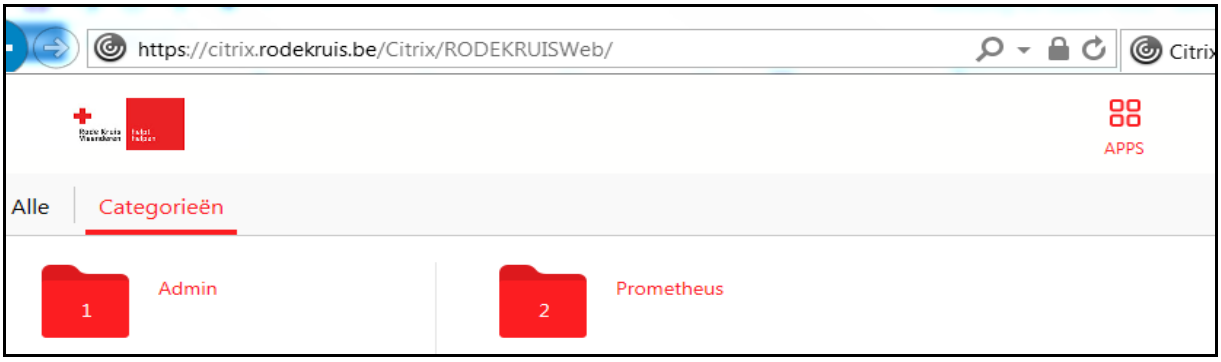
To start the application you need a Citrix username and password and a Prometheus password.

To login go to https://citrix.rodekruis.be and enter your Citrix username and password:

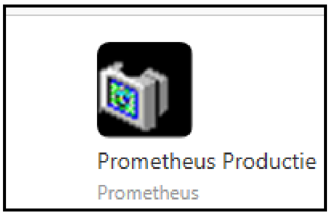


In case you have problems, you need to install the receiver first:
https://www.citrix.nl/products/receiver/

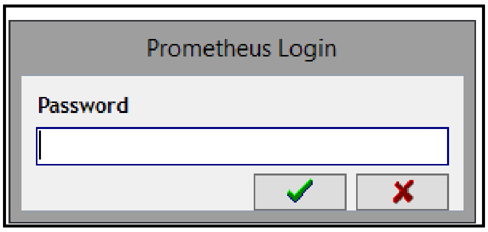
After successful download, the following screen will be displayed: select **Prometheus:**



Select Prometheus **Productie**:



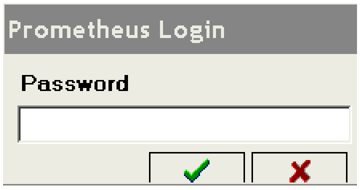
The following screen will be opened, enter your Prometheus login:



I.I.2. LOGIN

You have 3 attempts to enter the right password. When the third attempt in a row fails, the user account will be locked. The user has to ask the Registry coordinator to unlock the account. When the ID and the password are correct the program will initialize and the main program window screen will be displayed.

FIRST LOGIN



To access the application for the first time, please log in by entering the password type **“23 23”** (23space23) that was sent to you. You will be immediately required to change your password. Your new password must be in format **23** shoe1 (**23**space**shoe1**). (combination of letters and numbers required).

Combination of letters and numbers required.

I.I.3. USER PASSWORD CHANGE

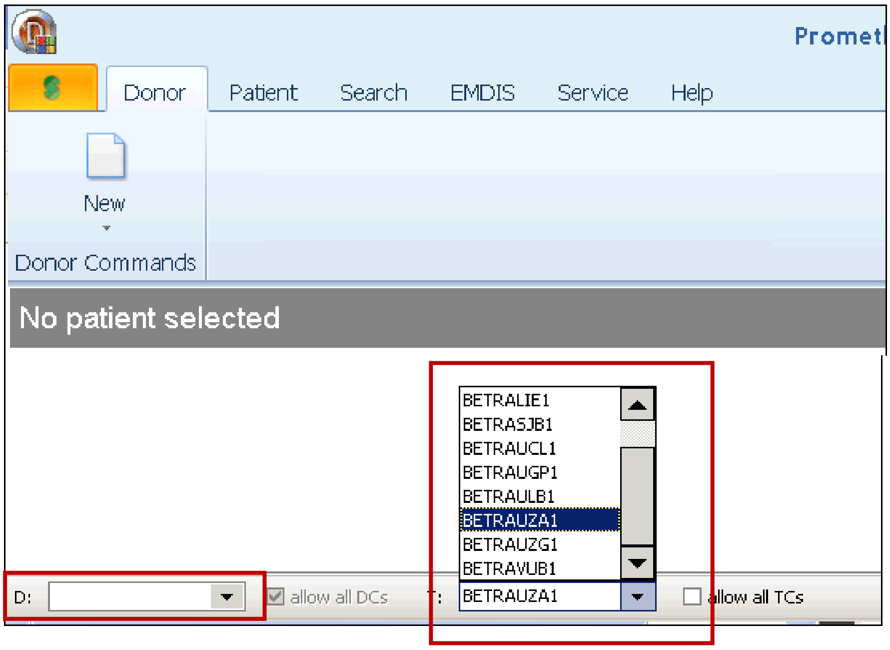
Go to **SERVICE** and select **“Change password**” to change your password:

Enter your present password, a new password and confirm the new password.

I.I.4. Multiple access rights

Some users have rights for multiple Transplant Centers. When logging in you will be guided to one Transplant Center. It is however possible to change the Transplant Center without ending the application.

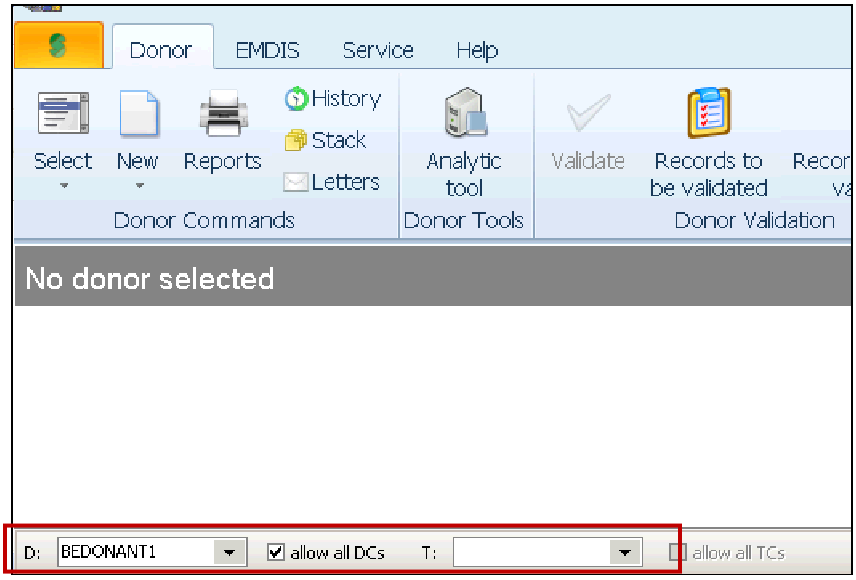
Select the arrow to change the Transplant Center : at the bottom of the screen:



D:
☑ allow all DCs
T: BETRAUZA1
☐ allow all TCs

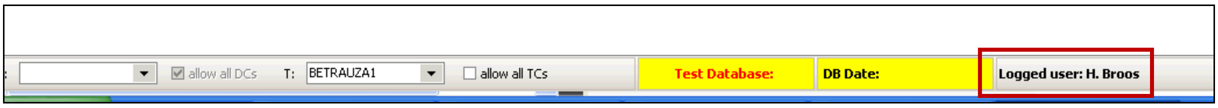
Allow all TCs – this check-box allows the user to work simultaneously with data from all Transplant Centers he has access to.

Select the arrow to change the active center, you can switch between Donor Centers, Transplant Centers and Cord Blood Banks. You can simultaneously display data from multiple Donor Centers or multiple Transplant Centers. A mix between Donor and Transplant Center however, is not possible.

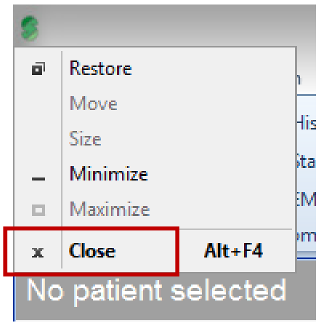


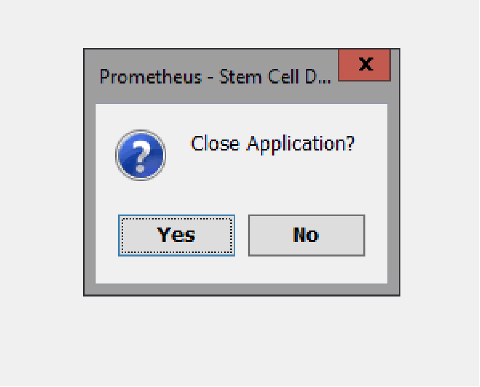
D: BEDONANT1
☑ allow all DCs
T:
☐ allow all TCs

User Box – The user box shows the name of the person currently logged into the system, below is the user group he belongs to.



Exit – Termination of application.





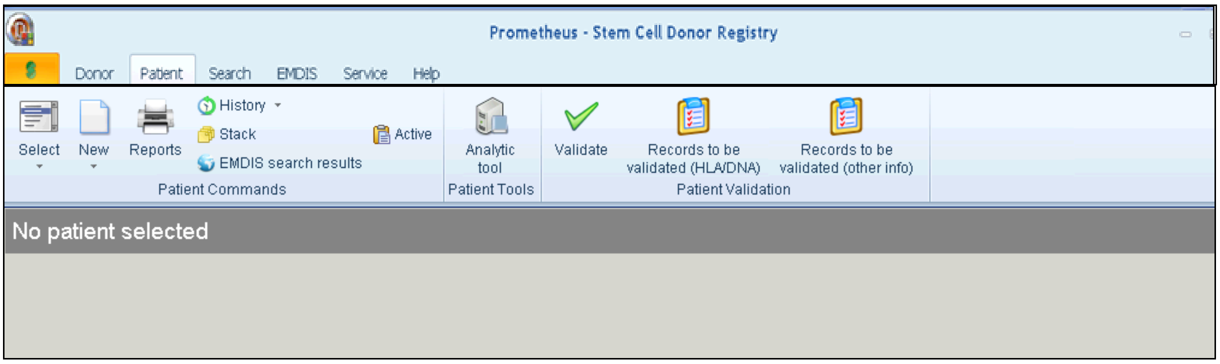
Close Application?

Press “yes” to close the application.

I.II. MAIN PROGRAM WINDOW

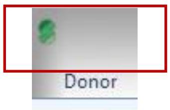
The main window is an initial guidepost for running functions of the program.

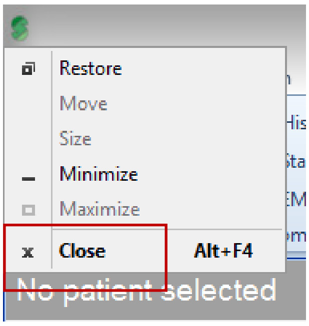
I.II.1. Panel upper part



No patient selected

I.II.1.1. File

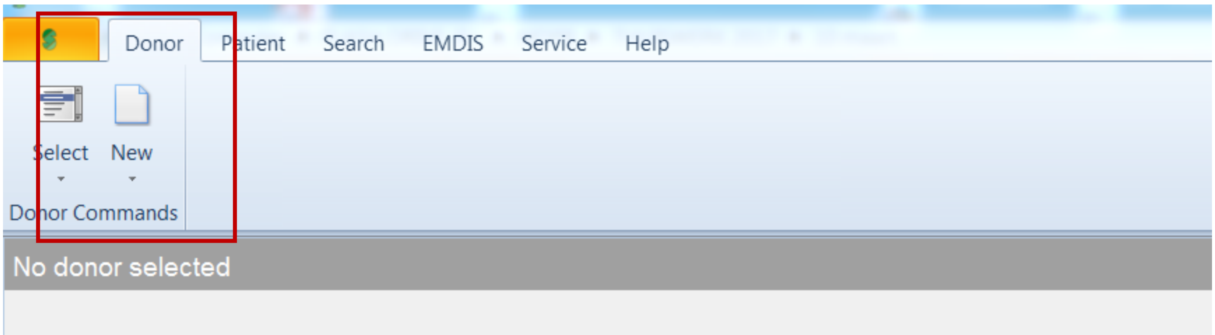




No patient selected

Close – lets you end the session

I.II.1.2. Donor

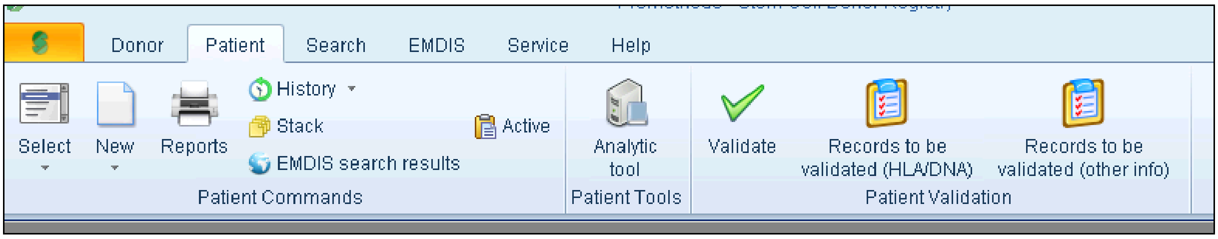


No donor selected

This function enables you to register non EMDIS donors. When you received initial search results from a non EMDIS Registry (via fax or email) and you wish to activate further requests, Prometheus allows you to register the donor into a central database (BEDCFRGN – Foreign Donor Center) so that all further requests can be activated in Prometheus. (For more explanation go to chapter V. Non EMDIS requests).

I.II.1.3. Patient

The patient menu consists of following tools :



Via **select** or (**F5**) the patient can be selected, via **close** the patient record will be closed.
The currently opened record is automatically closed at shutdown of the program, as well as when opening a record of another patient.

The program remembers the last selected patients, and can be opened via

(use the small arrow below to the “select” button).

Use the command **new**

to create a new patient.

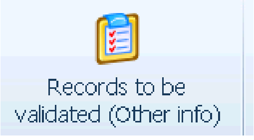
The **history**

command displays the patient data change history.

Validate

allows you to validate updated typings or new registered patients.

Records to be validated (**HLA/DNA**) – (**other info**)



gives an overview of all patients to be validated.

Command **stack** (**Ctrl + F5**)  opens a stack (group of patients).

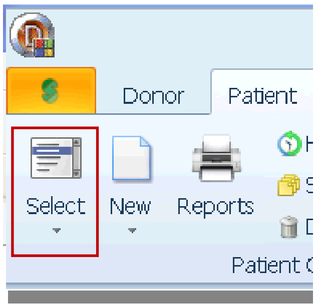
The command **reports** offers you a list of patient reports.

Command **analytic tool** opens the tool for patient analysis.

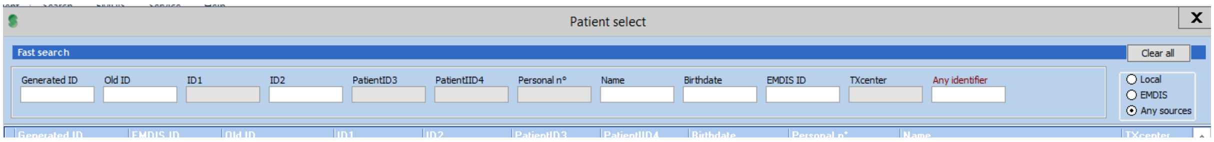
The patient menu will be explained in chapter II. patient menu.

I.II.1.3.1. Select patient

Select Patient – the selection of a patient.



Click the “select patient” button to go to the “Local patient select” screen.



Search is possible by the following parameters:

Search for sequence:

- **Anywhere (...XX123XX...)**
- **From beginning (XX123...)**

Search by:

- **Generated ID**: for new Prometheus patients, fill in only numbers of the full ID: 12345 (BE12345P);
- **Old ID**: the Syrenad code;

- **ID1: NA**
- **ID2: NA**
- **PatientID3:** NA
- **PatientID4:** NA
- **Personal number**:
- **Name**: fill in full last name or several characters of last name (at least 3 characters needed)
- **birthdate**: fill in year (YYYY), year and month (YYYYMM) or full date (YYYYMMDD);
- **EMDIS ID**: for new Prometheus patients: BE12345P;
- **TX center**: NA
- Any identifier..

Then press „OK“, the patient‘s record will be opened.

I.II.1.3.2. Hot Keys

For frequently functions hot keys are available:

Hot key	**Function**
F5	Patient select
F4	Patient close
Ctrl-P	Patient edit
Ctrl-M	New patient
Esc	Option abort

I.II.1.4. Behavior of input fields.

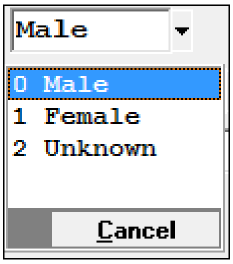
I.II.1.4.1. Date field.

- Date format: “**dd.mm.yyyy**”, e.g. “26.01.2009”;
- Press “**d**” for today’s date;
- Type “**17**” to select day in actual month, e.g. January 17, 2009 (if current month is January and year is 2009);
- Type "**17 6**" to select day and month in actual year, e.g. June 17, 2009 (if current year is 2009);
- Type “**6 12 7**” to select December 6, 2007;
- **F3** for calendar selection.

I.II.1.4.2. Selection from static code list

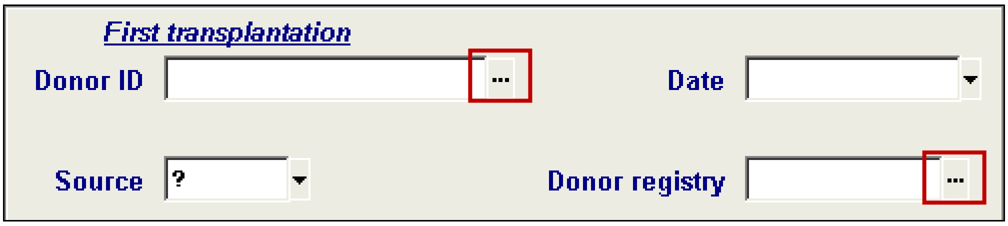
- Press *space* for next value;
- *F3* for selection by list, *Esc* to leave selection list;
- Press *number* (0, 1, 2, ... or +, -) as shortcut of selection.


Sex woman

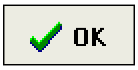


I.II.1.4.3. Selection from dynamic code list

- Type *code* of the selection;
- *F3* for selection by list, type first characters of code to filter the list, Backspace to clear filter, Enter to confirm selection, *Esc* to leave selection list.

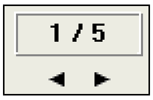


I.II.1.4.4. Form control



Pressing the **OK** button confirms data entry, changes will be saved in the database and the record will be closed. The command can also be called up by using the shortcut Alt-X.

This button is used to undo all the changes made to the current record.



Most forms are multi-page forms, the arrow enables to browse between the different tabs.

You can use enter, the down arrow or Tab to go to the next field. (Shift-tab – the up arrow to go to the previous field).

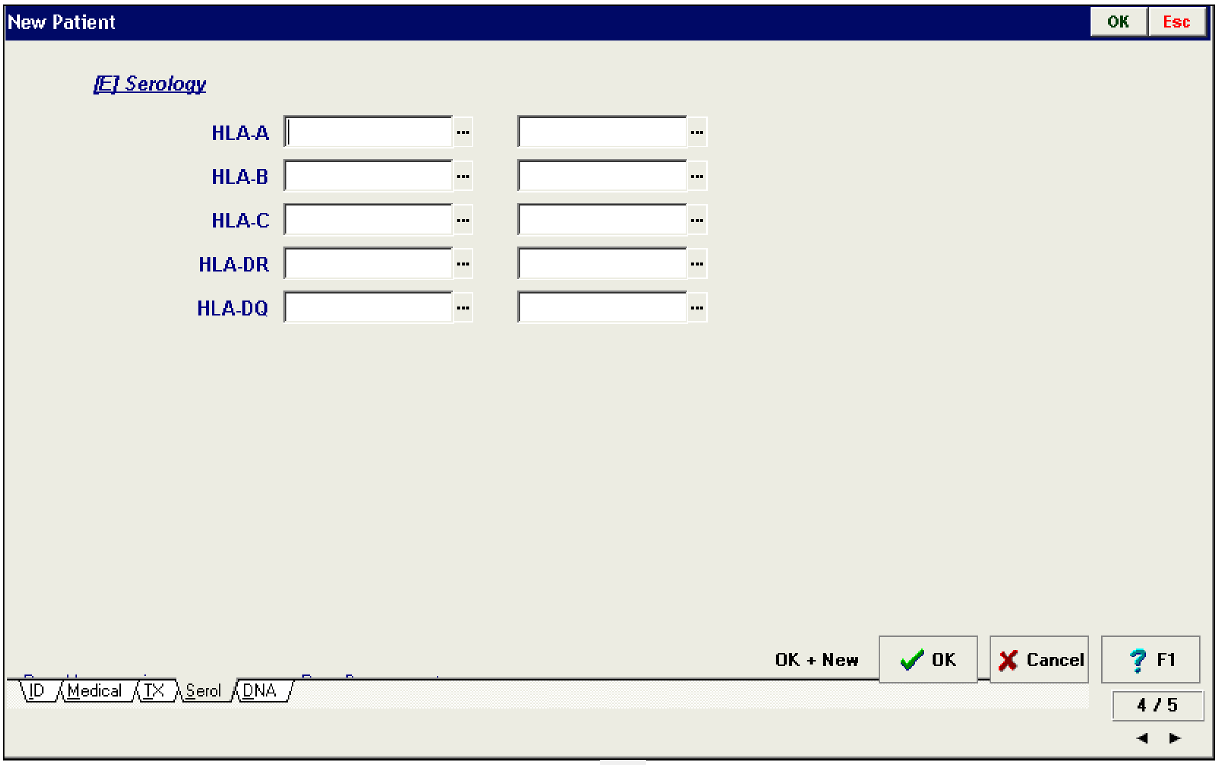
When pointing to the field, contextual help for data entry will be highlighted.

Insert text of max. length 30 characters

I.II.1.4.4. HLA Data

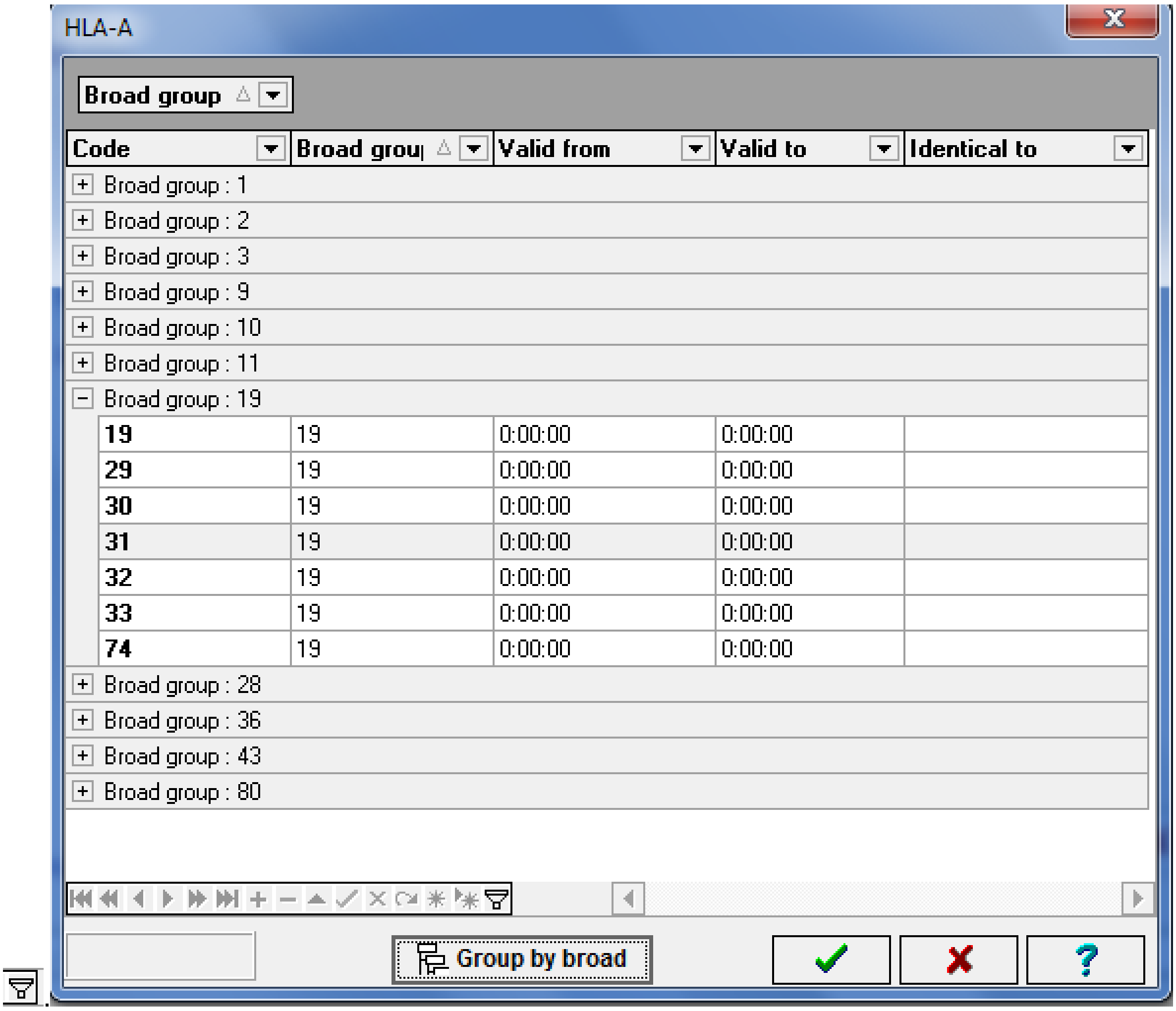
1. Serology

The system will warn you when entering invalid serology typing results.



List of valid values appears when clicking the dots ... right from input field or by pressing F3.

Codes can be grouped by broad group **Group by broad** or filtered by custom criteria



Code	Broad group	Valid from	Valid to	Identical to
Broad group : 1				
Broad group : 2				
Broad group : 3				
Broad group : 9				
Broad group : 10				
Broad group : 11				
Broad group : 19				
19	19	0:00:00	0:00:00	
29	19	0:00:00	0:00:00	
30	19	0:00:00	0:00:00	
31	19	0:00:00	0:00:00	
32	19	0:00:00	0:00:00	
33	19	0:00:00	0:00:00	
74	19	0:00:00	0:00:00	
Broad group : 28				
Broad group : 36				
Broad group : 43				
Broad group : 80				

2. DNA typing results

Enter high resolution code, XX code or MAC code. System warns you when you enter an invalid code or a code not matching serology.

DNA typing results respect the new nomenclature. When entering a value in an old format (e.g. 0301) system corrects it automatically to the new format (e.g. 03:01).

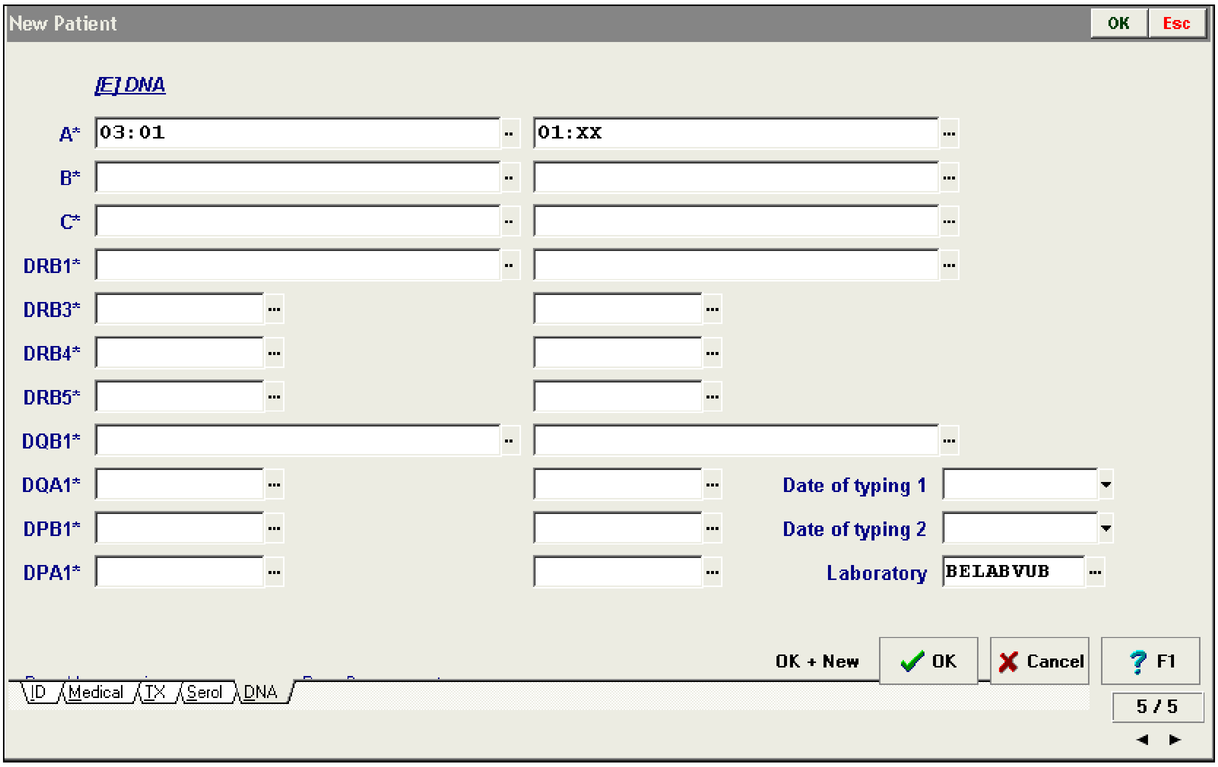
Values as 1, 01, 01xx, 01XX, 01:xx are automatically changed into 01:XX. Values as 701 are automatically changed to 07:01.

Type 1301-4 6 8 10 for B*13:VVS = B*1301/1302/1303/1304/1306/1308/1310.

Codes are automatically converted to MAC:

A* „0101/0102“	to 01:FWEY
A* „0101/2“	to 01:FWEY
A* „0101 2“	to 01:FWEY
B* „1301-4 6 8 10“	to 13:DMYV

Valid codes are updated each four days.

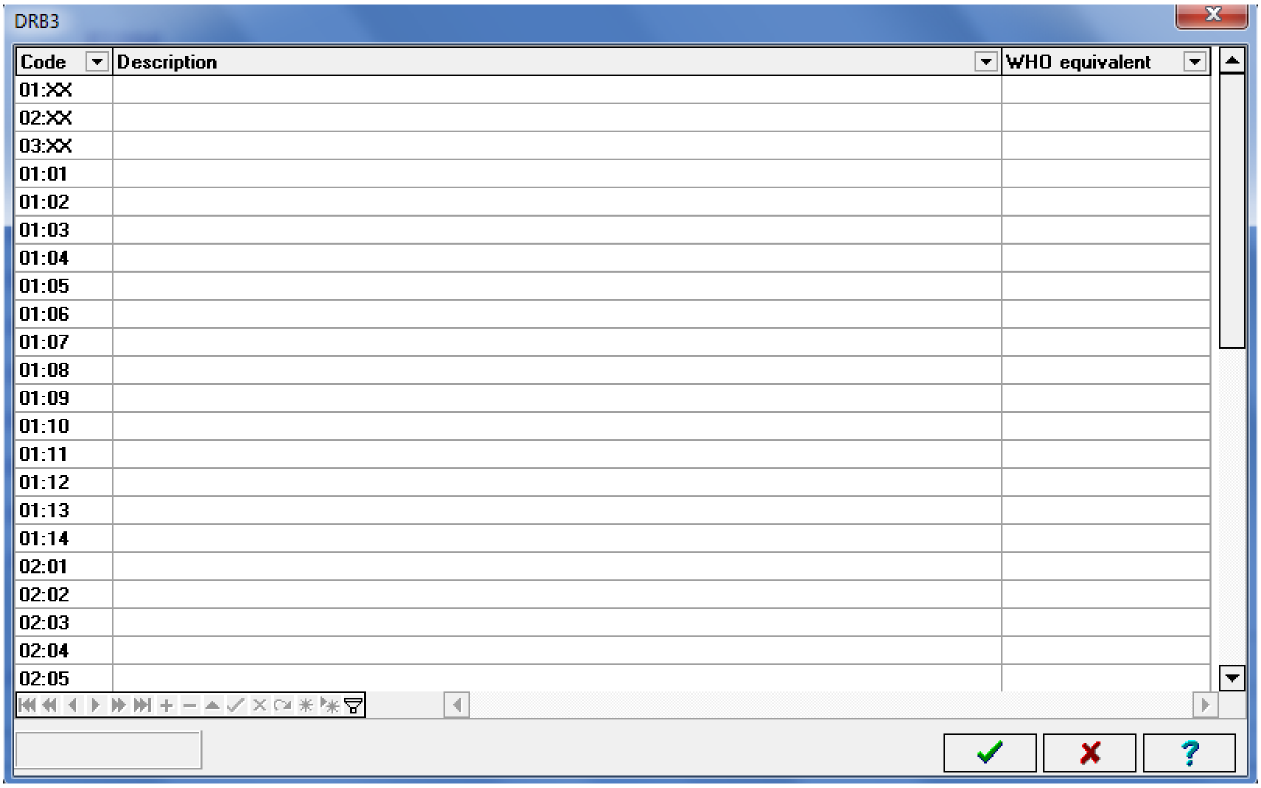


A* 03:01 01:xx

Laboratory BELABVUB

DNA Typing results view

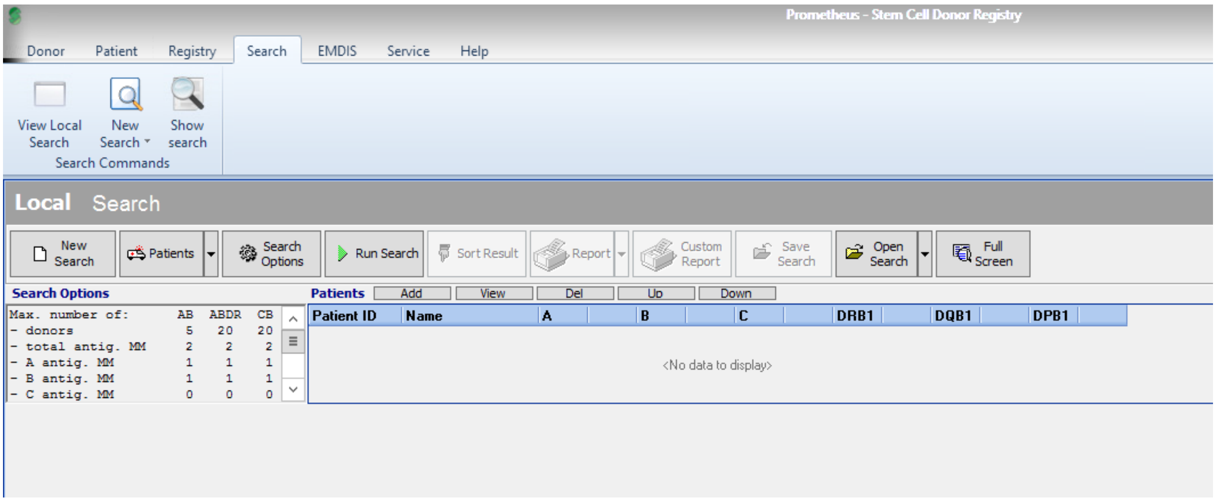
List of valid values appears when clicking the dots right from input field or by pressing **F3**. List by filtered by custom criteria using the button.



Code	Description	WHO equivalent
01:XX		
02:XX		
03:XX		
01:01		
01:02		
01:03		
01:04		
01:05		
01:06		
01:07		
01:08		
01:09		
01:10		
01:11		
01:12		
01:13		
01:14		
02:01		
02:02		
02:03		
02:04		
02:05		

I.II.1.5. Search

The commands for local donor search are available in the main program window in the “Search” menu.



Max. number of:	AB	ABDR	CB
- donors	5	20	20
- total antig. MM	2	2	2
- A antig. MM	1	1	1
- B antig. MM	1	1	1
- C antig. MM	0	0	0

Patient ID	Name	A	B	C	DRB1	DQB1	DPB1

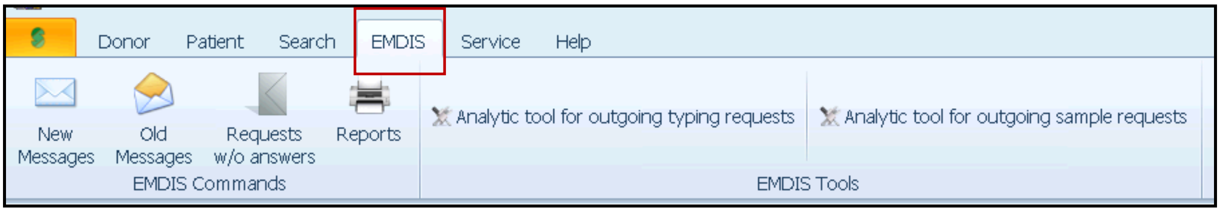
<No data to display>

The purpose of this option is to do an initial search for Belgian donors.

This action is independent from the formal search status of the patient. It is a first check to find out if Belgian donors are available for your patient.

The tool is explained in chapter III. Local search.

I.II.1.6. EMDIS



"New messages" – "old messages" – allows you to view the arrival of new EMDIS messages and to display the old messages you already consulted.

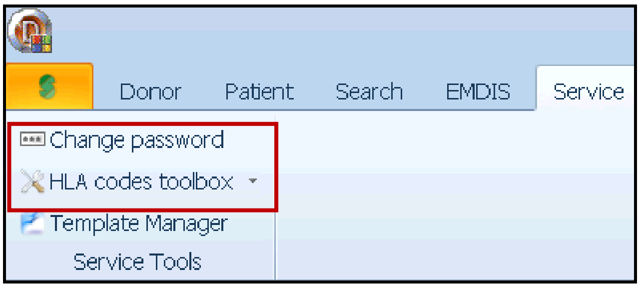
"Requests without answer" – pending messages will be displayed

"Analytic tool for incoming typing requests" – "Analytical tool for incoming sample requests"

The use of analytic tools is further explained in chapter II.XIV. Analytical tool.

"Reports" allows you to print EMDIS reports.

I.II.1.7. Service tools

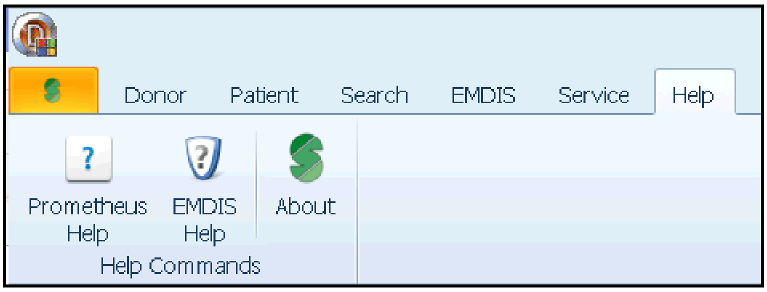


Change password - allows you to change your password.

HLA codes toolbox - allows you to consult the renamed and deleted alleles.

Template Manager – not applicable for transplant centers.

I.II.1.8. Help



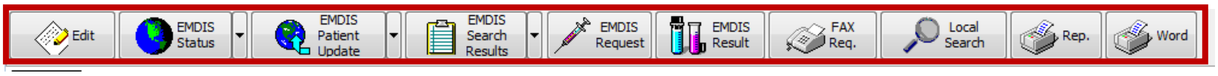
Prometheus Help – Not available.

EMDIS Help – Not available.

About – consultation of Prometheus version.

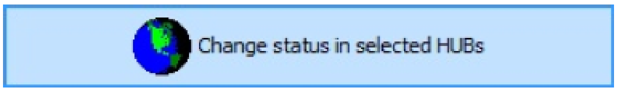
I.III. WORK PANEL PATIENT

I.III.1. UPPER PANEL



After opening the patient record a panel with basic information about the patient will be displayed on the desktop. The panel also includes contextual buttons **edit**, **EMDIS status**, **EMDIS patient update**, **EMDIS search results**, **EMDIS request**, **EMDIS result**, **fax req**, **local search**, **rep.** and **"X"**.

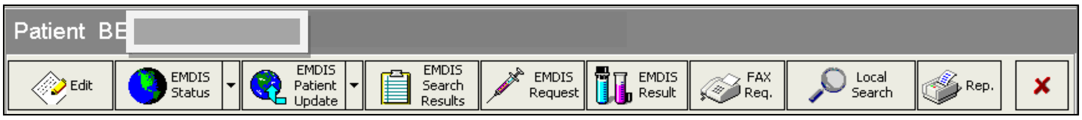
The tool bar of buttons:

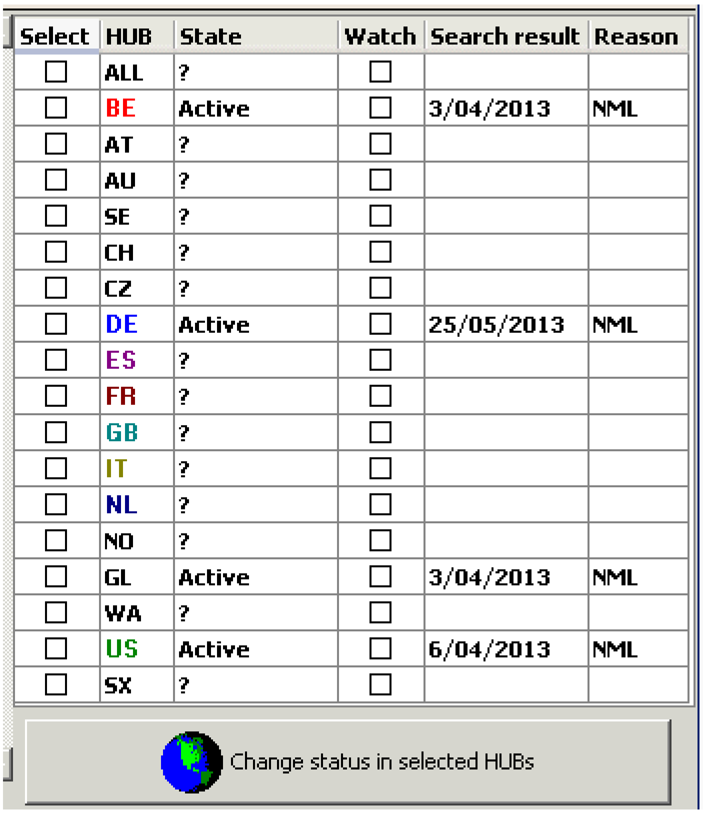
- **Edit**: this button allows you to enter and edit the patient's data.
- **EMDIS status**: this button allows you to change the patient's EMDIS status, globally, or a selected HUB using the little arrow to the right of it.
- **EMDIS patient update**: this button allows you to change the previous EMDIS status.
- **EMDIS search results**: this button allows you to navigate between the EMDIS search results regarding the currently open patient.
- **EMDIS request**: this button allows you to send EMDIS requests.
- **EMDIS result**: this button allows you to send results.
- **Fax req.**: this button allows you to generate fax requests.
- **Local search**: this button opens the internal donor search tool.
- **Rep.**: this button opens the patient reports application.
- **Word:** not implemented
- ✕: this button closes the folder of the patient that is currently open.
- *Below the Status table:*
- 

: this button allows you to change the EMDIS status of the currently selected patient. Indicators EMDIS status show the status of the patient in other EMDIS registries.

I.III.2. Status of patient search

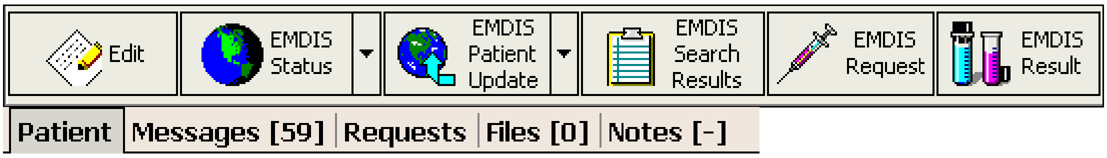
The table on the right shows the current status of the patient at each Registry.





Select	HUB	State	Watch	Search result	Reason
☐	ALL	?	☐		
☐	BE	Active	☐	3/04/2013	NML
☐	AT	?	☐		
☐	AU	?	☐		
☐	SE	?	☐		
☐	CH	?	☐		
☐	CZ	?	☐		
☐	DE	Active	☐	25/05/2013	NML
☐	ES	?	☐		
☐	FR	?	☐		
☐	GB	?	☐		
☐	IT	?	☐		
☐	NL	?	☐		
☐	NO	?	☐		
☐	GL	Active	☐	3/04/2013	NML
☐	WA	?	☐		
☐	US	Active	☐	6/04/2013	NML
☐	SX	?	☐		

I.III.3. Panel on second row



The patients data consists of four tabs: **Patient (Record)**, **Messages, Requests**, Files (**Attached Files)** and **Notes (patient notes).**

I.III.3.1. Patient

The **patient record** tab shows the basic information of the patient, the table on the top right shows the current status of the patient at each Registry.

I.III.3.2. Messages

The **messages** tab allows you to see all EMDIS messages concerning the patient record.
(more information see chapter IV. EMDIS).

I.III.3.3. Requests

The **requests** tab allows you to see the status of all activated requests.

I.III.3.4. Files

The **files** tab in the patient work panel enables you to attach external files to a patient, such as text documents or scans of fax messages etc:

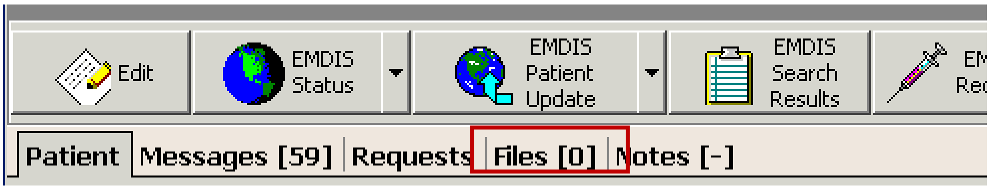
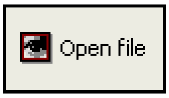


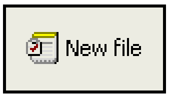
Table description:

- **file name**: the name of the file, as it was imported;
- **description**: a short text description of the file;
- **date edit**: date and time of last change;
- **edited by**: name of the user that made the last change.

File management:

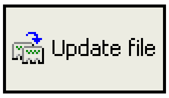


Open file button: open the highlighted file in the attached files table.



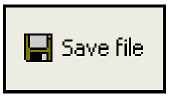
New file button: attach a file to the patient record.

Describe file button: enter a text description of the file highlighted in the attached files table.



Update file button: replaces the highlighted file in the attached files table with a new or updated version of the document.

Delete file button: delete the highlighted file in the attached files table.

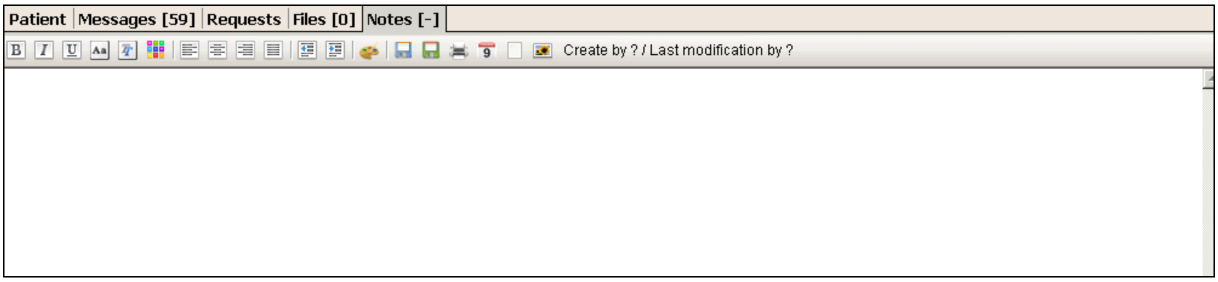


Save file button: save a copy of the highlighted file in the attached files table on your computer.

I.III.3.5. Notes

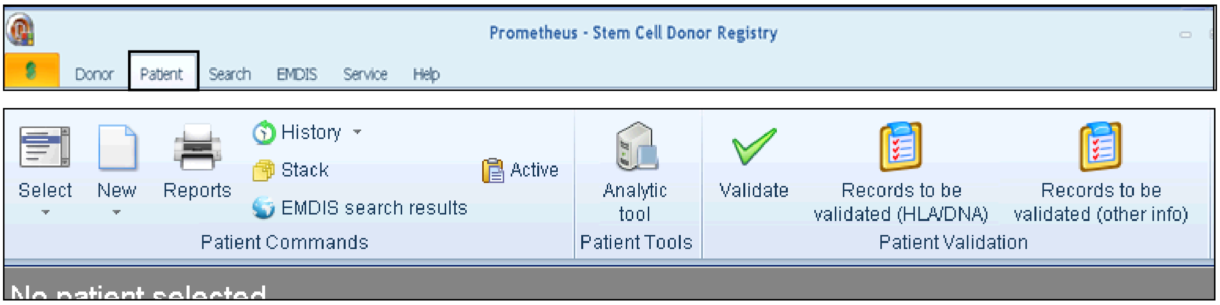
It is possible to add an unlimited free text note to the patient record. The text can be edited with the similar tools as available in Windows Word pad.

Select the **notes** tab to open the window screen:



Type the text to add a note. To export or save the note to a different location, use the “save” icon on the tool bar. The text will be saved as a text file.

II. PATIENT MENU



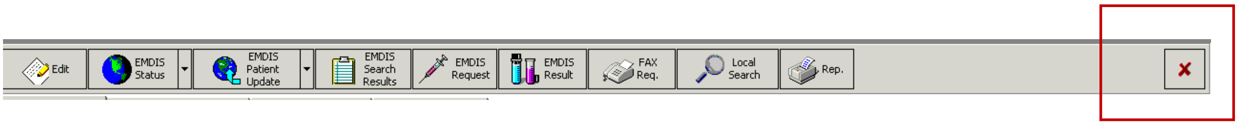
The patient program functions are available in menu **patient**.

When closing your session, the currently open folder will be closed automatically. When opening another patient's record, the actual record will be closed as well.

II.I. Patient select

The select option is explained in I.II.1.3.1. Select patient.

II.II. Close



II.III. Patient data edit

For consulting or editing the patients record, go to "Patient – edit" or **(Ctrl-P)**. More detailed information about the different tabs is explained in II.IV. Registration of a new patient.

The edit tool allows you to update the patient's record: changes in the tab ID, Medical and TX must not be validated again.

The typing update (tab DNA) must be validated again by double blind input (go to chapter II.VI. for validation of typing update).

II.IV. Registration of a new patient

II.IV.1. Procedure

In Prometheus, Transplant Centers are allowed to register patients. After the registration, the patient will be validated by the Transplant Center itself (can be the same user with validation rights) or by another user.

It is the responsibility of the Transplant Center to apply to MDPB-R standard operating procedures. This includes:

Disease categories: listed in the MDPB001 preliminary search request. If MAC approval is required, the patient may not be registered until the MAC request has been approved. It is the responsibility of the Transplant Center to prevent patient registration before MAC has been approved.

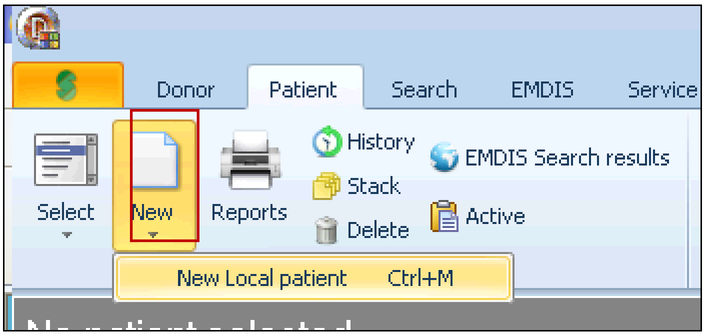
HLA typing: The HLA typing of the patient must be COMPLETE, i.e. HLA-A, B, C (at least 2 digits), DRB1 (4 digits – at least intermediate resolution), DQB1 is highly recommended. The HLA typing must be at least confirmed on a second sample or segregated in a family. No search will be initiated if the above typing level is not available. It is the responsibility of the Transplant Center to check which Registries will be searched by consulting the BMDW search program.

Non-compliance will be notified to the annual review of the Quality Assurance program.

After the validation, the Registry will receive a message and check if the patient fulfills the requirements. The patient status will be set to suspended if the requirements are not fulfilled. The Registry will send you the "**notification of unrelated donor (URD) search**" to be sent to the INAMI/RIZIV.

II.IV.2. Patient registration

Go to the **"patient menu**" and select New to register a new patient:



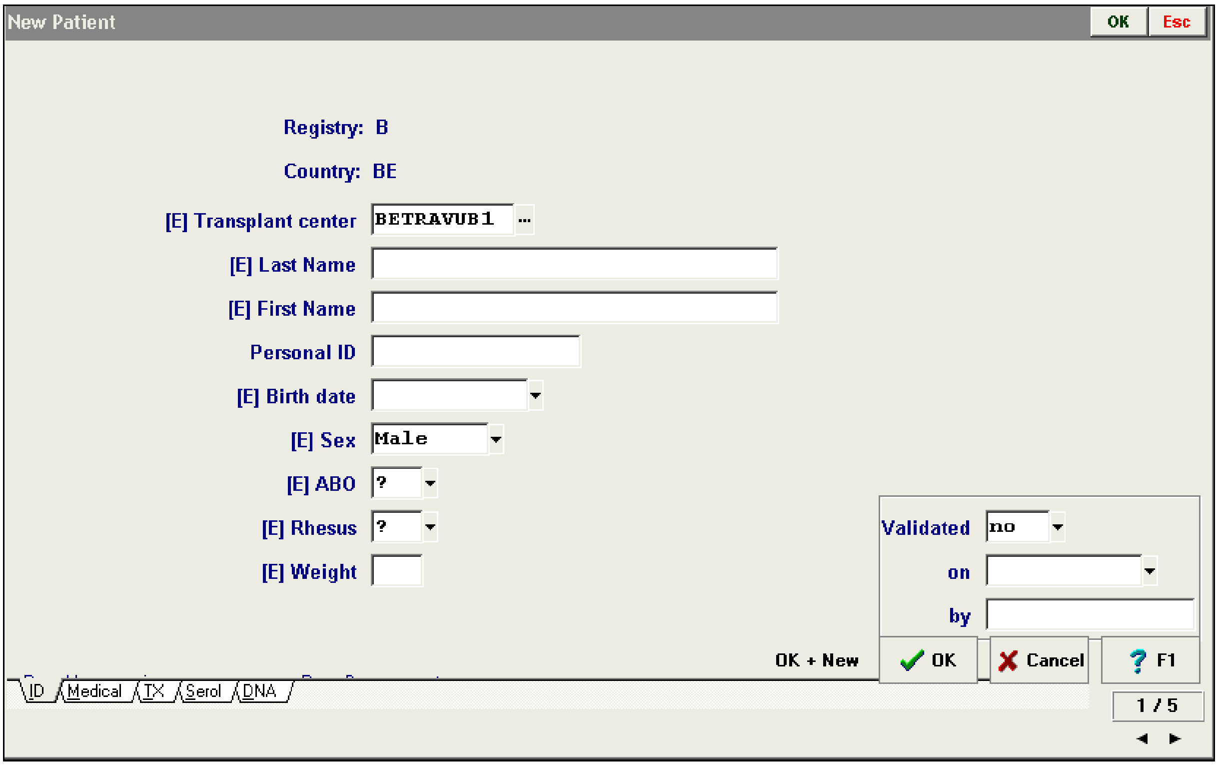
The patient registration consists of 5 screens :

1. Tab ID,
2. Tab Medical,

Tab TX,

3. Tab Serology,
4. Tab DNA.

1. TAB ID:



New Patient

Registry: B

Country: BE

[E] Transplant center BETRAVUB1

[E] Last Name

[E] First Name

Personal ID

[E] Birth date

[E] Sex Male

[E] ABO ?

[E] Rhesus ?

[E] Weight

Validated no

on

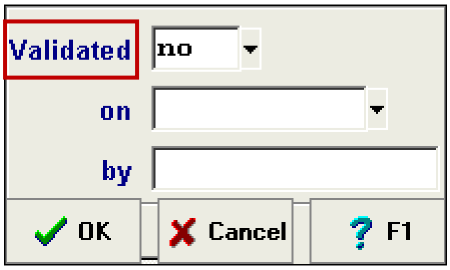
by

(E) Registry:	**B prefilled**
(E) Country:	**BE prefilled**
(E) Transplant Center:	**prefilled**
(E) Last name:	mandatory EMDIS field
(E) First name :	mandatory EMDIS field
Personal ID:	NA, social security number ID card
(E) Birth date*:	mandatory EMDIS field
(E) Sex:	mandatory EMDIS field
(E) ABO :	**optional EMDIS field**
(E) Rhesus:	**optional EMDIS field**
(E) Weight:	**optional EMDIS field**

***Birth Date:**

A patient older than 65 years is considered as a non-standard indication in other registries, therefore submission of the IRB approved research protocol synopsis and the patient's Karnofsky performance scale at the time of registration are requested.

In the right corner below a validation screen is displayed:



Validated no

on

by

You can immediately validate your data entry, by selecting “yes” (the other fields “on” and “by” will be completed by the system) to validate the user. The HLA validation has to be done separately because double blind input is mandatory.
(validation depends on validation rights, not all users have the right to validate patients).

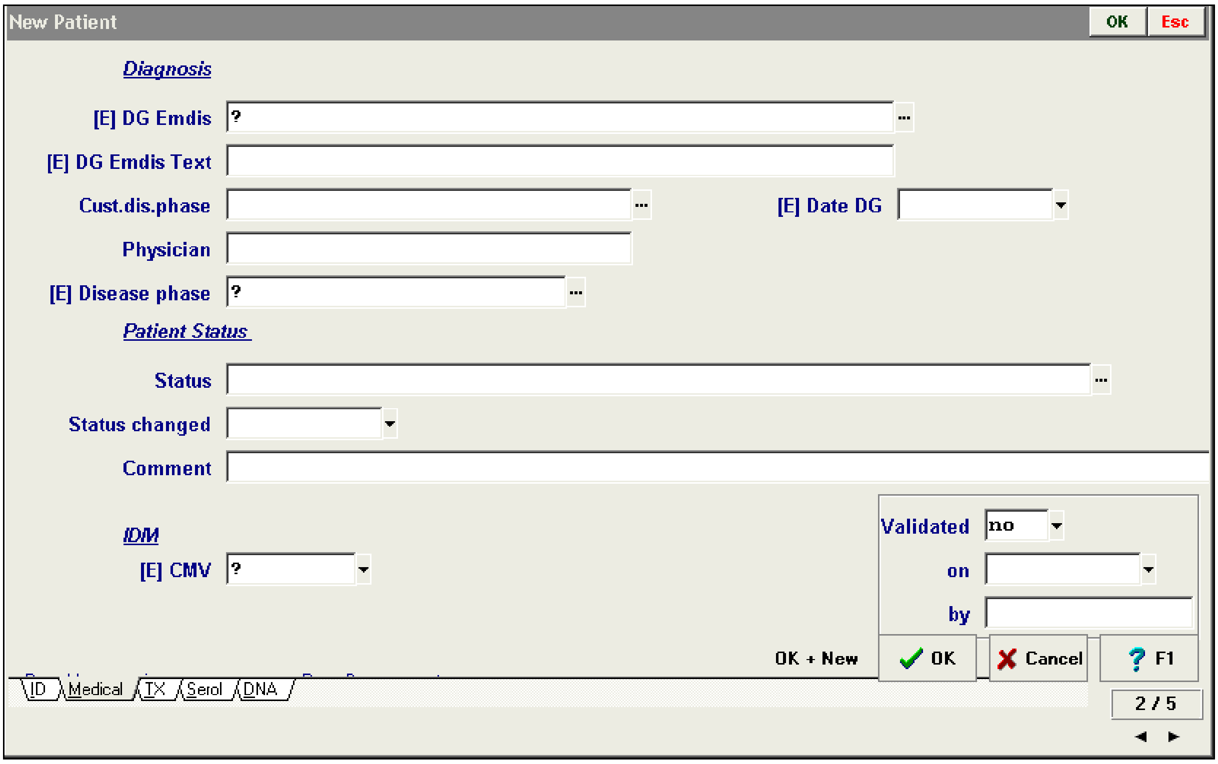
The validation includes your **compliance** with standards (MDPB-R SOP).

Disease categories: listed in the MDPB001 preliminary search request. If MAC approval is required, the patient may not be registered until the MAC request has been approved. It is the responsibility of the Transplant Center to prevent patient registration before MAC has been approved. The disease categories are based on those published according to the EBMT guidelines in bone marrow transplantation.

HLA typing: The HLA typing of the patient must be COMPLETE, i.e. HLA-A, B, C (at least 2 digits), DRB1 (4 digits – at least intermediate resolution), DQB1 is highly recommended. The HLA typing must be at least confirmed on a second sample or segregated in a family. No search will be initiated if the above typing level is not available. It is the responsibility of the Transplant Center to check which Registries will be searched by consulting the BMDW search program.

Non-compliance will be notified to the annual review of the Quality Assurance program.

2. TAB MEDICAL:



[E] DG Emdis: ?
[E] DG Emdis Text:
Cust.dis.phase:
[E] Date DG:
Physician:
[E] Disease phase: ?
Status:
Status changed:
Comment:
[E] CMV: ?
Validated: no
on:
by:

Diagnosis

(E) DG EMDIS	Patient diagnosis code	Mandatory
(E) DG EMDIS text	Patient diagnosis text	Mandatory in case of OL, OM, OND
Customised disease phase	Cfr MDPB-R SOP	Mandatory
(E) Date DG	Patient diagnosis date	Optional
Physician	Treating physician	Optional
(E) Disease phase	Disease phase	Optional

Patient status

Status

Status changed

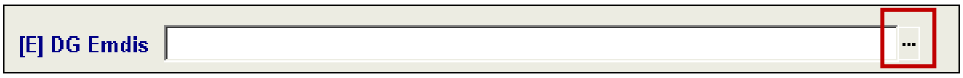
Comment

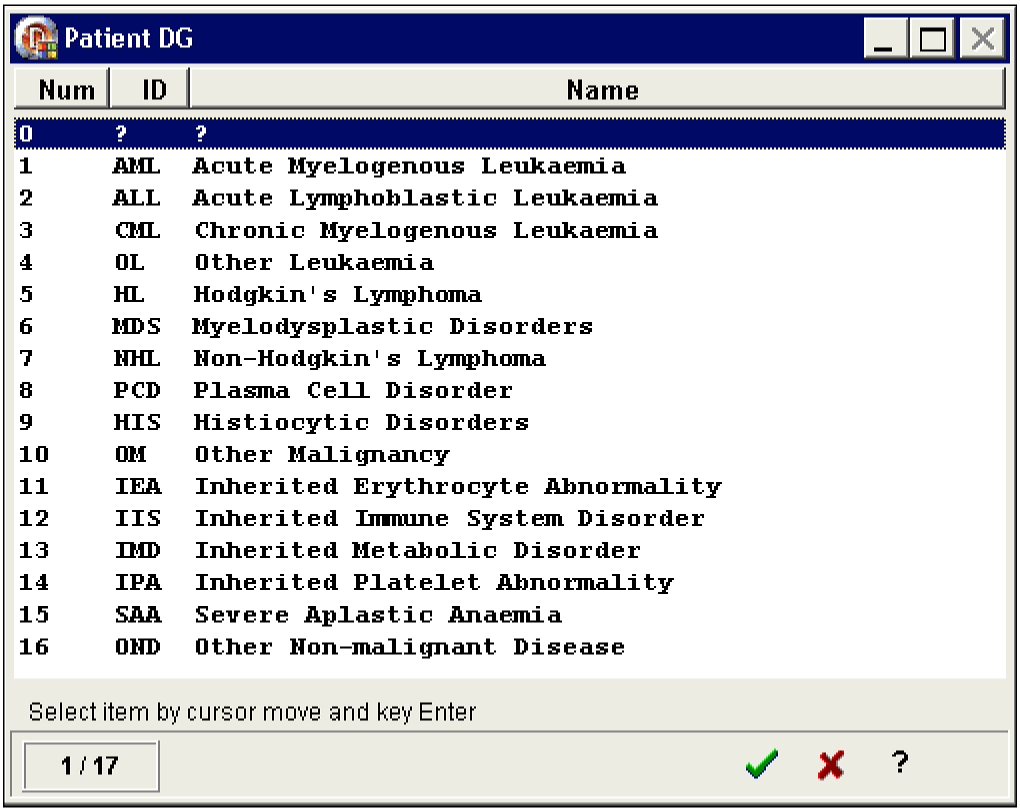
IDM

(E) CMV	Patient CMV status	Optional

(E) DG EMDIS:

The diagnosis of the patient is a required field **:** press ... to display selection list:




Patient DG

Num	ID	Name
0	?	?
1	AML	Acute Myelogenous Leukaemia
2	ALL	Acute Lymphoblastic Leukaemia
3	CML	Chronic Myelogenous Leukaemia
4	OL	Other Leukaemia
5	HL	Hodgkin's Lymphoma
6	MDS	Myelodysplastic Disorders
7	NHL	Non-Hodgkin's Lymphoma
8	PCD	Plasma Cell Disorder
9	HIS	Histiocytic Disorders
10	OM	Other Malignancy
11	IEA	Inherited Erythrocyte Abnormality
12	IIS	Inherited Immune System Disorder
13	IMD	Inherited Metabolic Disorder
14	IPA	Inherited Platelet Abnormality
15	SAA	Severe Aplastic Anaemia
16	OND	Other Non-malignant Disease

Select item by cursor move and key Enter

P_DIAG_TEXT	PAT_UPD	Additional explanatory text describing the diagnosis of the patient for P_DIAG codes OL, OM and OND	A50	Free form; see note 1 in the appendix

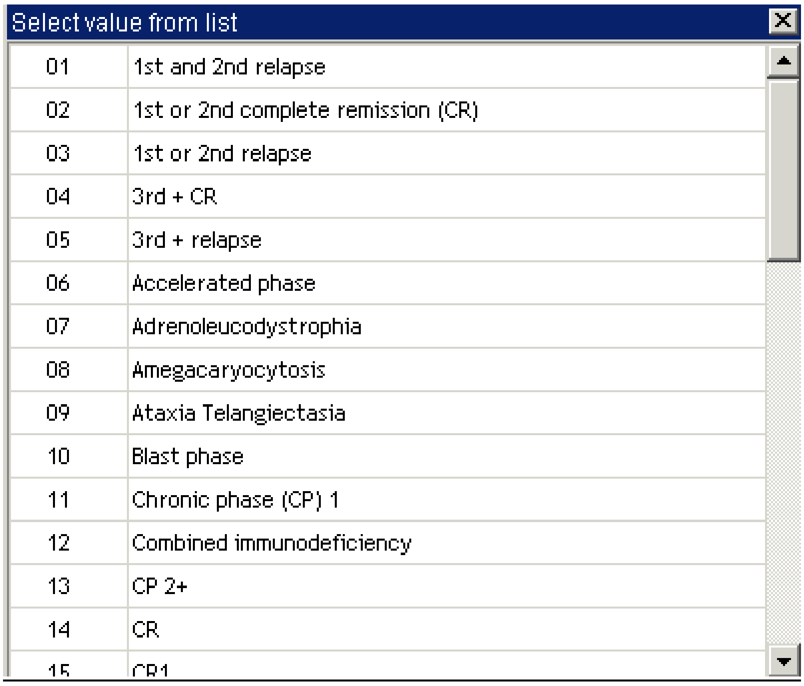
(E) DG EMDIS Text:

If the patient’s disease is **OL** (Other leukaemia), **OM** (Other malignance) or **OND** (Other non-malignant disease) the DG EMDIS text field is required: additional explanatory text must describe the diagnosis of the patient.

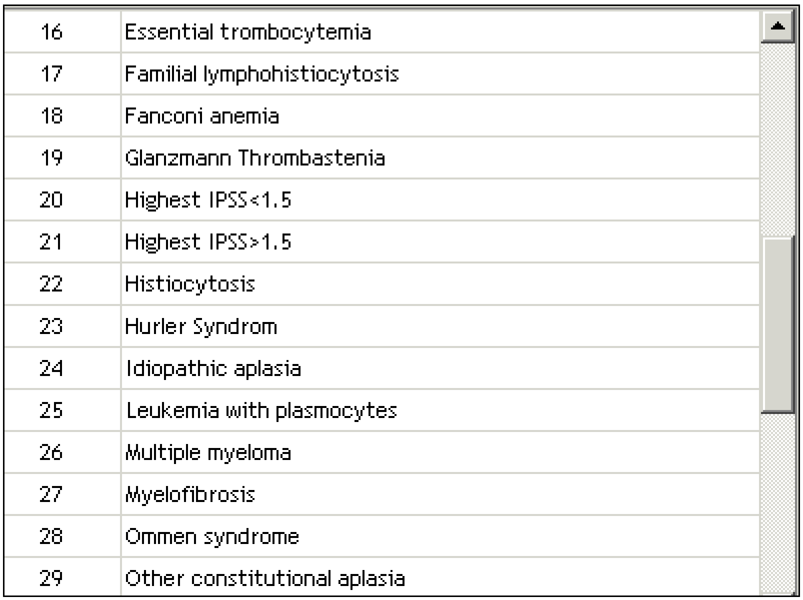
Customized disease phase:

This field has been created to apply to the MDPB-R SOP: categories are listed in the MDPB001 preliminary search request. If MAC approval is required, the patient may not be registered until the MAC request has been approved. It is the responsibility of the Transplant Center to prevent patient registration before MAC has been approved.

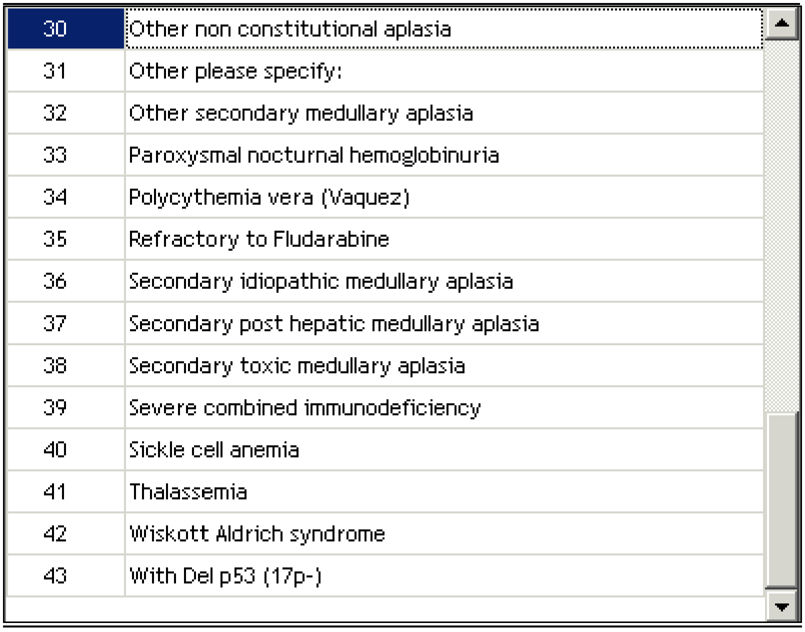
Select a value (disease stage) from the list, this information will not be sent to EMDIS.



01	1st and 2nd relapse
02	1st or 2nd complete remission (CR)
03	1st or 2nd relapse
04	3rd + CR
05	3rd + relapse
06	Accelerated phase
07	Adrenoleucodystrophia
08	Amegacaryocytosis
09	Ataxia Telangiectasia
10	Blast phase
11	Chronic phase (CP) 1
12	Combined immunodeficiency
13	CP 2+
14	CR
15	CR1



16	Essential trombocytemia
17	Familial lymphohistiocytosis
18	Fanconi anemia
19	Glanzmann Thrombastenia
20	Highest IPSS<1.5
21	Highest IPSS>1.5
22	Histiocytosis
23	Hurler Syndrom
24	Idiopathic aplasia
25	Leukemia with plasmocytes
26	Multiple myeloma
27	Myelofibrosis
28	Ommen syndrome
29	Other constitutional aplasia



30	Other non constitutional aplasia
31	Other please specify:
32	Other secondary medullary aplasia
33	Paroxysmal nocturnal hemoglobinuria
34	Polycythemia vera (Vaquez)
35	Refractory to Fludarabine
36	Secondary idiopathic medullary aplasia
37	Secondary post hepatic medullary aplasia
38	Secondary toxic medullary aplasia
39	Severe combined immunodeficiency
40	Sickle cell anemia
41	Thalassemia
42	Wiskott Aldrich syndrome
43	With Del p53 (17p-)

If the disease is not listed in the above list, the information can be typed in the **(E) DG EMDIS Text.**

(E) Disease phase:

The EMDIS disease phase will be sent to EMDIS, but is not a mandatory field.

Patient status

The patient status are data not sent via EMDIS, it is for your own information.

For patients cancelled in Syrenad the reason of cancellation, date of cancellation and donor code have been uploaded in these fields.

The status of a patient in Prometheus can be preliminary, active, suspended or cancelled and is further explained in chapter IV.II. Patient status.

IDM

(E) CMV: patient CMV is an optional field**.**

0 = questionable

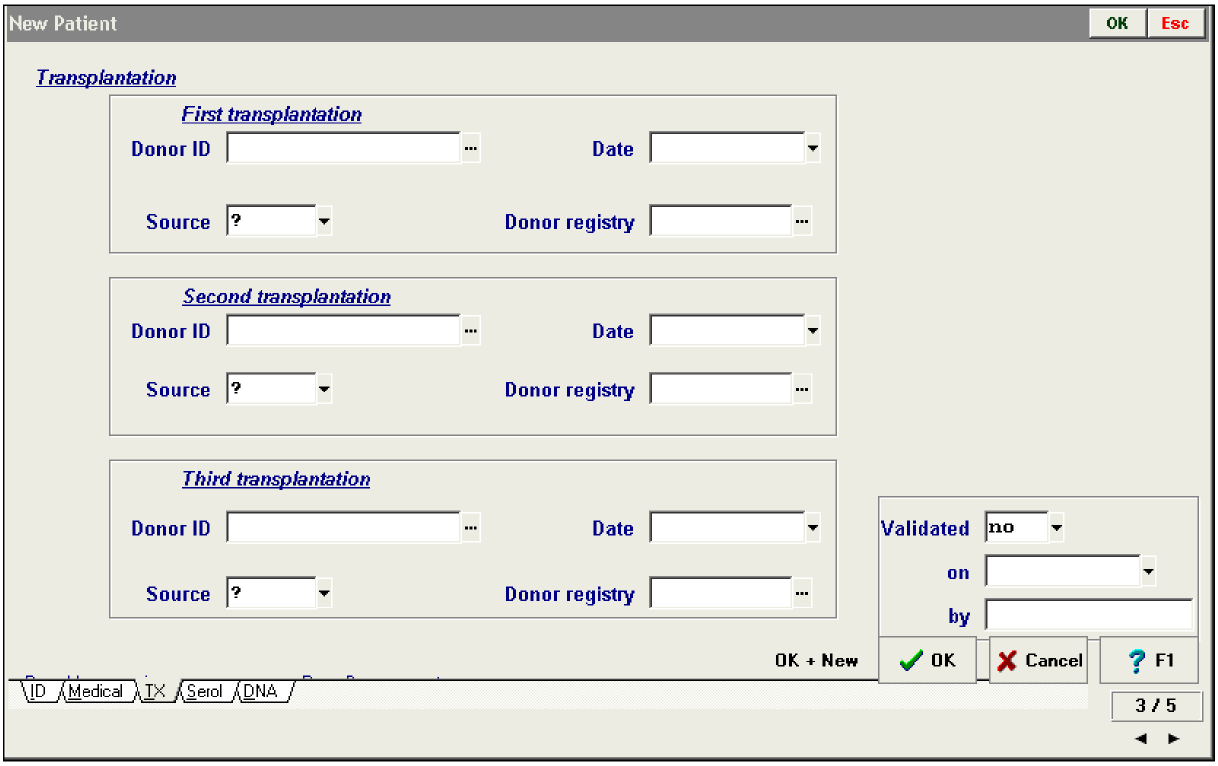
1= Positive

2= Negative

Validated

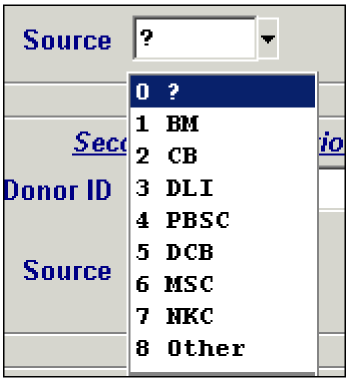
Identical to validation in tab ID.

3. TAB TX TRANSPLANTATION:

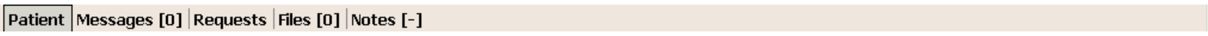


This screen offers the possibility to enter information regarding performed transplantations: **First - second - third transplantation.**

(donor ID – date – source *(BM – CB - DLI – PBSC – DCB – MSC – NKC - other)* – donor Registry)



1. *Bone Marrow*
2. *Cord Blood*
3. *Donor Lymhocyte infusion*
4. *Peripheral Blood stem cells*
5. *Dendritic cells from blood (can be requested in research protocols)*
6. *Mesenchymal stem cell*
7. *NK cells (natural killer cells)*
8. *Other (could include MNS – Mononuclear cells).*

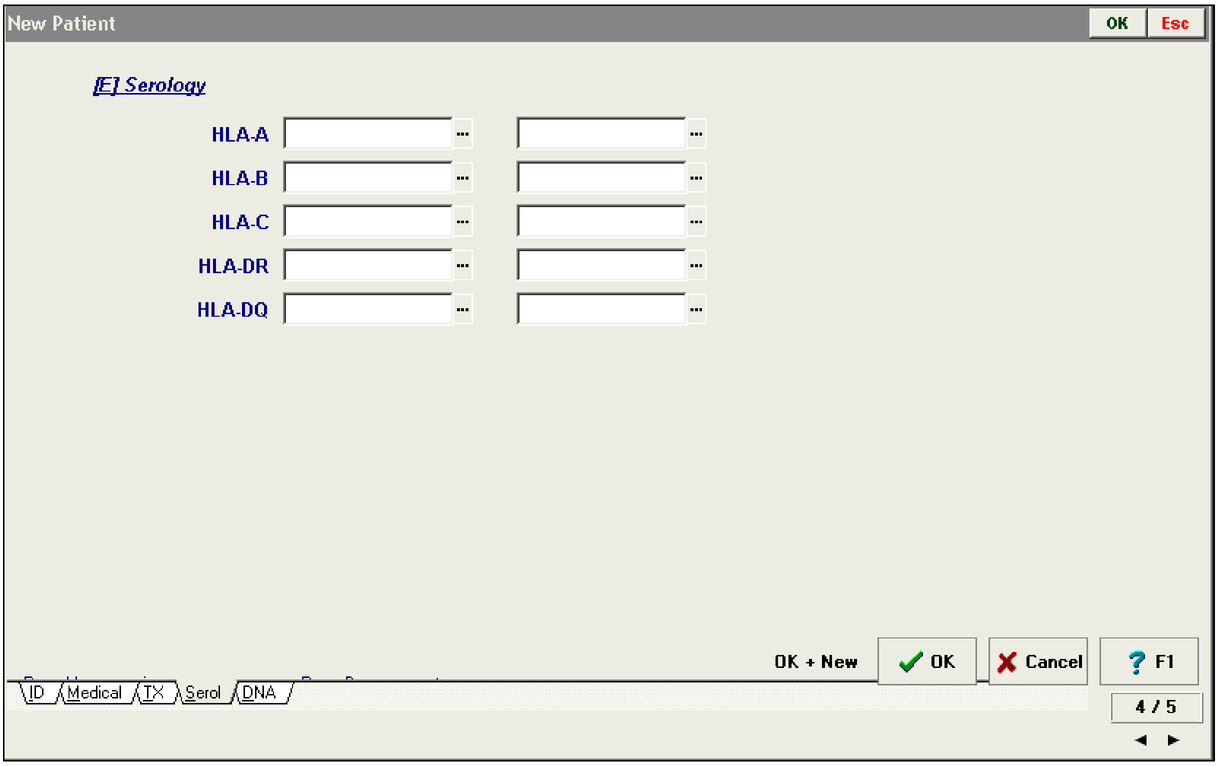


For validation:

Identical to validation in tab ID.

4. TAB SEROLOGY

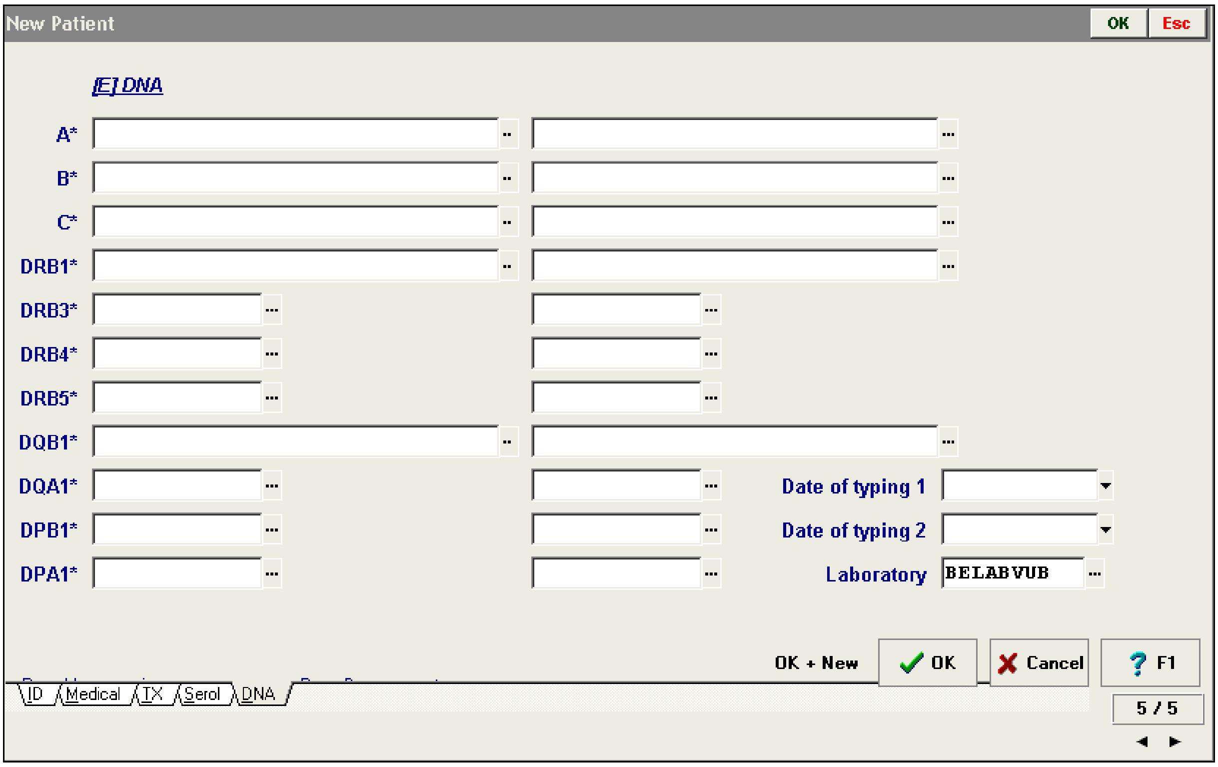
Prometheus don't require to enter serology typing or search determinants. It is not necessary to enter this screen if DNA values are available.



5. TAB DNA

It is the responsibility of the Transplant Center to enter complete data according to the MDP-R SOP; The HLA typing of the patient must be COMPLETE, i.e.. HLA-A, B, C (at least 2 digits), DRB1 (4 digits – at least intermediate resolution), DQB1 is highly recommended.

See chapter I.II.1.4.4 for more information about entry of HLA typings.



Laboratory: BELABVUB

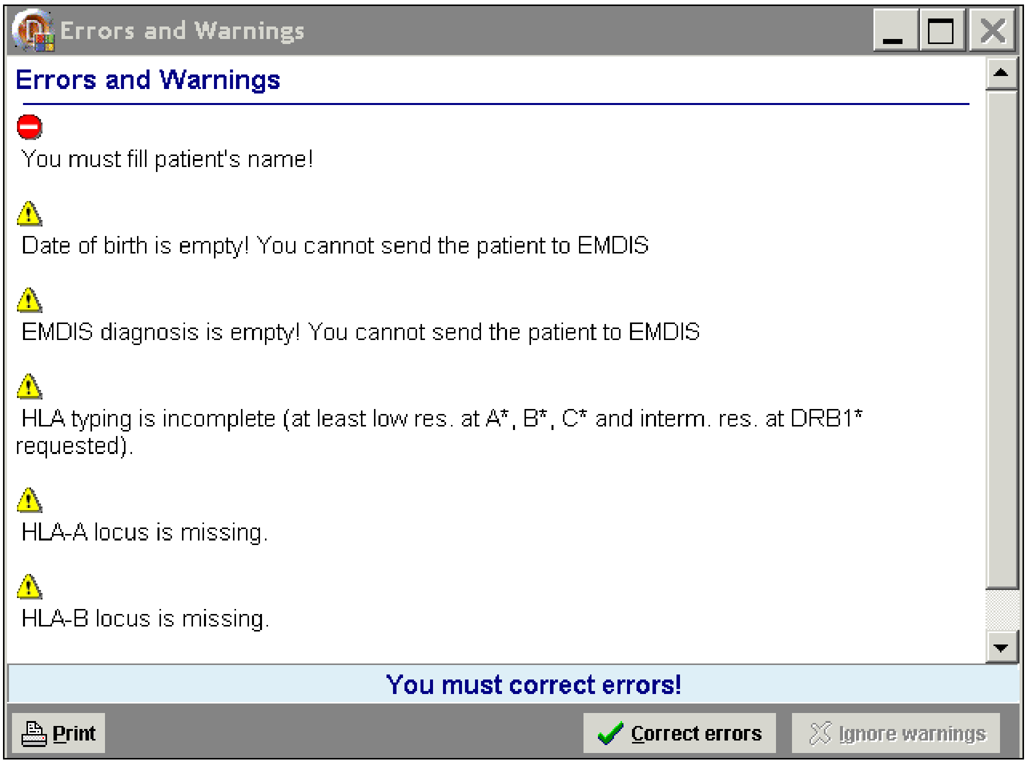
Date of typing 1 - enter the date of typing

Date of typing 2

Laboratory - prefilled

II.IV.3. ERRORS AND WARNINGS

Validation of the patient will be done stepwise. The Basic requirements for patient registration in Prometheus are the following: the patient record can be edited by filling only the patient’s name, but validation is only possible after all requirements have been fulfilled.



Errors and Warnings

⛔
You must fill patient's name!

⚠
Date of birth is empty! You cannot send the patient to EMDIS

⚠
EMDIS diagnosis is empty! You cannot send the patient to EMDIS

⚠
HLA typing is incomplete (at least low res. at A*, B*, C* and interm. res. at DRB1* requested).

⚠
HLA-A locus is missing.

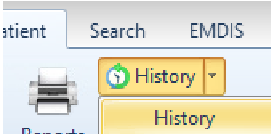
⚠
HLA-B locus is missing.

You must correct errors!

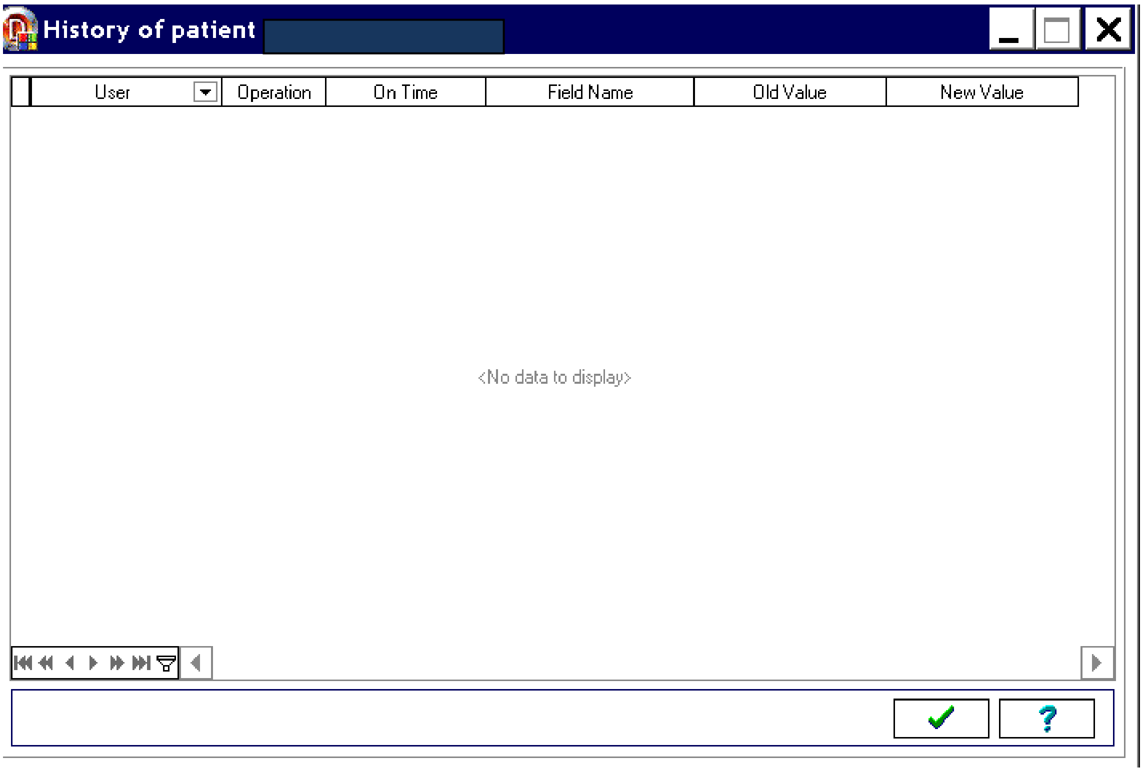
A patient can be registered neglecting the yellow warnings, but the it will not be possible to validate the patient or change the patient status or activate the search.

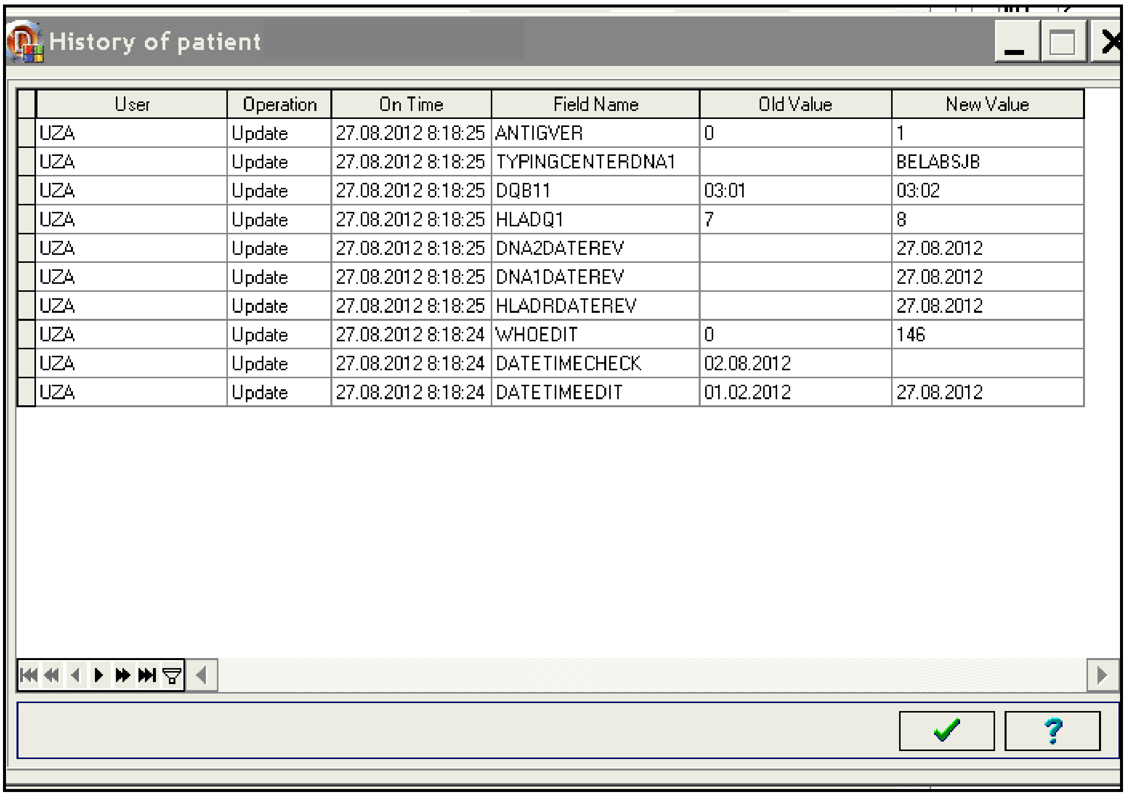
II.V. Patient data change history

II.V.1. History

The history of the patient data change is called up by 

Open the patient's record and then go to "patient – history". If a history for the patient exists, the table with his data will appear, otherwise a blank table will be opened. The user's individual actions will be logged in this history tracking audit.





User	Operation	On Time	Field Name	Old Value	New Value
UZA	Update	27.08.2012 8:18:25	ANTIGVER	0	1
UZA	Update	27.08.2012 8:18:25	TYPINGCENTERDNA1		BELABSJB
UZA	Update	27.08.2012 8:18:25	DQB11	03:01	03:02
UZA	Update	27.08.2012 8:18:25	HLADQ1	7	8
UZA	Update	27.08.2012 8:18:25	DNA2DATEREV		27.08.2012
UZA	Update	27.08.2012 8:18:25	DNA1DATEREV		27.08.2012
UZA	Update	27.08.2012 8:18:25	HLADRDATEREV		27.08.2012
UZA	Update	27.08.2012 8:18:24	WHOEDIT	0	146
UZA	Update	27.08.2012 8:18:24	DATETIMECHECK	02.08.2012	
UZA	Update	27.08.2012 8:18:24	DATETIMEEDIT	01.02.2012	27.08.2012

Patient data change history

History window description

the title bar:	patient code
user:	the individual who did the “operation”
on time:	time of operation
field name:	changed value names
old value:	original value before the update

new name: contains the new value

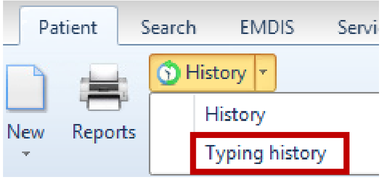
Navigation

There is a navigation panel on the bottom-left, right above the data result. Navigation arrows allow movement in the table (left to right): first record, previous record, next and last record. Filtering and sorting are equally possible.

Termination

Press ☒ or ✓ to terminate the history window screen.

II.V.2. Typing history



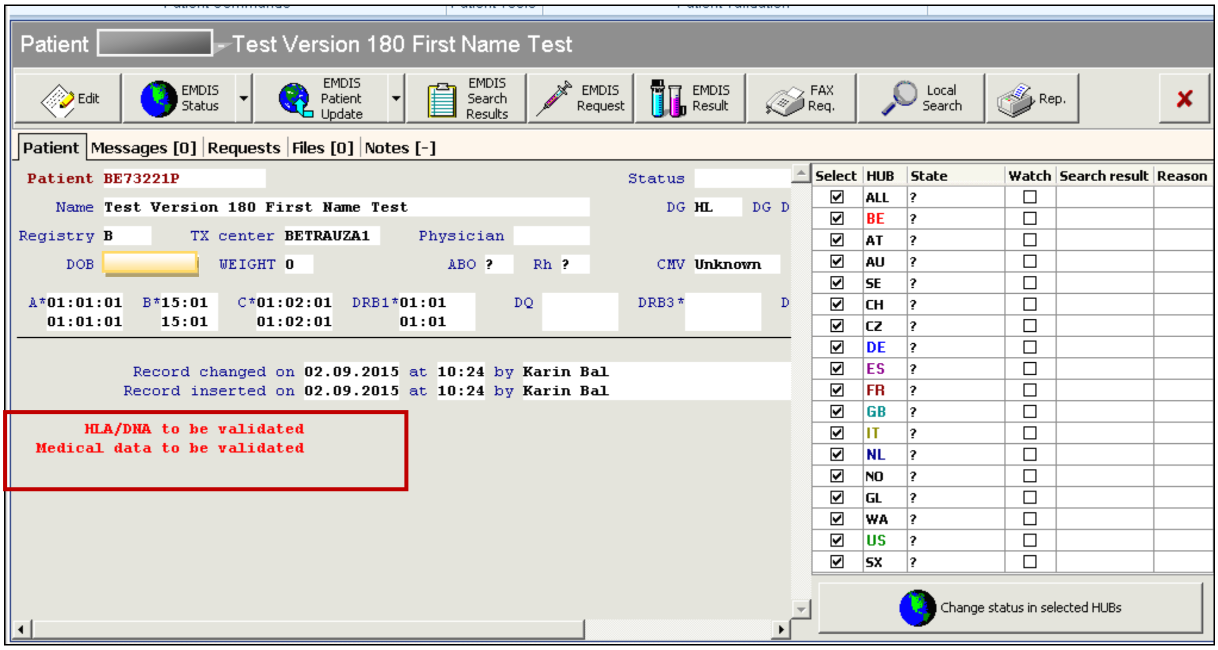
The option Typing history is only available for consultation purposes: History of HLA typing is better documented. It is also possible to print a report with the discrepancies.

II.VI. Validation

After a patient registration, a patient file has to be validated.

The validation consists of 2 parts:

1. HLA/DNA to be validated;
2. Medical data to be validated.
   (Medical data can also immediately be validated when registering the patient file)



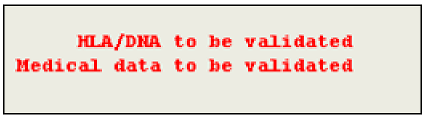
Patient BE73221P
Status
Name Test Version 180 First Name Test
DG HL
DG D
Registry B
TX center BETRAUZA1
Physician
DOB
WEIGHT 0
ABO ?
Rh ?
CMV Unknown
A*01:01:01 01:01:01
B*15:01 15:01
C*01:02:01 01:02:01
DRB1*01:01 01:01
DQ
DRB3*
D

Record changed on 02.09.2015 at 10:24 by Karin Bal
Record inserted on 02.09.2015 at 10:24 by Karin Bal

HLA/DNA to be validated
Medical data to be validated

Select	HUB	State	Watch	Search result	Reason
☑	ALL	?	☐		
☑	BE	?	☐		
☑	AT	?	☐		
☑	AU	?	☐		
☑	SE	?	☐		
☑	CH	?	☐		
☑	CZ	?	☐		
☑	DE	?	☐		
☑	ES	?	☐		
☑	FR	?	☐		
☑	GB	?	☐		
☑	IT	?	☐		
☑	NL	?	☐		
☑	NO	?	☐		
☑	GL	?	☐		
☑	WA	?	☐		
☑	US	?	☐		
☑	SX	?	☐		

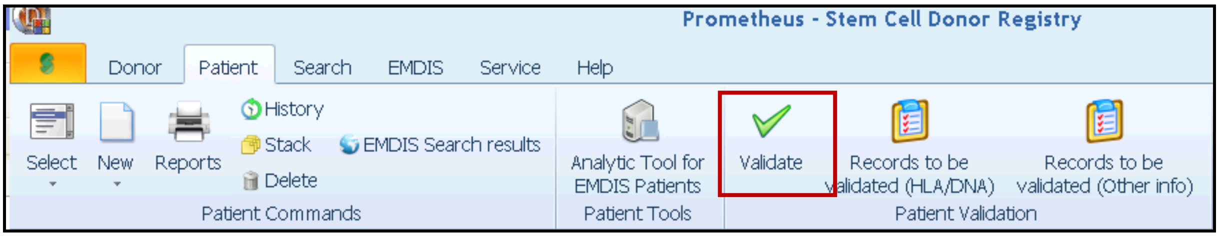
The red text below will indicate the validation status of the patient record:



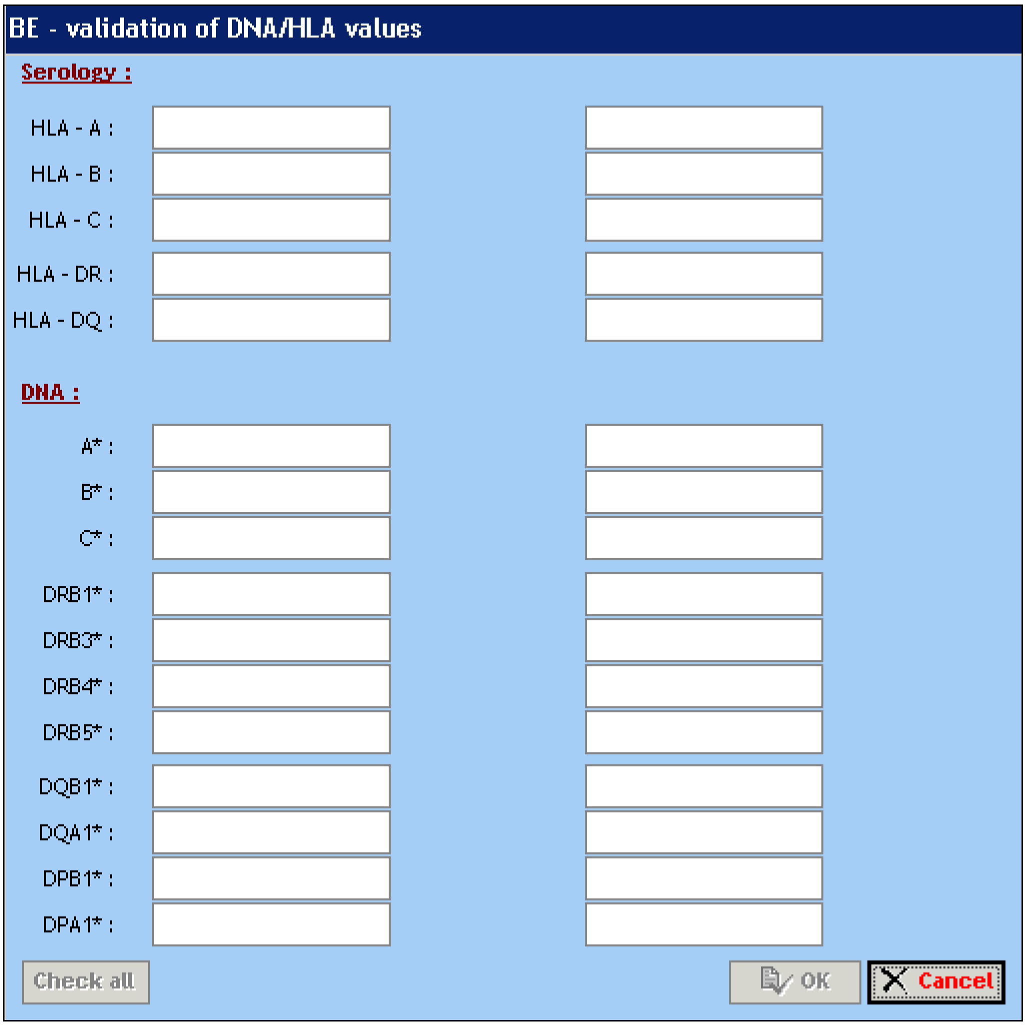
HLA/DNA to be validated
Medical data to be validated

1. HLA/ DNA to be validated

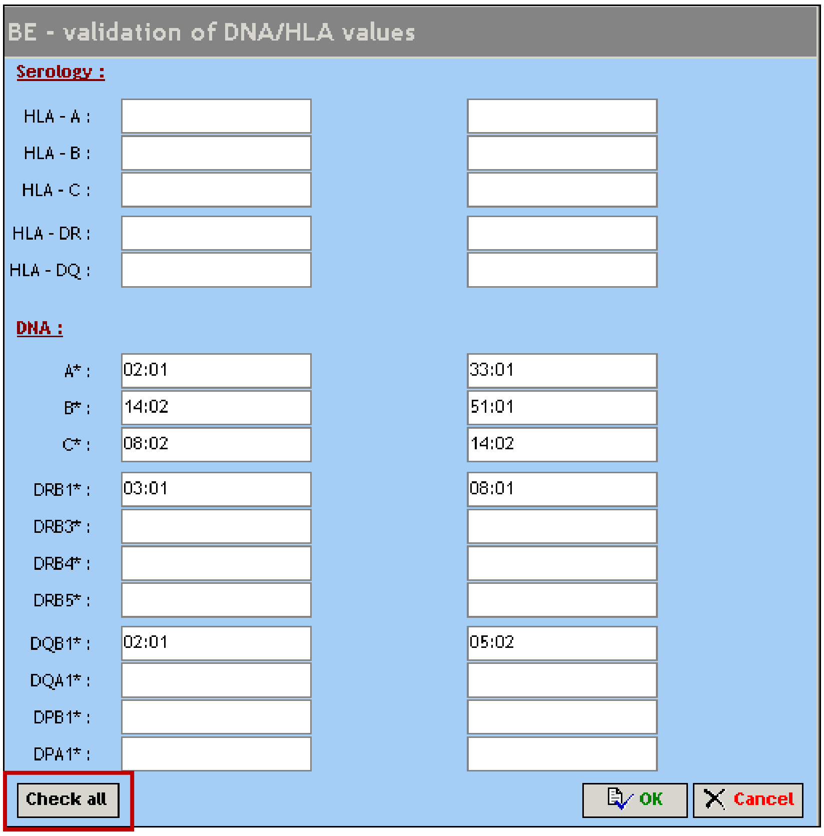
Open the patients record and then select „validate" in the patient menu



Selecting **„validate"** will open the following validation screen, which enables the validation using double blind screens.



Enter the HLA data:



BE - validation of DNA/HLA values

Serology :

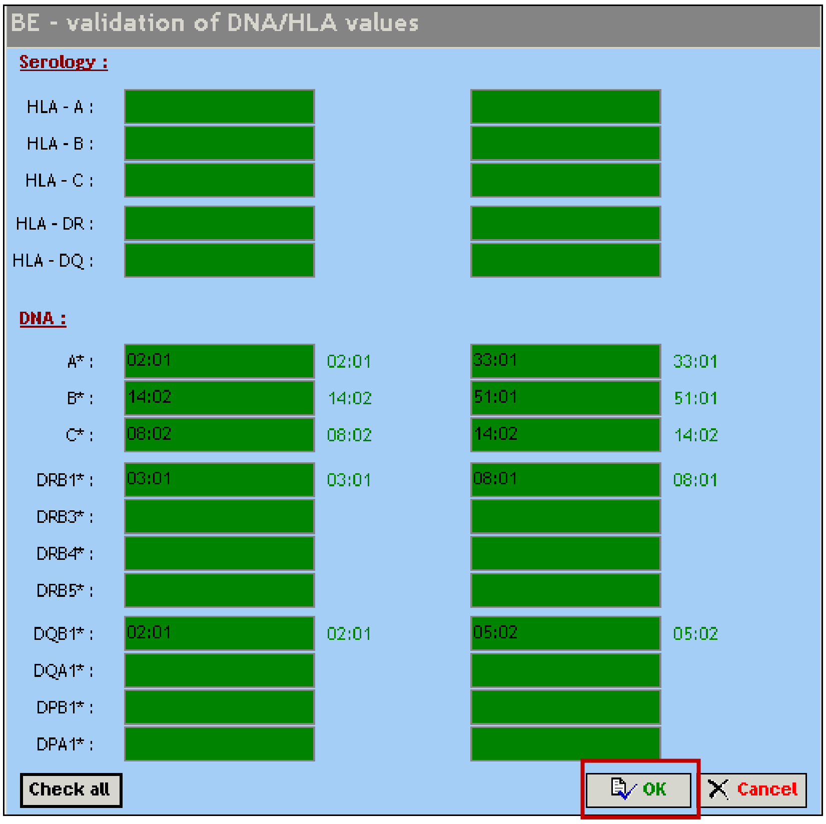
HLA - A :		
HLA - B :		
HLA - C :		
HLA - DR :		
HLA - DQ :		

DNA :

A* :	02:01	33:01
B* :	14:02	51:01
C* :	08:02	14:02
DRB1* :	03:01	08:01
DRB3* :		
DRB4* :		
DRB5* :		
DQB1* :	02:01	05:02
DQA1* :		
DPB1* :		
DPA1* :		

The check box will appear when all data have been entered in the fields, if any field missing, the record cannot be validated:

Press check all and the validated data will be highlighted in green:



BE - validation of DNA/HLA values

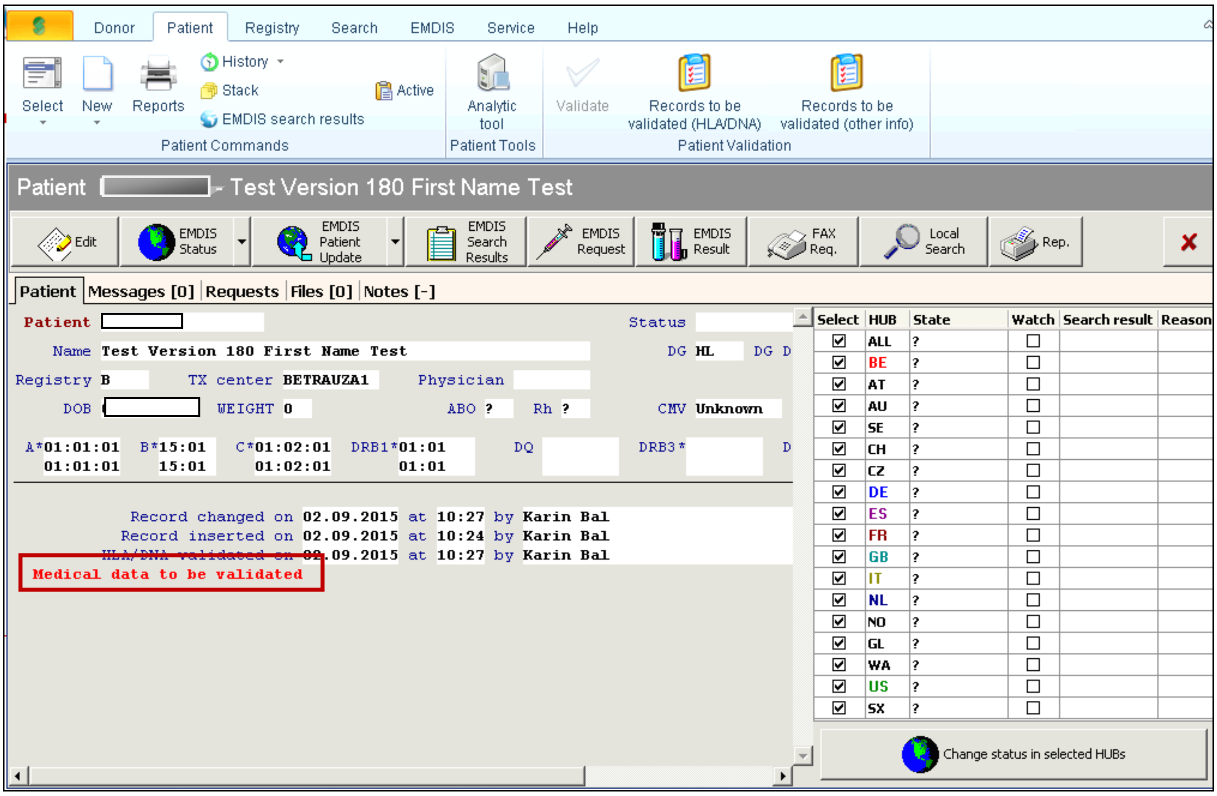
Serology :

HLA - A :		
HLA - B :		
HLA - C :		
HLA - DR :		
HLA - DQ :		

DNA :

A* :	02:01	02:01	33:01	33:01
B* :	14:02	14:02	51:01	51:01
C* :	08:02	08:02	14:02	14:02
DRB1* :	03:01	03:01	08:01	08:01
DRB3* :				
DRB4* :				
DRB5* :				
DQB1* :	02:01	02:01	05:02	05:02
DQA1* :				
DPB1* :				
DPA1* :				

Press “OK” to validate.



Patient [redacted] - Test Version 180 First Name Test

Patient [redacted]
Status
Name Test Version 180 First Name Test
DG HL
DG D
Registry B
TX center BETRAUZA1
Physician
DOB [redacted]
WEIGHT 0
ABO ?
Rh ?
CMV Unknown

A*01:01:01 01:01:01
B*15:01 15:01
C*01:02:01 01:02:01
DRB1*01:01 01:01
DQ
DRB3*
D

Record changed on 02.09.2015 at 10:27 by Karin Bal
Record inserted on 02.09.2015 at 10:24 by Karin Bal
HLA/DNA validated on 02.09.2015 at 10:27 by Karin Bal
Medical data to be validated

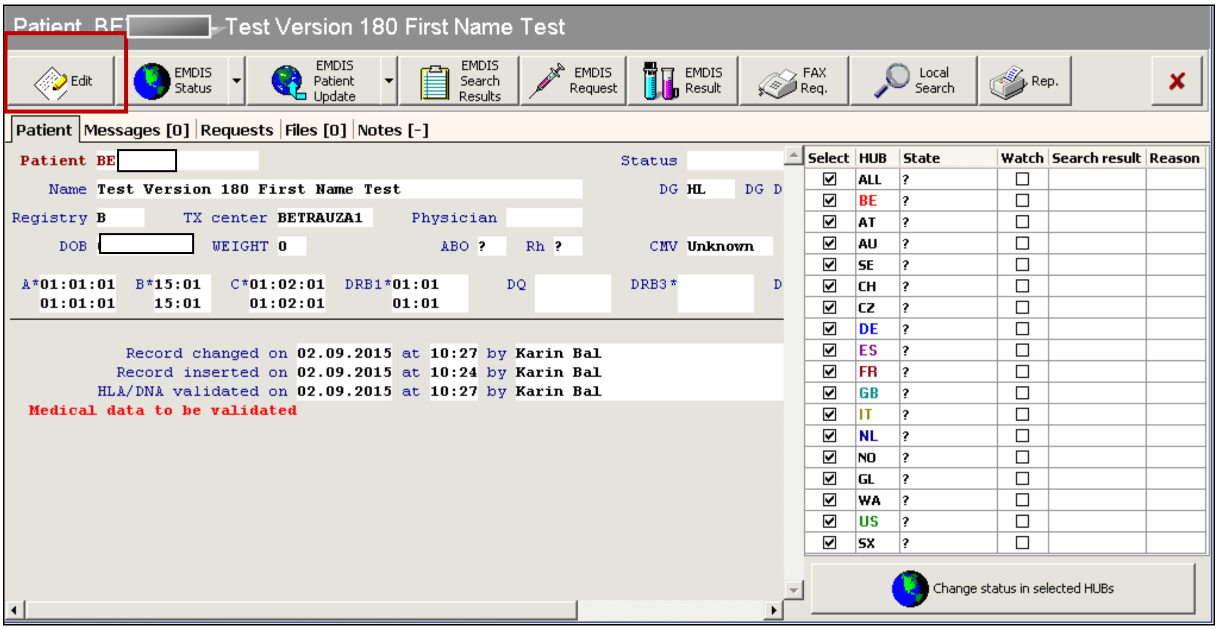
Select	HUB	State	Watch	Search result	Reason
☑	ALL	?	☐		
☑	BE	?	☐		
☑	AT	?	☐		
☑	AU	?	☐		
☑	SE	?	☐		
☑	CH	?	☐		
☑	CZ	?	☐		
☑	DE	?	☐		
☑	ES	?	☐		
☑	FR	?	☐		
☑	GB	?	☐		
☑	IT	?	☐		
☑	NL	?	☐		
☑	NO	?	☐		
☑	GL	?	☐		
☑	WA	?	☐		
☑	US	?	☐		
☑	SX	?	☐		

The hla of the record is validated : HLA/DNA validated on „date“ „hour“ „user“ will appear in blue below in the screen.

2. Medical data to be validated

Medical data to be validated

The HLA/DNA data has been validated, to validate the medical data, go to the patients record via “EDIT”.



Patient BE
Status
Name Test Version 180 First Name Test
DG HL DG D
Registry B TX center BETRAUZA1 Physician
DOB WEIGHT 0 ABO ? Rh ? CMV Unknown
A*01:01:01 01:01:01 B*15:01 15:01 C*01:02:01 01:02:01 DRB1*01:01 01:01 DQ DRB3* D

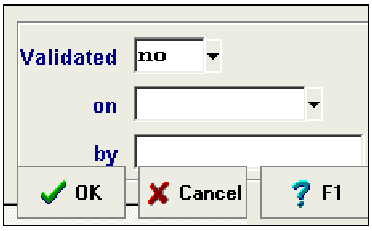
Record changed on 02.09.2015 at 10:27 by Karin Bal
Record inserted on 02.09.2015 at 10:24 by Karin Bal
HLA/DNA validated on 02.09.2015 at 10:27 by Karin Bal
Medical data to be validated

Select	HUB	State	Watch	Search result	Reason
☑	ALL	?	☐		
☑	BE	?	☐		
☑	AT	?	☐		
☑	AU	?	☐		
☑	SE	?	☐		
☑	CH	?	☐		
☑	CZ	?	☐		
☑	DE	?	☐		
☑	ES	?	☐		
☑	FR	?	☐		
☑	GB	?	☐		
☑	IT	?	☐		
☑	NL	?	☐		
☑	NO	?	☐		
☑	GL	?	☐		
☑	WA	?	☐		
☑	US	?	☐		
☑	SX	?	☐		

The following tabs:

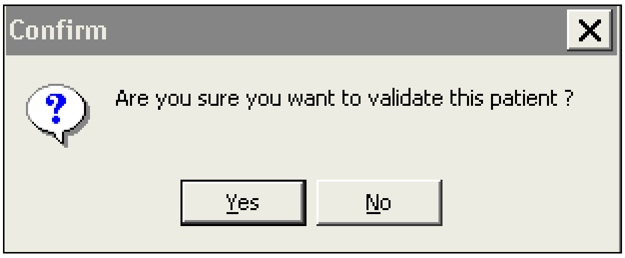
- **ID**
- **Medical**
- **TX**

must be validated by clicking “yes” in the check boxes: the registration date (field “on”) and the user (“by”) will be logged by the system.



Validated no
on
by

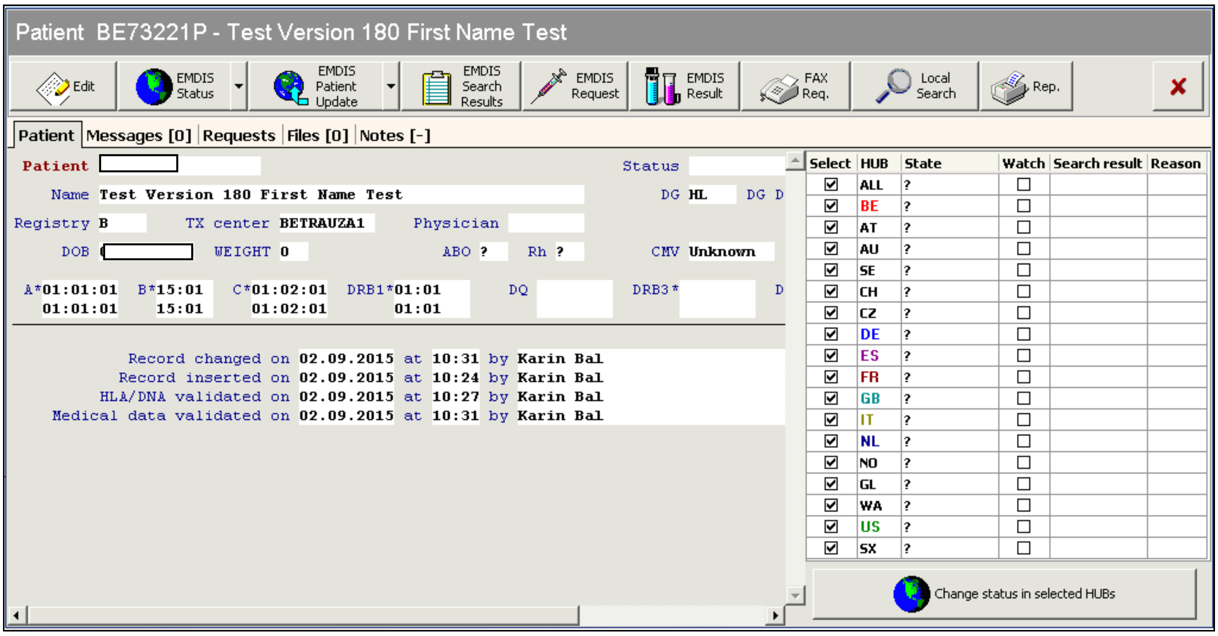
After this operation, the system asks to confirm the medical validation:



Are you sure you want to validate this patient ?

The patient’s record will display that the record has been validated:

Medical data validated on date/hour/by user.



Patient BE73221P - Test Version 180 First Name Test

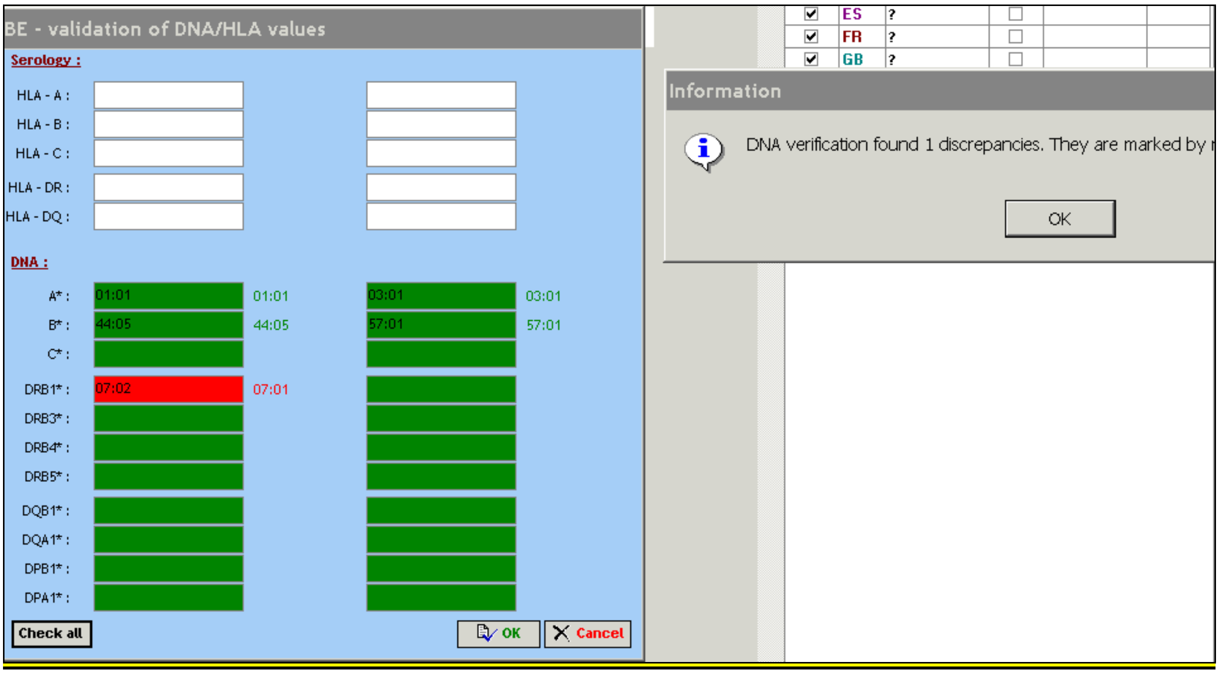
Patient
Status
Name Test Version 180 First Name Test
DG HL
DG D
Registry B
TX center BETRAUZA1
Physician
DOB
WEIGHT 0
ABO ?
Rh ?
CMV Unknown
A*01:01:01 01:01:01
B*15:01 15:01
C*01:02:01 01:02:01
DRB1*01:01 01:01
DQ
DRB3*
D

Record changed on 02.09.2015 at 10:31 by Karin Bal
Record inserted on 02.09.2015 at 10:24 by Karin Bal
HLA/DNA validated on 02.09.2015 at 10:27 by Karin Bal
Medical data validated on 02.09.2015 at 10:31 by Karin Bal

Select	HUB	State	Watch	Search result	Reason
☑	ALL	?	☐		
☑	BE	?	☐		
☑	AT	?	☐		
☑	AU	?	☐		
☑	SE	?	☐		
☑	CH	?	☐		
☑	CZ	?	☐		
☑	DE	?	☐		
☑	ES	?	☐		
☑	FR	?	☐		
☑	GB	?	☐		
☑	IT	?	☐		
☑	NL	?	☐		
☑	NO	?	☐		
☑	GL	?	☐		
☑	WA	?	☐		
☑	US	?	☐		
☑	SX	?	☐		

3. Discrepancies found

In case of discrepancies, the differences will be revealed :



BE - validation of DNA/HLA values

Serology :

HLA - A :
HLA - B :
HLA - C :
HLA - DR :
HLA - DQ :

DNA :

A* :	01:01	01:01	03:01	03:01
B* :	44:05	44:05	57:01	57:01
C* :				
DRB1* :	07:02	07:01		
DRB3* :				
DRB4* :				
DRB5* :				
DQB1* :				
DQA1* :				
DPB1* :				
DPA1* :				

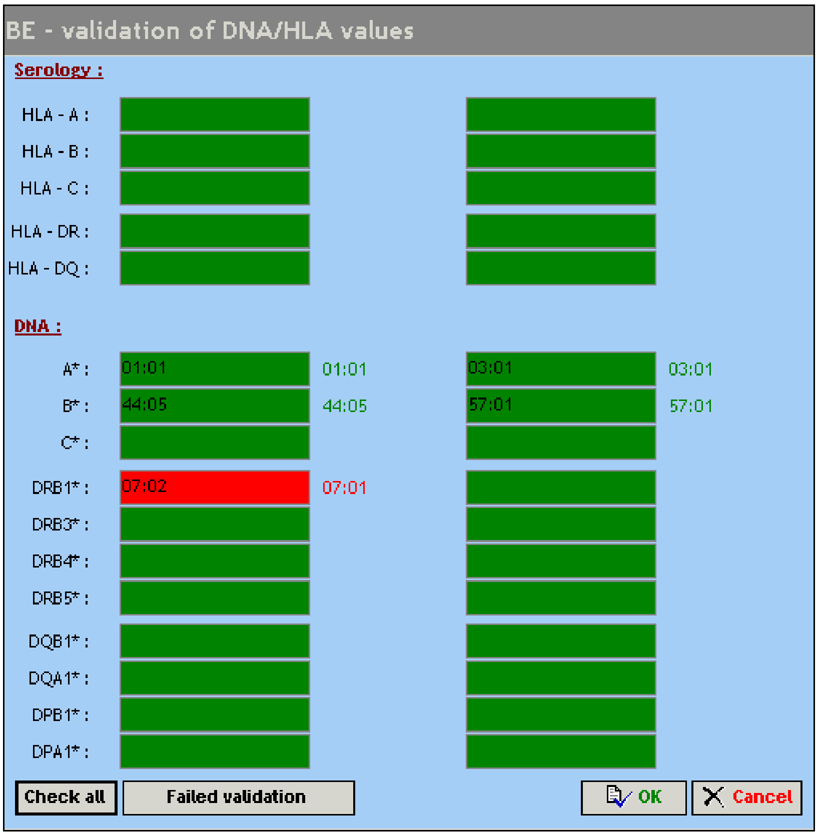
☑	ES	?	☐
☑	FR	?	☐
☑	GB	?	☐

Information

DNA verification found 1 discrepancies. They are marked by r

If the “validator” made a mistake, he or she can try again, correct and then press ok.

The following screen will be displayed:



BE - validation of DNA/HLA values

Serology :

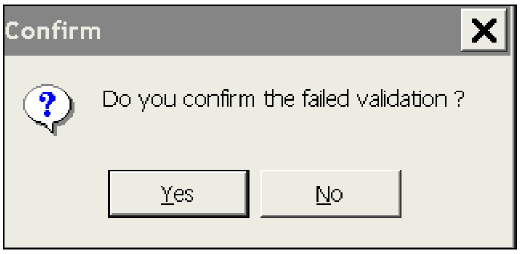
HLA - A :	🟩	🟩
HLA - B :	🟩	🟩
HLA - C :	🟩	🟩
HLA - DR :	🟩	🟩
HLA - DQ :	🟩	🟩

DNA :

A* :	01:01	01:01	03:01	03:01
B* :	44:05	44:05	57:01	57:01
C* :	🟩		🟩	
DRB1* :	🟥 07:02	07:01	🟩	
DRB3* :	🟩		🟩	
DRB4* :	🟩		🟩	
DRB5* :	🟩		🟩	
DQB1* :	🟩		🟩	
DQA1* :	🟩		🟩	
DPB1* :	🟩		🟩	
DPA1* :	🟩		🟩	

Press ok, and the record will be validated.

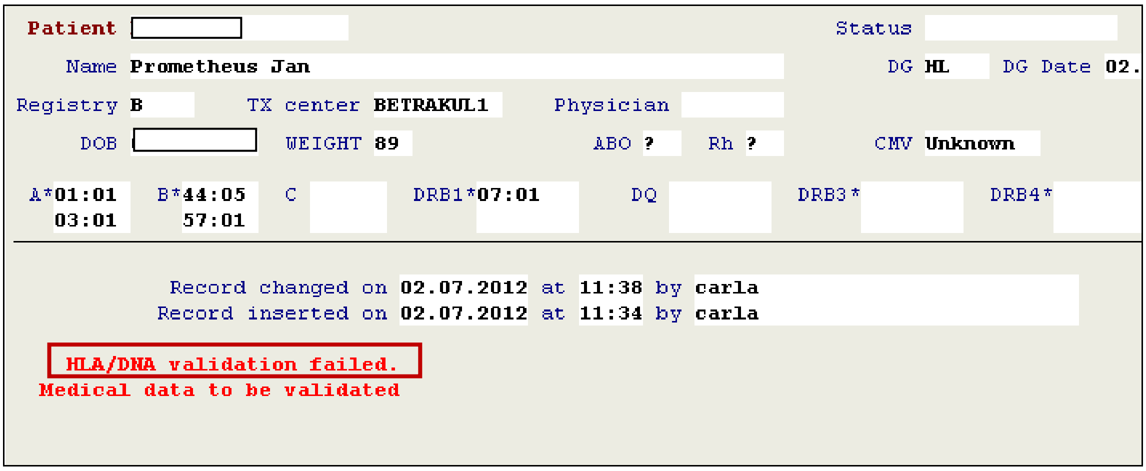
If the original typing is incorrect, press “failed validation”.



Confirm

Do you confirm the failed validation ?

The patient’s record will display the “HLA-DNA validation failed’:



Patient
Status
Name Prometheus Jan
DG HL
DG Date 02.
Registry B
TX center BETRAKUL1
Physician
DOB
WEIGHT 89
ABO ?
Rh ?
CMV Unknown

A*01:01 03:01
B*44:05 57:01
C
DRB1*07:01
DQ
DRB3*
DRB4*

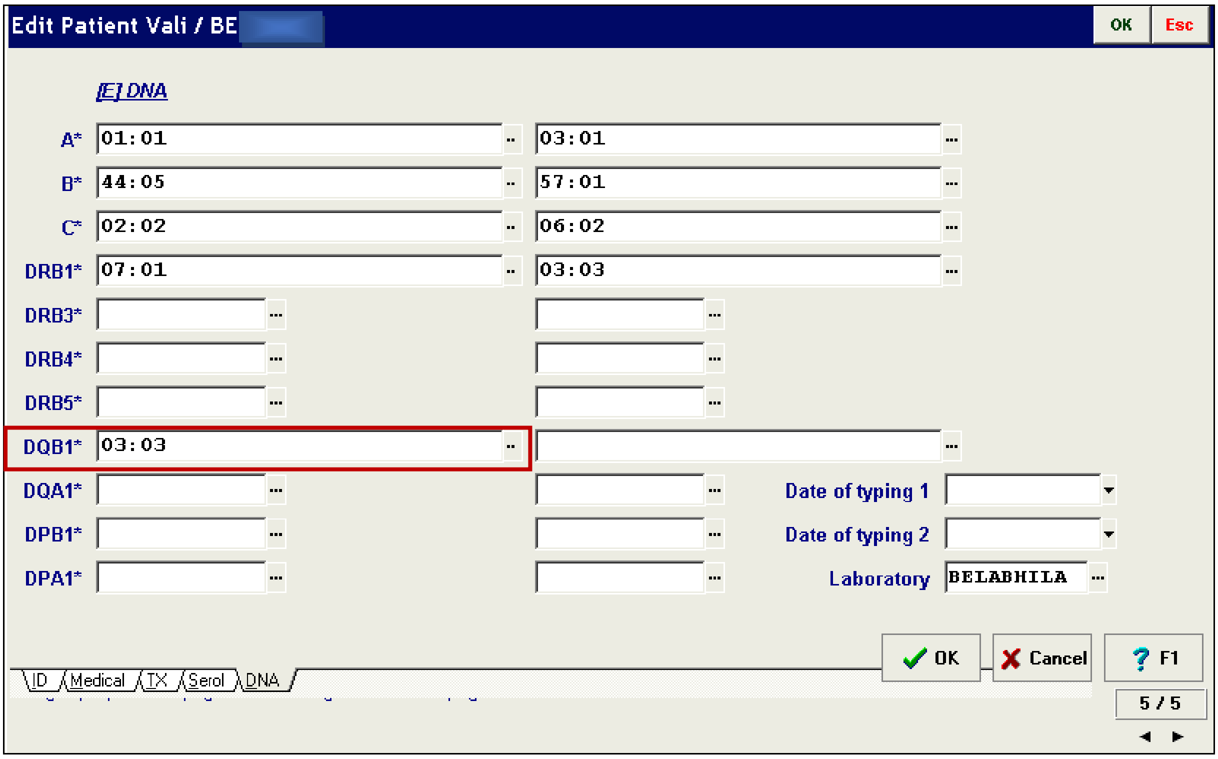
Record changed on 02.07.2012 at 11:38 by carla
Record inserted on 02.07.2012 at 11:34 by carla

HLA/DNA validation failed.
Medical data to be validated

The original typing can then be updated and needs to be validated again. The validator is responsible for the follow up of failed validations: she or he can update the typing and validate again or ask the initial user to update the typing. The failed validation will be listed in the "Records to be listed".

4. Typing update

The file has been edited by entering a new value for DQB1:



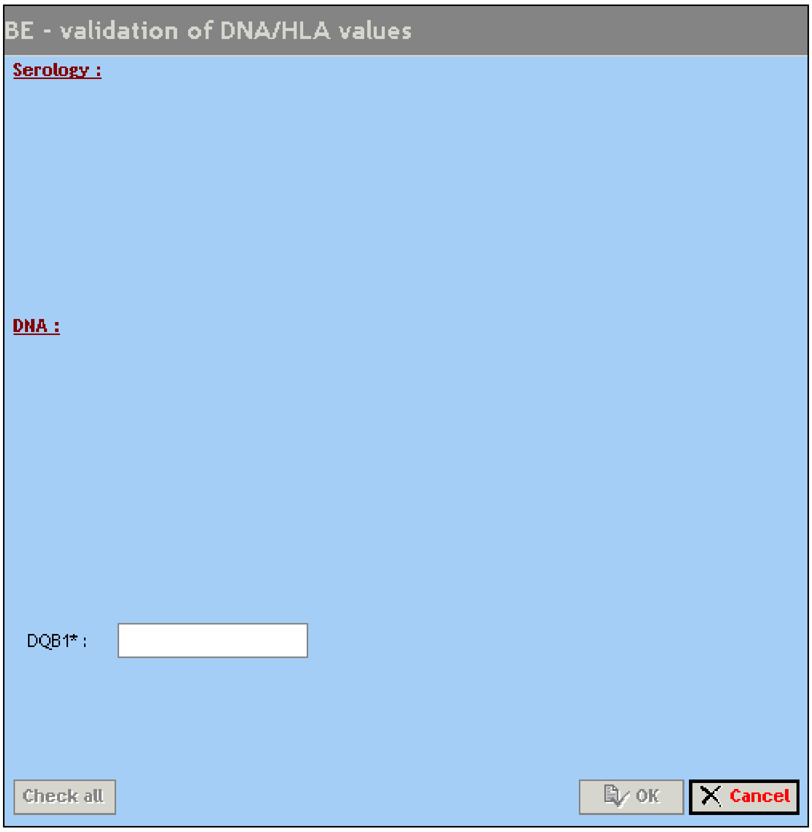
Edit Patient Vali / BE [redacted]

[E] DNA

A*	01:01	03:01
B*	44:05	57:01
C*	02:02	06:02
DRB1*	07:01	03:03
DRB3*		
DRB4*		
DRB5*		
DQB1*	03:03	
DQA1*		
DPB1*		
DPA1*		

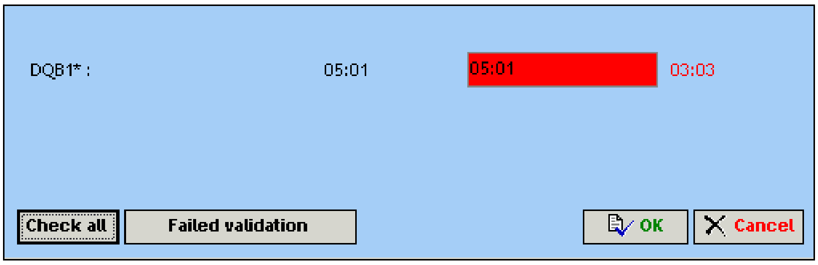
Date of typing 1
Date of typing 2
Laboratory BELABHILA

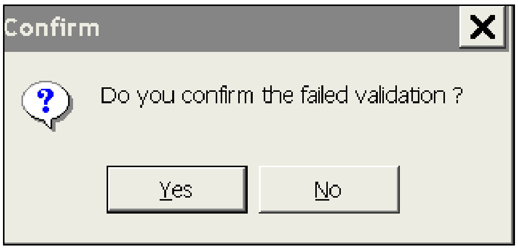
In case of a typing update the record will have status "HLA/DNA to be validated" again.
Press validate for validation:



Enter the HLA typing and press ok for validation.

If the updated typing is incorrect, you can save the failed validation (mismatching) by pressing “failed validation”.


DQB1* : 05:01 05:01 03:03

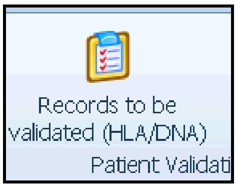

Confirm

Do you confirm the failed validation ?

The patient’s record will display the “HLA-DNA validation failed’.

II.VII. Records to be validated (HLA/DNA)

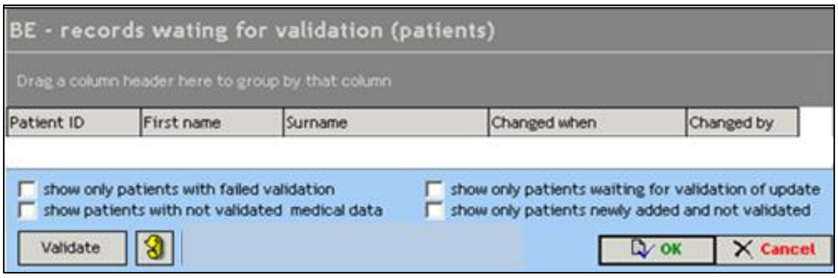
The "**X records to be validated (HLA/DNA)***"* will give an overview of all records to be HLA/DNA validated, this option is however only available for users with validation rights:



If a patient has been registered, and the file needs to be validated, the file will be listed.

Select: **X records to be validated**.

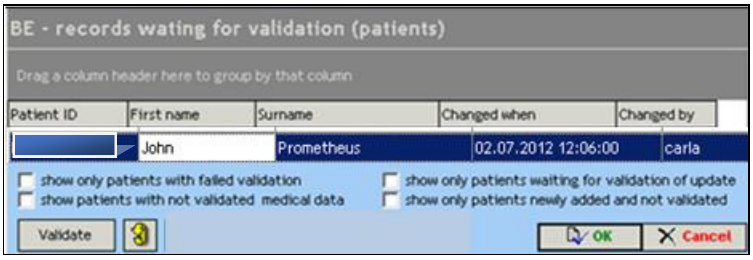
The following window screen will be opened:



BE43865P	John	Prometheus	02.07.2012 12:06:00	carla

Below several additional options are available:

- **Show only patients with failed validation:**
  Patients with status failed validation.
- **Show patients with not validated medical data:**
  List of patients with medical data to be validated.
- **Show only patients waiting for validation of update:**
  List of patients with typing update to be validated.
- **Show only patients newly added and not validated:** patients with both status HLA/DNA to be validated and medical data to be validated will be listed.



Patient ID	First name	Surname	Changed when	Changed by
	John	Prometheus	02.07.2012 12:06:00	carla

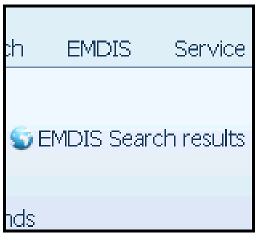
Select the patient's record and press validate for validation:

- If it concerns DNA/HLA value validation: the double blind entry screen will be opened;
- If it concerns medical data to be validated the patient record will be opened, press OK, and validate the medical data via EDIT and ticking the check boxes.

II.VIII. Records to be validated (other info)

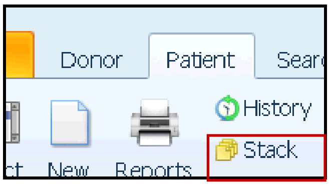
This option displays a table with all patients with pending medical validation. However, other validations can also be selected by the buttons below the window screen (identical to chapter II.VII.)

II.X. EMDIS search results



This option allows to consult the EMDIS search results for you active patient (in detail described in chapter IV.III. Search results).

II.XI. Stack

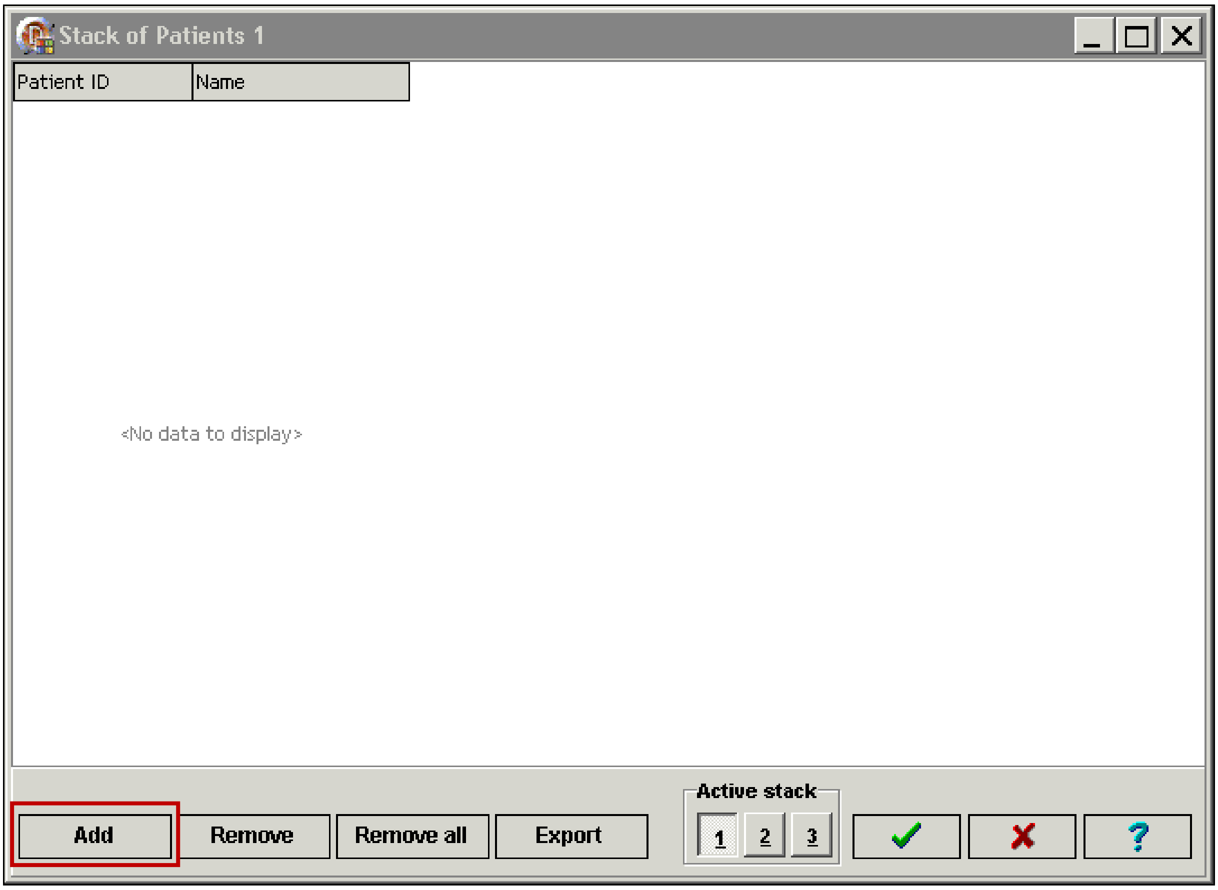


The patient stack has a similar function as the donor stack and it's control is the same. The patient stack can be in addition used for a multiple donor search for patients.

The content of a patient stack (set of patients) is saved in a database - it means that the content will stay saved even after termination and restart of the program. Each user works with his own patient stack : each user has at his disposal three sets (stacks) of patients, those are marked by numbers 1, 2 and 3. Data can be stored in all three stacks at once but only one stack is always actively used.

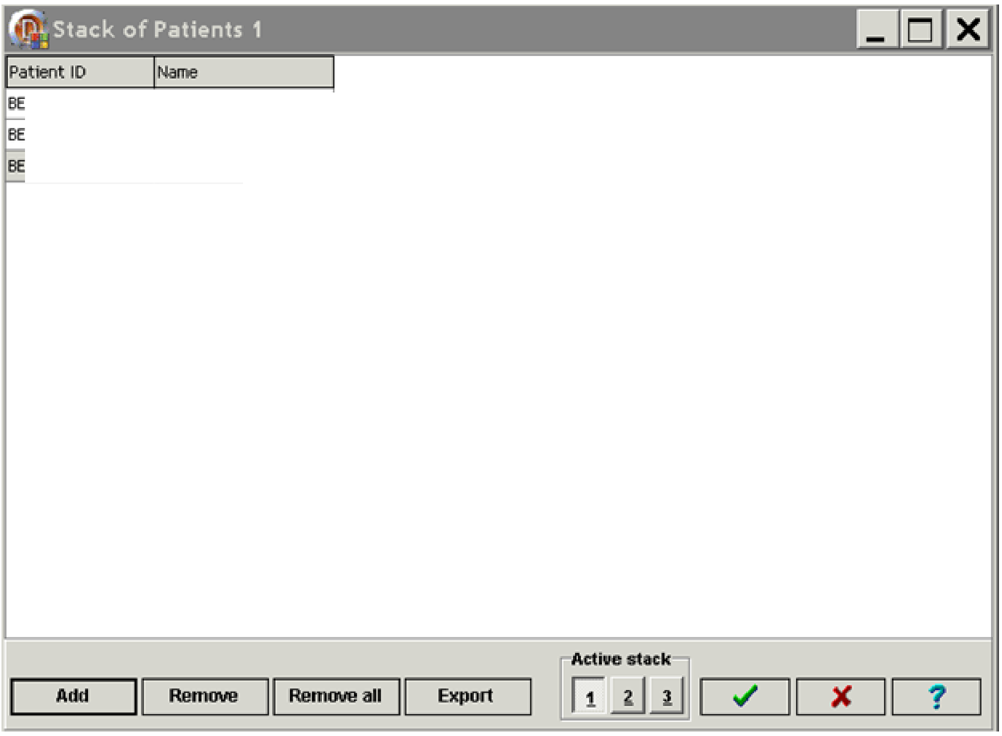
Active stack:	select the stack (stack 1 – 2 – 3)
Add:	adds a patient to the stack
Remove :	removes a selected patient from the active stack, the patient is deleted from the stack, but will not be cancelled from the patient database.
Remove all:	deletes all patients from the active stack
Export:	enables to export your data to an external excel – text – html – xml file.

You can open the patient stack through the use of menu command **Patient|Patient stack**. The following screen will be opened:



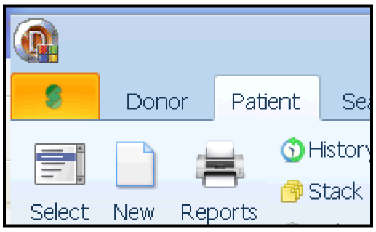
Press “**add**” to add a patient the patient stack.

Enter the patient code or search through the patient select option the patient you wish to add to the stack:



Press “**validate**” to end your stack creation, your stack number 1 will be saved. To call up your different stacks, go to **menu|stack**, the above window screen will be opened, it is possible to browse between the different stacks you created.

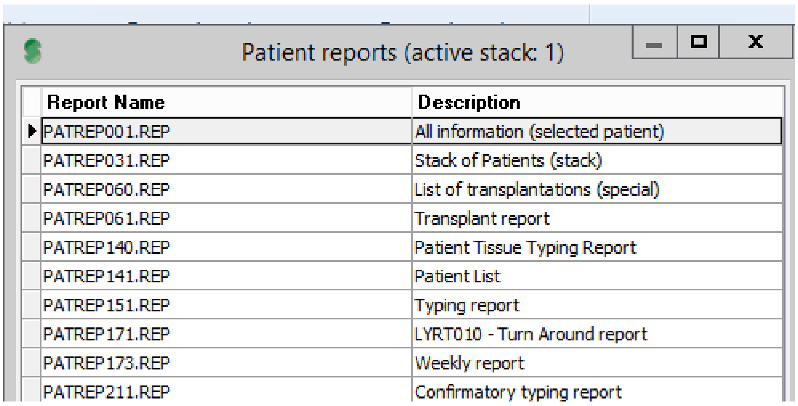
II.XII. Patient reports



The PROMETHEUS program allows a print out of various reports of one or more patients. The menu of possible print reports can be called up by the button Reports . Each report is described by its name (Name) and brief description (Description). When you select the report, more detailed information will appear on the bottom part of the screen.

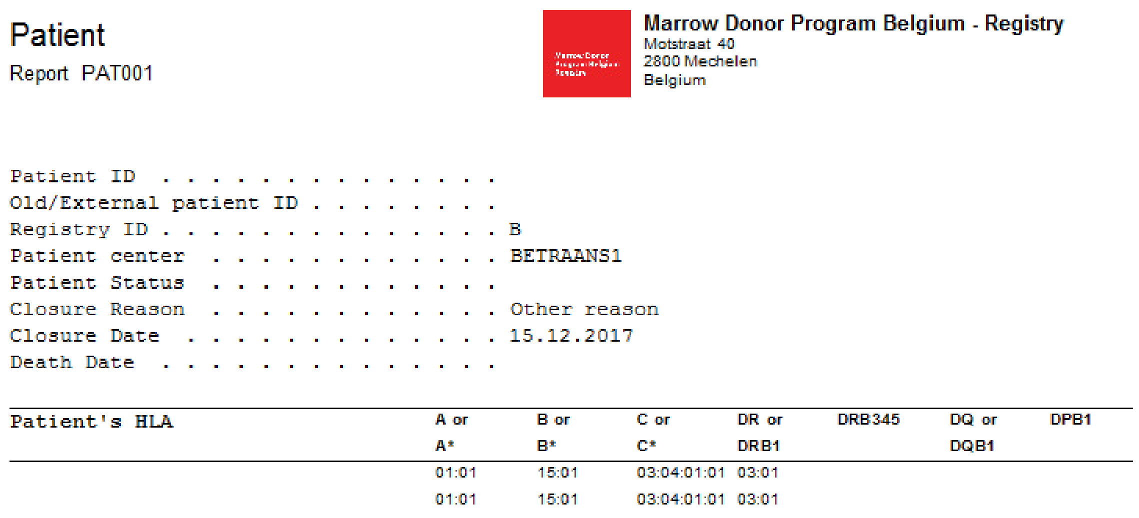
Patient report selection

After selecting a report and pressing the button OK (or double clicking) the print report preview will displayed.



Report Name	Description
PATREP001.REP	All information (selected patient)
PATREP031.REP	Stack of Patients (stack)
PATREP060.REP	List of transplantations (special)
PATREP061.REP	Transplant report
PATREP140.REP	Patient Tissue Typing Report
PATREP141.REP	Patient List
PATREP151.REP	Typing report
PATREP171.REP	LYRT010 - Turn Around report
PATREP173.REP	Weekly report
PATREP211.REP	Confirmatory typing report

PATREP001: patient information



Patient
Report PAT001

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

```
Patient ID . . . . . . . . . . . . . . .
Old/External patient ID . . . . . . . .
Registry ID . . . . . . . . . . . . . . B
Patient center  . . . . . . . . . . . . BETRAANS1
Patient Status  . . . . . . . . . . . .
Closure Reason  . . . . . . . . . . . . Other reason
Closure Date  . . . . . . . . . . . . . 15.12.2017
Death Date  . . . . . . . . . . . . . .
```

Patient's HLA	A or A*	B or B*	C or C*	DR or DRB1	DRB345	DQ or DQB1	DPB1
	01:01	15:01	03:04:01:01	03:01			
	01:01	15:01	03:04:01:01	03:01			

PATREP031: Stack of patients

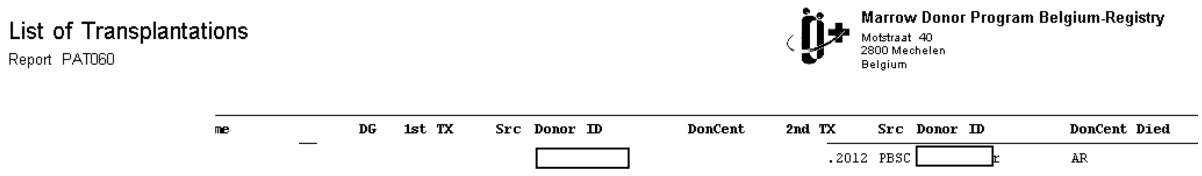
Stack of Patients
Report PAT031

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

Patient ID	Old/External ID	Name

Number of patients: 0

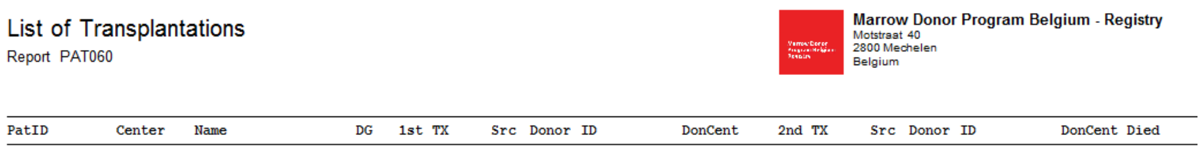
PATREP060: list of transplantations



List of Transplantations
Report PAT060

Marrow Donor Program Belgium-Registry
Motstraat 40
2800 Mechelen
Belgium

me	DG	1st TX	Src	Donor ID	DonCent	2nd TX	Src	Donor ID	DonCent	Died
				[redacted]		.2012	PBSC	[redacted] r		AR

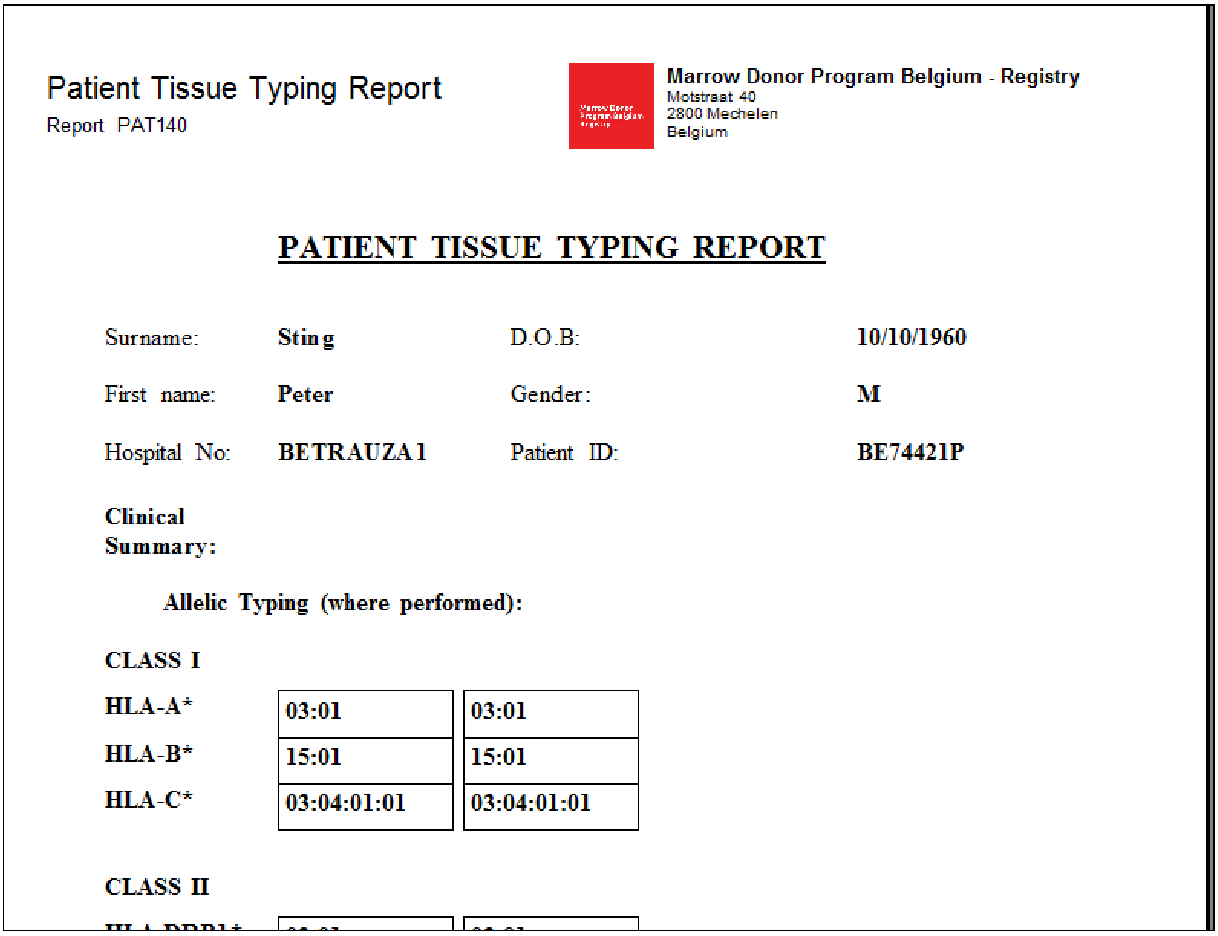


List of Transplantations
Report PAT060

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

PatID	Center	Name	DG	1st TX	Src	Donor ID	DonCent	2nd TX	Src	Donor ID	DonCent	Died

PATREP061 Transplant report – Report on the last transplant.



Patient Tissue Typing Report
Report PAT140

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

PATIENT TISSUE TYPING REPORT

Surname:	**Sting**	D.O.B:	**10/10/1960**
First name:	**Peter**	Gender:	**M**
Hospital No:	**BETRAUZA1**	Patient ID:	**BE74421P**

Clinical Summary:

Allelic Typing (where performed):

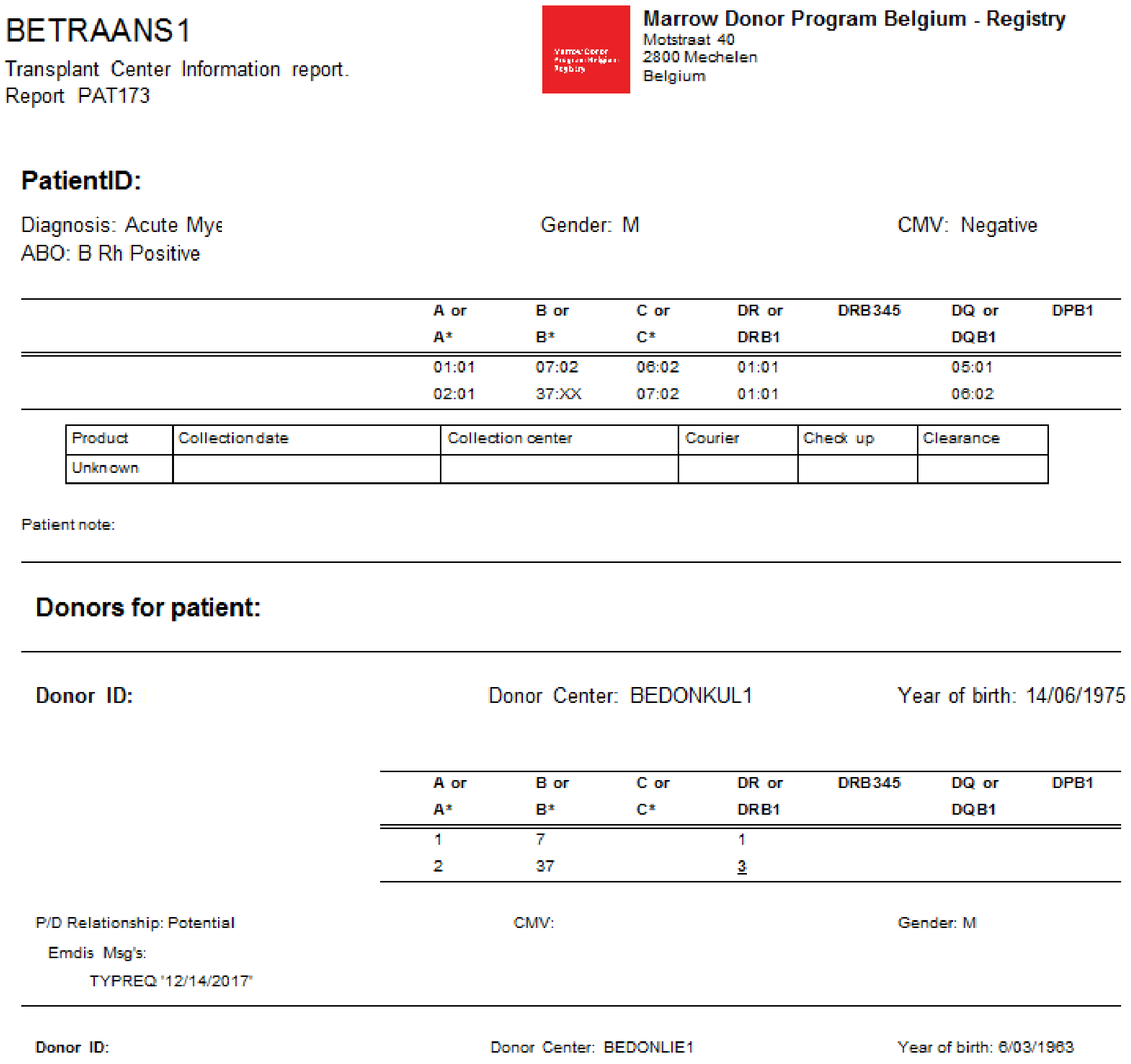
CLASS I

HLA-A*	**03:01**	**03:01**
HLA-B*	**15:01**	**15:01**
HLA-C*	**03:04:01:01**	**03:04:01:01**

CLASS II

PATREP171 Not available for TC.

PATREP173 Weekly report – summary report for Transplant Center (overview of requests of active patients):



BETRAANS1
Transplant Center Information report.
Report PAT173

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

PatientID:

Diagnosis: Acute Mye   Gender: M   CMV: Negative
ABO: B Rh Positive

A or A*	B or B*	C or C*	DR or DRB1	DRB345	DQ or DQB1	DPB1
01:01	07:02	06:02	01:01		05:01	
02:01	37:XX	07:02	01:01		06:02	

Product	Collection date	Collection center	Courier	Check up	Clearance
Unknown					

Patient note:

Donors for patient:

Donor ID: Donor Center: BEDONKUL1   Year of birth: 14/06/1975

A or A*	B or B*	C or C*	DR or DRB1	DRB345	DQ or DQB1	DPB1
1	7		1			
2	37		3			

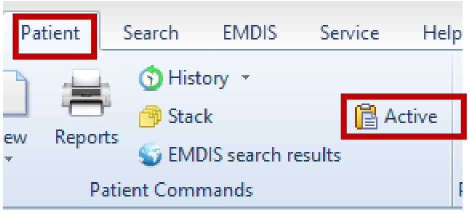
P/D Relationship: Potential   CMV: Gender: M
Emdis Msg's:
TYPREQ '12/14/2017'

Donor ID: Donor Center: BEDONLIE1   Year of birth: 6/03/1963

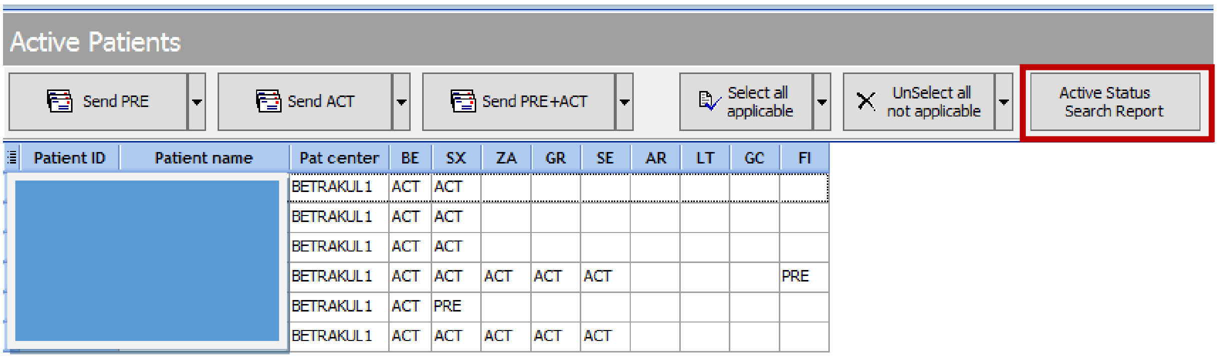
II.XIII. Active patients

It is possible to display the patients in preliminary and active status.

Go to “Patient” and then “Active”:



The active patients (status active or preliminary) will be displayed :



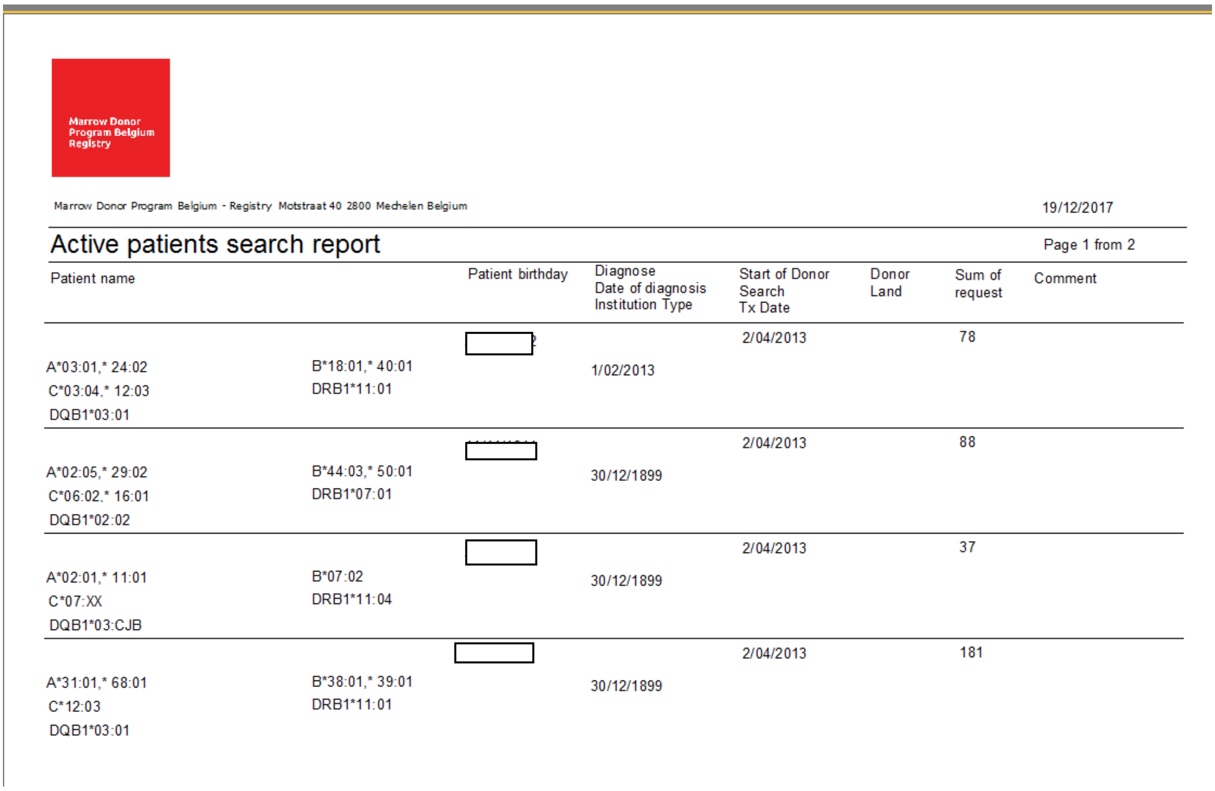
Patient ID	Patient name	Pat center	BE	SX	ZA	GR	SE	AR	LT	GC	FI
[redacted]	[redacted]	BETRAKUL1	ACT	ACT							
[redacted]	[redacted]	BETRAKUL1	ACT	ACT							
[redacted]	[redacted]	BETRAKUL1	ACT	ACT							
[redacted]	[redacted]	BETRAKUL1	ACT	ACT	ACT	ACT	ACT				PRE
[redacted]	[redacted]	BETRAKUL1	ACT	PRE							
[redacted]	[redacted]	BETRAKUL1	ACT	ACT	ACT	ACT	ACT				

Starting from this menu it is possible to select a patient and change the status in additional registries.

If you wish to print the active patients search report:

Select:

The following report will be printed:



Marrow Donor Program Belgium Registry

Marrow Donor Program Belgium - Registry Motstraat 40 2800 Mechelen Belgium 19/12/2017

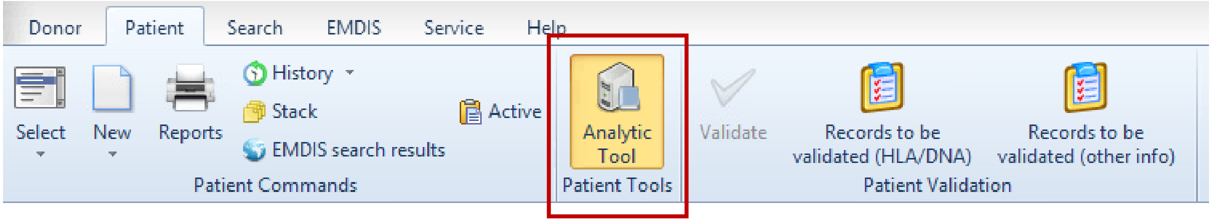
Active patients search report Page 1 from 2

Patient name		Patient birthday	Diagnose Date of diagnosis Institution Type	Start of Donor Search Tx Date	Donor Land	Sum of request	Comment
A*03:01,* 24:02 C*03:04,* 12:03 DQB1*03:01	B*18:01,* 40:01 DRB1*11:01	[redacted]	1/02/2013	2/04/2013		78	
A*02:05,* 29:02 C*06:02,* 16:01 DQB1*02:02	B*44:03,* 50:01 DRB1*07:01	[redacted]	30/12/1899	2/04/2013		88	
A*02:01,* 11:01 C*07:XX DQB1*03:CJB	B*07:02 DRB1*11:04	[redacted]	30/12/1899	2/04/2013		37	
A*31:01,* 68:01 C*12:03 DQB1*03:01	B*38:01,* 39:01 DRB1*11:01	[redacted]	30/12/1899	2/04/2013		181	

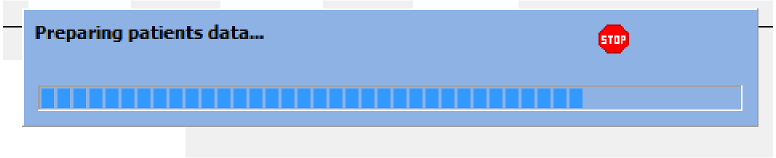
II.XIV. Analytical tool

Your patient database is available for analysis through the software tool “Analytical Tool”.

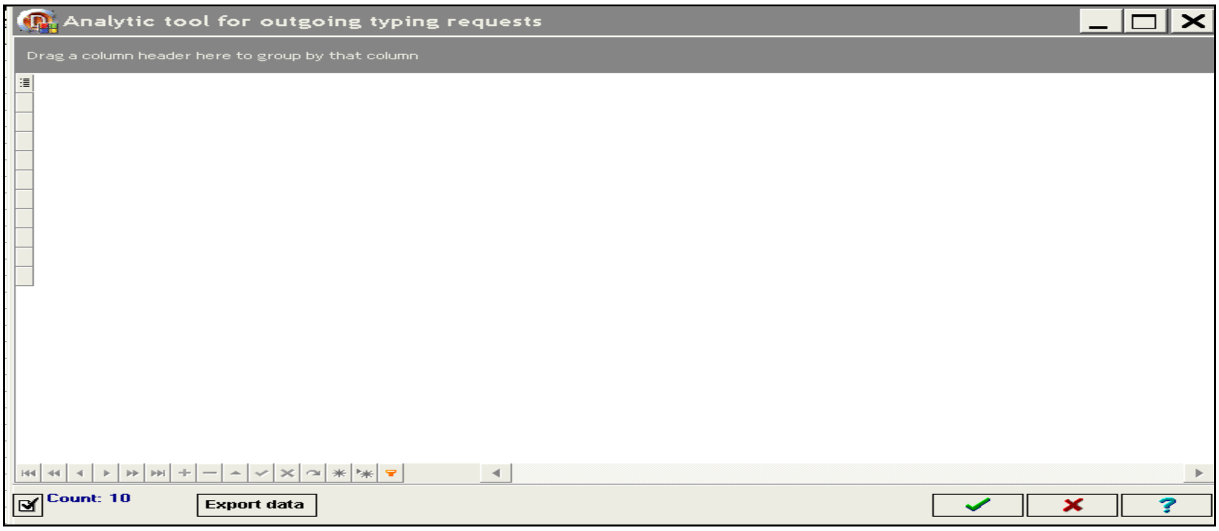
Go to:



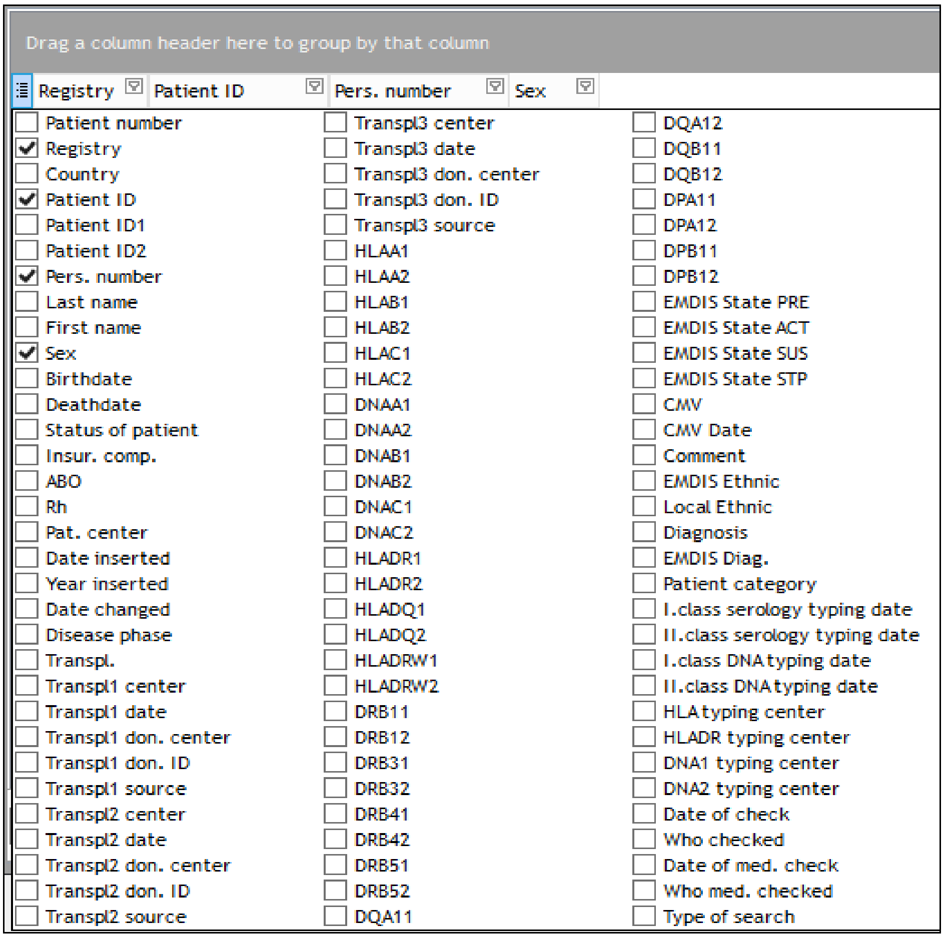
The list will be prepared:


Preparing patients data...

The first time you use this option, the following table will be displayed;



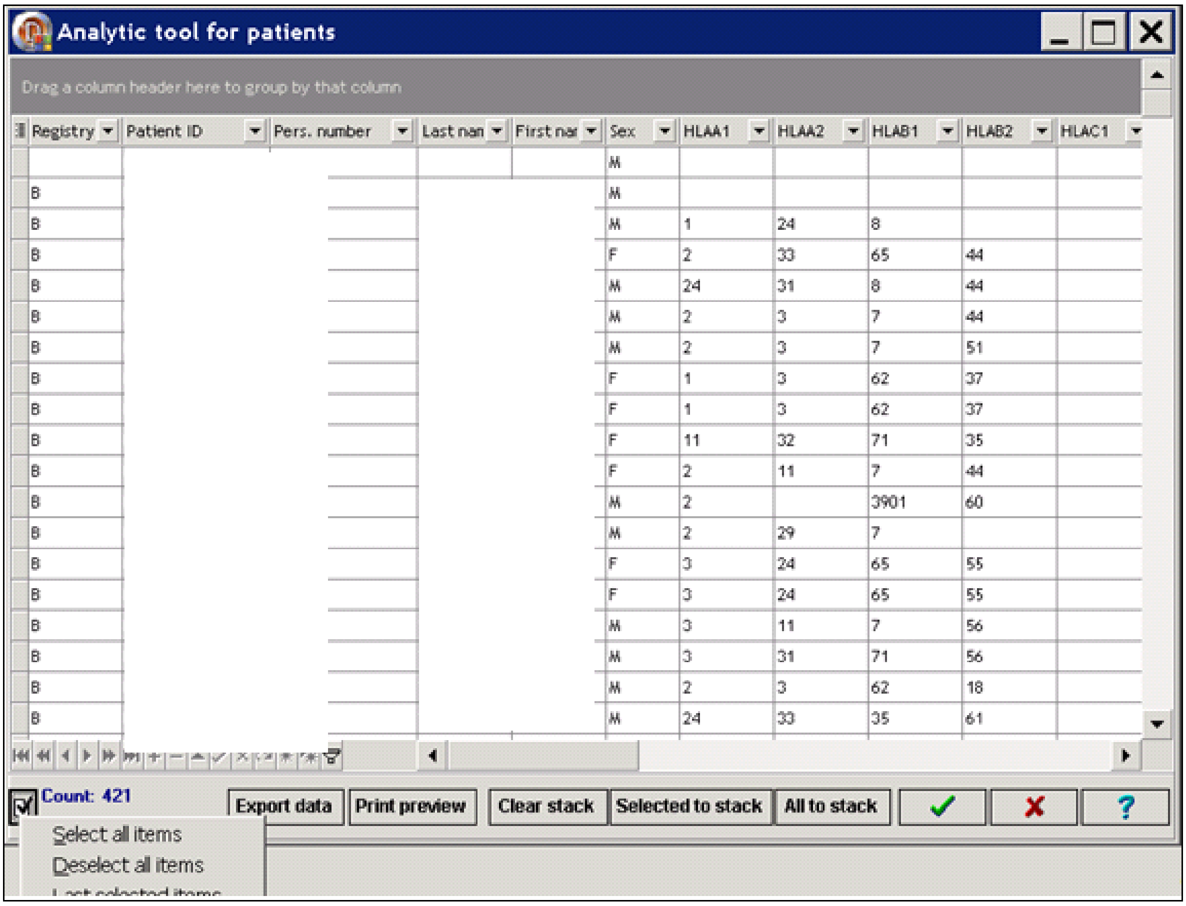
Click on the ☰ button in the left upper corner to display all available columns:



☐ Patient number
☑ Registry
☐ Country
☑ Patient ID
☐ Patient ID1
☐ Patient ID2
☑ Pers. number
☐ Last name
☐ First name
☑ Sex
☐ Birthdate
☐ Deathdate
☐ Status of patient
☐ Insur. comp.
☐ ABO
☐ Rh
☐ Pat. center
☐ Date inserted
☐ Year inserted
☐ Date changed
☐ Disease phase
☐ Transpl.
☐ Transpl1 center
☐ Transpl1 date
☐ Transpl1 don. center
☐ Transpl1 don. ID
☐ Transpl1 source
☐ Transpl2 center
☐ Transpl2 date
☐ Transpl2 don. center
☐ Transpl2 don. ID
☐ Transpl2 source
☐ Transpl3 center
☐ Transpl3 date
☐ Transpl3 don. center
☐ Transpl3 don. ID
☐ Transpl3 source
☐ HLAA1
☐ HLAA2
☐ HLAB1
☐ HLAB2
☐ HLAC1
☐ HLAC2
☐ DNAA1
☐ DNAA2
☐ DNAB1
☐ DNAB2
☐ DNAC1
☐ DNAC2
☐ HLADR1
☐ HLADR2
☐ HLADQ1
☐ HLADQ2
☐ HLADRW1
☐ HLADRW2
☐ DRB11
☐ DRB12
☐ DRB31
☐ DRB32
☐ DRB41
☐ DRB42
☐ DRB51
☐ DRB52
☐ DQA11
☐ DQA12
☐ DQB11
☐ DQB12
☐ DPA11
☐ DPA12
☐ DPB11
☐ DPB12
☐ EMDIS State PRE
☐ EMDIS State ACT
☐ EMDIS State SUS
☐ EMDIS State STP
☐ CMV
☐ CMV Date
☐ Comment
☐ EMDIS Ethnic
☐ Local Ethnic
☐ Diagnosis
☐ EMDIS Diag.
☐ Patient category
☐ I.class serology typing date
☐ II.class serology typing date
☐ I.class DNA typing date
☐ II.class DNA typing date
☐ HLA typing center
☐ HLADR typing center
☐ DNA1 typing center
☐ DNA2 typing center
☐ Date of check
☐ Who checked
☐ Date of med. check
☐ Who med. checked
☐ Type of search

The selection you make will be saved for following login sessions.

The following table will be opened:



Registry	Patient ID	Pers. number	Last nan	First nar	Sex	HLAA1	HLAA2	HLAB1	HLAB2	HLAC1
					M					
B					M					
B					M	1	24	8		
B					F	2	33	65	44	
B					M	24	31	8	44	
B					M	2	3	7	44	
B					M	2	3	7	51	
B					F	1	3	62	37	
B					F	1	3	62	37	
B					F	11	32	71	35	
B					F	2	11	7	44	
B					M	2		3901	60	
B					M	2	29	7		
B					F	3	24	65	55	
B					F	3	24	65	55	
B					M	3	11	7	56	
B					M	3	31	71	56	
B					M	2	3	62	18	
B					M	24	33	35	61	

Upper left corner - select of columns

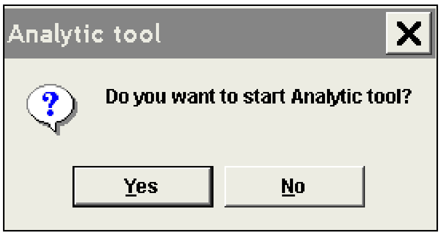
Lower left corner - select all items/deselect all items/last selected items

Column headers - switch their order (move them) or change width of column

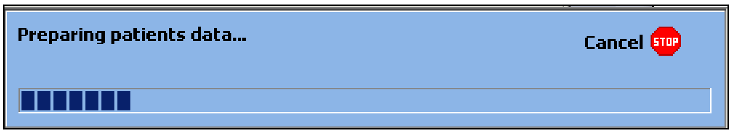
Arrow in left corner of column header - filter data in the column (blanks/non blanks/particular value/custom filter)

II.XIV.1. Data preparation

Go to the menu Patient-> Analytical tool – after confirmation the program will start loading the patient data.

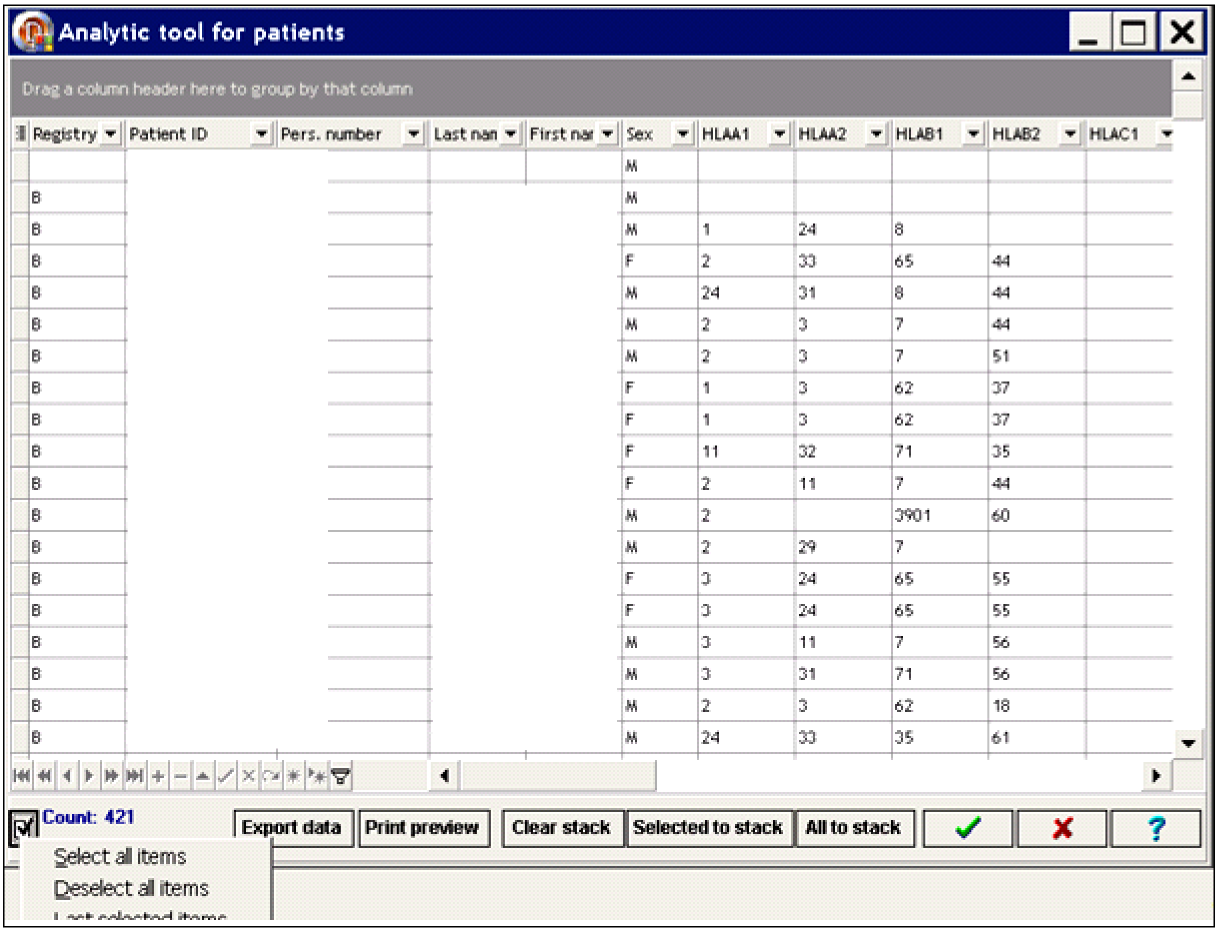


Do you want to start Analytic tool?



Preparing patients data...

It takes several seconds, at the end of the process the following screen will be displayed:



Registry	Patient ID	Pers. number	Last nan	First nar	Sex	HLAA1	HLAA2	HLAB1	HLAB2	HLAC1
					M					
B					M					
B					M	1	24	8		
B					F	2	33	65	44	
B					M	24	31	8	44	
B					M	2	3	7	44	
B					M	2	3	7	51	
B					F	1	3	62	37	
B					F	1	3	62	37	
B					F	11	32	71	35	
B					F	2	11	7	44	
B					M	2		3901	60	
B					M	2	29	7		
B					F	3	24	65	55	
B					F	3	24	65	55	
B					M	3	11	7	56	
B					M	3	31	71	56	
B					M	2	3	62	18	
B					M	24	33	35	61	

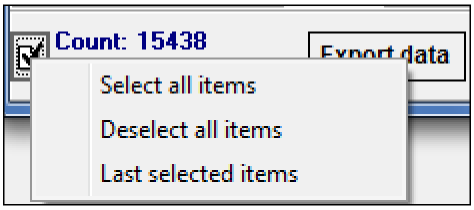
Count: 421 records in the database (included deleted patients since 2008 – software Syrenad).

Note: when the table is minimized, it can be maximized again by clicking on the window in the left bottom corner of the screen (not in the task bar).

II.XIV.2. Column projection

The first time you login no columns will appear on your screen. Click on the small button in left upper corner to display all available columns, your selection will be saved for your following login sessions.

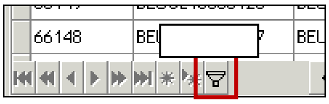
Tip: In lower left corner you can select or deselect all items with one click. It is also possible to recall the last selected items.



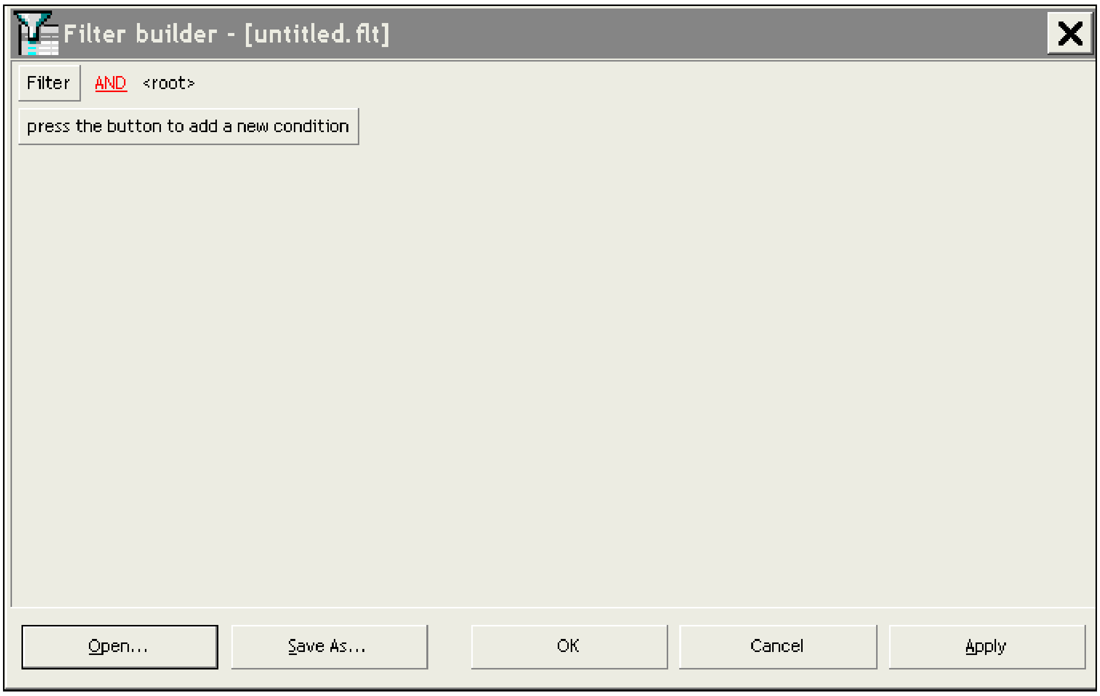
Tip: You can change a column width displayed in the table.

Tip: By dragging a column heading you can also change their order in the table.

II.XIV.3. Filter data



When selecting records, Prometheus uses a filter to determine which records to include in the selection.


Filter builder - [untitled.flt]

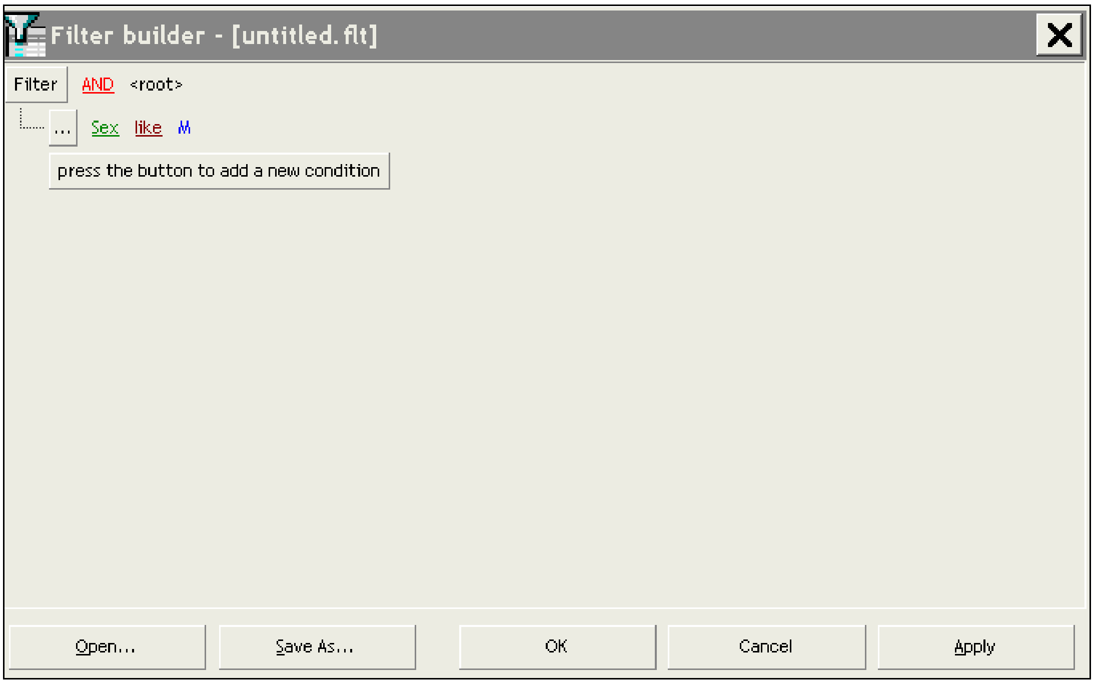
Filter AND <root>

press the button to add a new condition

Procedure

You access the **Filter Builder** by clicking the 🝖 button.

Press the button to add a new condition: clicking on the green field will open the complete list to build your condition:


Filter builder - [untitled.flt]

Filter AND <root>

... Sex like M

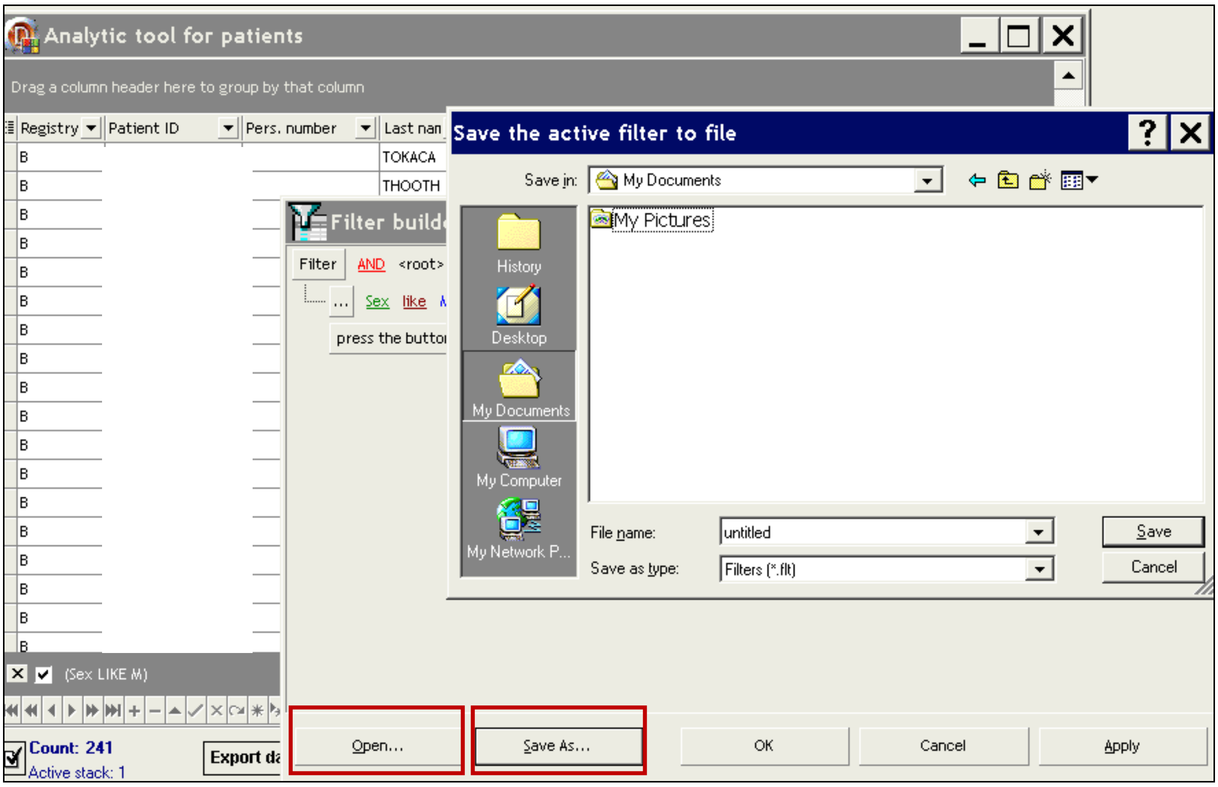
press the button to add a new condition

FI list of all male patients.

You can add additional conditions, and remove the condition:

7 

The active filter can be saved on your computer Save As... and later on be opened again by clicking on the open button Open... and selecting the filter your saved on your computer or network.



Save in: My Documents

File name: untitled

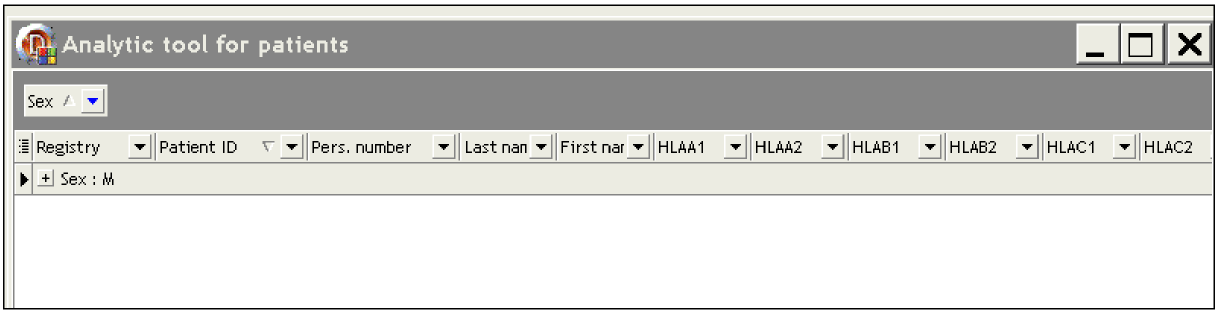
Save as type: Filters (*.flt)

☒ ☑ (Sex LIKE M)

☑ Count: 241
Active stack: 1

II.XIV.4. Patient grouping

Drag a colum header (f.i. sex) to the upper grey bar:



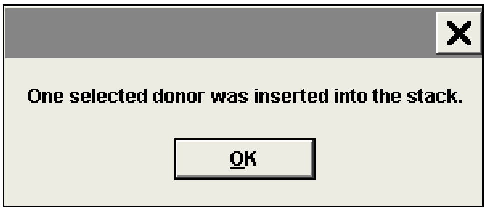
The table will be grouped as to the sex condition, particular groups can be unrolled by the buttons +. Further grouping is possible by dragging more attributes to the upper grey bar.Grouping can be cancelled by dragging the column heading back to the table.

II.XIV.5. Patient sorting

Clicking on the column lets you sort the data. Click the arrow near the column title to unsort.
Double clicking on a patient record will open the patient file.

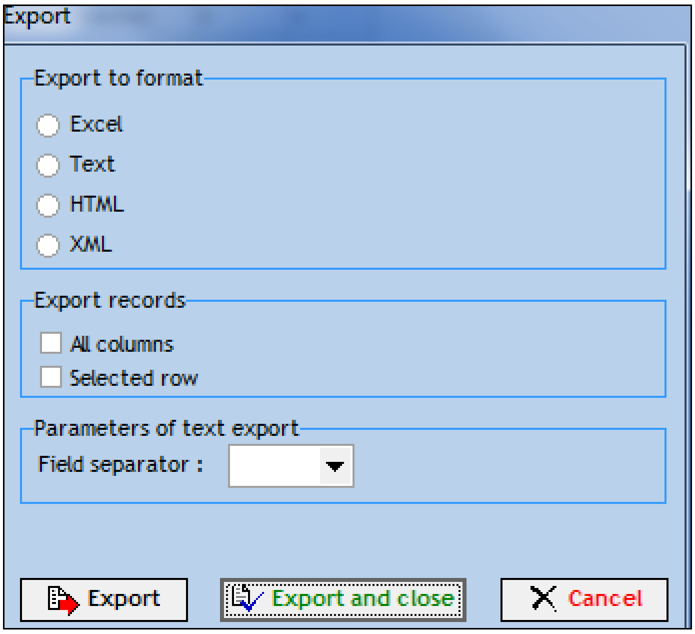
II.XIV.6. Patient stack

The analytical tool allows to copy patients to the stacks you created: the patient will be listed to the active stack.


One selected donor was inserted into the stack.

Clear stack to delete a content of the actual patient stack.
Selected to stack we add the selected patient (selected line of the table) to the active patient stack. You can also select and add more patients at once. You select patients by the left mouse button with the button Ctrl pressed (for selecting particular donors) or Shift (for selecting continuous selection of donors).
All to stack you add all patients displayed in the table to the active patient stack.

II.XIV.7. Analytic tool: Export data

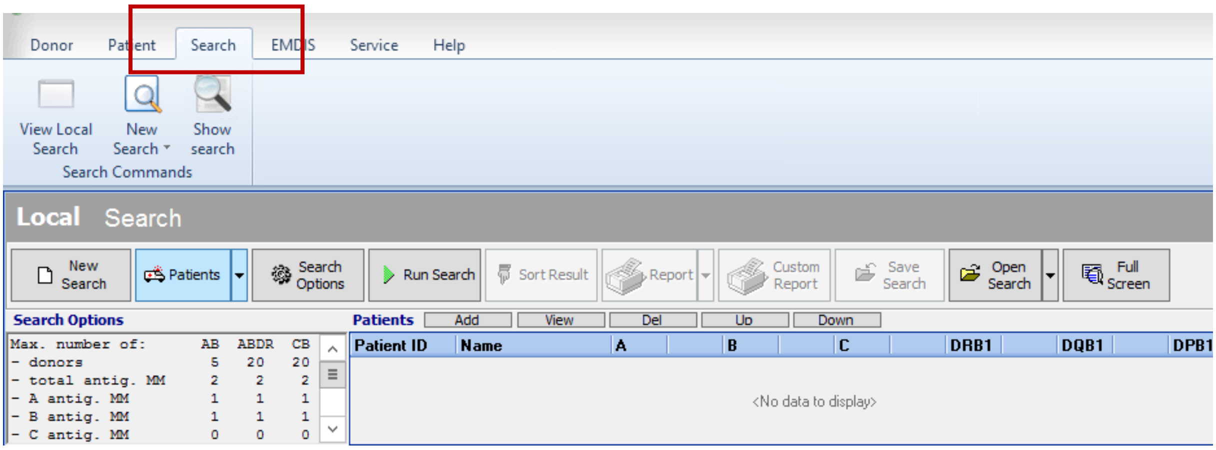


Format selection for data export

Press export to export the patient analysis to an external file (formats: excel – text – HTML – XML).

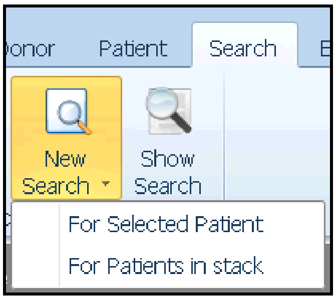
III. LOCAL SEARCH

The commands for local donor search are available in the main program window in the Search menu. The purpose of this option is to do an initial search for Belgian donors. This action is independent from the formal search status of the patient, it is a first check to find out if Belgian donors are available for your patient. This option enables an initial search for Belgian donors and cord bloods, without activating the formal EMDIS search. No further actions (typing requests, ...) will be possible in this stage. The search results can be printed for documentary reasons, the results will not be updated



```
Max. number of:      AB  ABDR  CB
- donors              5    20  20
- total antig. MM     2     2   2
- A antig. MM         1     1   1
- B antig. MM         1     1   1
- C antig. MM         0     0   0
```

The “Search option” offers different selections:



New search for selected patient: the search screen will be opened to run a search for the active patient record.

New search for patients in stack: the search screen for patients in stack will be opened (see chapter II.XI. for more information about patient stacks).

Show search: to display a saved search - the search select screen will be opened to enter search identification number.

New search: to start a new search.

Patients: to select a patient. (Or via the quick select buttons above the patients table).

Search options: to set the search parameters. They can be consulted in the search options table.

Search results: to view and manage the results, displayed when a search has been performed.

Run search: to activate the search.

Report: to print the search results.

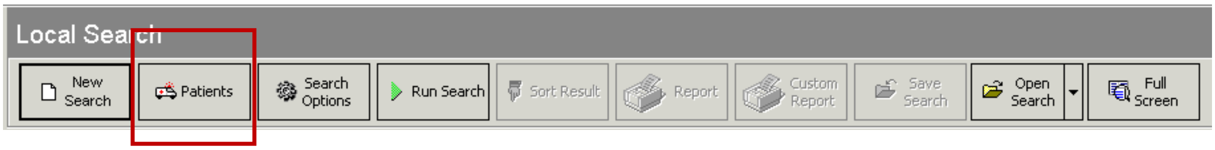
Custom report: to print the customized report (report maker).

Save report: to save the report.

Open search: to open a saved search via the search identification number.

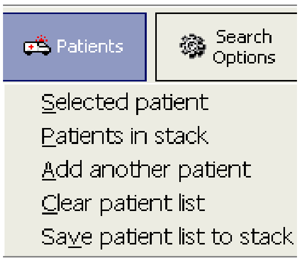
Full screen: to display full screen.

III.I. Patient selection



Click the  button to select the patient for whom the search will be done. Prometheus allows multiple donor searches for several patients at once.

The drop down menu offers several options:



Selected patient - active patient record.

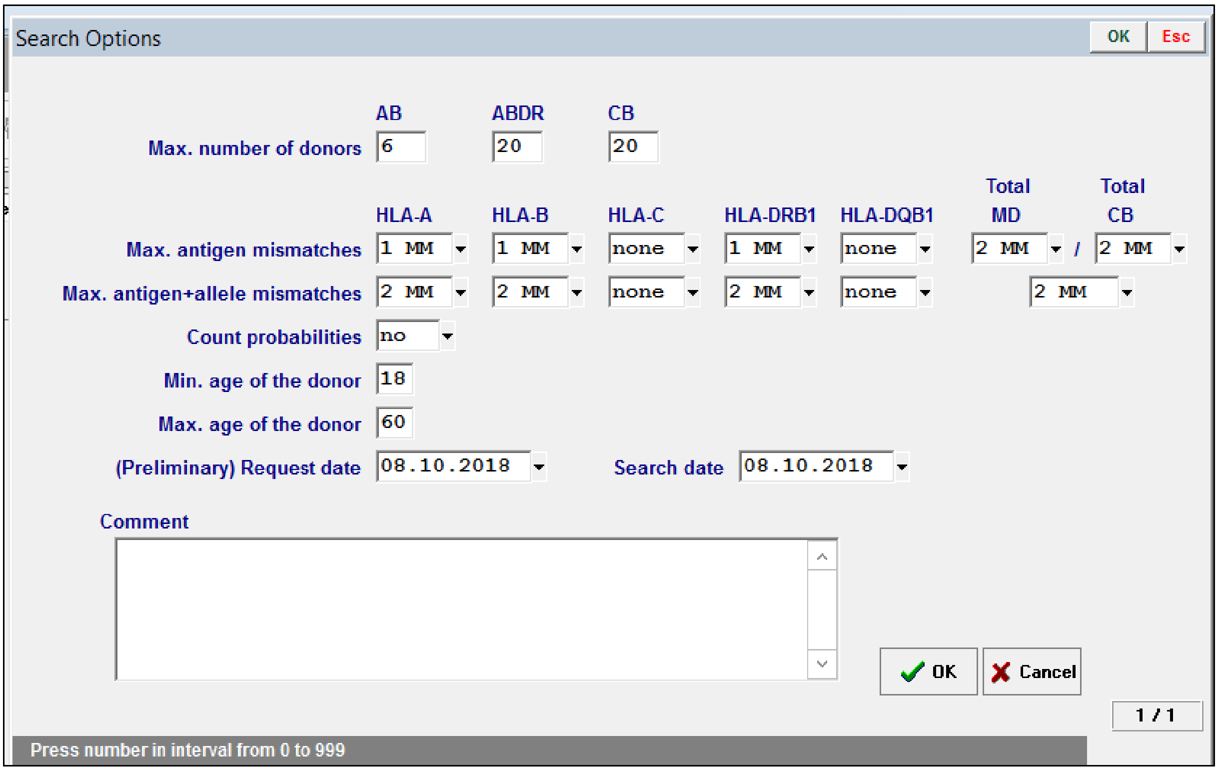
Add another patient - add an additional patient.

Clear patient list - to remove patients from the table.

Patients in stack - to do searches with patients in stack – prepared list.

III.II. Search parameters

Click “search options” to open the “search option” window:



	AB	ABDR	CB
Max. number of donors	6	20	20

	HLA-A	HLA-B	HLA-C	HLA-DRB1	HLA-DQB1	Total MD	Total CB
Max. antigen mismatches	1 MM	1 MM	none	1 MM	none	2 MM	/ 2 MM
Max. antigen+allele mismatches	2 MM	2 MM	none	2 MM	none		2 MM

Count probabilities: no

Min. age of the donor: 18

Max. age of the donor: 60

(Preliminary) Request date: 08.10.2018

Search date: 08.10.2018

Comment

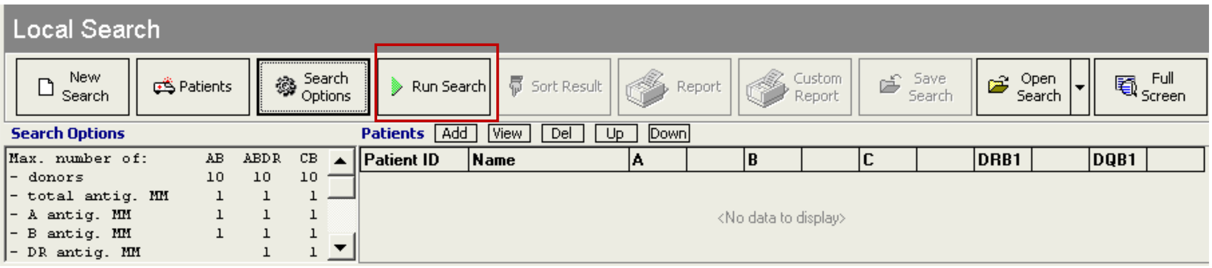
Press number in interval from 0 to 999

The following parameters are displayed:

- Maximum number of donors (AB – ABDR – CB),
- Maximum admissible levels of HLA mismatch patient-donor,
- Maximum admissible age of donor, the date of request, the date of search, commentary, etc.
- Antibodies HLA A
- Antibodies HLA B
- Antibodies HLA C

Search parameters are preset, but can be changed.

III.III. Run search



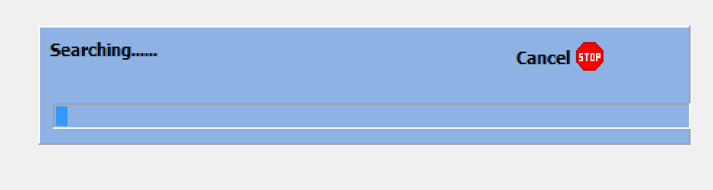
```
Max. number of:      AB  ABDR  CB
- donors             10   10   10
- total antig. MM     1    1    1
- A antig. MM         1    1    1
- B antig. MM         1    1    1
- DR antig. MM             1    1
```

Patient ID	Name	A		B		C		DRB1		DQB1	

<No data to display>

Press the **“Run Search”** button .

The donor search will be processed:


Searching......

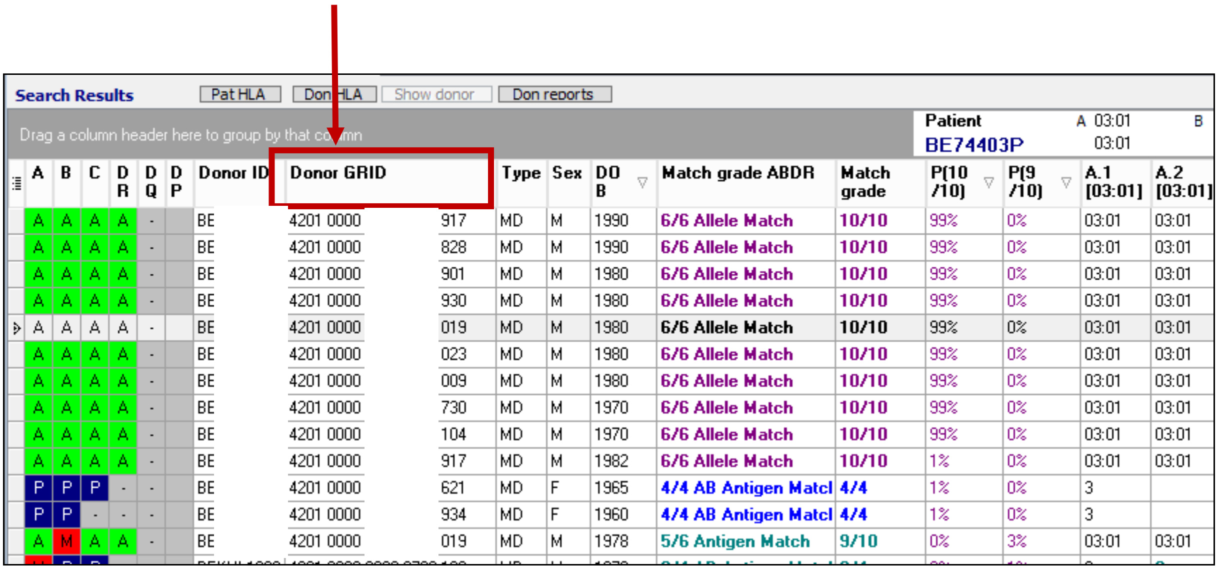
Search progress is shown by indicator : duration of the search is directly proportional to the number of patients for whom the search is done and the number of donors in the database.

III.IV. Search results

When the search has been processed, a table with found donors will be displayed: the column **Donor ID,** followed by the **Sex** and the **Type** of donor, **Match grade** column and the donor's **HLA typing**.

Search for several patients:

When you are performing a search for more than one patient, the donor list will be a mix of matched donors. When you select the donor the applicable patient (= test patient) will be shown:



Patient BE74403P A 03:01 03:01 B

	A	B	C	DR	DQ	DP	Donor ID	Donor GRID	Type	Sex	DOB	Match grade ABDR	Match grade	P(10/10)	P(9/10)	A.1 [03:01]	A.2 [03:01]
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 917	MD	M	1990	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 828	MD	M	1990	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 901	MD	M	1980	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 930	MD	M	1980	6/6 Allele Match	10/10	99%	0%	03:01	03:01
▷	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 019	MD	M	1980	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 023	MD	M	1980	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 009	MD	M	1980	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 730	MD	M	1970	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 104	MD	M	1970	6/6 Allele Match	10/10	99%	0%	03:01	03:01
	A	A	A	A	-		BE [redacted]	4201 0000 [redacted] 917	MD	M	1982	6/6 Allele Match	10/10	1%	0%	03:01	03:01
	P	P	P	-	-		BE [redacted]	4201 0000 [redacted] 621	MD	F	1965	4/4 AB Antigen Matcl	4/4	1%	0%	3	
	P	P	-	-	-		BE [redacted]	4201 0000 [redacted] 934	MD	F	1960	4/4 AB Antigen Matcl	4/4	1%	0%	3	
	A	M	A	A	-		BE [redacted]	4201 0000 [redacted] 019	MD	M	1978	5/6 Antigen Match	9/10	0%	3%	03:01	03:01

Search result table

On the left side the match level is displayed similarly to WMDA/BMDW.

A – Green – allele match.

B – Blue: potential allele match

L – Yellow – allele mismatch, but antigen match, the HLA code is shown in bold blue font.

M – Red : antigen mismatch, the HLA code is shown in bold green font.

- - : not specified.

DPB1 permissive / non-permissive matching is implemented and displayed in column DP. Match grade is marked in the following way:

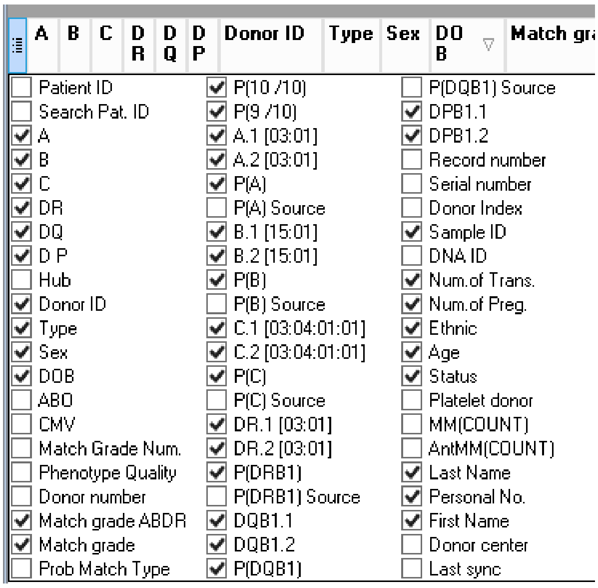
P – Permissive (green).

G – Non-permissive in GvH direction (red).

H – Non –permissive in HvG direction (red).

A – Ambiguous (yellow).

The following parameters are available:

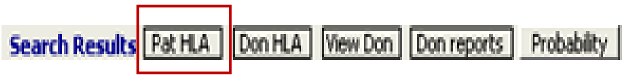


☐ Patient ID
☐ Search Pat. ID
☑ A
☑ B
☑ C
☑ DR
☑ DQ
☑ D P
☐ Hub
☑ Donor ID
☑ Type
☑ Sex
☑ DOB
☐ ABO
☐ CMV
☐ Match Grade Num.
☐ Phenotype Quality
☐ Donor number
☑ Match grade ABDR
☑ Match grade
☐ Prob Match Type

☑ P(10 /10)
☑ P(9 /10)
☑ A.1 [03:01]
☑ A.2 [03:01]
☑ P(A)
☐ P(A) Source
☑ B.1 [15:01]
☑ B.2 [15:01]
☑ P(B)
☐ P(B) Source
☑ C.1 [03:04:01:01]
☑ C.2 [03:04:01:01]
☑ P(C)
☐ P(C) Source
☑ DR.1 [03:01]
☑ DR.2 [03:01]
☑ P(DRB1)
☐ P(DRB1) Source
☑ DQB1.1
☑ DQB1.2
☑ P(DQB1)

☐ P(DQB1) Source
☑ DPB1.1
☑ DPB1.2
☐ Record number
☐ Serial number
☐ Donor Index
☑ Sample ID
☐ DNA ID
☑ Num.of Trans.
☑ Num.of Preg.
☑ Ethnic
☑ Age
☑ Status
☐ Platelet donor
☐ MM(COUNT)
☐ AntMM(COUNT)
☑ Last Name
☑ Personal No.
☑ First Name
☐ Donor center
☐ Last sync

The HLA of the patient which corresponds to the selected donor in the table (the active line) is stated in the right upper part of the screen.



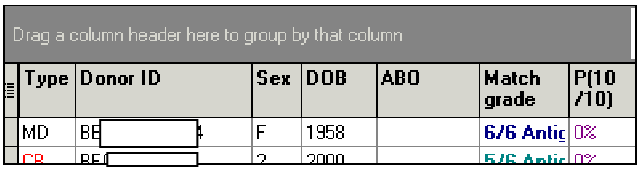
Select the Pat HLA button or Don HLA to display the possible alleles

Probability is not operational yet.

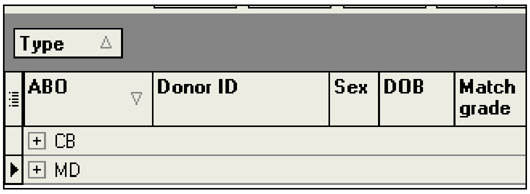
It is also possible to print the list: 

The report can be customized to your needs:

- Drag a column header to group to sort data:

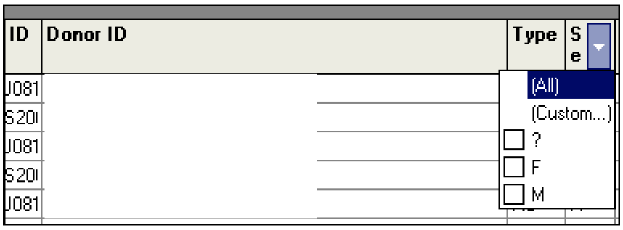


Type	Donor ID	Sex	DOB	ABO	Match grade	P(10/10)
MD	BE[redacted]4	F	1958		6/6 Antig	0%
CB	BE[redacted]	?	2000		5/6 Antic	0%



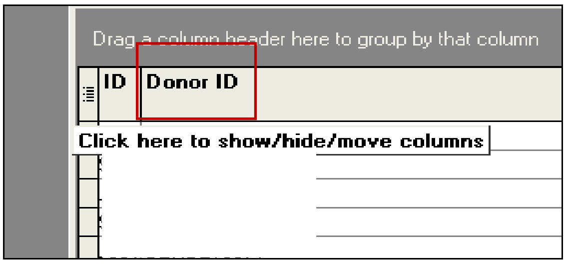
ABO ▽	Donor ID	Sex	DOB	Match grade
⊞ CB				
⊞ MD				

- Columns can be enlarged – changed in order – add new columns - …



ID	Donor ID	Type	Se
J081			
S20			
J081			
S20			
J081			

- Click here to show/hide/move columns:



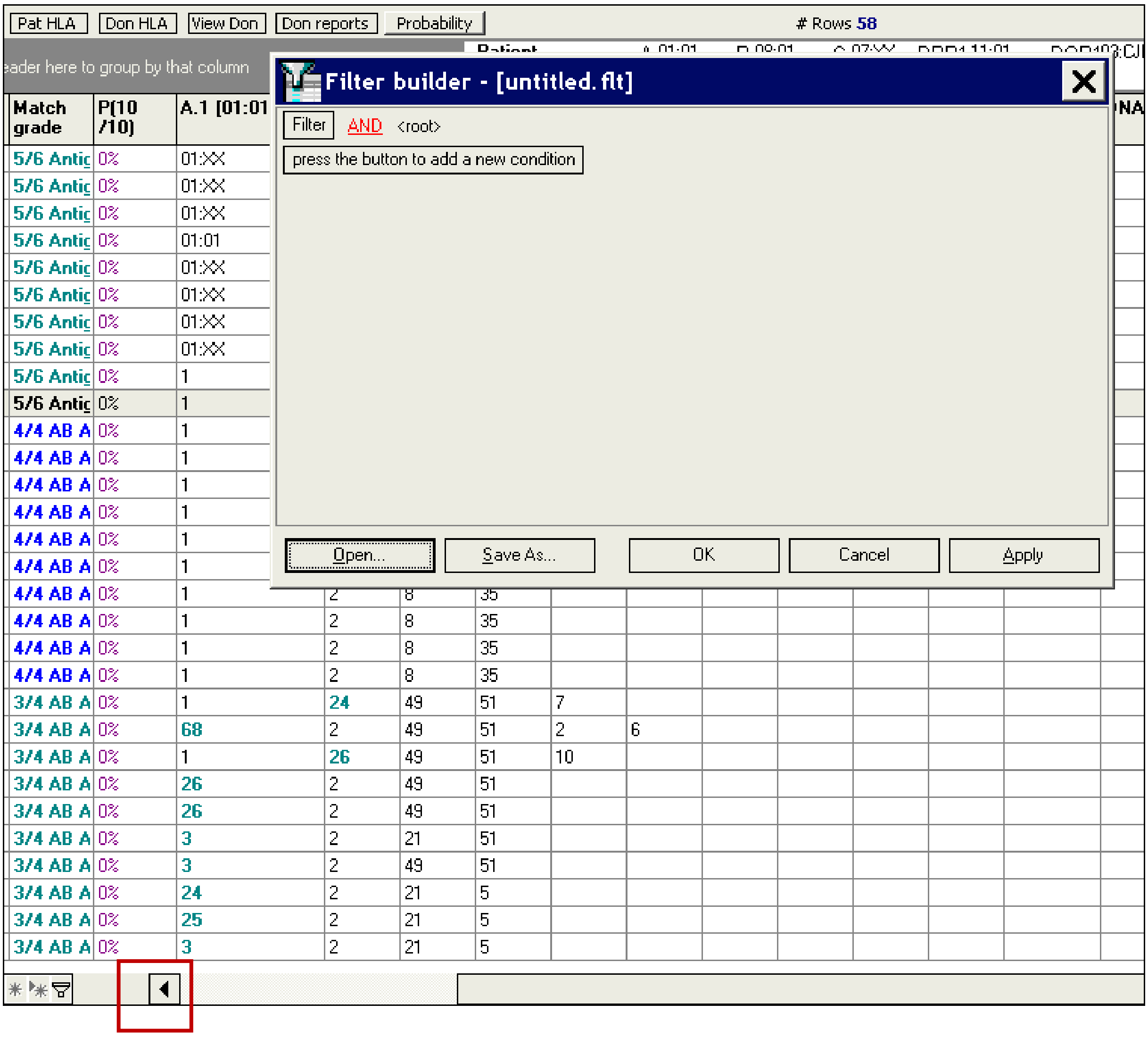
The complete list of the columns that we can use in the table is here:

- **Patient ID**: the identifier of the patient
- **Donor ID**: the identifier of the donor
- **Type**: donor type (MD = marrow donor, CB = cord blood).
- **Sex**: F=female, M=male
- **Year of Birth**: the year of birth (has sense for MD donors).
- **Match grade**: HLA match grade between donor and the patient

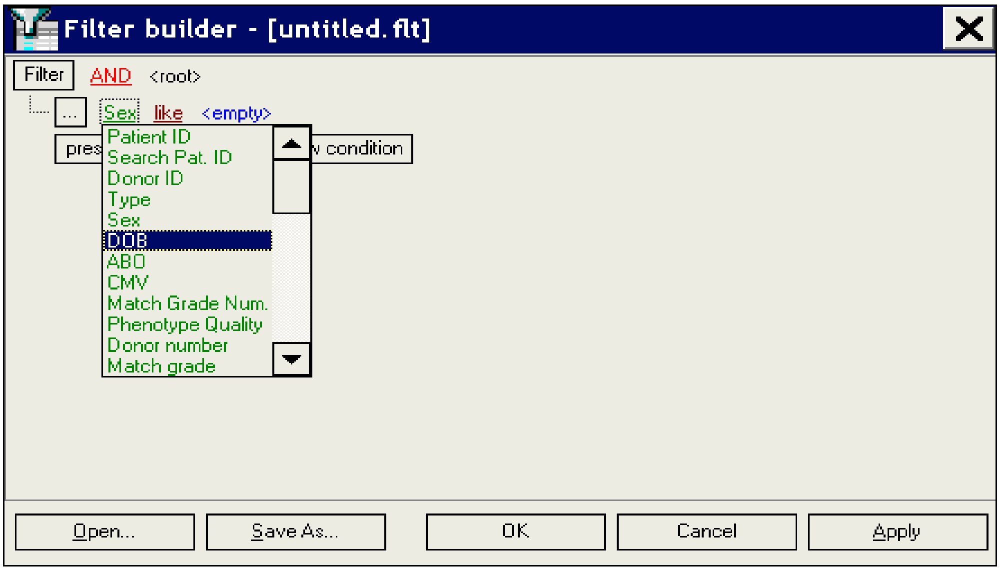
- **Status**: donor status

- **A1, A2**: intelligent columns for HLA-A donor locus. If the donor has been DNA typed, the DNA data will be displayed (allele or the code NMDP expressing the allele group). If not the serology will appear. An HLA mismatch is highlighted in color, the allele mismatch is highlighted in deep blue.
- **B1, B2**: intelligent columns for HLA-B donor locus.
- **C1, C2**: intelligent columns for HLA-C donor locus.
- **DR1, DR2**: intelligent columns for HLA-DR/DRB1 donor locus.
- **DQ1, DQ2**: intelligent columns for HLA-DQ/DQB1 donor locus.

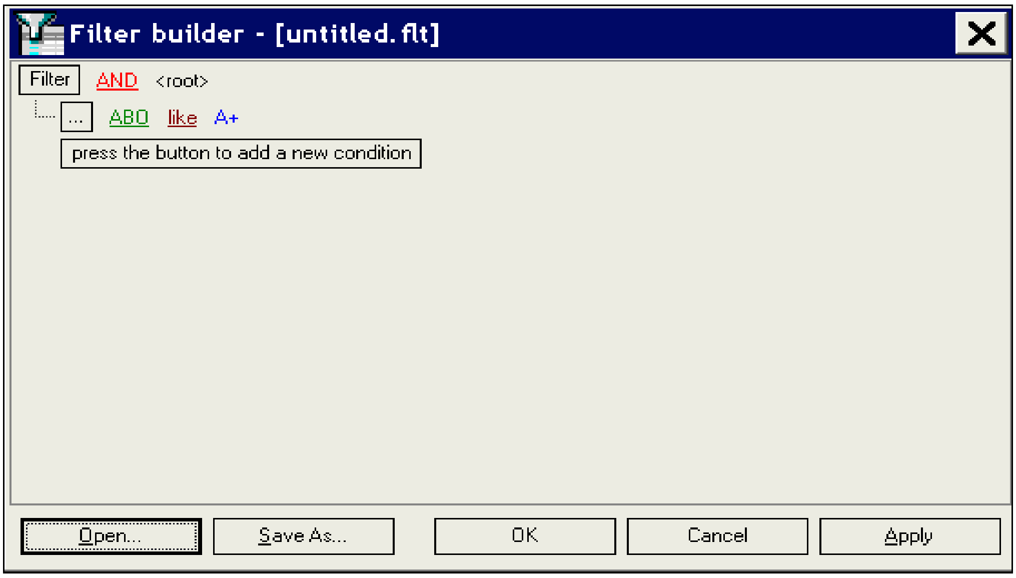
The table can be filtered to various conditions: .



Select an item by clicking on the green field to add an condition:

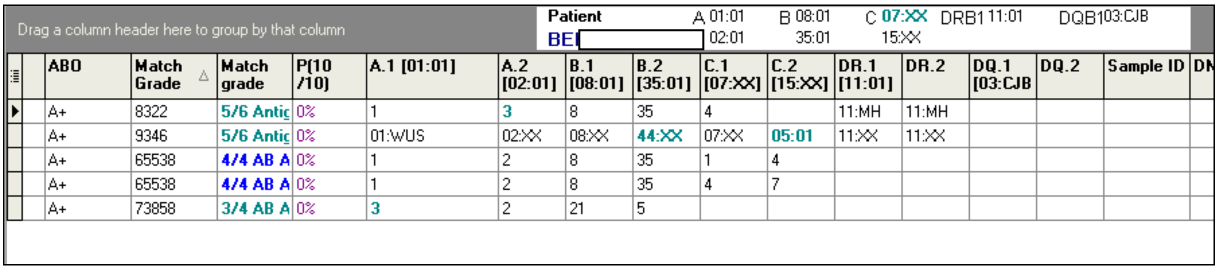


Filter AND <root>
... Sex like <empty>
pres w condition



Filter AND <root>
... ABO like A+
press the button to add a new condition

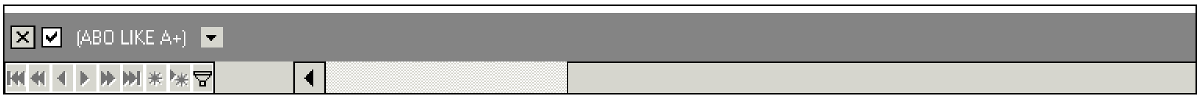
The donors with blood group A+ will be listed in the table:



Patient A 01:01 B 08:01 C 07:XX DRB1 11:01 DQB1 03:CJB
BE 02:01 35:01 15:XX

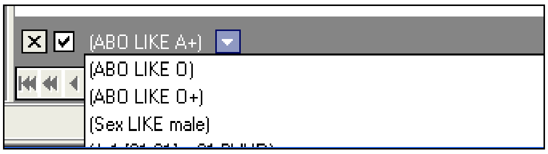
ABO	Match Grade	Match grade	P(10 /10)	A.1 [01:01]	A.2 [02:01]	B.1 [08:01]	B.2 [35:01]	C.1 [07:XX]	C.2 [15:XX]	DR.1 [11:01]	DR.2	DQ.1 [03:CJB	DQ.2	Sample ID	DN
A+	8322	5/6 Antic	0%	1	3	8	35	4		11:MH	11:MH				
A+	9346	5/6 Antic	0%	01:WUS	02:XX	08:XX	44:XX	07:XX	05:01	11:XX	11:XX				
A+	65538	4/4 AB A	0%	1	2	8	35	1	4						
A+	65538	4/4 AB A	0%	1	2	8	35	4	7						
A+	73858	3/4 AB A	0%	3	2	21	5								

The active filter is displayed below :

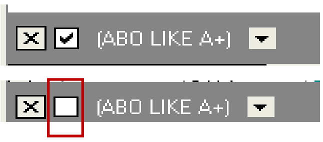


☒ ☑ (ABO LIKE A+)

Previous criteria can be displayed by selecting the arrow:



To switch off the filter press:



III.V. HLA match grades of donor and patient

If possible the program counts the match grade of the donor and the patient at the **DNA level.**

If the donor DNA information is missing the patient DNA information is transformed into serology and then it is compared to the donor. If DNA data of donor and patient are not available, search will be done at a serological level.

Total HLA match grade of the donor and the patient is counted according to **HLA- A, B and DRB1 loci.** (HLA-C and HLA-DQB1 loci are excluded).

The following match options are possible:

6/6 Allele Matched

- The donor is tested at I. class as well as II. class (A, B, DRB1).
- A full allele match at HLA- A, B and DRB1.

6/6 Potential (Allele) Matched

- The donor is tested at I. class as well as II. class (A, B, DRB1).
- Potential allelic match at HLA- A, B and DRB1.

6/6 Antigen Match (Allele Mismatch)

- The donor is tested at I. class as well as II. class (A, B, DRB1).
- A full match at serological level at HLA- A, B and DR
- A mismatch at DNA level

5/6 Antigen Match

- The donor is tested at I. class as well as II. class (A, B, DRB1).
- One mismatch at serological level at HLA- A, B or DR.

4/6 Antigen Match

- The donor is tested at I. class as well as II. class (A, B, DRB1).

- Two mismatches at serological level at HLA- A, B and DR.
- This match grade has mostly sense just for a donor CB (cord blood).

4/4 AB Antigen Match
- The donor is tested at I. class (HLA- A, B).
- A full or potential match at serological level at A, B.

3/4 AB Antigen Match
- The donor is tested at I. class (HLA- A, B).
- One mismatch at serological level at A or B.

Unknown match grade / Too many MM
- The level of match of the donor and the patient is not possible to count or the number of mismatches is too high.

III.VI. Repeated search

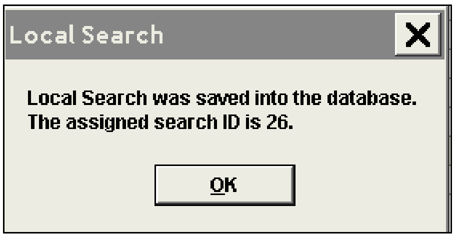
You can perform a new search by deleting the actual search results. However it is possible to save your different search results, see next chapter.

III.VII. Search saving to database

When the search is complete, you can save the search results into the database through the .

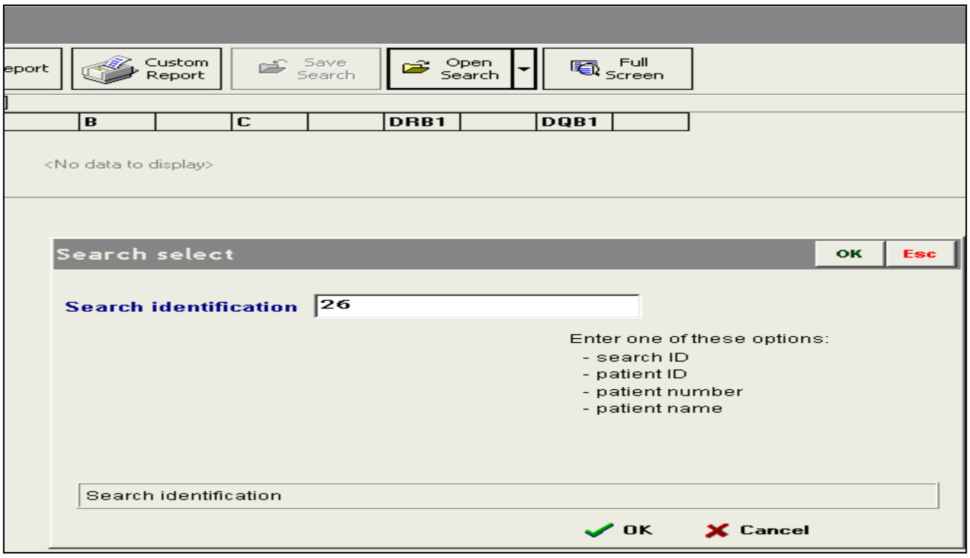
button.

The search parameters will be saved into the database as well as the main patient data, the main donor data and the match levels. A search identifier (search ID) is assigned to this action.



Local Search was saved into the database.
The assigned search ID is 26.

You can re-open the search via “open search” and entering the “search identification”:



Search identification 26

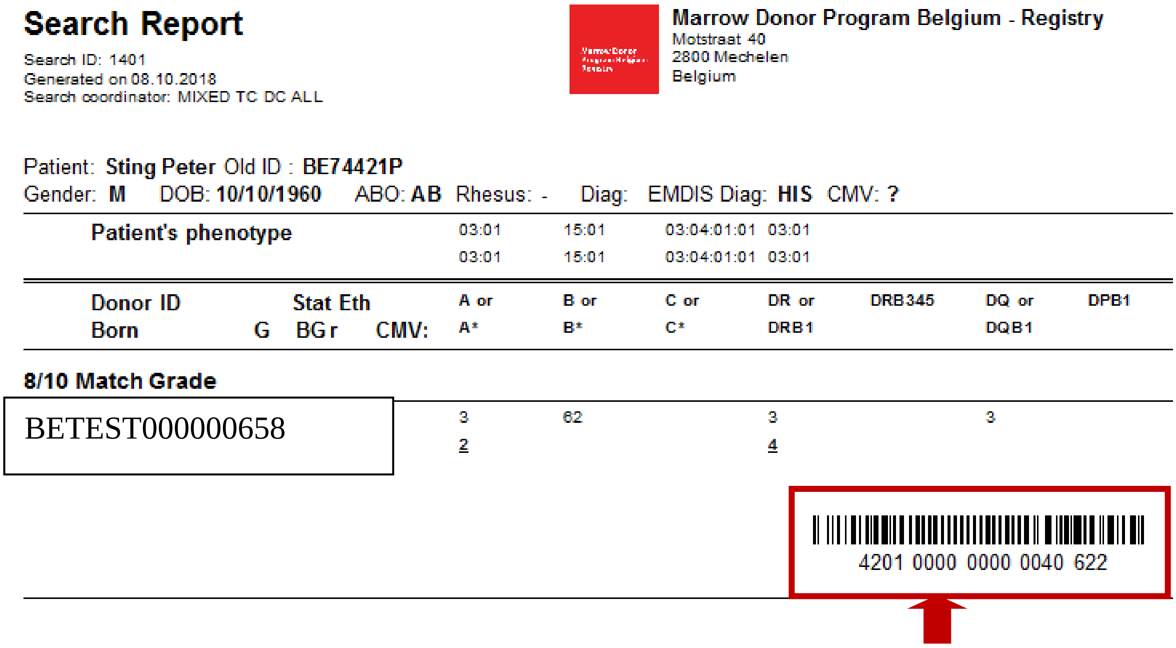
Enter one of these options:
- search ID
- patient ID
- patient number
- patient name

Search identification

As soon as you save the search in the database you cannot change it because it serves only for documentary purposes, search parameters cannot be changed. (a donor will not be updated in a saved search).

To have new search results or updated search results a new search has to be activated.

III.VIII. Search report



Search Report

Search ID: 1401
Generated on 08.10.2018
Search coordinator: MIXED TC DC ALL

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

Patient: **Sting Peter** Old ID : **BE74421P**
Gender: **M** DOB: **10/10/1960** ABO: **AB** Rhesus: - Diag: EMDIS Diag: **HIS** CMV: **?**

Donor ID Born	G	Stat Eth BG r	CMV:	A or A*	B or B*	C or C*	DR or DRB1	DRB345	DQ or DQB1	DPB1
Patient's phenotype				03:01 03:01	15:01 15:01	03:04:01:01 03:04:01:01	03:01 03:01			
8/10 Match Grade										
BETEST000000658				3 2	62		3 4		3	

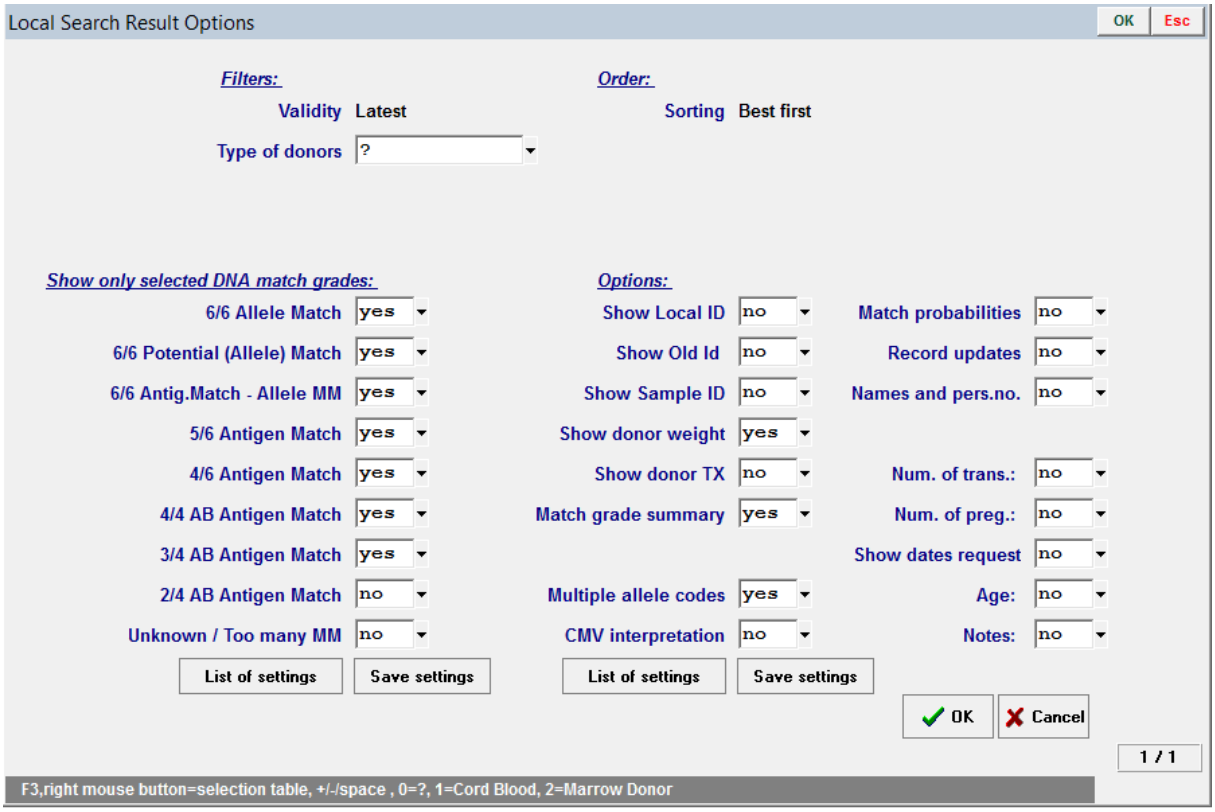
4201 0000 0000 0040 622

GRID is added to the search result report: both in form of a barcode and as a number.

You can basically perform two types of search reports.

III.VIII.1. Report with all results:

Executed with the Report button.



Local Search Result Options

Filters:

Validity Latest

Type of donors ?

Order:

Sorting Best first

Show only selected DNA match grades:

6/6 Allele Match yes
6/6 Potential (Allele) Match yes
6/6 Antig.Match - Allele MM yes
5/6 Antigen Match yes
4/6 Antigen Match yes
4/4 AB Antigen Match yes
3/4 AB Antigen Match yes
2/4 AB Antigen Match no
Unknown / Too many MM no

Options:

Show Local ID no
Show Old Id no
Show Sample ID no
Show donor weight yes
Show donor TX no
Match grade summary yes
Multiple allele codes yes
CMV interpretation no

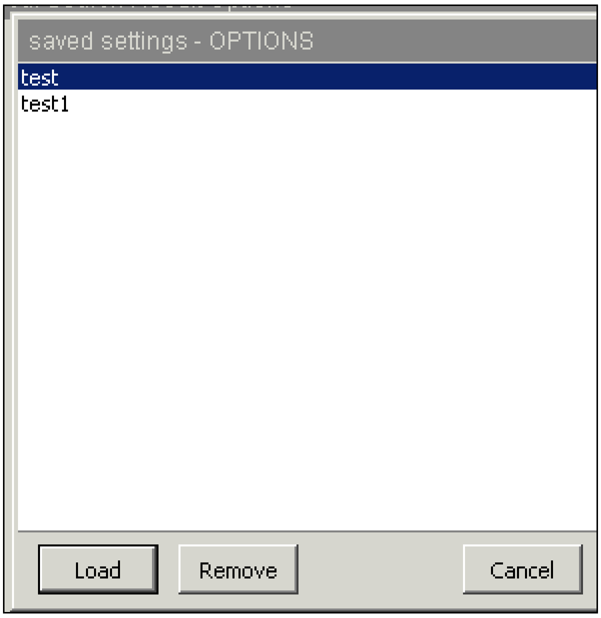
Match probabilities no
Record updates no
Names and pers.no. no
Num. of trans.: no
Num. of preg.: no
Show dates request no
Age: no
Notes: no

F3,right mouse button=selection table, +/-/space , 0=?, 1=Cord Blood, 2=Marrow Donor

Save settings: you can save the options you selected, and then later use the same options by clicking on “**List of settings”.**

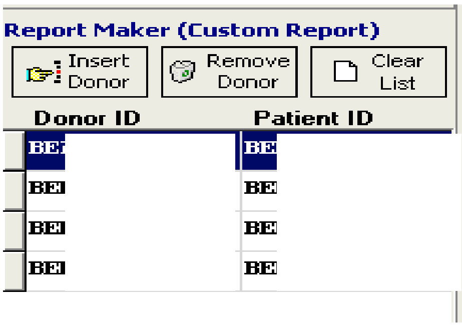
Select the **“Load button”** in the following screen to activate your previous settings.

You can “cancel” previous settings by clicking **“Remove”.**



III.VIII.2. Custom report with selected results:

With the report maker, you can create a custom report of the search results by selecting chosen donors from the **search results** table.

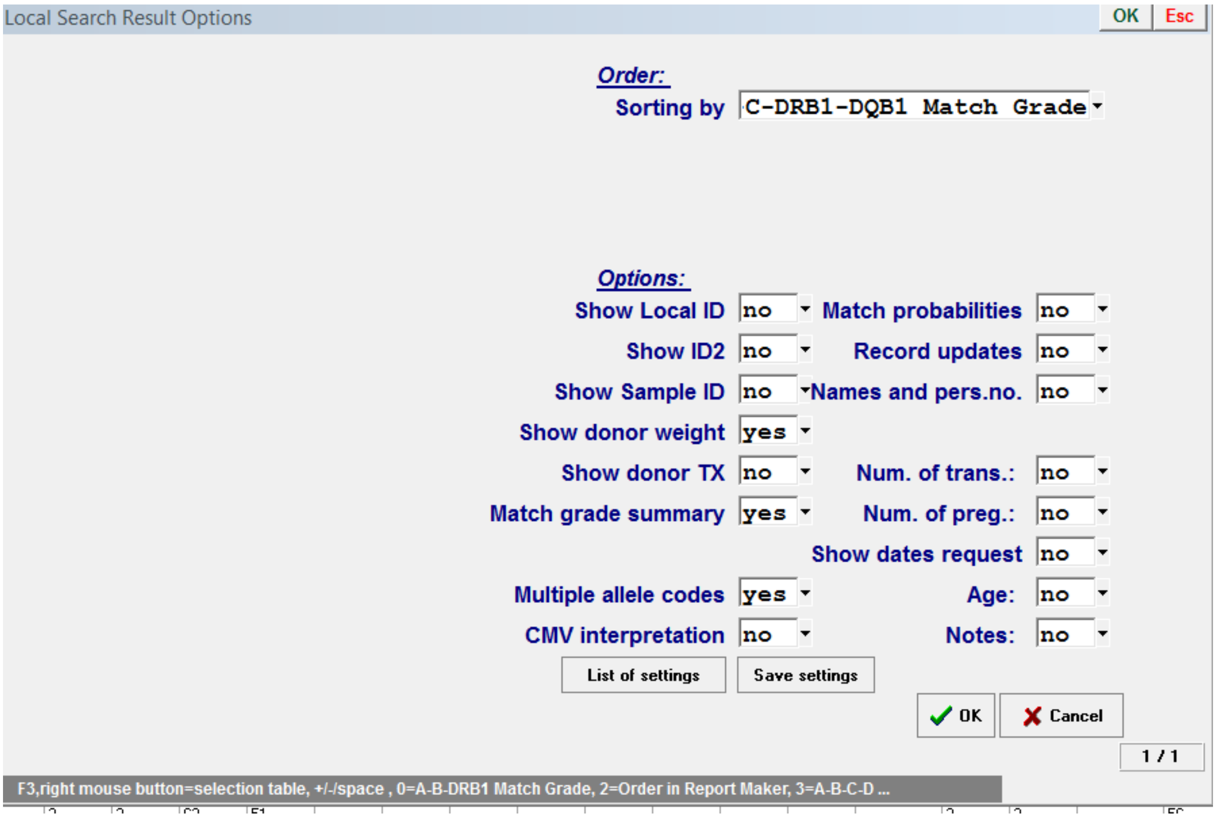


Donor ID	Patient ID
BE	BE
BE	BE
BE	BE
BE	BE

Report maker table and tools

- **Insert Donor Button**: inserts the donor highlighted in the search results table.
- **Remove Donor**: removes the highlighted donor from the report maker
- **Clear List**: removes all donors from the report maker.

The button then executes the customized report.



Local Search Result Options

Order:

Sorting by: C-DRB1-DQB1 Match Grade

Options:

Show Local ID: no
Match probabilities: no
Show ID2: no
Record updates: no
Show Sample ID: no
Names and pers.no.: no
Show donor weight: yes
Show donor TX: no
Num. of trans.: no
Match grade summary: yes
Num. of preg.: no
Show dates request: no
Multiple allele codes: yes
Age: no
CMV interpretation: no
Notes: no

F3,right mouse button=selection table, +/-/space , 0=A-B-DRB1 Match Grade, 2=Order in Report Maker, 3=A-B-C-D ...

Save settings: you can save the options you selected, and then later use the same options by clicking on “**List of settings”.**

Select the **“Load button”** in the following screen to activate your previous settings.

You can “cancel” previous settings by clicking **“Remove”.**

IV. EMDIS

IV.I. Introduction

EMDIS (European Marrow Donor Information System) is a communication system for the data exchange between Bone Marrow Donor Registries, Transplant Centers, Donor Centers, HLA labs, and Cord Blood Banks.

The term **HUB** is used for the Donor Center or Transplant Center sending or receiving EMDIS messages. In Prometheus **Belgium** is listed among the EMDIS countries. The activation of a Belgian search will be processed as an EMDIS search activation.

The term **"donor"** means **"stem cell donor"** or **"cord blood unit"**.

Each request is uniquely determined by the donor, patient identifier, the category of request, the date of request. The user is not allowed to create duplicate requests, if necessary, cancel the previously created request before creating new ones. The request received from abroad will be rejected if it is duplicate.

The donor status in the EMDIS system can take following values:

AV (available):	the donor is available for transplantation.
TU (Temporarily unavailable):	the donor is temporarily unavailable. The reason why and the period of unavailability must be indicated.
RS (Reserved):	the donor is reserved for your patient.
OP (Other patient):	the donor is reserved for another patient.
DE (Deleted):	the donor is deleted from the Registry. The reason is indicated.

IV.II. Patient status

The patient status in the international EMDIS Registry and the Belgian Registry can be:

PRE (Preliminary Search): After the registration and the validation, the patient status will be set to **PRE,** this means that first search results will be sent for your patient (a first report).

ACT (Patient Active): Repeated donor status, it is possible to activate further requests.

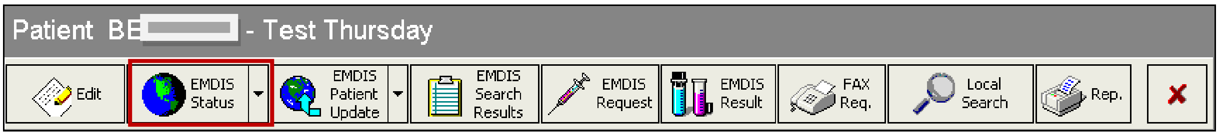
SUS (Patient Activity Suspended): The donor search is suspended: the search runs will no longer run, all previously requests are normally processed. It is not possible to activate new requests.

STP (Patient Stopped): All activities for the patient are cancelled, inclusive active requests.

IV.II.1. Preliminary status

After the patient has been validated, a search can be activated. A patient status can be changed either in **ALL HUBs** at once or in a selected particular HUB(s). If a patient is already reported with different states in different HUBs, the state cannot be changed.

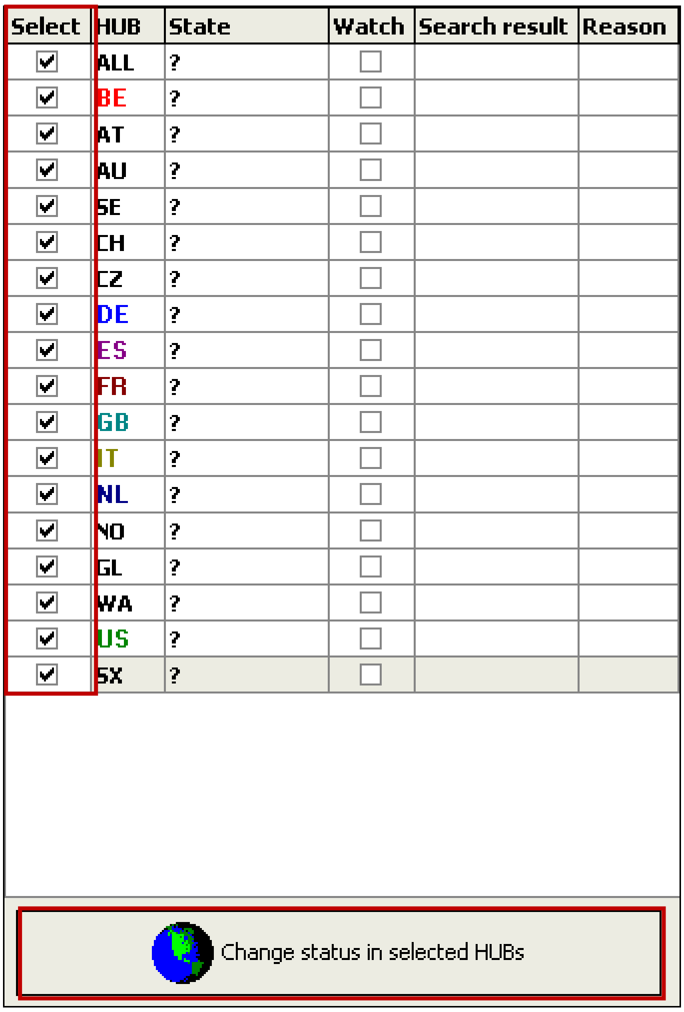
The EMDIS status can be changed by using the EMDIS Status button.



Patient BE[redacted] - Test Thursday

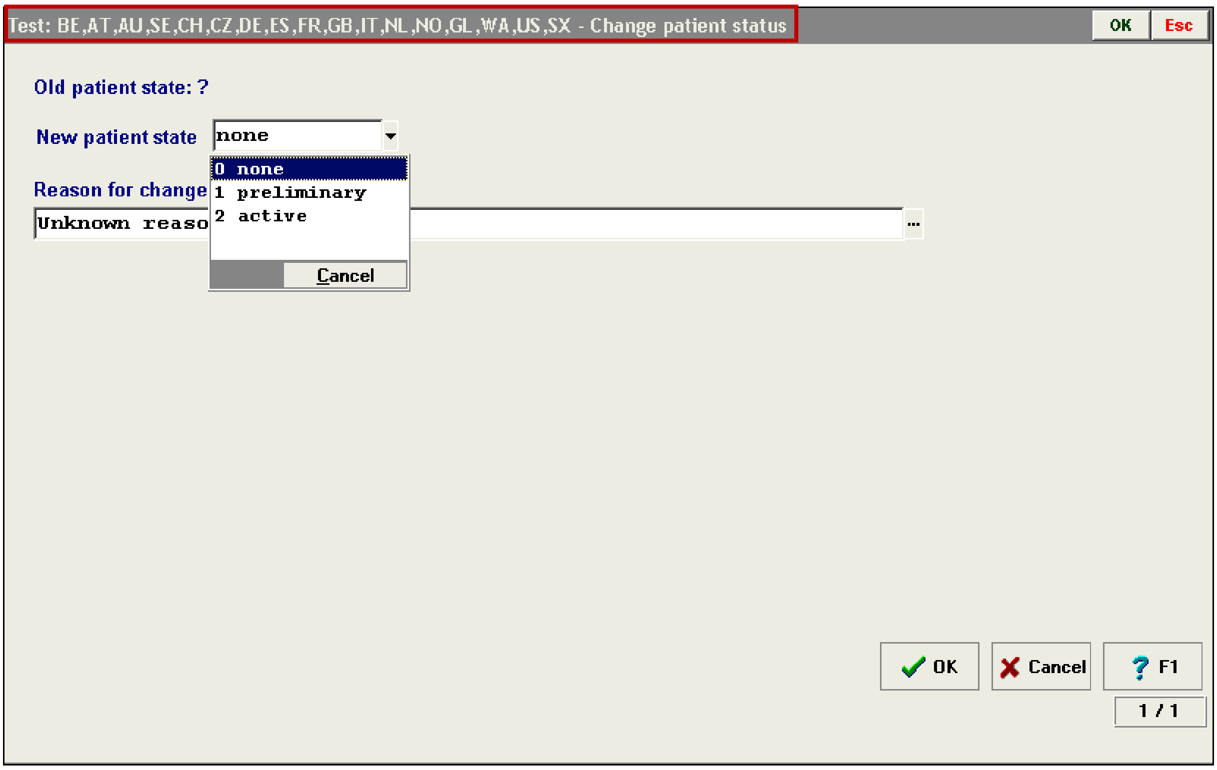
Note:  *(not implemented).*

For new registered patients, all EMDIS countries are automatically selected. In case you want to receive search results of all EMDIS countries, you can use the ‘Change status in selected HUBs’ button.



Select	HUB	State	Watch	Search result	Reason
☑	ALL	?	☐		
☑	BE	?	☐		
☑	AT	?	☐		
☑	AU	?	☐		
☑	SE	?	☐		
☑	CH	?	☐		
☑	CZ	?	☐		
☑	DE	?	☐		
☑	ES	?	☐		
☑	FR	?	☐		
☑	GB	?	☐		
☑	IT	?	☐		
☑	NL	?	☐		
☑	NO	?	☐		
☑	GL	?	☐		
☑	WA	?	☐		
☑	US	?	☐		
☑	SX	?	☐		

This way, you can request a preliminary search in all EMDIS countries at once:



Test: BE,AT,AU,SE,CH,CZ,DE,ES,FR,GB,IT,NL,NO,GL,WA,US,SX - Change patient status

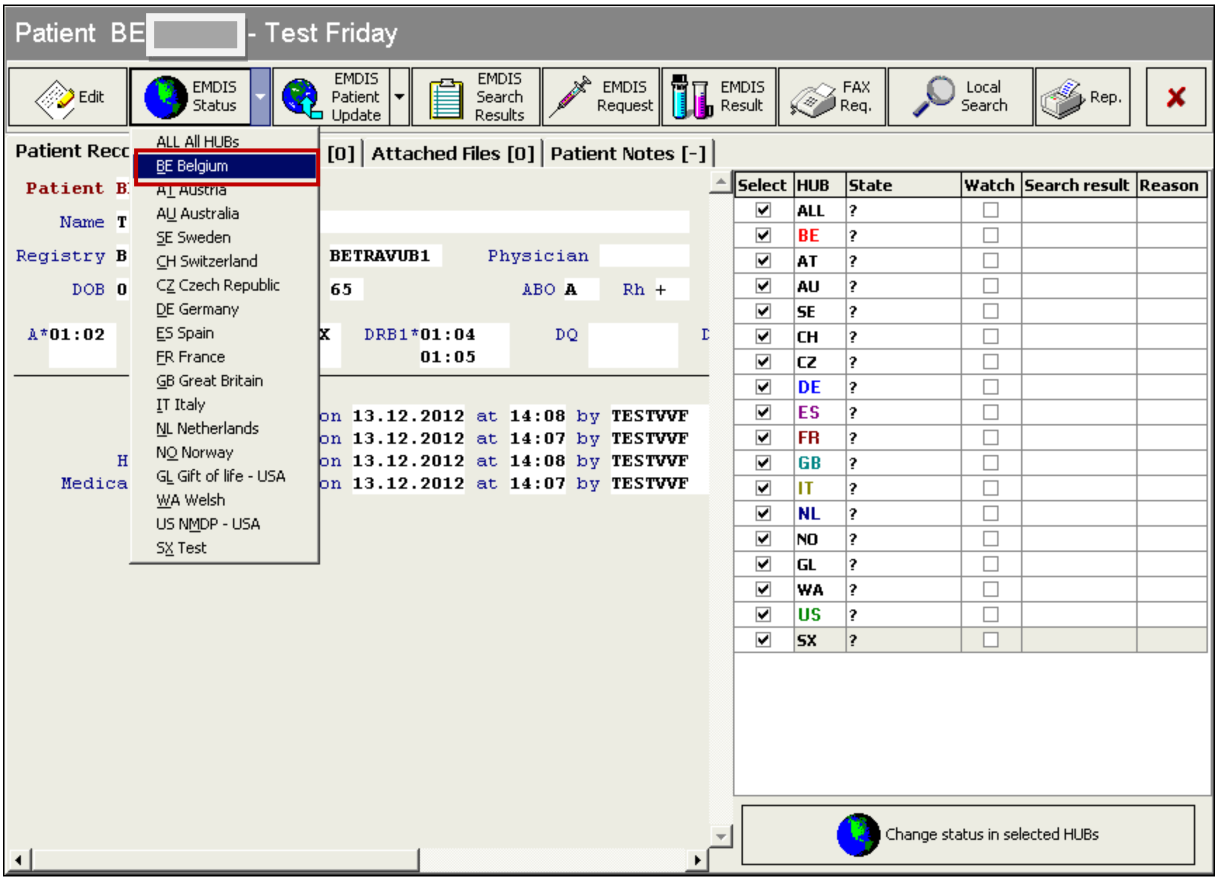
Old patient state: ?

New patient state: none

Reason for change: Unknown reaso

In case you want to request a preliminary search in a particular EMDIS country, you must use the button ‘EMDIS Status’.

For example: select BE Belgium and set patient state on ‘Preliminary’. Press ‘OK’ and the patient status will change to ‘Preliminary’ for BE.

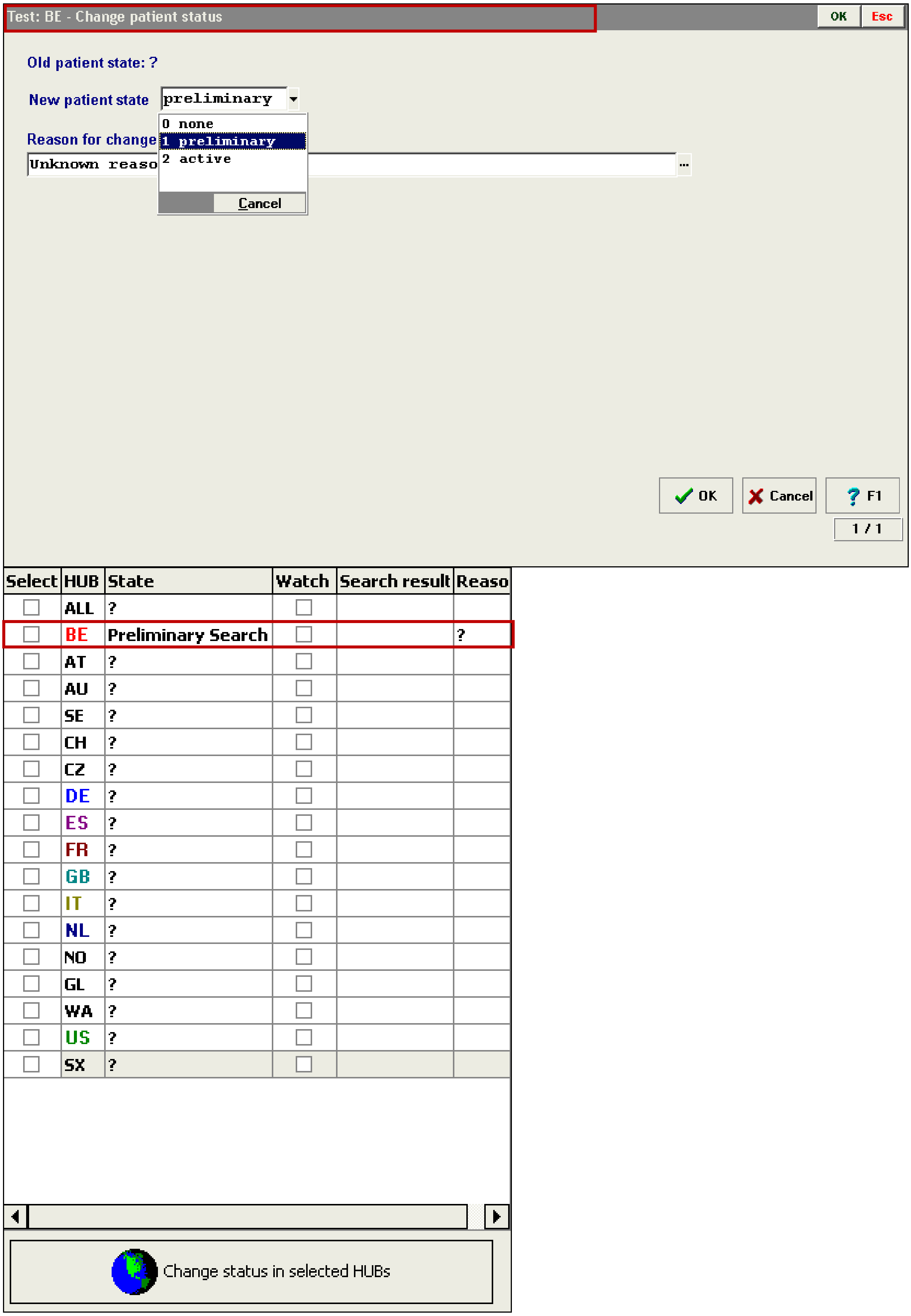


Patient BE [redacted] - Test Friday

Patient B
Name T
Registry B BETRAVUB1 Physician
DOB 0 65 ABO A Rh +
A*01:02 X DRB1*01:04 01:05 DQ D

on 13.12.2012 at 14:08 by TESTVVF
on 13.12.2012 at 14:07 by TESTVVF
H on 13.12.2012 at 14:08 by TESTVVF
Medica on 13.12.2012 at 14:07 by TESTVVF

Select	HUB	State	Watch	Search result	Reason
☑	ALL	?	☐		
☑	BE	?	☐		
☑	AT	?	☐		
☑	AU	?	☐		
☑	SE	?	☐		
☑	CH	?	☐		
☑	CZ	?	☐		
☑	DE	?	☐		
☑	ES	?	☐		
☑	FR	?	☐		
☑	GB	?	☐		
☑	IT	?	☐		
☑	NL	?	☐		
☑	NO	?	☐		
☑	GL	?	☐		
☑	WA	?	☐		
☑	US	?	☐		
☑	SX	?	☐		



Old patient state: ?

New patient state: preliminary

Reason for change: Unknown reaso

Select	HUB	State	Watch	Search result	Reaso
☐	ALL	?	☐		
☐	BE	Preliminary Search	☐		?
☐	AT	?	☐		
☐	AU	?	☐		
☐	SE	?	☐		
☐	CH	?	☐		
☐	CZ	?	☐		
☐	DE	?	☐		
☐	ES	?	☐		
☐	FR	?	☐		
☐	GB	?	☐		
☐	IT	?	☐		
☐	NL	?	☐		
☐	NO	?	☐		
☐	GL	?	☐		
☐	WA	?	☐		
☐	US	?	☐		
☐	SX	?	☐		

After sending the message ‘Preliminary’ request, the patient status is set to Preliminary search (PRE), and the patient will receive status **“Preliminary search”.**

☐	BE	Preliminary Search

With this status a match list, phenotype list and a match summary are sent once. No further actions are taken in this status. Any further activity is not possible until the patient has been changed to Active (ACT). After the status is set to active by a PAT_STAT message, search runs are repeated on a regular basis (repeat search program).

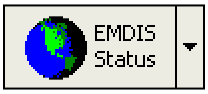
Repeated donor search

For all patients in active status a repeated donor search will be performed. The interval depends on the setting of each Registry (in Prometheus 24 hours).

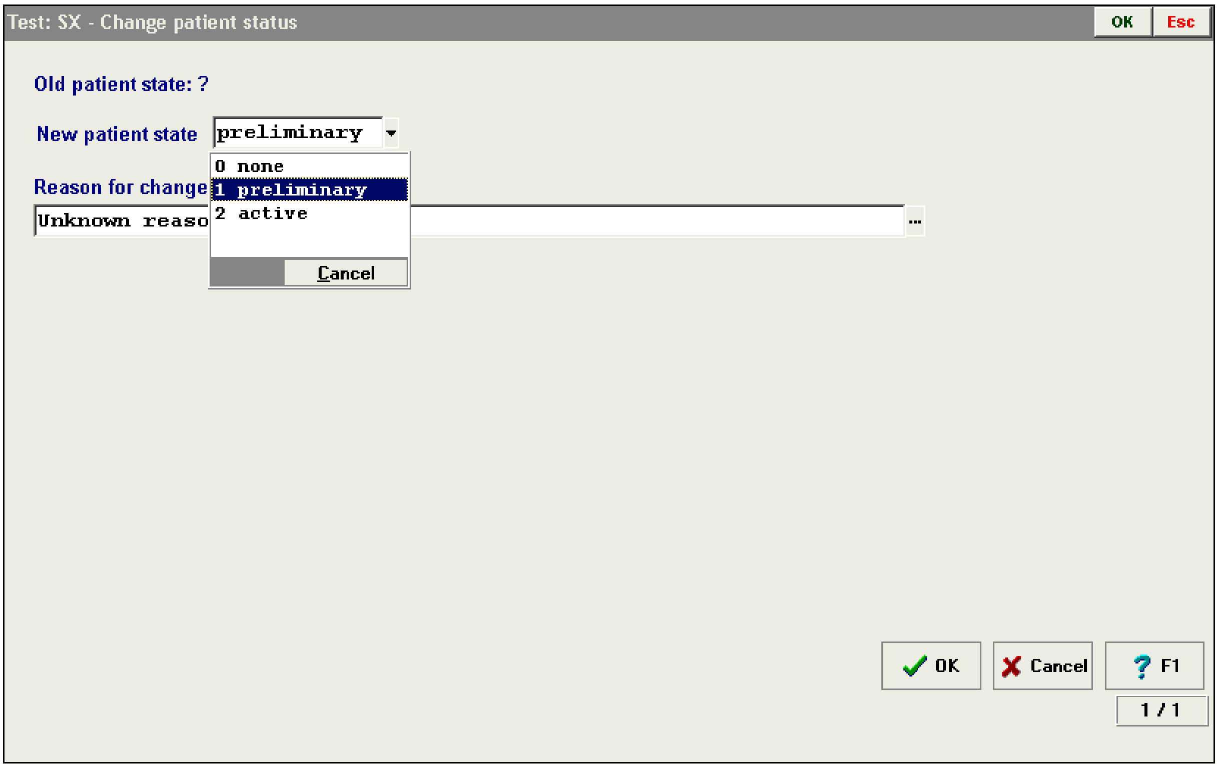
The new search result will send:

- New donors;
- Donors with better match grade;
- Change of antigen of other donor information (change of donor status, blood group, donor deleted from the database).

Click on EMDIS status to open the activation screen:



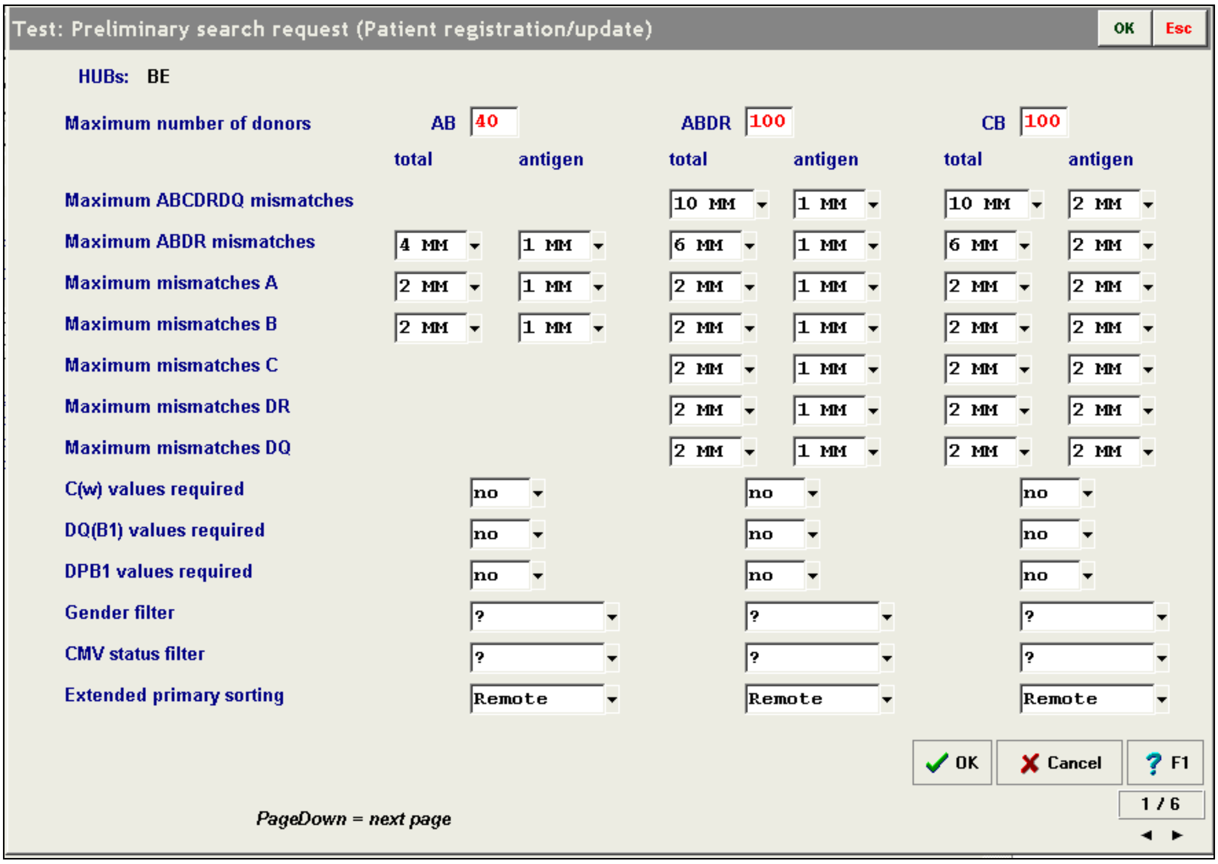
and select the status preliminary:



Old patient state: ?

New patient state: preliminary

Reason for change: Unknown reaso



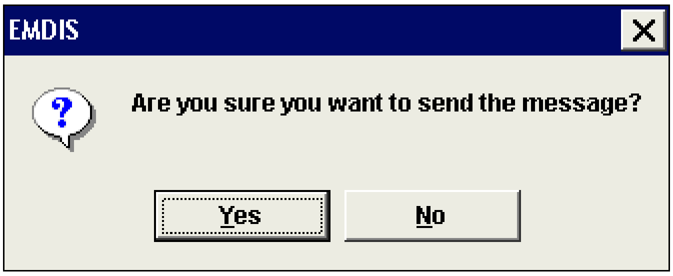
Test: Preliminary search request (Patient registration/update)

HUBs: BE

	AB total	AB antigen	ABDR total	ABDR antigen	CB total	CB antigen
Maximum number of donors	40		100		100	
Maximum ABCDRDQ mismatches			10 MM	1 MM	10 MM	2 MM
Maximum ABDR mismatches	4 MM	1 MM	6 MM	1 MM	6 MM	2 MM
Maximum mismatches A	2 MM	1 MM	2 MM	1 MM	2 MM	2 MM
Maximum mismatches B	2 MM	1 MM	2 MM	1 MM	2 MM	2 MM
Maximum mismatches C			2 MM	1 MM	2 MM	2 MM
Maximum mismatches DR			2 MM	1 MM	2 MM	2 MM
Maximum mismatches DQ			2 MM	1 MM	2 MM	2 MM
C(w) values required	no		no		no	
DQ(B1) values required	no		no		no	
DPB1 values required	no		no		no	
Gender filter	?		?		?	
CMV status filter	?		?		?	
Extended primary sorting	Remote		Remote		Remote	

PageDown = next page

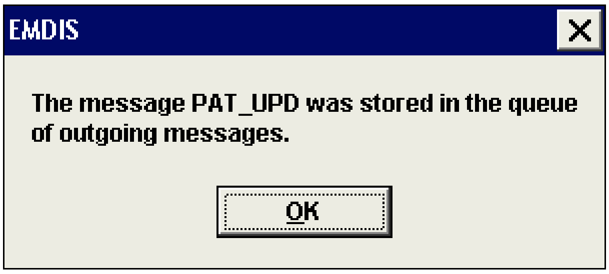
You have to confirm:



EMDIS

Are you sure you want to send the message?

The message **PAT_UPD** will be stored in the queue of outgoing messages, and will be processed within **1** Hour.

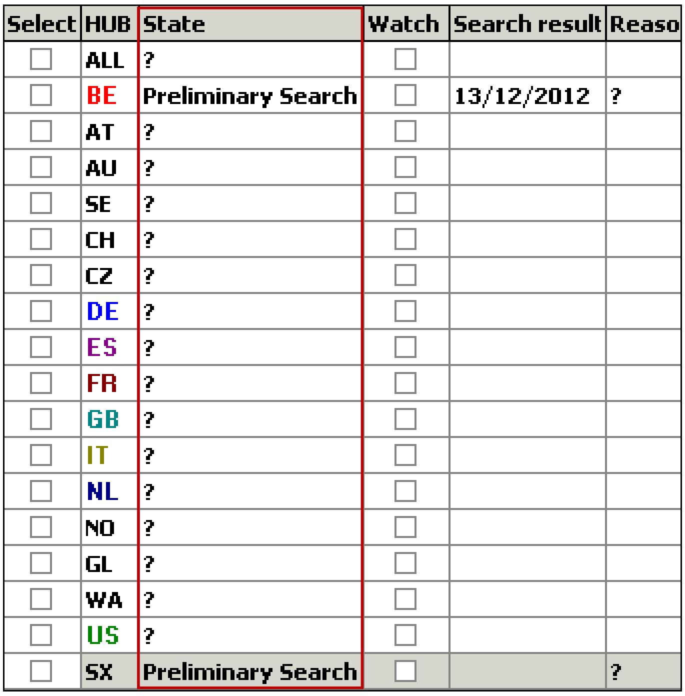


EMDIS

The message PAT_UPD was stored in the queue of outgoing messages.

When the message has been processed, and sent out to the different EMDIS countries, you will start receiving EMDIS search results. The timing depends from the different countries: not all countries process their messages every hour.

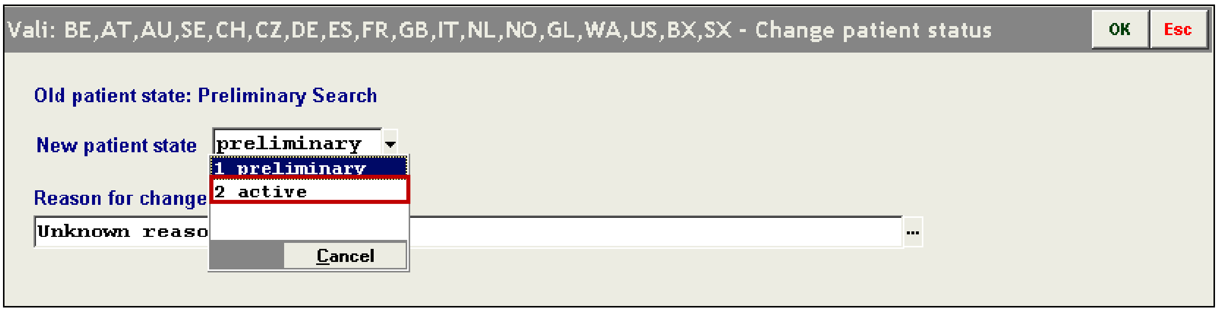
The table on the right of your screen will display that the search state has been set to preliminary.



Select	HUB	State	Watch	Search result	Reaso
☐	ALL	?	☐		
☐	BE	Preliminary Search	☐	13/12/2012	?
☐	AT	?	☐		
☐	AU	?	☐		
☐	SE	?	☐		
☐	CH	?	☐		
☐	CZ	?	☐		
☐	DE	?	☐		
☐	ES	?	☐		
☐	FR	?	☐		
☐	GB	?	☐		
☐	IT	?	☐		
☐	NL	?	☐		
☐	NO	?	☐		
☐	GL	?	☐		
☐	WA	?	☐		
☐	US	?	☐		
☐	SX	Preliminary Search	☐		?

IV.II.2. Active status

When you received search results and you wish to send a further request, the status must be set to ACTIVE (**ACT**). Go to the EMDIS status menu and set the new patient state to “2 active”.



Vali: BE,AT,AU,SE,CH,CZ,DE,ES,FR,GB,IT,NL,NO,GL,WA,US,BX,SX - Change patient status

Old patient state: Preliminary Search

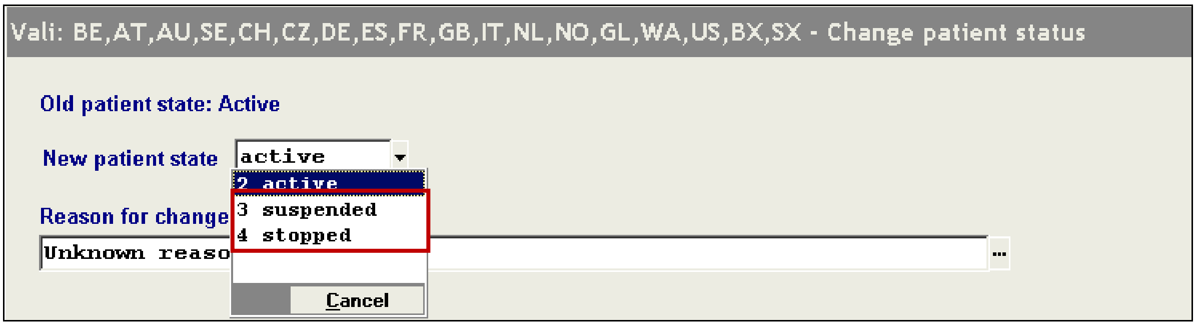
New patient state: preliminary

Reason for change: Unknown reaso

When the patient status is active, the remote HUB will perform repeated donor searches.

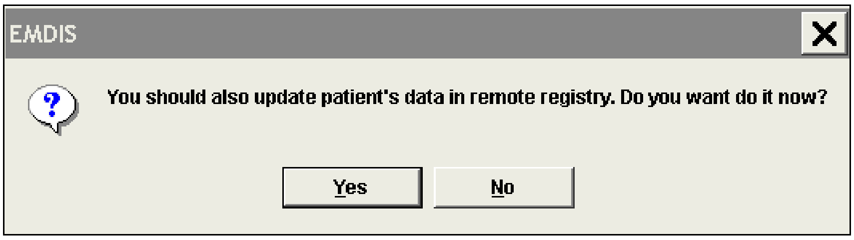
IV.II.3. Suspension - stopped status

The patient file can be suspended or cancelled via the same menu:



If the patient status has been changed to **STP**, all requests are automatically canceled and you don't need to send the messages "Cancellation of request".
If the patient status has been changed to **SUS** "suspended", the requests are not cancelled and you have to do the cancellation of the messages manually by "Cancellation of request".

To change a cancelled or suspended file to status active again, it is necessary to send also the patient update, but you will be guided by the system:


EMDIS

You should also update patient's data in remote registry. Do you want do it now?

Prometheus will lead you through the different patient update screens: pressing yes will store the message in the queue of outgoing messages, the patient will be active again.

IV.II.4. Cancellation of a search

As explained in previous point, the patient can be set to "stopped" status to cancel the search. The Registry will be informed about the patient cancellation, and will inform all Non EMDIS countries as well.

IV.III. Search results

IV.III.1. EMDIS search results

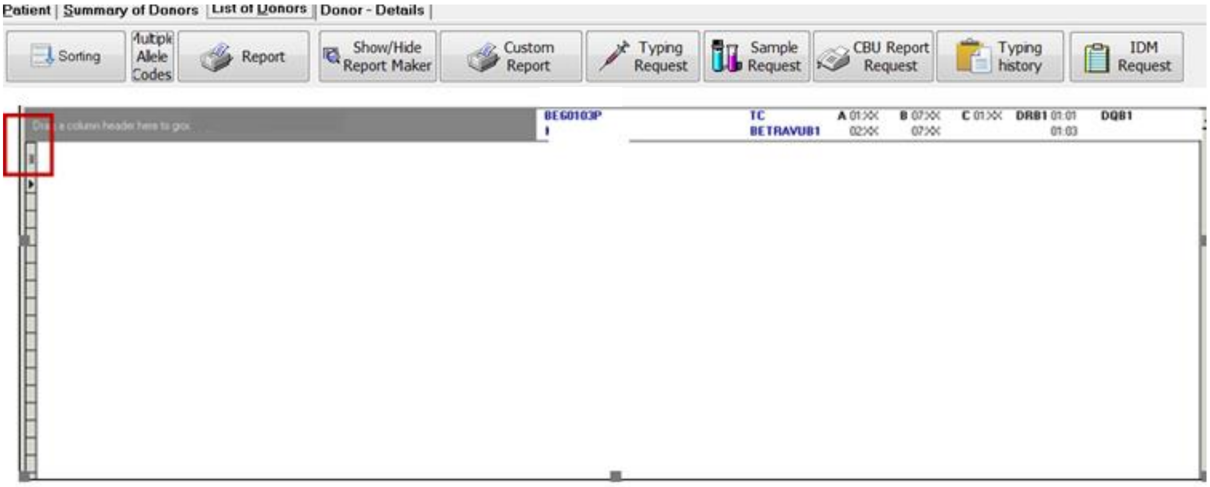
This chapter describes the application window for the EMDIS search results analysis. It is possible to call it up by the button EMDIS Search Results:

Go to EMDIS search results:

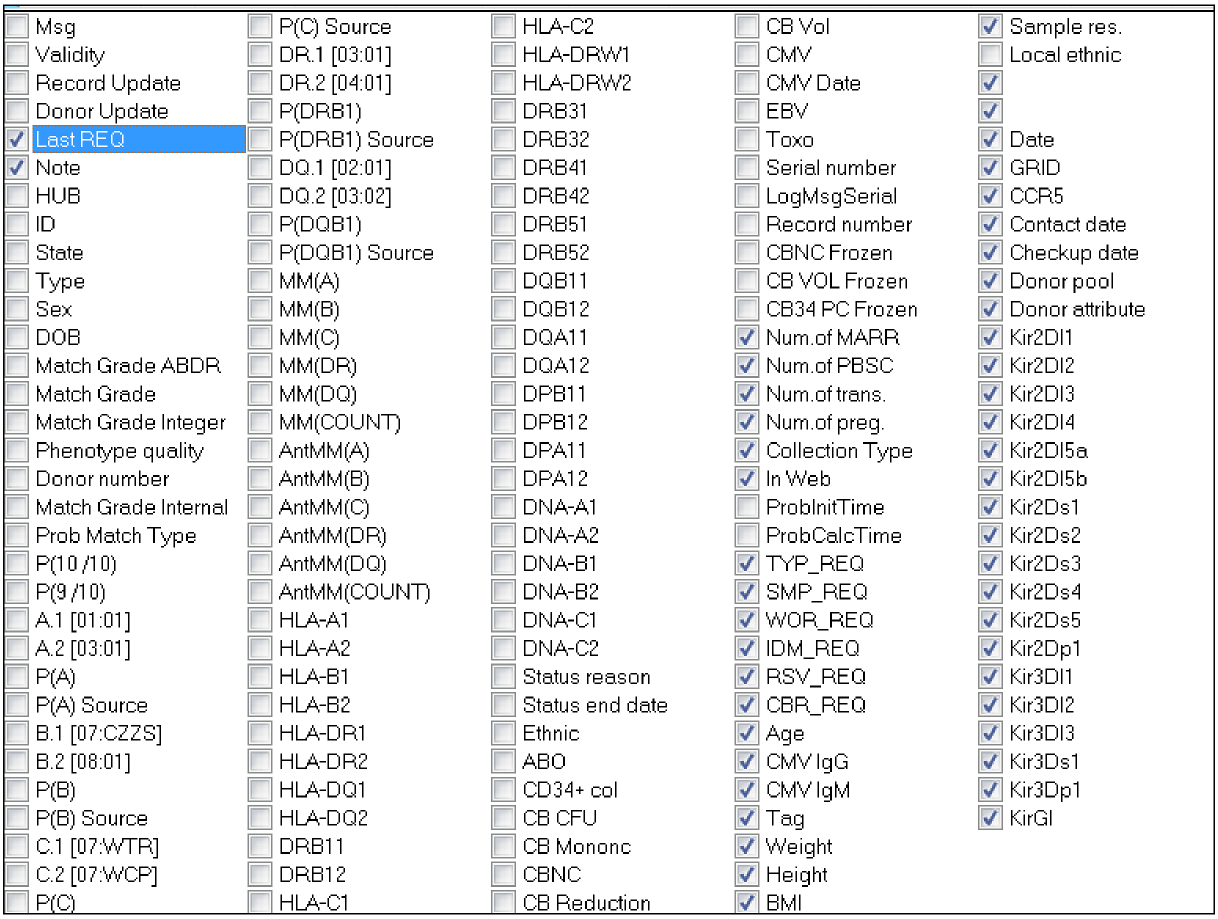
The option contains four bookmarks:

- Patient,
- Summary of Donors,
- List of donors,
- Donor – Details.

The first time you want to consult the search results, the following screen will be displayed:



If you click on the small button in the left upper corner, the following option list of available columns will be displayed:



☐ Msg
☐ Validity
☐ Record Update
☐ Donor Update
☑ Last REQ
☑ Note
☐ HUB
☐ ID
☐ State
☐ Type
☐ Sex
☐ DOB
☐ Match Grade ABDR
☐ Match Grade
☐ Match Grade Integer
☐ Phenotype quality
☐ Donor number
☐ Match Grade Internal
☐ Prob Match Type
☐ P(10 /10)
☐ P(9 /10)
☐ A.1 [01:01]
☐ A.2 [03:01]
☐ P(A)
☐ P(A) Source
☐ B.1 [07:CZZS]
☐ B.2 [08:01]
☐ P(B)
☐ P(B) Source
☐ C.1 [07:WTR]
☐ C.2 [07:WCP]
☐ P(C)
☐ P(C) Source
☐ DR.1 [03:01]
☐ DR.2 [04:01]
☐ P(DRB1)
☐ P(DRB1) Source
☐ DQ.1 [02:01]
☐ DQ.2 [03:02]
☐ P(DQB1)
☐ P(DQB1) Source
☐ MM(A)
☐ MM(B)
☐ MM(C)
☐ MM(DR)
☐ MM(DQ)
☐ MM(COUNT)
☐ AntMM(A)
☐ AntMM(B)
☐ AntMM(C)
☐ AntMM(DR)
☐ AntMM(DQ)
☐ AntMM(COUNT)
☐ HLA-A1
☐ HLA-A2
☐ HLA-B1
☐ HLA-B2
☐ HLA-DR1
☐ HLA-DR2
☐ HLA-DQ1
☐ HLA-DQ2
☐ DRB11
☐ DRB12
☐ HLA-C1
☐ HLA-C2
☐ HLA-DRW1
☐ HLA-DRW2
☐ DRB31
☐ DRB32
☐ DRB41
☐ DRB42
☐ DRB51
☐ DRB52
☐ DQB11
☐ DQB12
☐ DQA11
☐ DQA12
☐ DPB11
☐ DPB12
☐ DPA11
☐ DPA12
☐ DNA-A1
☐ DNA-A2
☐ DNA-B1
☐ DNA-B2
☐ DNA-C1
☐ DNA-C2
☐ Status reason
☐ Status end date
☐ Ethnic
☐ ABO
☐ CD34+ col
☐ CB CFU
☐ CB Mononc
☐ CBNC
☐ CB Reduction
☐ CB Vol
☐ CMV
☐ CMV Date
☐ EBV
☐ Toxo
☐ Serial number
☐ LogMsgSerial
☐ Record number
☐ CBNC Frozen
☐ CB VOL Frozen
☐ CB34 PC Frozen
☑ Num.of MARR
☑ Num.of PBSC
☑ Num.of trans.
☑ Num.of preg.
☑ Collection Type
☑ In Web
☐ ProbInitTime
☐ ProbCalcTime
☑ TYP_REQ
☑ SMP_REQ
☑ WOR_REQ
☑ IDM_REQ
☑ RSV_REQ
☑ CBR_REQ
☑ Age
☑ CMV IgG
☑ CMV IgM
☑ Tag
☑ Weight
☑ Height
☑ BMI
☑ Sample res.
☐ Local ethnic
☑
☑
☑ Date
☑ GRID
☑ CCR5
☑ Contact date
☑ Checkup date
☑ Donor pool
☑ Donor attribute
☑ Kir2Dl1
☑ Kir2Dl2
☑ Kir2Dl3
☑ Kir2Dl4
☑ Kir2Dl5a
☑ Kir2Dl5b
☑ Kir2Ds1
☑ Kir2Ds2
☑ Kir2Ds3
☑ Kir2Ds4
☑ Kir2Ds5
☑ Kir2Dp1
☑ Kir3Dl1
☑ Kir3Dl2
☑ Kir3Dl3
☑ Kir3Ds1
☑ Kir3Dp1
☑ KirGl

If you want to save the selection of the parameters click on and select “Store user settings”:

New items:

☑ Kir2Dl1
☑ Kir2Dl2
☑ Kir2Dl3
☑ Kir2Dl4
☑ Kir2Dl5a
☑ Kir2Dl5b
☑ Kir2Ds1
☑ Kir2Ds2
☑ Kir2Ds3
☑ Kir2Ds4
☑ Kir2Ds5
☑ Kir2Dp1
☑ Kir3Dl1
☑ Kir3Dl2
☑ Kir3Dl3
☑ Kir3Ds1
☑ Kir3Dp1
☑ KirGl

Donor KIR gene 2DL1,…..

Possible values:

POS = Presence of KIR gene

NEG = Absence of KIR gene

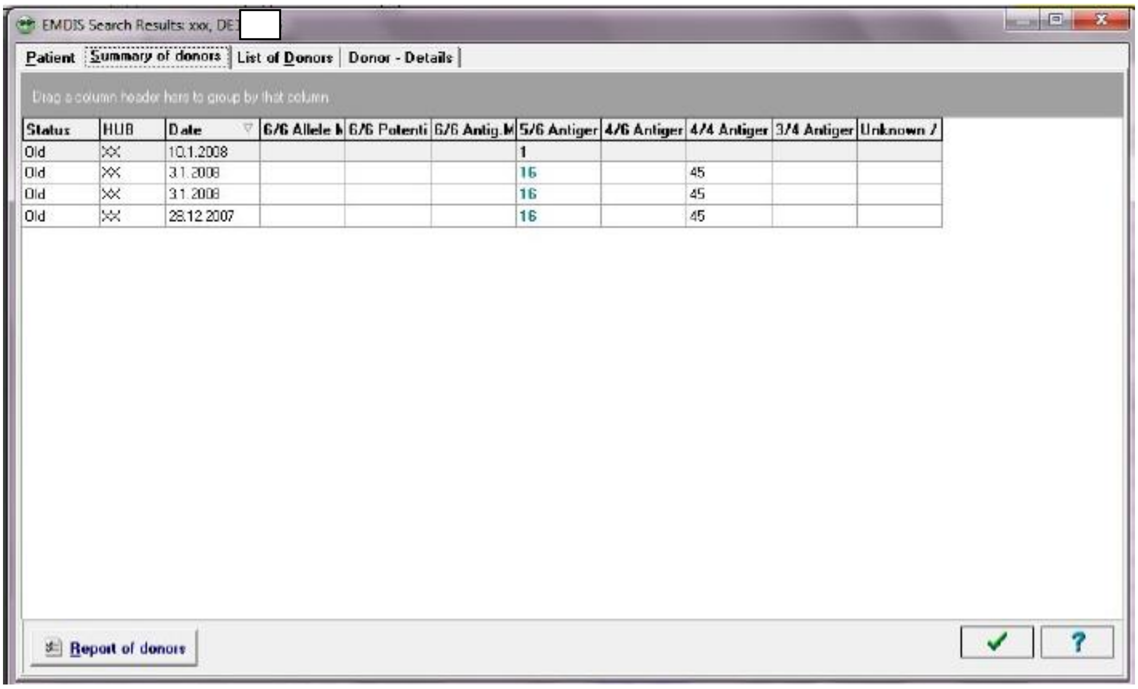
☑ GRID
☑ CCR5
☑ Contact date
☑ Checkup date
☑ Donor pool
☑ Donor attribute

GRID:	Global registration identifier for donors. (not yet applicable).
CCR5:	CBU CCR5 status DD = deletion (delta 32) - homozygous DW = deletion (delta 32) / wildtype – heterozygous WW = Wildtype – homozygous.
Contact date:	Date of last confirmed contact with the donor.
Checkup date:	Date of last medical checkup of the donor.
Donor attribute:	free note

IV.III.1.a. Patient

It contains the basic patient information, e.g. the personal identification number, the last name and first name, the HLA typing, search status,….

IV.III.1.b. Summary of donors



Status	HUB	Date	6/6 Allele M	6/6 Potenti	6/6 Antig.M	5/6 Antiger	4/6 Antiger	4/4 Antiger	3/4 Antiger	Unknown /
Old	XX	10.1.2008				1				
Old	XX	3.1.2008				16		45		
Old	XX	3.1.2008				16		45		
Old	XX	28.12.2007				16		45		

Summary of EMDIS search results (Summary of donors)

This window screen gives an overview of the donor summary list.

Status: New: new search results.

Status : Old : the list has been processed.

HUB: the Registry sending the search results.

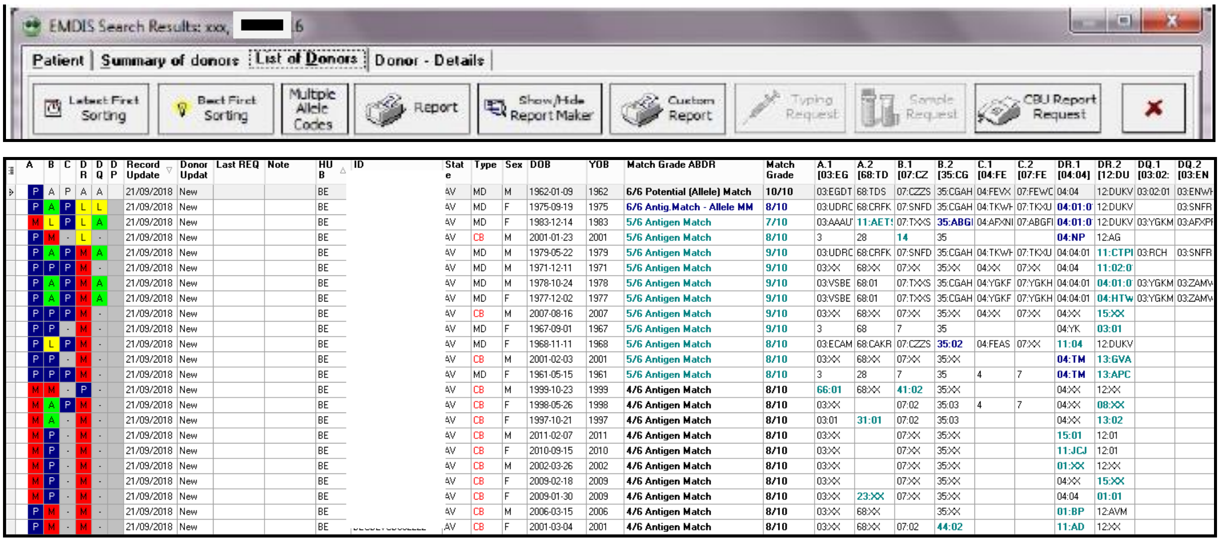
Date: date when search results have been sent.

Match grade columns: number of donors received per match grade.

Report of donors (below the screen): enables to check your search options.

IV.III.1.c. List of Donors

The tab “list of donors” displays all donors your received in this message : each line of this table represents a donor.



A	B	C	DR	DQ	DP	Record Update	Donor Updat	Last REQ	Note	HUB	ID	State	Type	Sex	DOB	YOB	Match Grade ABDR	Match Grade	A.1 [03:EG	A.2 [68:TD	B.1 [07:CZ	B.2 [35:CG	C.1 [04:FE	C.2 [07:FE	DR.1 [04:04]	DR.2 [12:DU	DQ.1 [03:02:	DQ.2 [03:EN
P	A	P	A	A		21/09/2018	New			BE		AV	MD	M	1962-01-09	1962	6/6 Potential (Allele) Match	10/10	03:EGDT	68:TDS	07:CZZS	35:CGAH	04:FEVX	07:FEWC	04:04	12:DUKV	03:02:01	03:ENWH
P	A	P	L	L		21/09/2018	New			BE		AV	MD	F	1975-09-19	1975	6/6 Antig.Match - Allele MM	8/10	03:UDRC	68:CRFK	07:SNFD	35:CGAH	04:TKWH	07:TKXU	04:01:0	12:DUKV		03:SNFR
M	L	P	L	A		21/09/2018	New			BE		AV	MD	F	1983-12-14	1983	5/6 Antigen Match	7/10	03:AAAU	11:AET	07:TXXS	35:ABGI	04:AFXNI	07:ABGFI	04:01:0	12:DUKV	03:YGKM	03:AFXPI
P	M	-	L	-		21/09/2018	New			BE		AV	CB	M	2001-01-23	2001	5/6 Antigen Match	8/10	3	28	14	35			04:NP	12:AG		
P	A	P	M	A		21/09/2018	New			BE		AV	MD	M	1979-05-22	1979	5/6 Antigen Match	9/10	03:UDRC	68:CRFK	07:SNFD	35:CGAH	04:TKWH	07:TKXU	04:04:01	11:CTPI	03:RCH	03:SNFR
P	P	P	M	-		21/09/2018	New			BE		AV	MD	M	1971-12-11	1971	5/6 Antigen Match	9/10	03:XX	68:XX	07:XX	35:XX	04:XX	07:XX	04:04	11:02:0		
P	A	P	M	A		21/09/2018	New			BE		AV	MD	M	1978-10-24	1978	5/6 Antigen Match	9/10	03:VSBE	68:01	07:TXXS	35:CGAH	04:YGKF	07:YGKH	04:04:01	04:01:0	03:YGKM	03:ZAMV
P	A	P	M	A		21/09/2018	New			BE		AV	MD	F	1977-12-02	1977	5/6 Antigen Match	9/10	03:VSBE	68:01	07:TXXS	35:CGAH	04:YGKF	07:YGKH	04:04:01	04:HTW	03:YGKM	03:ZAMV
P	P	P	M	-		21/09/2018	New			BE		AV	CB	M	2007-08-16	2007	5/6 Antigen Match	9/10	03:XX	68:XX	07:XX	35:XX	04:XX	07:XX	04:XX	15:XX		
P	P	-	M	-		21/09/2018	New			BE		AV	MD	F	1967-09-01	1967	5/6 Antigen Match	9/10	3	68	7	35			04:YK	03:01		
P	L	P	M	-		21/09/2018	New			BE		AV	MD	F	1968-11-11	1968	5/6 Antigen Match	8/10	03:ECAM	68:CAKR	07:CZZS	35:02	04:FEAS	07:XX	11:04	12:DUKV		
P	P	-	M	-		21/09/2018	New			BE		AV	CB	M	2001-02-03	2001	5/6 Antigen Match	8/10	03:XX	68:XX	07:XX	35:XX			04:TM	13:GVA		
P	P	P	M	-		21/09/2018	New			BE		AV	MD	F	1961-05-15	1961	5/6 Antigen Match	8/10	3	28	7	35	4	7	04:TM	13:APC		
M	M	-	P	-		21/09/2018	New			BE		AV	CB	M	1999-10-23	1999	4/6 Antigen Match	8/10	66:01	68:XX	41:02	35:XX			04:XX	12:XX		
M	A	P	M	-		21/09/2018	New			BE		AV	CB	F	1998-05-26	1998	4/6 Antigen Match	8/10	03:XX		07:02	35:03	4	7	04:XX	08:XX		
M	A	-	M	-		21/09/2018	New			BE		AV	CB	F	1997-10-21	1997	4/6 Antigen Match	8/10	03:01	31:01	07:02	35:03			04:XX	13:02		
M	P	-	M	-		21/09/2018	New			BE		AV	CB	M	2011-02-07	2011	4/6 Antigen Match	8/10	03:XX		07:XX	35:XX			15:01	12:01		
M	P	-	M	-		21/09/2018	New			BE		AV	CB	F	2010-09-15	2010	4/6 Antigen Match	8/10	03:XX		07:XX	35:XX			11:JCJ	12:01		
M	P	-	M	-		21/09/2018	New			BE		AV	CB	M	2002-03-26	2002	4/6 Antigen Match	8/10	03:XX		07:XX	35:XX			01:XX	12:XX		
M	P	-	M	-		21/09/2018	New			BE		AV	CB	F	2009-02-18	2009	4/6 Antigen Match	8/10	03:XX		07:XX	35:XX			04:XX	15:XX		
M	P	-	M	-		21/09/2018	New			BE		AV	CB	F	2009-01-30	2009	4/6 Antigen Match	8/10	03:XX	23:XX	07:XX	35:XX			04:04	01:01		
P	M	-	M	-		21/09/2018	New			BE		AV	CB	M	2006-03-15	2006	4/6 Antigen Match	8/10	03:XX	68:XX		35:XX			01:BP	12:AVM		
P	M	-	M	-		21/09/2018	New			BE		AV	CB	F	2001-03-04	2001	4/6 Antigen Match	8/10	03:XX	68:XX	07:02	44:02			11:AD	12:XX		

Search result table

On the left side the match level is displayed similarly to WMDA/BMDW.

A – Green – allele match.

B – Blue: potential allele match.

L – Yellow – allele mismatch, but antigen match, the HLA code is shown in bold blue font.

M – Red : antigen mismatch, the HLA code is shown in bold green font.

- - : not specified.

DPB1 permissive / non-permissive matching is implemented and displayed in column DP. Match grade is marked in the following way:

P – Permissive (green).

G – Non-permissive in GvH direction (red).

H – Non –permissive in HvG direction (red).

A – Ambiguous (yellow).

List of the potential EMDIS donors for the patient

The meaning of the main columns of the table is following:

Message: new: new donor information - **old**: information already processed

Record update: date of updates

Donor update: New (a new donor),

Upd (= Update) : donor update

Dupl (=Duplicate) : donor update without change of information

Last REQ: display of last activated request

HUB: the Registry donor sending the donor date.

ID: the identifier of the donor in the EMDIS system. Two first letters are a shortcut of the Registry.
Status: the donor status
Type: the type of the donor (MD = marrow donor, CB = cord blood).
Sex: sex (F=female, M=male)
Year of Birth: (has only sense for MD donors).
Match grade: match grade of the donor and the patient.
A.1, A.2: the intelligent columns for HLA-A locus of the donor. If the donor has the typing at the level DNA, the DNA data will appear (allele or the code NMDP which expresses the group of the alleles, otherwise the serology typing will appear. The data of these two columns are arranged in such a way that data of the patient can easily be compared. If you click on the **NMDP code** expressing the groups of the alleles (e.g. A*02BEJX), the list of the alleles included in this code will appear in the status bar under the table. If the donor has a mismatch with the patient on this locus, the displayed value is highlighted in color both in the table of donors and in the HLA panel of the patient (on the right up).
B.1, B.2: the intelligent columns for HLA-B locus of the donor.
C.1, C.2: the intelligent columns for HLA-C locus of the donor
DRB1.1, DRB1.2: the intelligent columns for HLA--DR/DRB1 locus of the donor
DQB1.1, DQB1.2: the intelligent columns for HLA--DQ/DQB1 locus of the donor

If you press the button , the window selection screen of all columns will be displayed , settings can be changed.

Tip: If you cancel the filter "Validity=Latest" and on the contrary you set the filter of the ID column to only one ID donor, the data history of this donor will appear for you.

The “List of donors” offers following actions:

SORTING:
The different sorting options are:

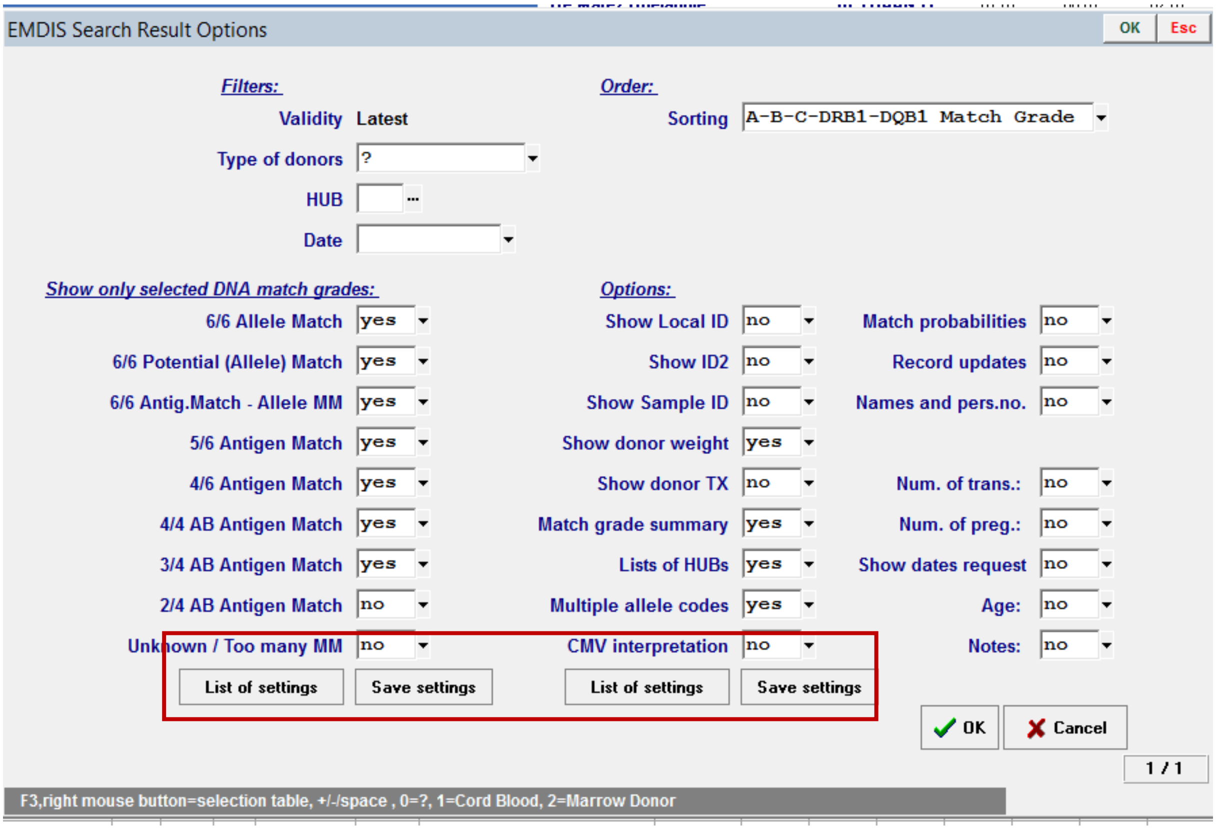
- **Latest first** – sort search results according to date and HUB;
- **Best first by match grade** – sort search results according to match grade;
- **Best first probability.**

Patient Macs: will display possible alleles of your patient
Donor Macs: will display possible alleles for the selected donor.

REPORT:

It is possible to print a search report: clicking **“report”** will open the window screen to indicate the filters – order – match grades and more specific parameters as displayed in the screen below.

New options :



EMDIS Search Result Options

Filters:

Validity: Latest
Type of donors: ?
HUB:
Date:

Order:

Sorting: A-B-C-DRB1-DQB1 Match Grade

Show only selected DNA match grades:

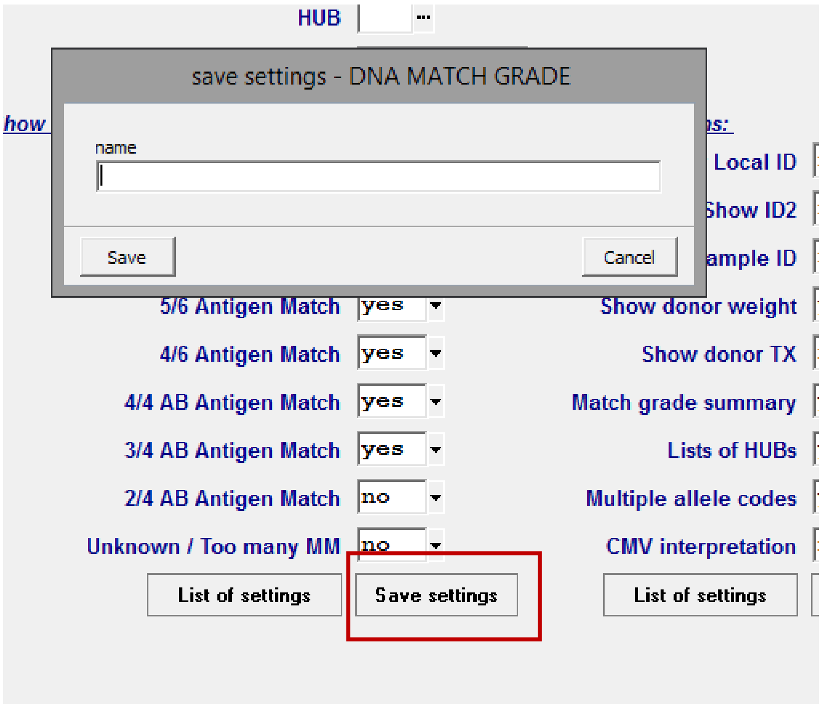
6/6 Allele Match: yes
6/6 Potential (Allele) Match: yes
6/6 Antig.Match - Allele MM: yes
5/6 Antigen Match: yes
4/6 Antigen Match: yes
4/4 AB Antigen Match: yes
3/4 AB Antigen Match: yes
2/4 AB Antigen Match: no
Unknown / Too many MM: no

Options:

Show Local ID: no
Show ID2: no
Show Sample ID: no
Show donor weight: yes
Show donor TX: no
Match grade summary: yes
Lists of HUBs: yes
Multiple allele codes: yes
CMV interpretation: no
Match probabilities: no
Record updates: no
Names and pers.no.: no
Num. of trans.: no
Num. of preg.: no
Show dates request: no
Age: no
Notes: no

F3,right mouse button=selection table, +/-/space , 0=?, 1=Cord Blood, 2=Marrow Donor

It is possible to select the DNA match grad parameters and save this specific set: press Save settings, and the following window screen will open:



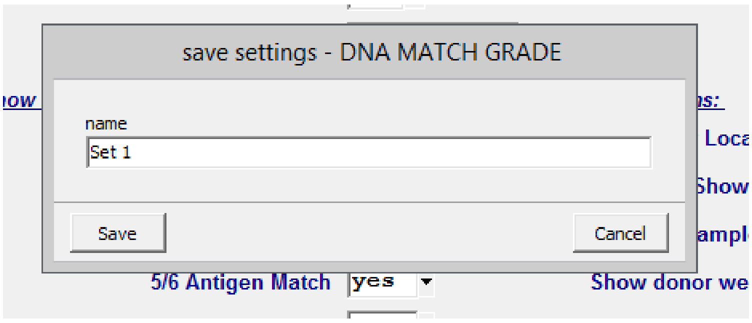
save settings - DNA MATCH GRADE

name:

HUB

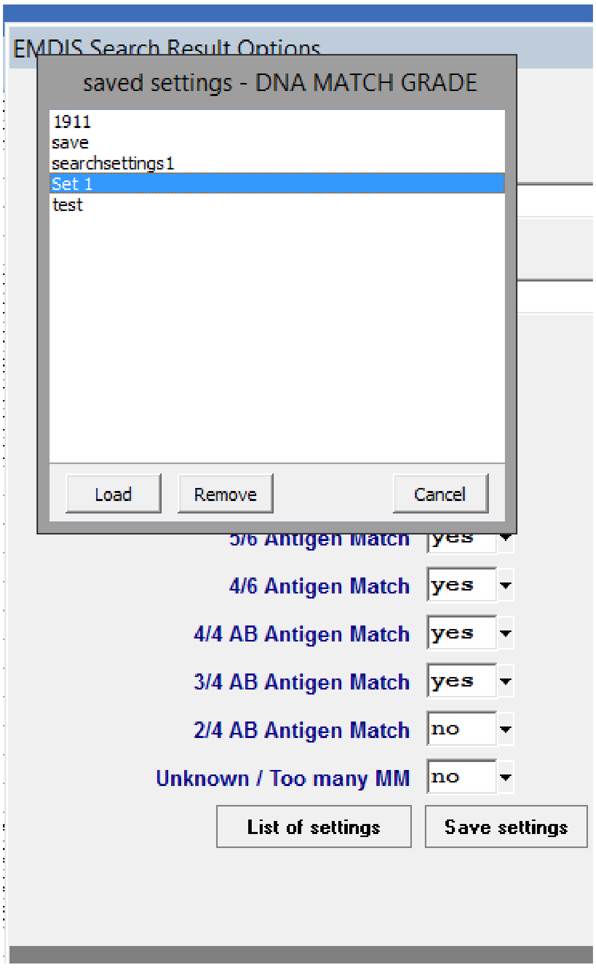
5/6 Antigen Match: yes
4/6 Antigen Match: yes
4/4 AB Antigen Match: yes
3/4 AB Antigen Match: yes
2/4 AB Antigen Match: no
Unknown / Too many MM: no

Name the settings and then press Save:


save settings - DNA MATCH GRADE

name: Set 1

When you go to List of settings the archived sets are displayed, select one and then press Load to activate this set of settings:

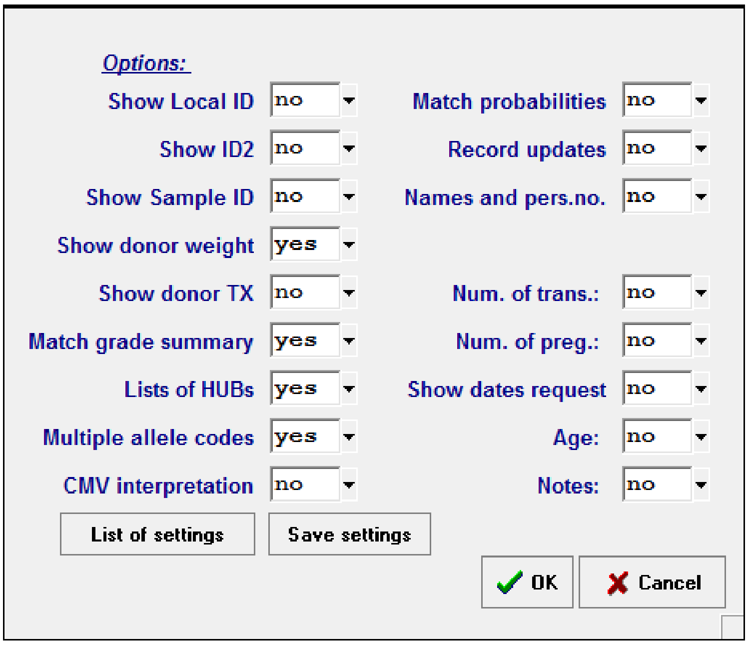

EMDIS Search Result Options

saved settings - DNA MATCH GRADE

1911
save
searchsettings1
Set 1
test

4/6 Antigen Match: yes
4/4 AB Antigen Match: yes
3/4 AB Antigen Match: yes
2/4 AB Antigen Match: no
Unknown / Too many MM: no

It is equally possible to save settings for the other parameters :



Options:

Show Local ID: no

Show ID2: no

Show Sample ID: no

Show donor weight: yes

Show donor TX: no

Match grade summary: yes

Lists of HUBs: yes

Multiple allele codes: yes

CMV interpretation: no

Match probabilities: no

Record updates: no

Names and pers.no.: no

Num. of trans.: no

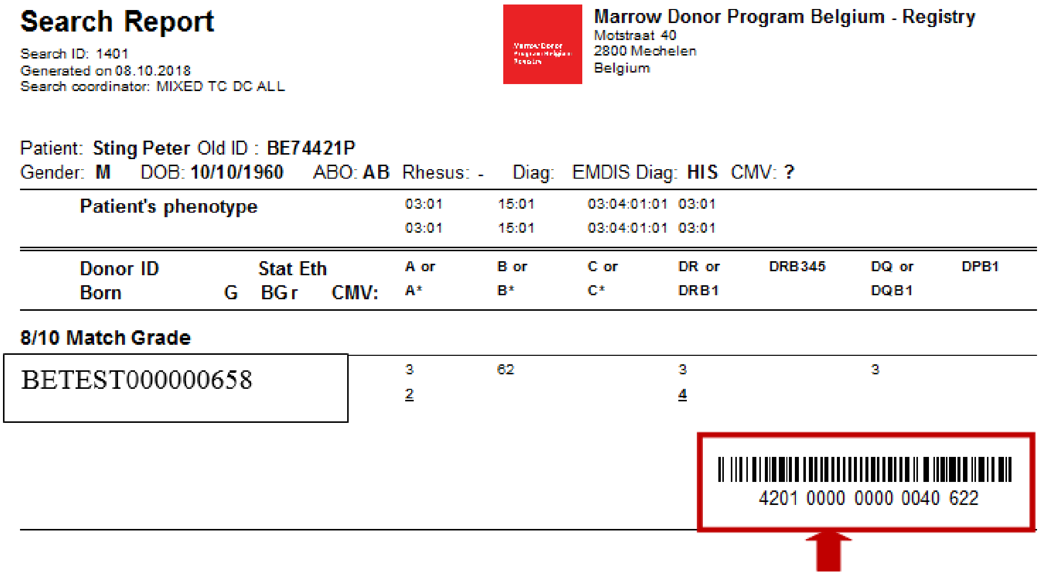
Num. of preg.: no

Show dates request: no

Age: no

Notes: no

The printed search report:



Search Report

Search ID: 1401
Generated on 08.10.2018
Search coordinator: MIXED TC DC ALL

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

Patient: **Sting Peter** Old ID : **BE74421P**
Gender: **M** DOB: **10/10/1960** ABO: **AB** Rhesus: - Diag: EMDIS Diag: **HIS** CMV: **?**

	G	Stat Eth BGr	CMV:	A or A*	B or B*	C or C*	DR or DRB1	DRB345	DQ or DQB1	DPB1
Patient's phenotype				03:01 03:01	15:01 15:01	03:04:01:01 03:04:01:01	03:01 03:01			
Donor ID **Born**										
8/10 Match Grade										
BETEST000000658				3 2	62		3 4		3	

4201 0000 0000 0040 622

GRID is added to the search result report: both in form of a barcode and as a number.

Note: The Prometheus EMDIS report is similar to the ZKRD EMDIS report.

Header: patient name, patient ID, gender, DOB, ABO rhesus, Diagnosis.

Patient’s phenotype.

Header potential donors: the date of birth, CMV, HLA loci, the donor status, the sex, etc. listed per match group.

Note: if DNA typing has been done, the DNA data will appear on the report, if not, the serological typing will be printed.

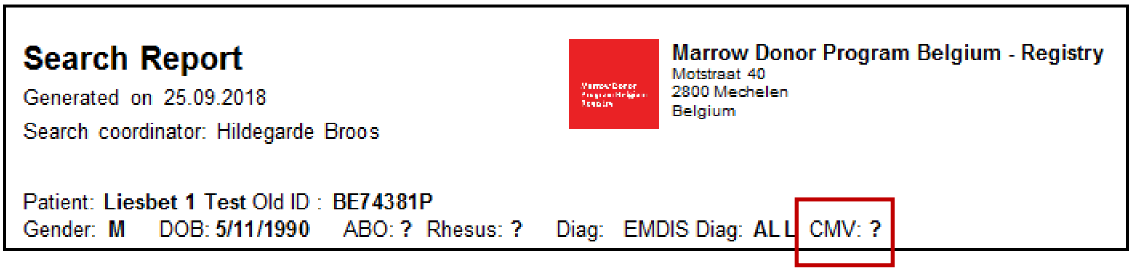
Mismatches between the phenotype of the donor and of the patient are highlighted on the report (applicable for HLA loci A/A, B/B, DR/DRB1).

- Mismatch allele highlighted in bold.
- Mismatch split/broad highlighted in bold and underlined.

Depending on the requested parameters specific information will be printed on the report:

New in version 185:

Patient CMV info is added in the EMDIS search result report:



Search Report

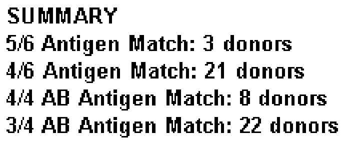
Generated on 25.09.2018

Search coordinator: Hildegarde Broos

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

Patient: **Liesbet 1 Test** Old ID : **BE74381P**
Gender: **M** DOB: **5/11/1990** ABO: **?** Rhesus: **?** Diag: EMDIS Diag: **ALL** CMV: **?**

Summary of donors:



SUMMARY
5/6 Antigen Match: 3 donors
4/6 Antigen Match: 21 donors
4/4 AB Antigen Match: 8 donors
3/4 AB Antigen Match: 22 donors

List of shortcuts of the Registries:

Shortcuts appear at the beginning of the donor identification and are underlined.

BE34445D.

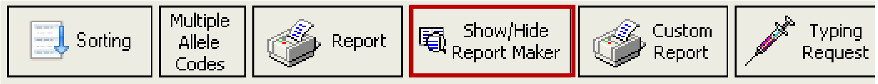
BE = Belgium

List of NMDP codes:

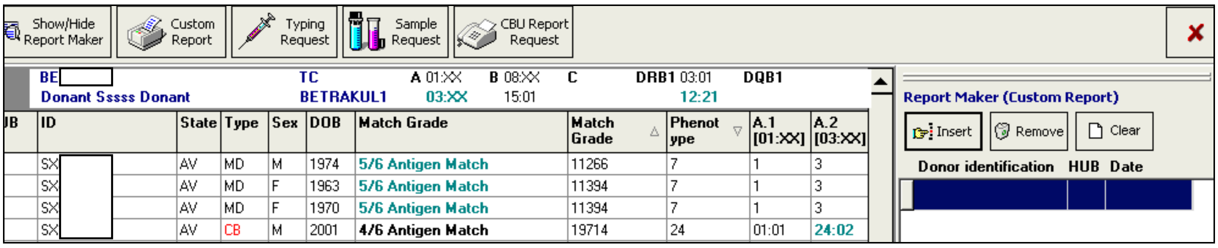
Expresses multiple allele codes displayed in the report:

MULTIPLE ALLELE CODES
A*01:01 = 01:01N/01:01

A*01:XX = 01:01/01:01N/01:02/01:03/01:04/01:04N/01:06/01:07/01:08/01:09/
01:10/01:11/01:11N/01:12/01:13/01:14/01:15/01:15N/01:16N/01:16/
01:17/01:18N/01:18/01:19/01:20/01:21/01:22/01:22N/01:23/01:24/
01:25/01:26/01:27N/01:27/01:28/01:29/01:30/01:31N/01:31/01:32/
01:33/01:34N/01:34/01:35/01:36/01:37/01:38/01:39/01:40/01:41/
01:42/01:43/01:44/01:45/01:46/01:47/01:48/01:49/01:50/01:51/
01:52N/01:52/01:53/01:53N/01:54/01:55
A*02:XX = 02:01/02:01L/02:02/02:03/02:04/02:05/02:06/02:07/02:08/02:09/
02:10/02:11/02:12/02:13/02:14/02:15/02:15N/02:16/02:17/02:18/
02:19/02:20/02:21/02:22/02:24/02:25/02:26/02:27/02:28/02:29/
02:30/02:31/02:32/02:32N/02:33/02:34/02:35/02:36/02:37/02:38/
02:39/02:40/02:41/02:42/02:43/02:43N/02:44/02:45/02:46/02:47/
02:48/02:49/02:50/02:51/02:52/02:53/02:53N/02:54/02:55/02:56/
02:57/02:58/02:59/02:60/02:61/02:62/02:63/02:64/02:65/02:66/
02:67/02:68/02:69/02:70/02:71/02:72/02:73/02:74/02:75/02:76/
02:77/02:78/02:79/02:80/02:81/02:82/02:82N/02:83N/02:83/02:84/
02:85/02:86/02:87/02:88/02:88N/02:89/02:90/02:91/02:92/02:93/
02:94N/02:94/02:95/02:96/02:97/02:99/02:101/02:102/02:103/02:104/
02:105/02:106/02:107/02:108/02:109/02:110/02:111/02:112/02:113/
02:113N/02:114/02:115/02:116/02:117/02:118/02:119/02:120/02:121/
02:122/02:123/02:124/02:125/02:125N/02:126/02:127/02:128/02:129/
02:130/02:131/02:132/02:133/02:134/02:135/02:136/02:137/02:138/
02:139/02:140/02:141/02:142/02:143/02:144/02:145/02:146/02:147/
02:148/02:149/02:150/02:151/02:152/02:153/02:154/02:155/02:156/
02:157/02:158/02:159/02:160/02:161/02:162/02:163/02:164/02:165/
02:166/02:167/02:168/02:169/02:170/02:171/02:172/02:173/02:174/
02:175/02:176/02:177/02:178/02:179/02:180/02:181/02:182/02:183/
02:184/02:185/02:186/02:187/02:188/02:189/02:190/02:191/02:192/
02:193/02:194/02:195/02:196/02:197/02:198/02:199



The button report maker will open an additional screen at the right of the window:



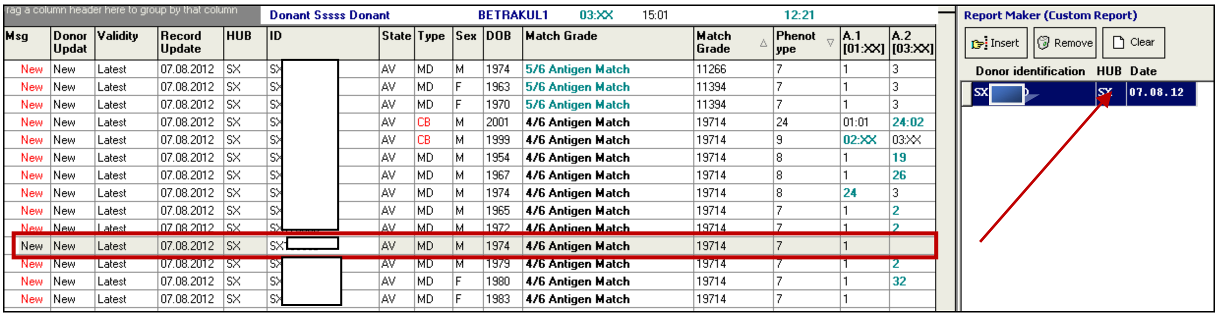
BE[redacted] TC A 01:XX B 08:XX C DRB1 03:01 DQB1
Donant Sssss Donant BETRAKUL1 03:XX 15:01 12:21

JB	ID	State	Type	Sex	DOB	Match Grade	Match Grade	Phenot ype	A.1 [01:XX]	A.2 [03:XX]
	SX[redacted]	AV	MD	M	1974	5/6 Antigen Match	11266	7	1	3
	SX[redacted]	AV	MD	F	1963	5/6 Antigen Match	11394	7	1	3
	SX[redacted]	AV	MD	F	1970	5/6 Antigen Match	11394	7	1	3
	SX[redacted]	AV	CB	M	2001	4/6 Antigen Match	19714	24	01:01	24:02

Donor identification	HUB	Date

This tool allows you to make a customized report:

Donors can be inserted into your report by clicking **“insert”**:

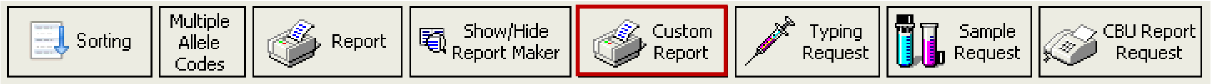


Donant Sssss Donant BETRAKUL1 03:XX 15:01 12:21

Msg	Donor Updat	Validity	Record Update	HUB	ID	State	Type	Sex	DOB	Match Grade	Match Grade	Phenot ype	A.1 [01:XX]	A.2 [03:XX]
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1974	5/6 Antigen Match	11266	7	1	3
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	F	1963	5/6 Antigen Match	11394	7	1	3
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	F	1970	5/6 Antigen Match	11394	7	1	3
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	CB	M	2001	4/6 Antigen Match	19714	24	01:01	24:02
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	CB	M	1999	4/6 Antigen Match	19714	9	02:XX	03:XX
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1954	4/6 Antigen Match	19714	8	1	19
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1967	4/6 Antigen Match	19714	8	1	26
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1974	4/6 Antigen Match	19714	8	24	3
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1965	4/6 Antigen Match	19714	7	1	2
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1972	4/6 Antigen Match	19714	7	1	2
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1974	4/6 Antigen Match	19714	7	1	
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	M	1979	4/6 Antigen Match	19714	7	1	2
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	F	1980	4/6 Antigen Match	19714	7	1	32
New	New	Latest	07.08.2012	SX	SX[redacted]	AV	MD	F	1983	4/6 Antigen Match	19714	7	1	

Donor identification	HUB	Date
SX[redacted]	SX	07.08.12

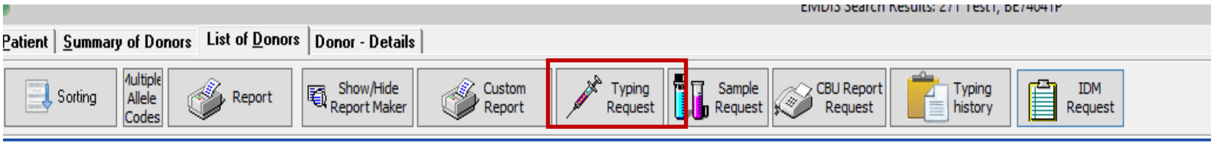
Selection of multiple donors : SHIFT + mouse click or arrow. Donors can be deleted or the whole list can be cleared. To print your customized report select: **“Custom report”**.



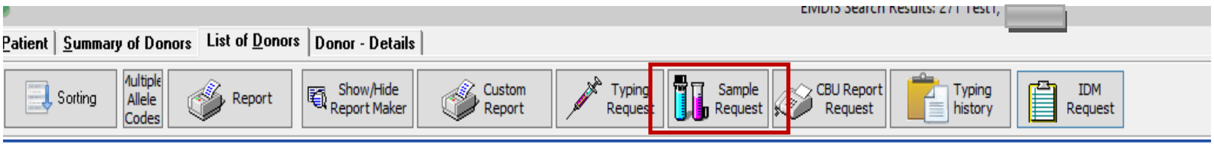
Your customized report will be printed:

IV.III.1.d. Activating requests

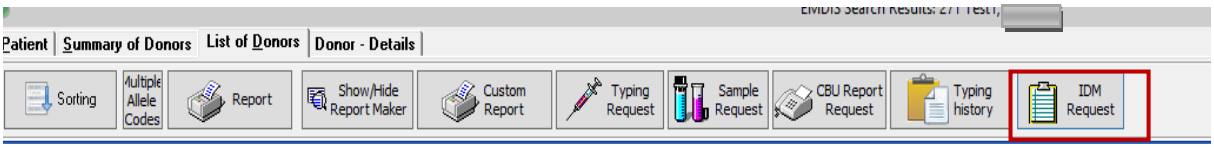
Typing request – the typing request window screen will be opened: donor identification will be prefilled. (how to activate typing request: see chapter IV.IV.1. EMDIS Typing request).



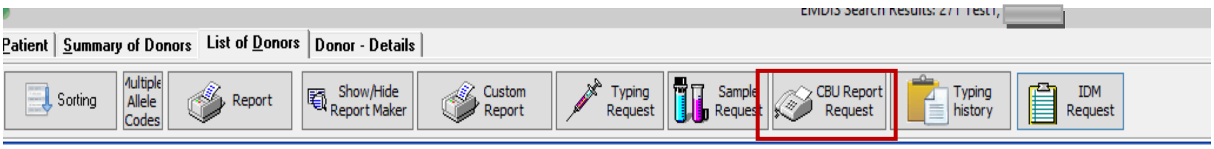
Sample request – the blood sample request window screen will be opened: donor identification will be prefilled. (how to activate typing request: see chapter IV.IV.2. EMDIS Sample request).



IDM request – the IDM request window screen will be opened: donor identification will be prefilled.



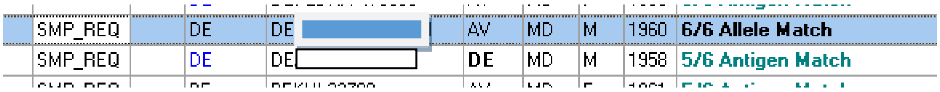
CBU report request – the CBU report request window screen will be opened: donor identification will be prefilled. (how to activate typing request:



IV.III.1.e. Typing history

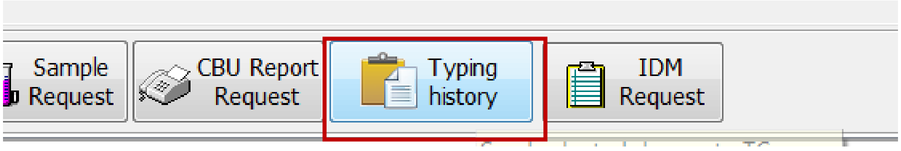
The new button “Typing history” is an option to log a discrepant typing found on the confirmatory typing of a blood sample you received from international donors.

Go to EMDIS search results, and then select a previously requested SMP_REQ in the list:

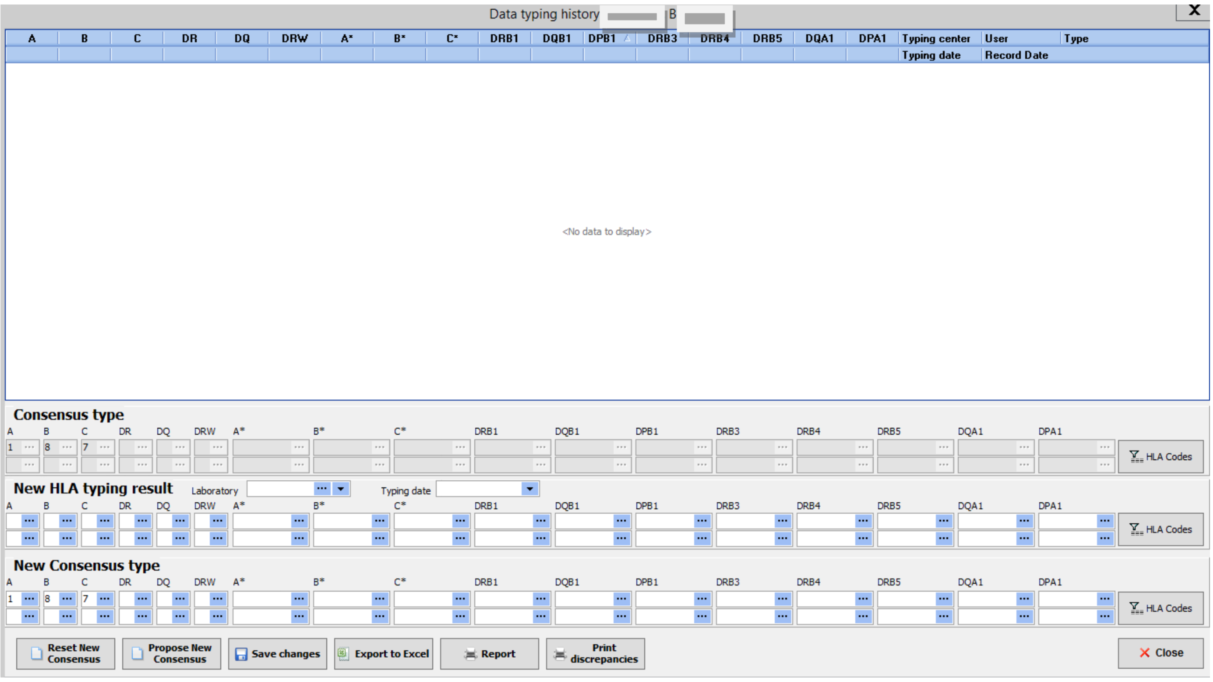


SMP_REQ	DE	DE [redacted]	AV	MD	M	1960	6/6 Allele Match
SMP_REQ	DE	DE [redacted]	DE	MD	M	1958	5/6 Antigen Match

Then select:

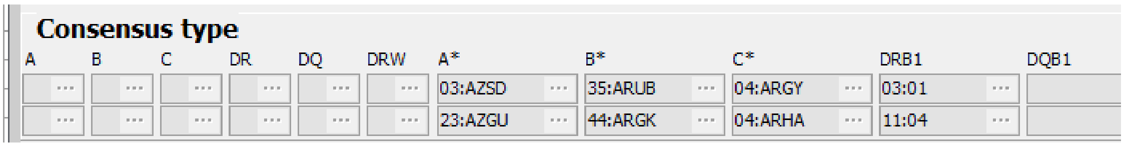


Select the donor for which you received a sample: the following window screen will be opened:



There are three rows, where HLA data can be seen or entered in the lower part of the screen.

Consensus type:

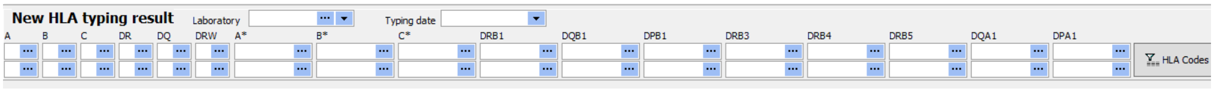


Consensus type

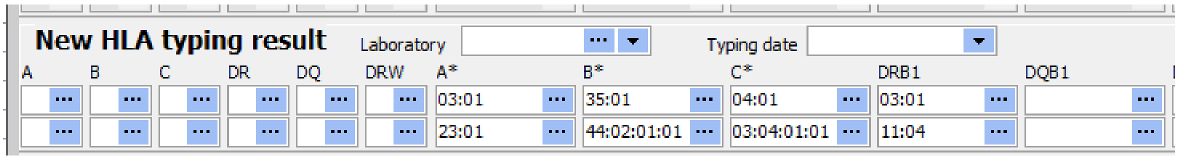
A	B	C	DR	DQ	DRW	A*	B*	C*	DRB1	DQB1
						03:AZSD	35:ARUB	04:ARGY	03:01	
						23:AZGU	44:ARGK	04:ARHA	11:04	

The HLA/DNA data are displayed in the Consensus type table.

New HLA typing results:



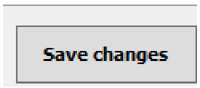
You can enter the confirmatory typing results, select the lab and enter the typing date:



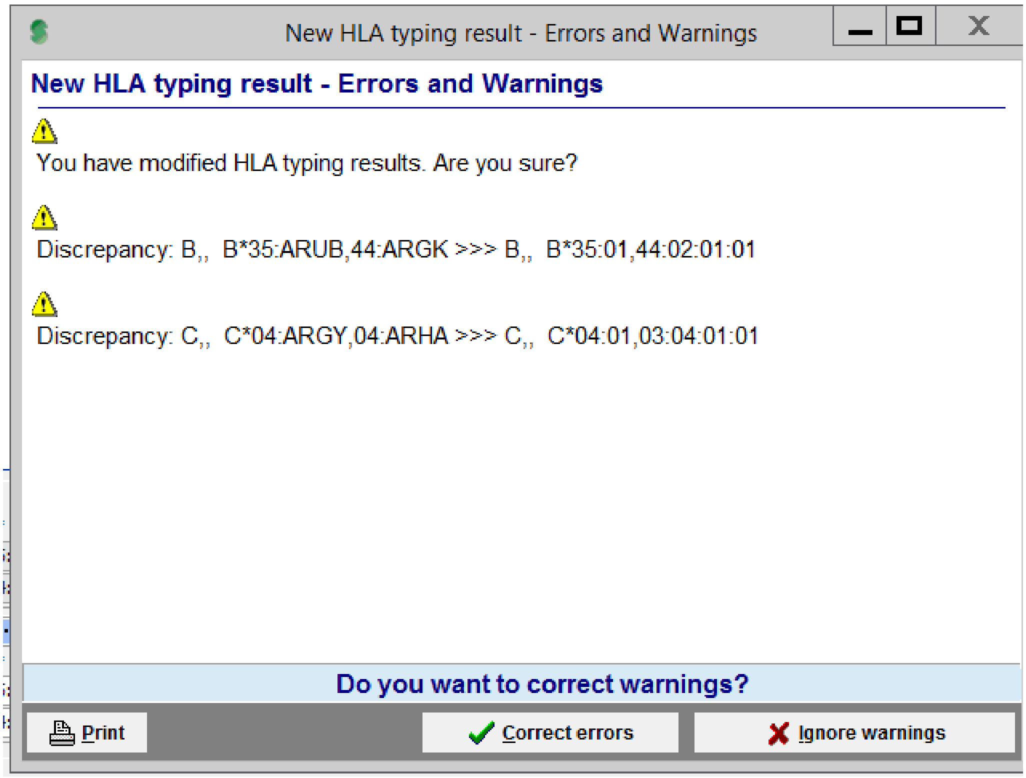
A	B	C	DR	DQ	DRW	A*	B*	C*	DRB1	DQB1
						03:01	35:01	04:01	03:01	
						23:01	44:02:01:01	03:04:01:01	11:04	

Now you can press Propose New Consensus button: it will populate the third row with the best typing results Finally you click on Save Changes to store your Consensus in the upper part of the window.

Save changes:



The system will display the discrepancies, press ignore warnings:



New HLA typing result - Errors and Warnings

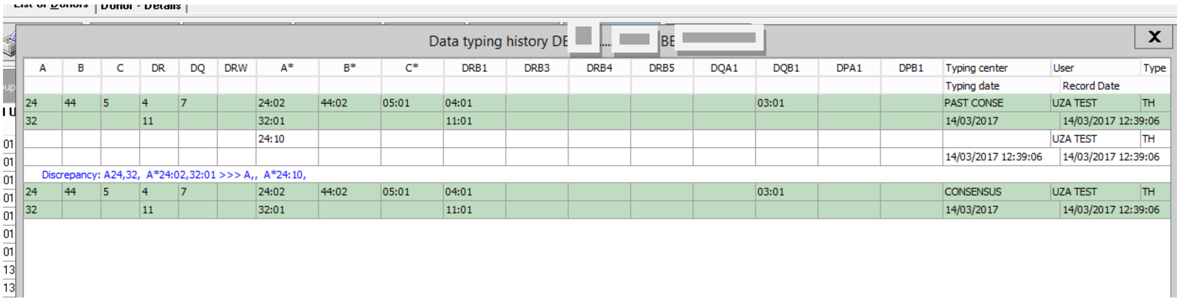
⚠
You have modified HLA typing results. Are you sure?

⚠
Discrepancy: B,, B*35:ARUB,44:ARGK >>> B,, B*35:01,44:02:01:01

⚠
Discrepancy: C,, C*04:ARGY,04:ARHA >>> C,, C*04:01,03:04:01:01

Do you want to correct warnings?

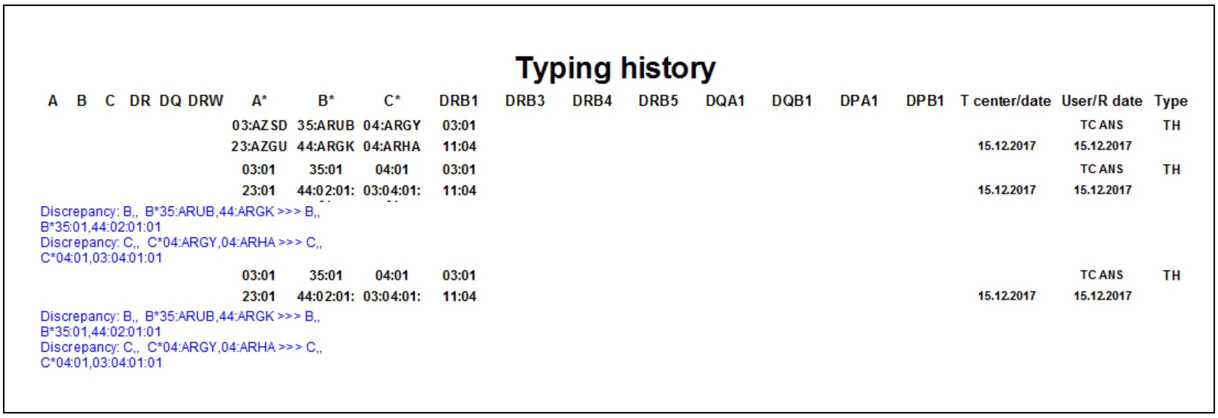
If you validate the entered date, press ignore warnings and the discrepancy will be logged in de window screen:



Data typing history DE [redacted] .... [redacted] BE [redacted]

A	B	C	DR	DQ	DRW	A*	B*	C*	DRB1	DRB3	DRB4	DRB5	DQA1	DQB1	DPA1	DPB1	Typing center	User	Type
																	Typing date	Record Date	
24	44	5	4	7		24:02	44:02	05:01	04:01					03:01			PAST CONSE	UZA TEST	TH
32			11			32:01			11:01								14/03/2017	14/03/2017 12:39:06	
						24:10												UZA TEST	TH
																	14/03/2017 12:39:06	14/03/2017 12:39:06	
Discrepancy: A24,32, A*24:02,32:01 >>> A,, A*24:10,																			
24	44	5	4	7		24:02	44:02	05:01	04:01					03:01			CONSENSUS	UZA TEST	TH
32			11			32:01			11:01								14/03/2017	14/03/2017 12:39:06	

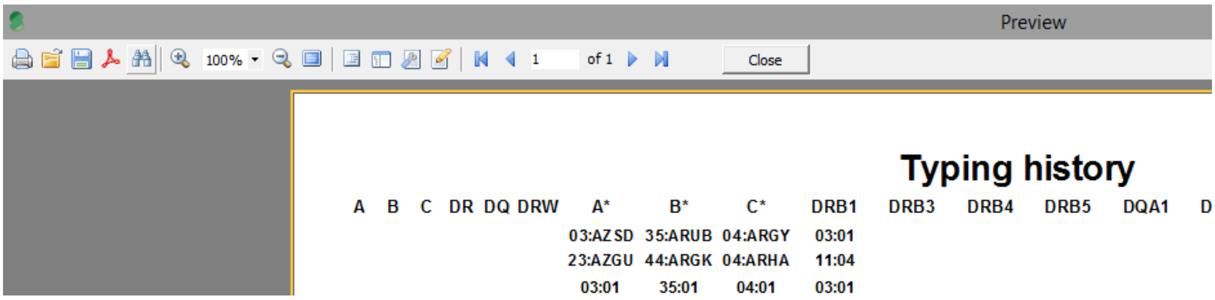
You can print the report: **Report**



Typing history

A	B	C	DR	DQ	DRW	A*	B*	C*	DRB1	DRB3	DRB4	DRB5	DQA1	DQB1	DPA1	DPB1	T center/date	User/R date	Type
						03:AZSD	35:ARUB	04:ARGY	03:01									TC ANS	TH
						23:AZGU	44:ARGK	04:ARHA	11:04								15.12.2017	15.12.2017	
						03:01	35:01	04:01	03:01									TC ANS	TH
						23:01	44:02:01:	03:04:01:	11:04								15.12.2017	15.12.2017	
Discrepancy: B,, B*35:ARUB,44:ARGK >>> B,, B*35:01,44:02:01:01 Discrepancy: C,, C*04:ARGY,04:ARHA >>> C,, C*04:01,03:04:01:01																			
						03:01	35:01	04:01	03:01									TC ANS	TH
						23:01	44:02:01:	03:04:01:	11:04								15.12.2017	15.12.2017	
Discrepancy: B,, B*35:ARUB,44:ARGK >>> B,, B*35:01,44:02:01:01 Discrepancy: C,, C*04:ARGY,04:ARHA >>> C,, C*04:01,03:04:01:01																			

Press Close to go back to the Consensus screen:

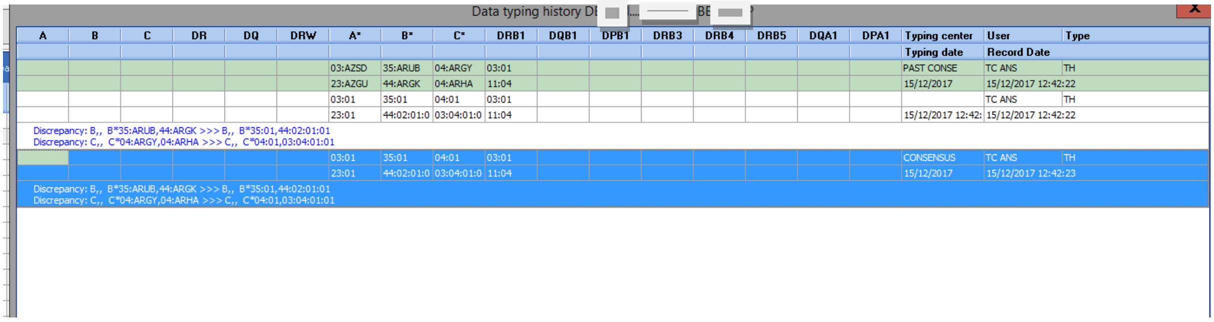


Typing history

A	B	C	DR	DQ	DRW	A*	B*	C*	DRB1	DRB3	DRB4	DRB5	DQA1	D
						03:AZSD	35:ARUB	04:ARGY	03:01					
						23:AZGU	44:ARGK	04:ARHA	11:04					
						03:01	35:01	04:01	03:01					

You can print the discrepancy typing in the WMDA S70 discrepancy report:

Select the validated row :

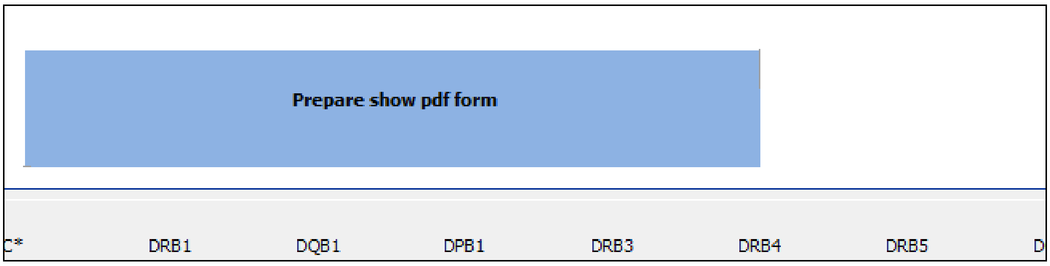


Data typing history D[redacted]l....[redacted]BE[redacted]

A	B	C	DR	DQ	DRW	A*	B*	C*	DRB1	DQB1	DPB1	DRB3	DRB4	DRB5	DQA1	DPA1	Typing center	User	Type
																	Typing date	Record Date	
						03:AZSD	35:ARUB	04:ARGY	03:01								PAST CONSE	TC ANS	TH
						23:AZGU	44:ARGK	04:ARHA	11:04								15/12/2017	15/12/2017 12:42:22	
						03:01	35:01	04:01	03:01									TC ANS	TH
						23:01	44:02:01:0	03:04:01:0	11:04								15/12/2017 12:42:	15/12/2017 12:42:22	
Discrepancy: B,, B*35:ARUB,44:ARGK >>> B,, B*35:01,44:02:01:01 Discrepancy: C,, C*04:ARGY,04:ARHA >>> C,, C*04:01,03:04:01:01																			
						03:01	35:01	04:01	03:01								CONSENSUS	TC ANS	TH
						23:01	44:02:01:0	03:04:01:0	11:04								15/12/2017	15/12/2017 12:42:23	
Discrepancy: B,, B*35:ARUB,44:ARGK >>> B,, B*35:01,44:02:01:01 Discrepancy: C,, C*04:ARGY,04:ARHA >>> C,, C*04:01,03:04:01:01																			

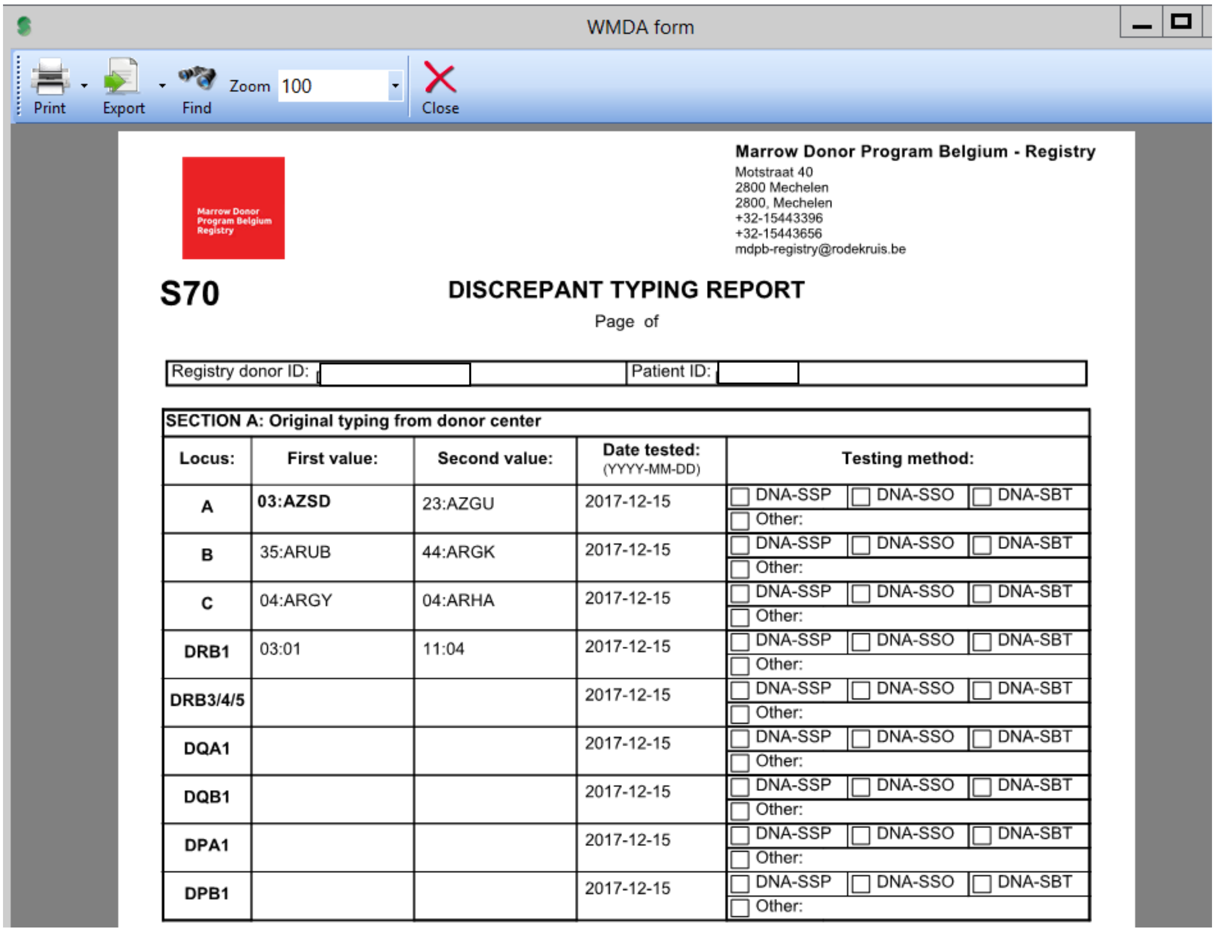
And then press: **Print discrepancies**

The following message will be displayed:



Then click on the “Prepare show pdf form”:

The S70 WMDA Discrepant typing report will be printed:



Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
2800, Mechelen
+32-15443396
+32-15443656
mdpb-registry@rodekruis.be

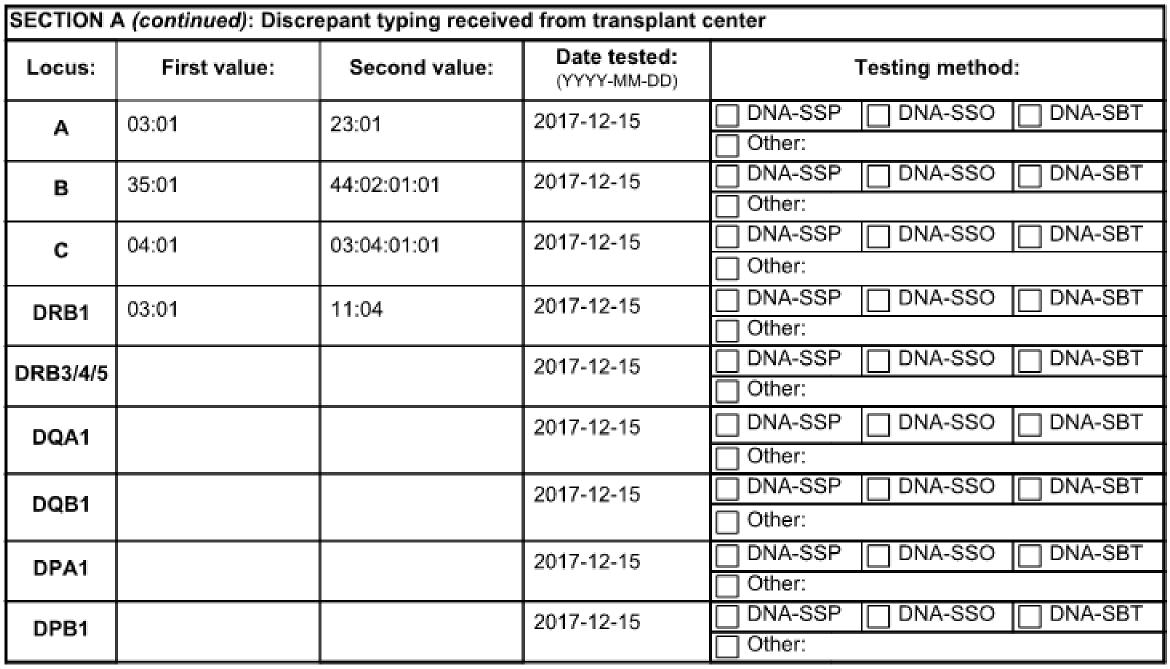
S70 **DISCREPANT TYPING REPORT**

Page of

Registry donor ID: Patient ID:

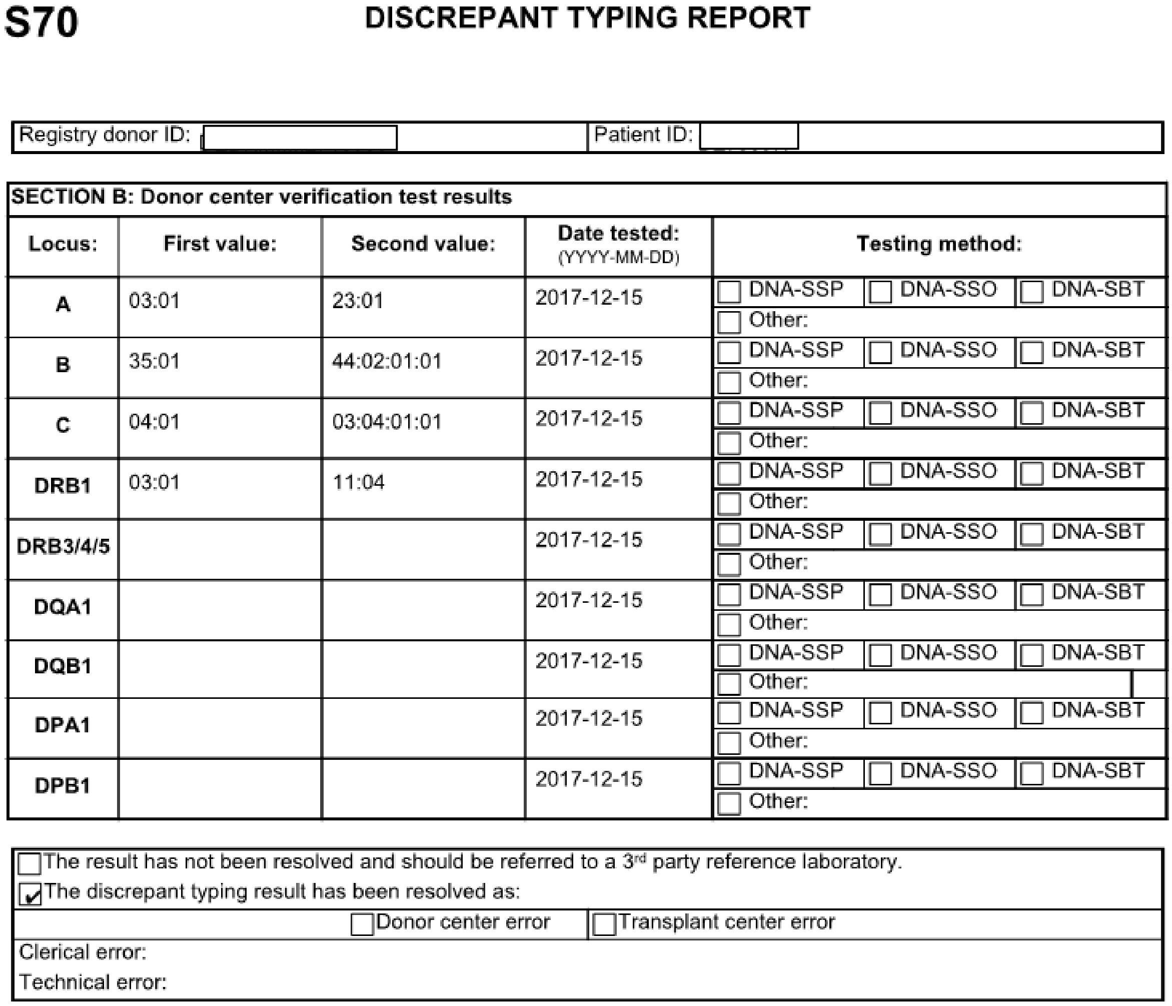
SECTION A: Original typing from donor center

Locus:	First value:	Second value:	Date tested: (YYYY-MM-DD)	Testing method:
A	03:AZSD	23:AZGU	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
B	35:ARUB	44:ARGK	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
C	04:ARGY	04:ARHA	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DRB1	03:01	11:04	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DRB3/4/5			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DQA1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DQB1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DPA1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DPB1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:



SECTION A *(continued)*: Discrepant typing received from transplant center

Locus:	First value:	Second value:	Date tested: (YYYY-MM-DD)	Testing method:
A	03:01	23:01	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
B	35:01	44:02:01:01	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
C	04:01	03:04:01:01	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DRB1	03:01	11:04	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DRB3/4/5			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DQA1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DQB1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DPA1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DPB1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:



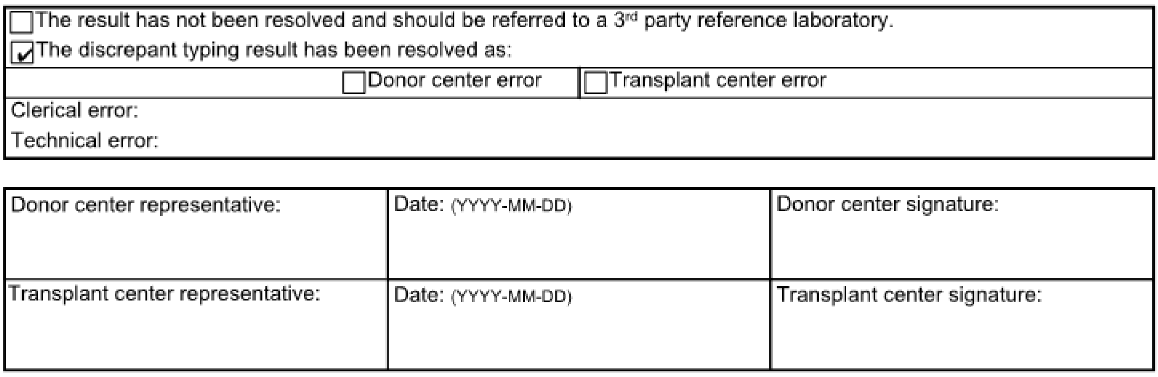
S70 **DISCREPANT TYPING REPORT**

Registry donor ID:	Patient ID:

SECTION B: Donor center verification test results

Locus:	First value:	Second value:	Date tested: (YYYY-MM-DD)	Testing method:
A	03:01	23:01	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
B	35:01	44:02:01:01	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
C	04:01	03:04:01:01	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DRB1	03:01	11:04	2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DRB3/4/5			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DQA1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DQB1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DPA1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:
DPB1			2017-12-15	☐ DNA-SSP ☐ DNA-SSO ☐ DNA-SBT ☐ Other:

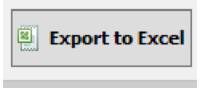
☐ The result has not been resolved and should be referred to a 3rd party reference laboratory.
☑ The discrepant typing result has been resolved as:
☐ Donor center error ☐ Transplant center error
Clerical error:
Technical error:

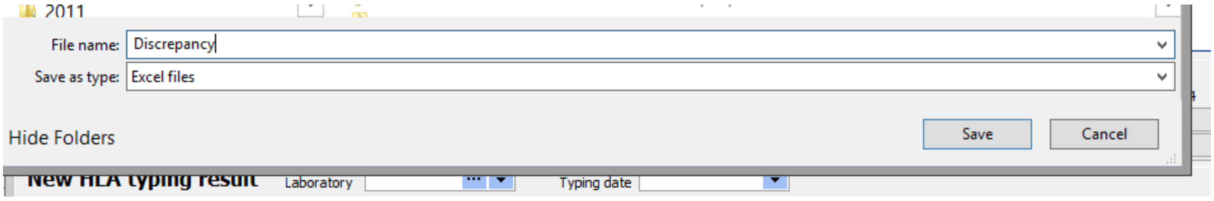


☐ The result has not been resolved and should be referred to a 3rd party reference laboratory.
☑ The discrepant typing result has been resolved as:
☐ Donor center error ☐ Transplant center error
Clerical error:
Technical error:

Donor center representative:	Date: (YYYY-MM-DD)	Donor center signature:
Transplant center representative:	Date: (YYYY-MM-DD)	Transplant center signature:

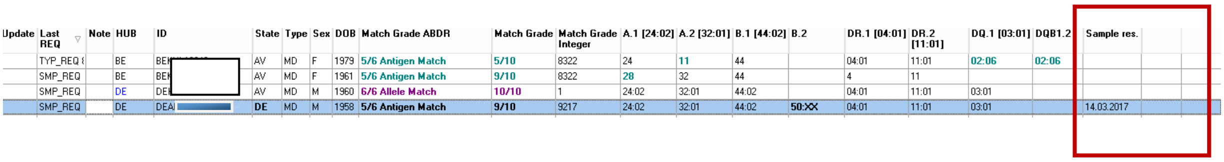
It is also possible to export the discrepancy to a Excel file:



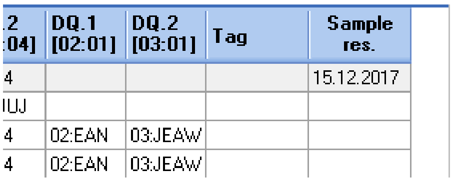


File name: Discrepancy
Save as type: Excel files

In the **EMDIS search results**, when you select the line of the requested sample request you can check in the **SAMPLE RES** field the date when the discrepancy has been entered:

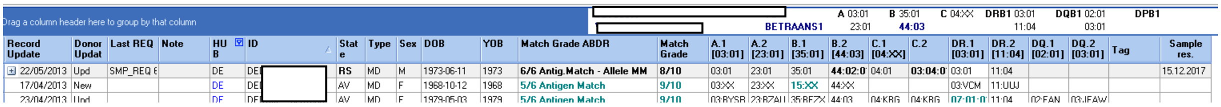


Update	Last REQ	Note	HUB	ID	State	Type	Sex	DOB	Match Grade ABDR	Match Grade	Match Grade Integer	A.1 [24:02]	A.2 [32:01]	B.1 [44:02]	B.2	DR.1 [04:01]	DR.2 [11:01]	DQ.1 [03:01]	DQB1.2	Sample res.		
	TYP_REQ (		BE	BEK [redacted]	AV	MD	F	1979	5/6 Antigen Match	5/10	8322	24	11	44		04:01	11:01	02:06	02:06			
	SMP_REQ		BE	BEK [redacted]	AV	MD	F	1961	5/6 Antigen Match	9/10	8322	28	32	44		4	11					
	SMP_REQ		DE	DEK [redacted]	AV	MD	M	1960	6/6 Allele Match	10/10	1	24:02	32:01	44:02		04:01	11:01	03:01				
	SMP_REQ		DE	DEA [redacted]	DE	MD	M	1958	5/6 Antigen Match	9/10	9217	24:02	32:01	44:02	50:XX	04:01	11:01	03:01		14.03.2017		



.2 :04]	DQ.1 [02:01]	DQ.2 [03:01]	Tag	Sample res.
4				15.12.2017
IUJ				
4	02:EAN	03:JEAW		
4	02:EAN	03:JEAW		

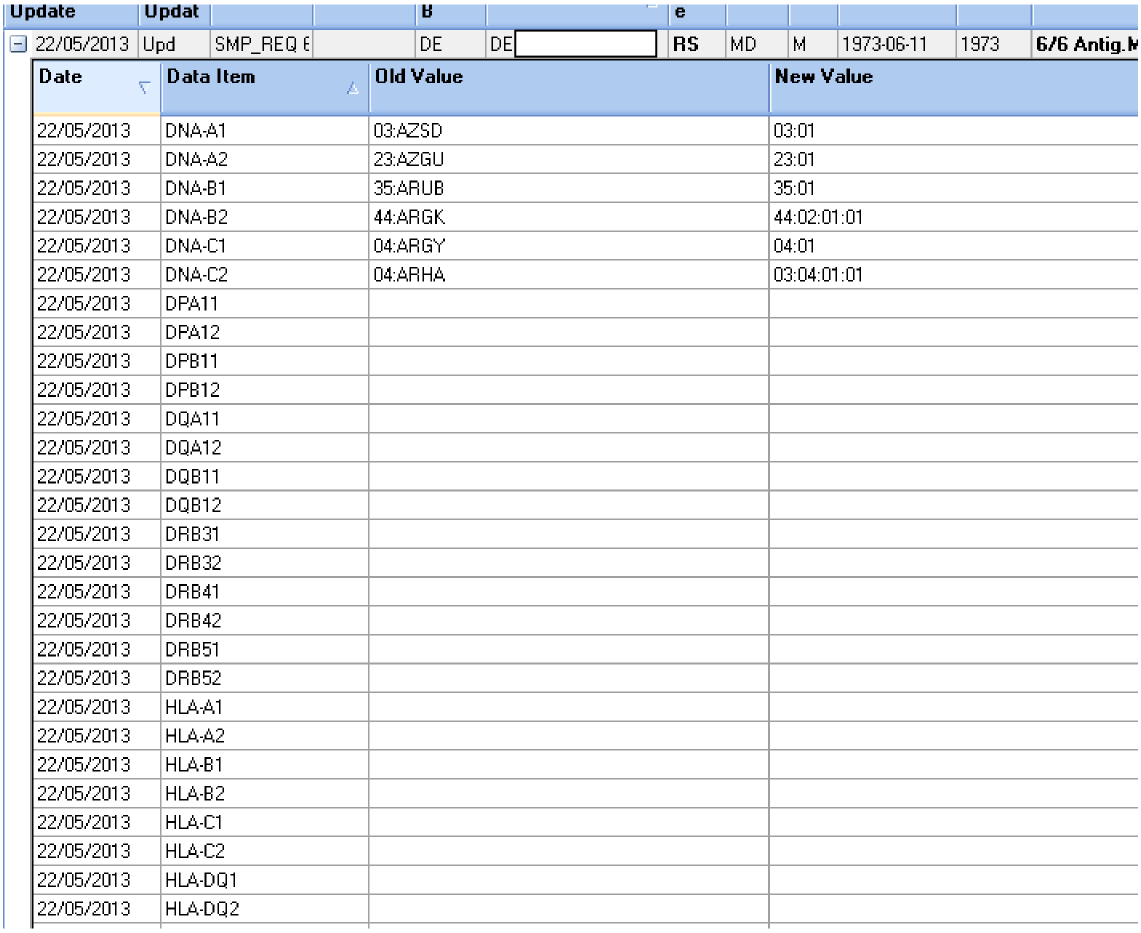
When you select this donor line and then double click:



[redacted] A 03:01 B 35:01 C 04:XX DRB1 03:01 DQB1 02:01 DPB1
[redacted] BETRAANS1 23:01 44:03 11:04 03:01

Record Update	Donor Updat	Last REQ	Note	HUB	ID	State	Type	Sex	DOB	YOB	Match Grade ABDR	Match Grade	A.1 [03:01]	A.2 [23:01]	B.1 [35:01]	B.2 [44:03]	C.1 [04:XX]	C.2	DR.1 [03:01]	DR.2 [11:04]	DQ.1 [02:01]	DQ.2 [03:01]	Tag	Sample res.
22/05/2013	Upd	SMP_REQ (		DE	DE [redacted]	RS	MD	M	1973-06-11	1973	6/6 Antig.Match - Allele MM	8/10	03:01	23:01	35:01	44:02:0	04:01	03:04:0	03:01	11:04				15.12.2017
17/04/2013	New			DE	DE [redacted]	AV	MD	F	1968-10-12	1968	5/6 Antigen Match	9/10	03:XX	23:XX	15:XX	44:XX			03:VCM	11:UUJ				
23/04/2013	Upd			DE	DE [redacted]	AV	MD	F	1979-05-03	1979	5/6 Antigen Match	9/10	03:BYSB	23:BZAU	35:BEZX	44:03	04:KBG	04:KBG	07:01:0	11:04	02:EAN	03:JEAW		

The old and new values will be displayed:



Update | Updat | B | e

22/05/2013 | Upd | SMP_REQ E | DE | DE | RS | MD | M | 1973-06-11 | 1973 | 6/6 Antig.M

Date	Data Item	Old Value	New Value
22/05/2013	DNA-A1	03:AZSD	03:01
22/05/2013	DNA-A2	23:AZGU	23:01
22/05/2013	DNA-B1	35:ARUB	35:01
22/05/2013	DNA-B2	44:ARGK	44:02:01:01
22/05/2013	DNA-C1	04:ARGY	04:01
22/05/2013	DNA-C2	04:ARHA	03:04:01:01
22/05/2013	DPA11		
22/05/2013	DPA12		
22/05/2013	DPB11		
22/05/2013	DPB12		
22/05/2013	DQA11		
22/05/2013	DQA12		
22/05/2013	DQB11		
22/05/2013	DQB12		
22/05/2013	DRB31		
22/05/2013	DRB32		
22/05/2013	DRB41		
22/05/2013	DRB42		
22/05/2013	DRB51		
22/05/2013	DRB52		
22/05/2013	HLA-A1		
22/05/2013	HLA-A2		
22/05/2013	HLA-B1		
22/05/2013	HLA-B2		
22/05/2013	HLA-C1		
22/05/2013	HLA-C2		
22/05/2013	HLA-DQ1		
22/05/2013	HLA-DQ2		

This information is for your own reporting purposes and will not be sent to the other Registry.

IV.III.1.f. Donor – Details

Clicking on Donor – details displays all detailed donor data.

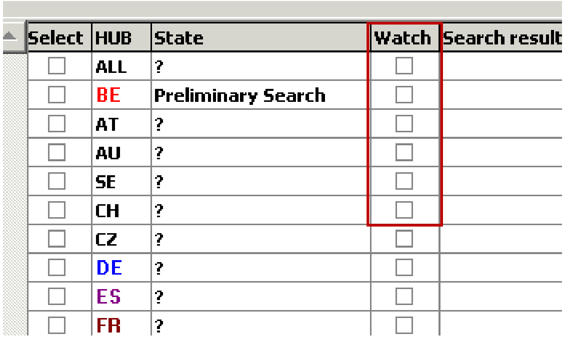
Save to file makes possible to save the text into the text file.

The button **Copy to clipboard** will copy the content of the message to Windows clipboard.

IV.III.2. Watching search results change

It is also possible to set the watch service active in each Registry: its value influences the information rate. The system can be overloaded by the incoming updates and a lot of new messages containing insignificant changes.

Watch can be set in the HUB select screen:



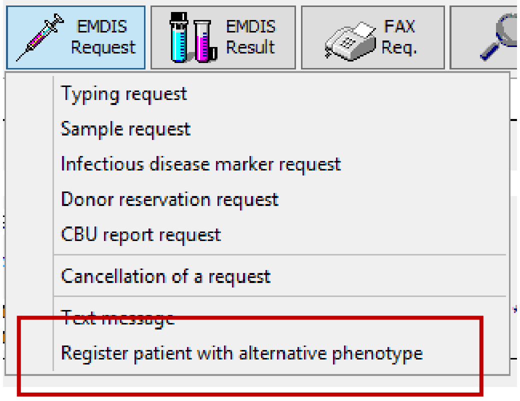
Select	HUB	State	Watch	Search result
☐	ALL	?	☐	
☐	BE	Preliminary Search	☐	
☐	AT	?	☐	
☐	AU	?	☐	
☐	SE	?	☐	
☐	CH	?	☐	
☐	CZ	?	☐	
☐	DE	?	☐	
☐	ES	?	☐	
☐	FR	?	☐	

The meaning of the values of the attribute Watch is the following:

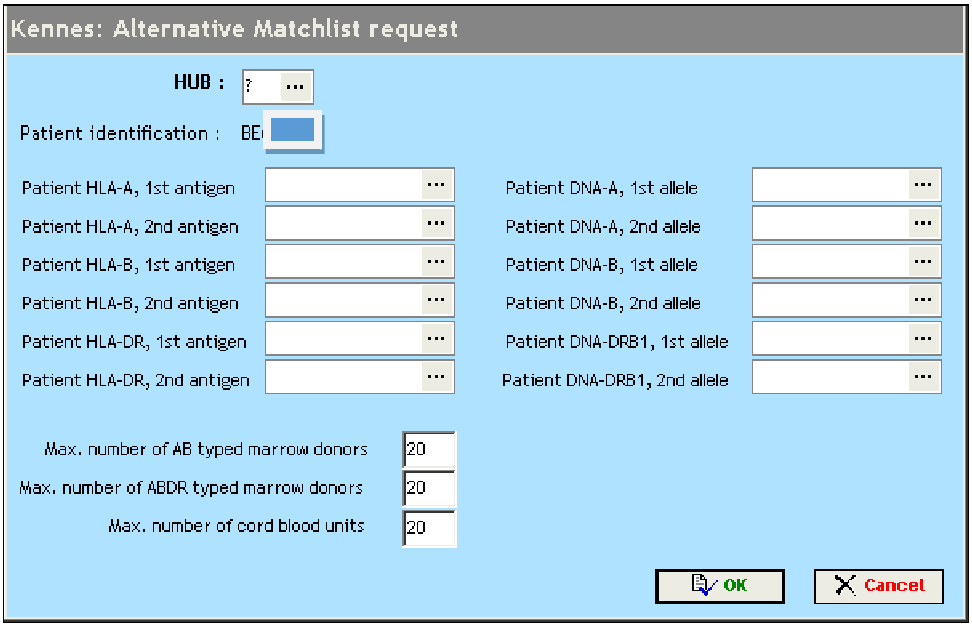
- **If the Watch is ticked**: all messages are going to EMDIS new.
- **If the Watch is not ticked:** specific messages will go directly to the old EMDIS messages. Search results, search result updates, change patient status, …

IV.III.3. Alternative match list request

This option can be considered as an extension to the Preliminary request. The result is an alternative match list with fully matched donors with regards to the alternative phenotype: it is providing a mechanism to obtain mismatched donors for the patient, it also provides cord blood units with up to the 2 major antigen mismatches (as usual) with regards to the phenotype given. This option will not go to into the repeat search process. It is a temporary action, the patient's typing will not be changed. (useful option when it is difficult to receive the donor by the normal search option).



Select the "Register patient with alternative phenotype" option, the following screen will be offered:



Kennes: Alternative Matchlist request

HUB : ?

Patient identification : BE

Patient HLA-A, 1st antigen

Patient HLA-A, 2nd antigen

Patient HLA-B, 1st antigen

Patient HLA-B, 2nd antigen

Patient HLA-DR, 1st antigen

Patient HLA-DR, 2nd antigen

Patient DNA-A, 1st allele

Patient DNA-A, 2nd allele

Patient DNA-B, 1st allele

Patient DNA-B, 2nd allele

Patient DNA-DRB1, 1st allele

Patient DNA-DRB1, 2nd allele

Max. number of AB typed marrow donors: 20

Max. number of ABDR typed marrow donors: 20

Max. number of cord blood units: 20

Enter the Hub from which you wish to receive the mismatched donor, enter HLA typing of the patient with the alternative phenotype and press ok. You will receive the mismatched donors by EMDIS.

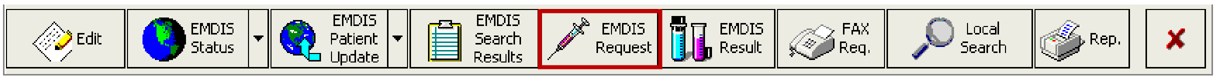
IV.IV. EMDIS request and results (EMDIS donors – Belgian donors)

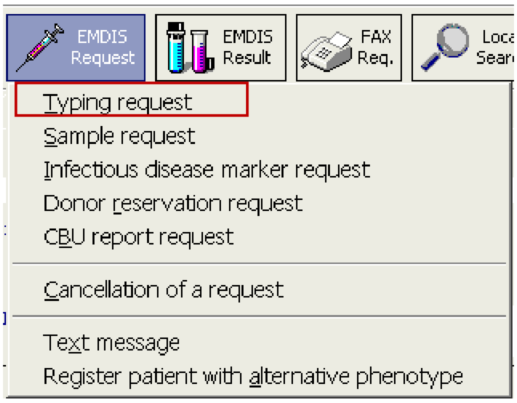
When the patient has been set to **active status** it is possible to activate further requests:

Go to the menu “EMDIS request” to open the selection screen: EMDIS donors as well as Belgian donors can be activated.

IV.IV.1.Typing request

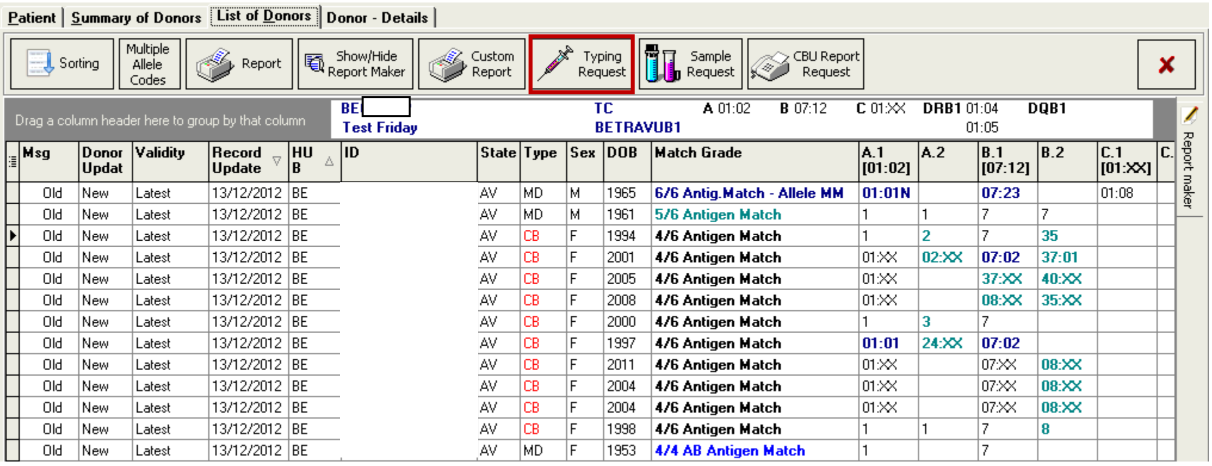
Select the patient record and then click the “EMDIS request” button:





It is also possible to activate a typing request through the EMDIS search results consultation:

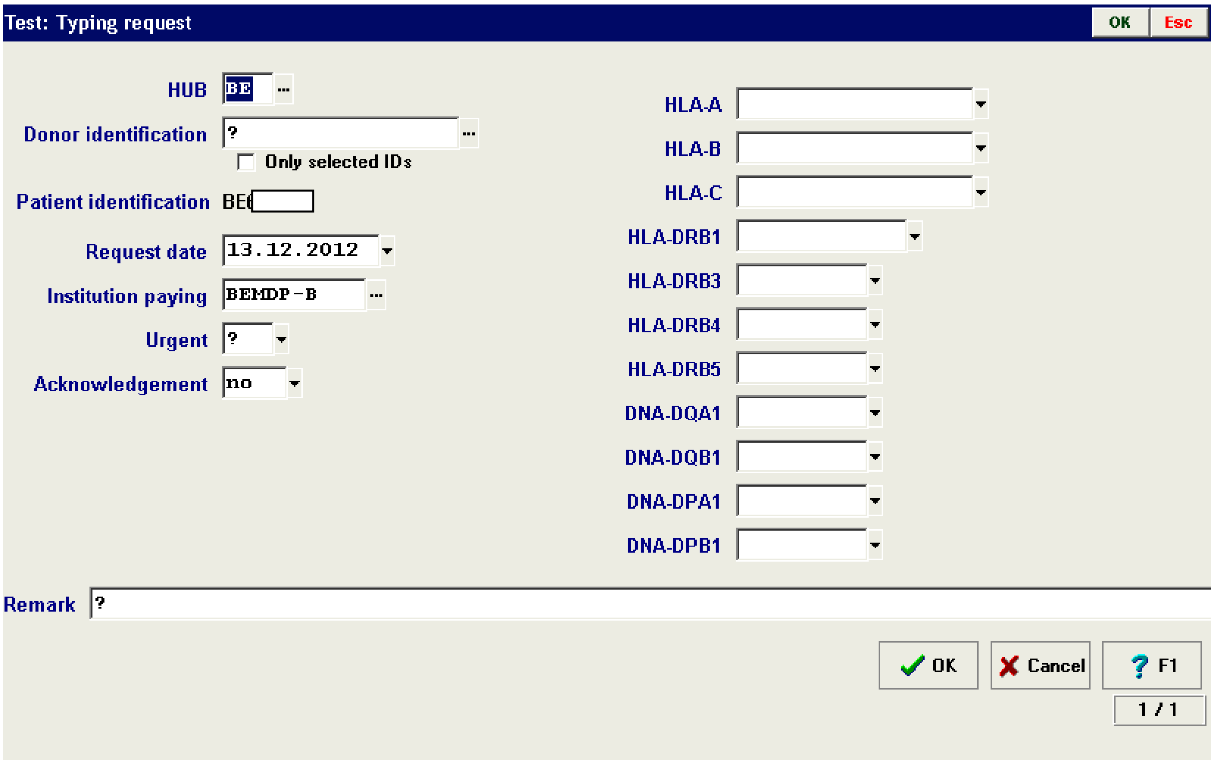
Click on the donor to be requested, and then **"typing request"**:



BE[redacted] TC A 01:02 B 07:12 C 01:XX DRB1 01:04 01:05 DQB1
Test Friday BETRAVUB1

Msg	Donor Updat	Validity	Record Update	HUB	ID	State	Type	Sex	DOB	Match Grade	A.1 [01:02]	A.2	B.1 [07:12]	B.2	C.1 [01:XX]	C.
Old	New	Latest	13/12/2012	BE	[redacted]	AV	MD	M	1965	6/6 Antig.Match - Allele MM	01:01N		07:23		01:08	
Old	New	Latest	13/12/2012	BE	[redacted]	AV	MD	M	1961	5/6 Antigen Match	1	1	7	7		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	1994	4/6 Antigen Match	1	2	7	35		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2001	4/6 Antigen Match	01:XX	02:XX	07:02	37:01		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2005	4/6 Antigen Match	01:XX		37:XX	40:XX		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2008	4/6 Antigen Match	01:XX		08:XX	35:XX		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2000	4/6 Antigen Match	1	3	7			
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	1997	4/6 Antigen Match	01:01	24:XX	07:02			
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2011	4/6 Antigen Match	01:XX		07:XX	08:XX		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2004	4/6 Antigen Match	01:XX		07:XX	08:XX		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	2004	4/6 Antigen Match	01:XX		07:XX	08:XX		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	CB	F	1998	4/6 Antigen Match	1	1	7	8		
Old	New	Latest	13/12/2012	BE	[redacted]	AV	MD	F	1953	4/4 AB Antigen Match	1		7			

The following screen will be opened: (when starting from the search results menu, the donor identification and institution paying will be prefilled:

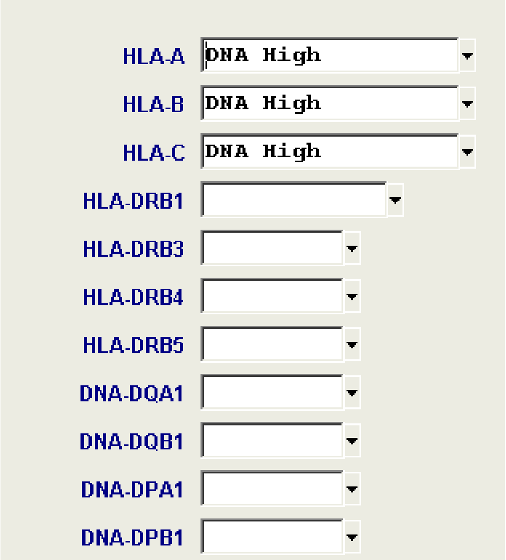


Test: Typing request

HUB: BE
Donor identification: ?
☐ Only selected IDs
Patient identification: BE[redacted]
Request date: 13.12.2012
Institution paying: BEMDP-B
Urgent: ?
Acknowledgement: no
Remark: ?

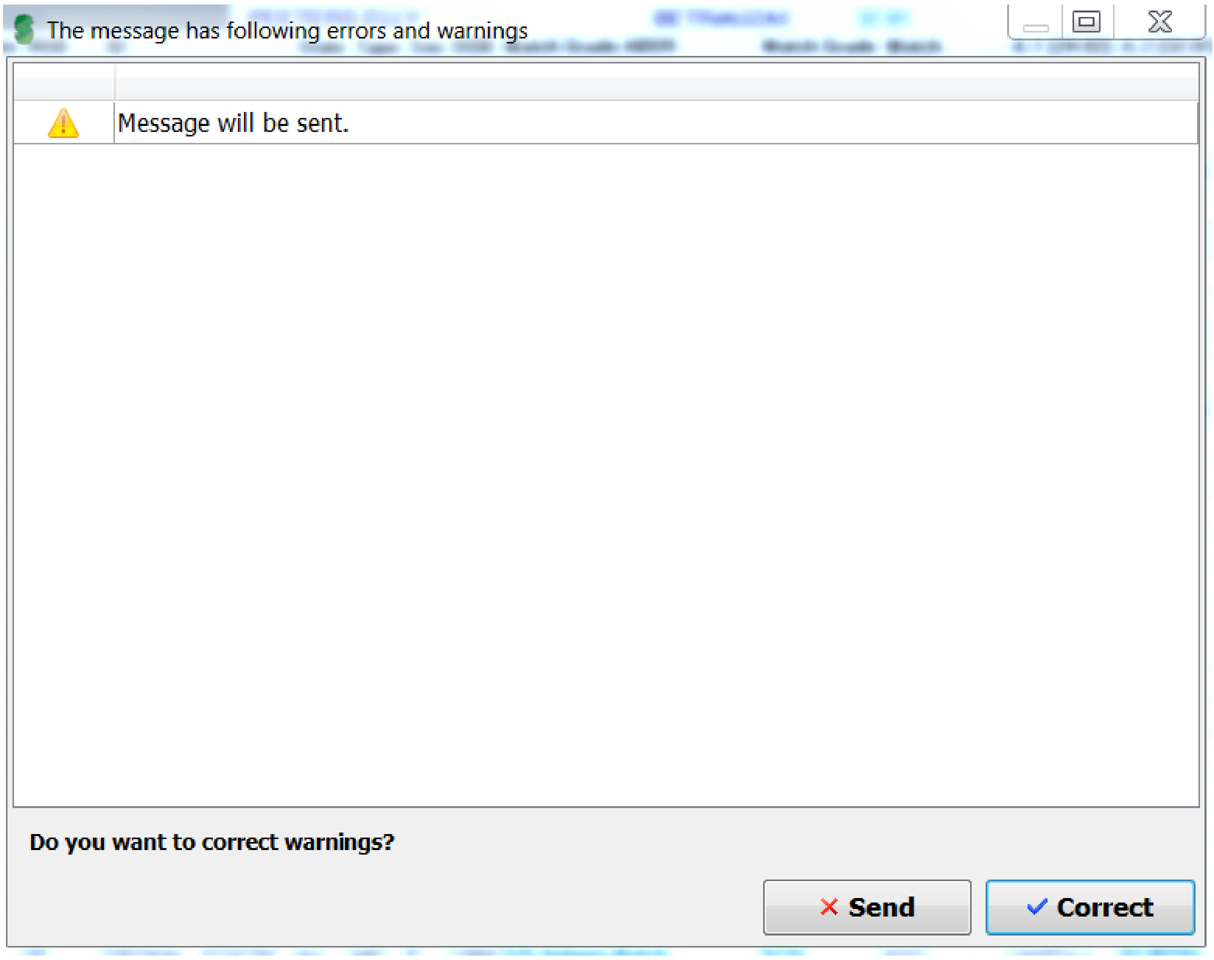
HUB:	HUB of selected donor;
Donor identification:	Select the required donor identification
Patient identification:	prefilled;
Request date:	date of today;
Institution paying:	international donor: BEMDP-B default value;
Urgent:	indicate yes if needed;
Acknowledgement:	asking for confirmation of the message from the other HUB.

Select the typing you wish to request and press ✓ OK to validate the typing request:



HLA-A	DNA High
HLA-B	DNA High
HLA-C	DNA High
HLA-DRB1	
HLA-DRB3	
HLA-DRB4	
HLA-DRB5	
DNA-DQA1	
DNA-DQB1	
DNA-DPA1	
DNA-DPB1	

If you are sure to send the message, press yes and the message will be stored for processing.

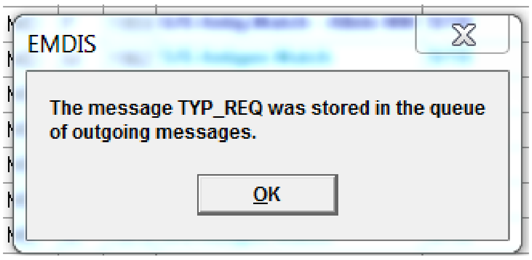


The message has following errors and warnings

Message will be sent.

Do you want to correct warnings?

Press send to send the request. The following message will be displayed:



EMDIS

The message TYP_REQ was stored in the queue of outgoing messages.

The reply to this typing request can be:

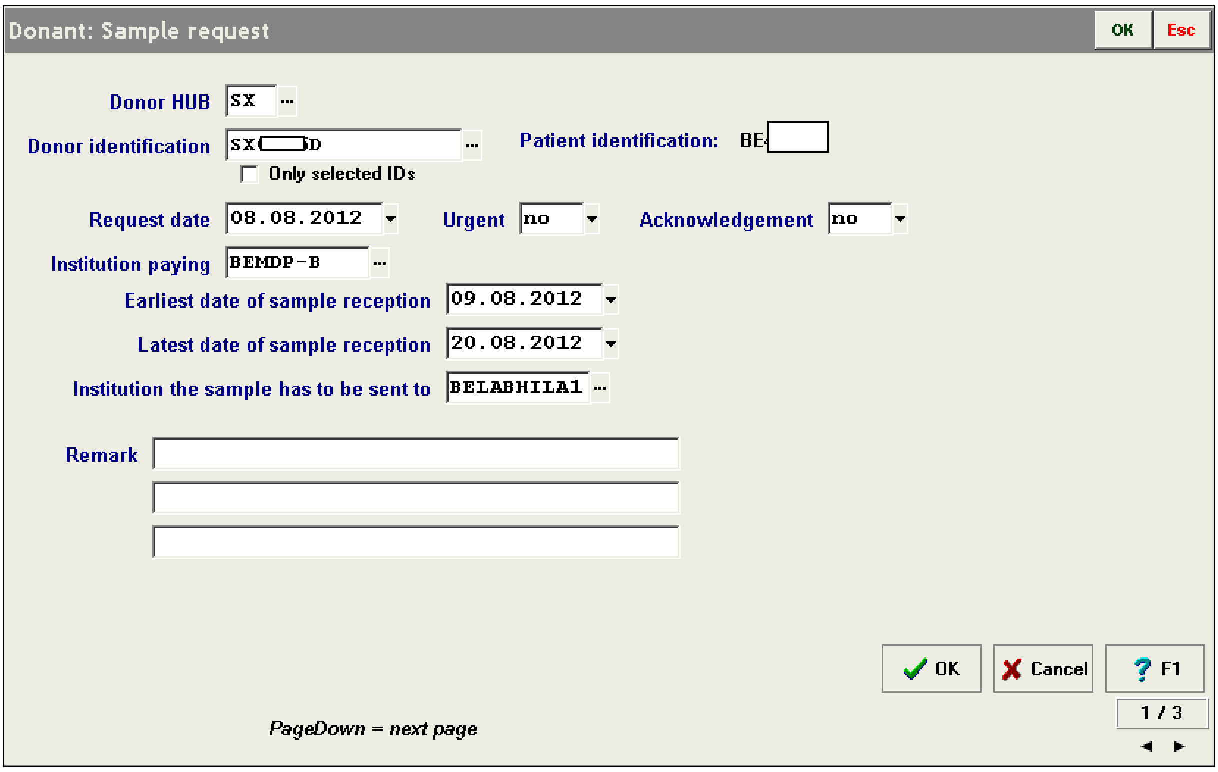
- **Typing result** (positive reply);
- **Donor status change** (donor is unavailable, negative reply);
- **Message denied** (the rejection of the request, negative reply) with additional reasons;
- **Service cannot be done** (the request received, but negative reply).

Prometheus does not allow to activate 2 typing requests for a couple donor-patient in one day to prevent mistakes. Therefore you have to cancel the old request and create a new one, when the first request has already been sent.

IV.IV.2.Sample request

The sample request consists of 3 screens:

Screen 1/3



Donor HUB: SX
Donor identification: SX[redacted]D
☐ Only selected IDs
Patient identification: BE[redacted]
Request date: 08.08.2012
Urgent: no
Acknowledgement: no
Institution paying: BEMDP-B
Earliest date of sample reception: 09.08.2012
Latest date of sample reception: 20.08.2012
Institution the sample has to be sent to: BELABHILA1
Remark:

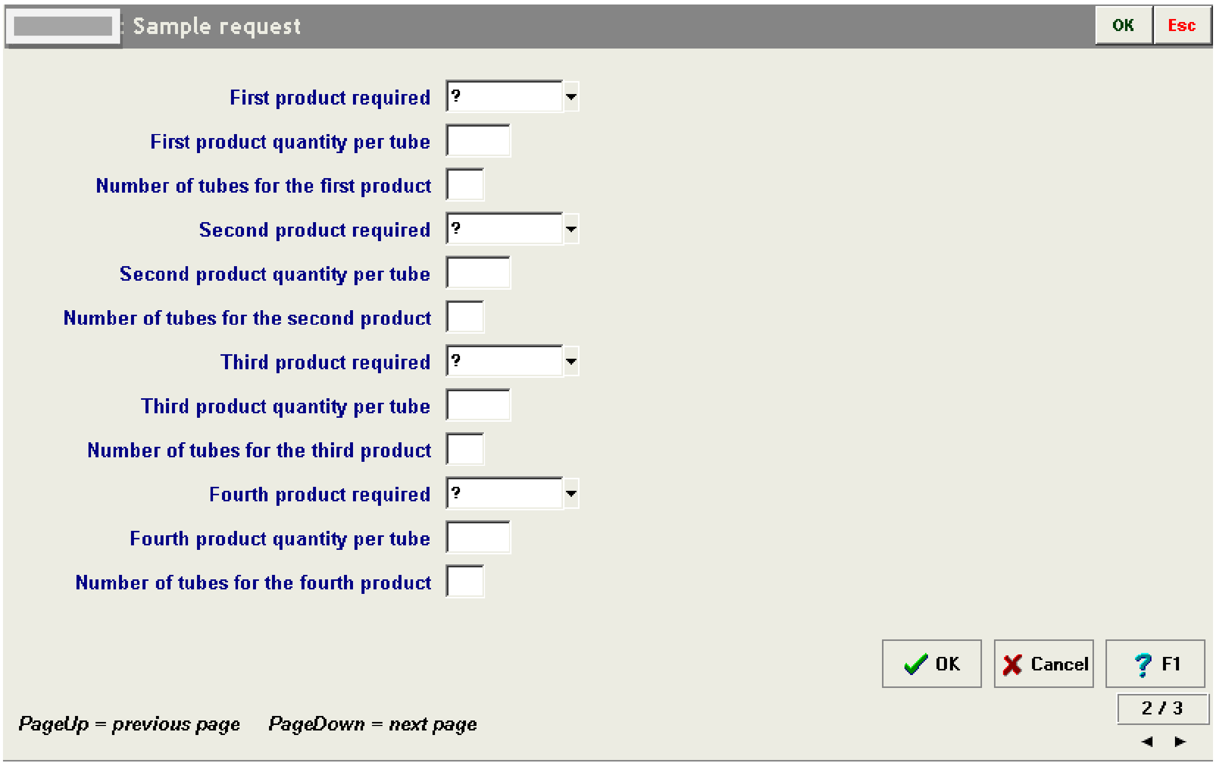
PageDown = next page

Earliest date of sample reception: these fields represent the lower and upper limit of a period of time in which the blood sample has to be received.

If the second date is missing, the sample may be received any time after the first date.

Only one sample request can be open for a patient/donor pair. The user should thus not send a second sample request for the couple of patient/donor.

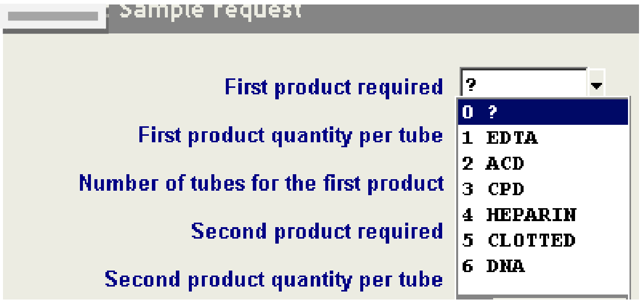
Screen 2/3



First product required ?
First product quantity per tube
Number of tubes for the first product
Second product required ?
Second product quantity per tube
Number of tubes for the second product
Third product required ?
Third product quantity per tube
Number of tubes for the third product
Fourth product required ?
Fourth product quantity per tube
Number of tubes for the fourth product

PageUp = previous page *PageDown = next page*

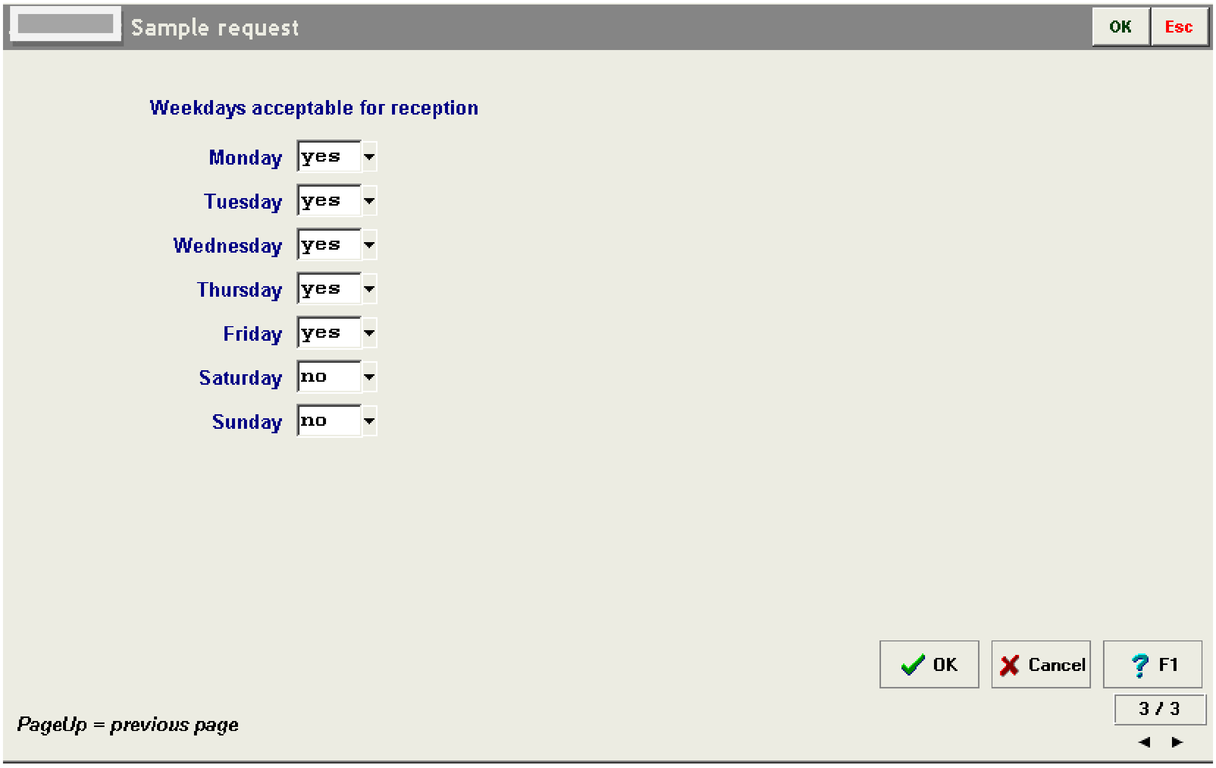
The quantity for the first product is optional when requesting DNA from a cord blood unit. In all other requests, the quantity fields are required.



First product required ?
First product quantity per tube
Number of tubes for the first product
Second product required
Second product quantity per tube

0 ?
1 EDTA
2 ACD
3 CPD
4 HEPARIN
5 CLOTTED
6 DNA

In the **3/3 screen**, the available days for reception of sample requests are offered for selection. Preset is yes from Monday to Friday, but not in the weekends.



Weekdays acceptable for reception

Monday yes
Tuesday yes
Wednesday yes
Thursday yes
Friday yes
Saturday no
Sunday no

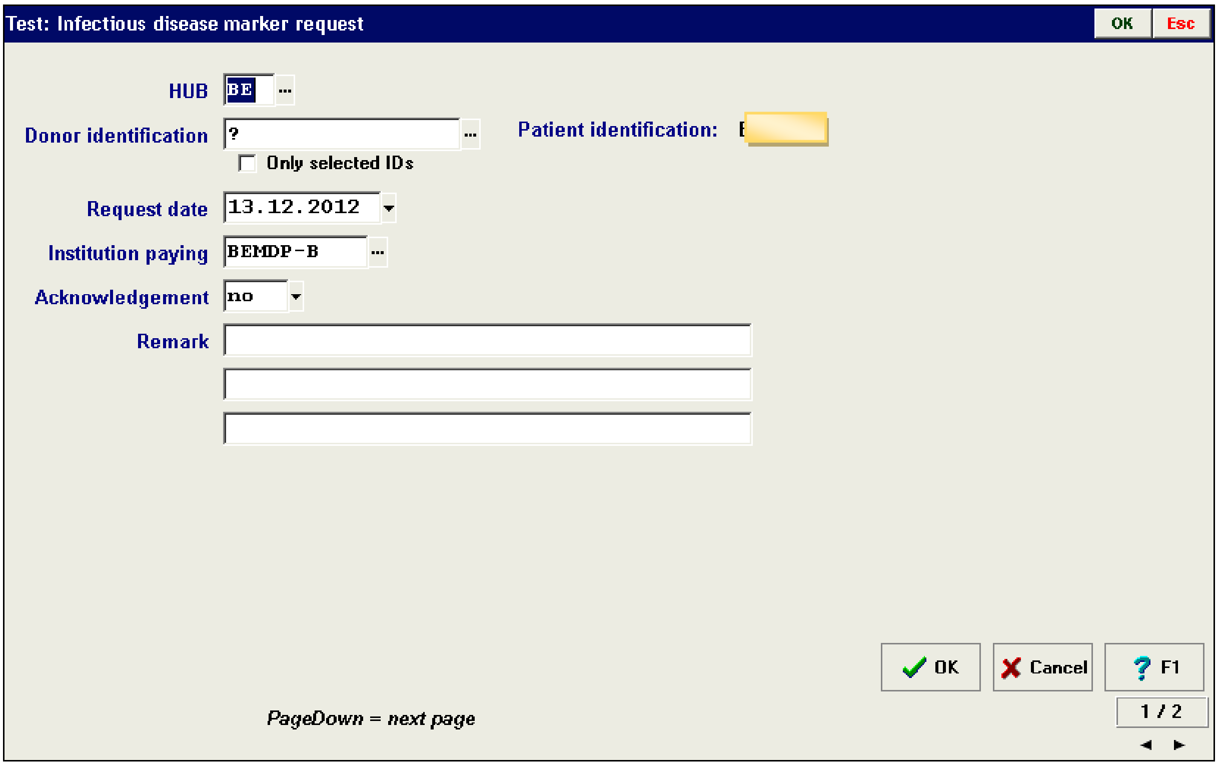
PageUp = previous page

The reply to this blood sample request can be:

- **Blood sample arrival date** (positive reply);
- **IDM results** (positive reply);
- **Donor status change** (donor is unavailable, negative reply);
- **Message denied** (the rejection of the request, negative reply) with additional reasons;
- **Service cannot be done** (the request received, but negative reply).

IV.IV.3. Infectious Disease Marker (IDM) request

The infectious Disease Marker (IDM) request consists of 2 screens:



Test: Infectious disease marker request

HUB: BE

Donor identification: ?

☐ Only selected IDs

Patient identification:

Request date: 13.12.2012

Institution paying: BEMDP-B

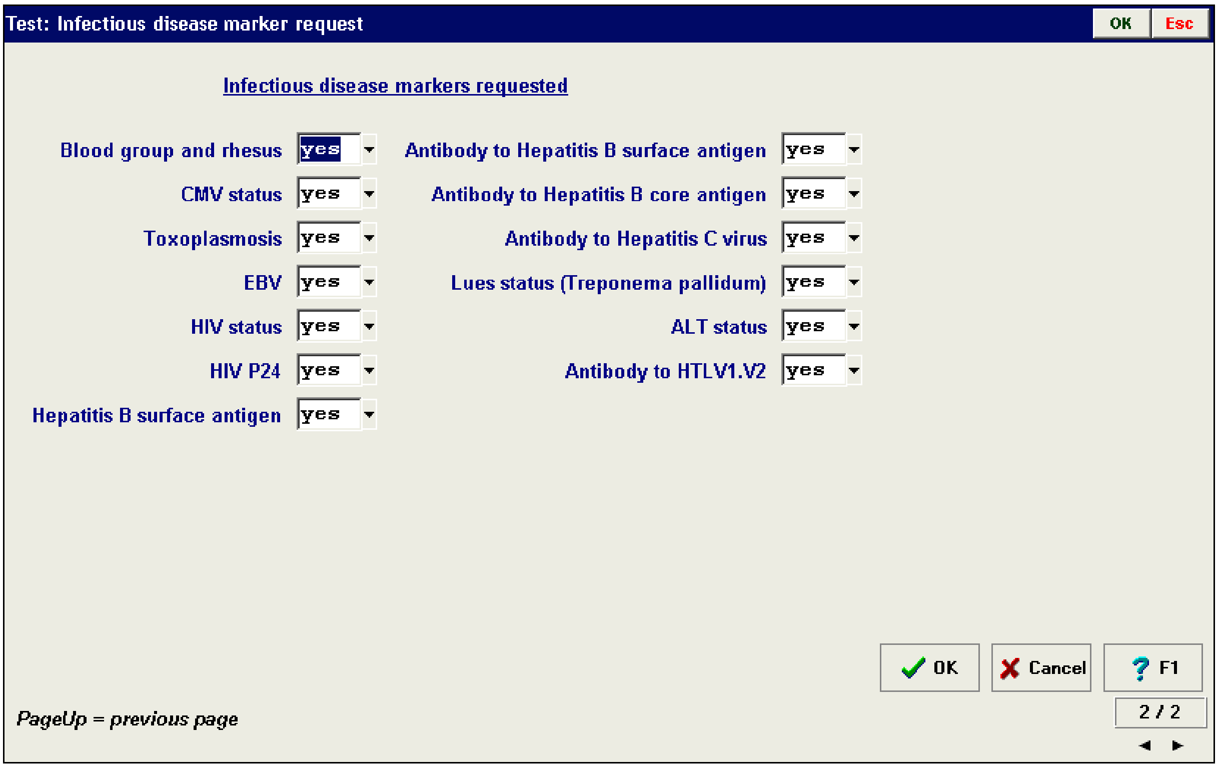
Acknowledgement: no

Remark:

PageDown = next page

HUB:	HUB identification
Donor identification:	please select the donor you received via the donor search results
Request date:	is date of today
Institution paying:	BEMDP-B is prefilled value
Acknowledgment:	if you wish to receive confirmation from the receiving HUB

On the second screen the requested infectious disease markers can be selected.



Test: Infectious disease marker request

Infectious disease markers requested

Blood group and rhesus: yes

CMV status: yes

Toxoplasmosis: yes

EBV: yes

HIV status: yes

HIV P24: yes

Hepatitis B surface antigen: yes

Antibody to Hepatitis B surface antigen: yes

Antibody to Hepatitis B core antigen: yes

Antibody to Hepatitis C virus: yes

Lues status (Treponema pallidum): yes

ALT status: yes

Antibody to HTLV1.V2: yes

PageUp = previous page

The results of the IDM test will be reported via the IDM result message.

- **IDM res** (positive reply);
- **The results cannot be delivered** (donor is unavailable, negative reply);
- **Message denied** (the rejection of the request, negative reply) with additional reasons;
- **Service cannot be done** (the request received, but negative reply).

NOTE:

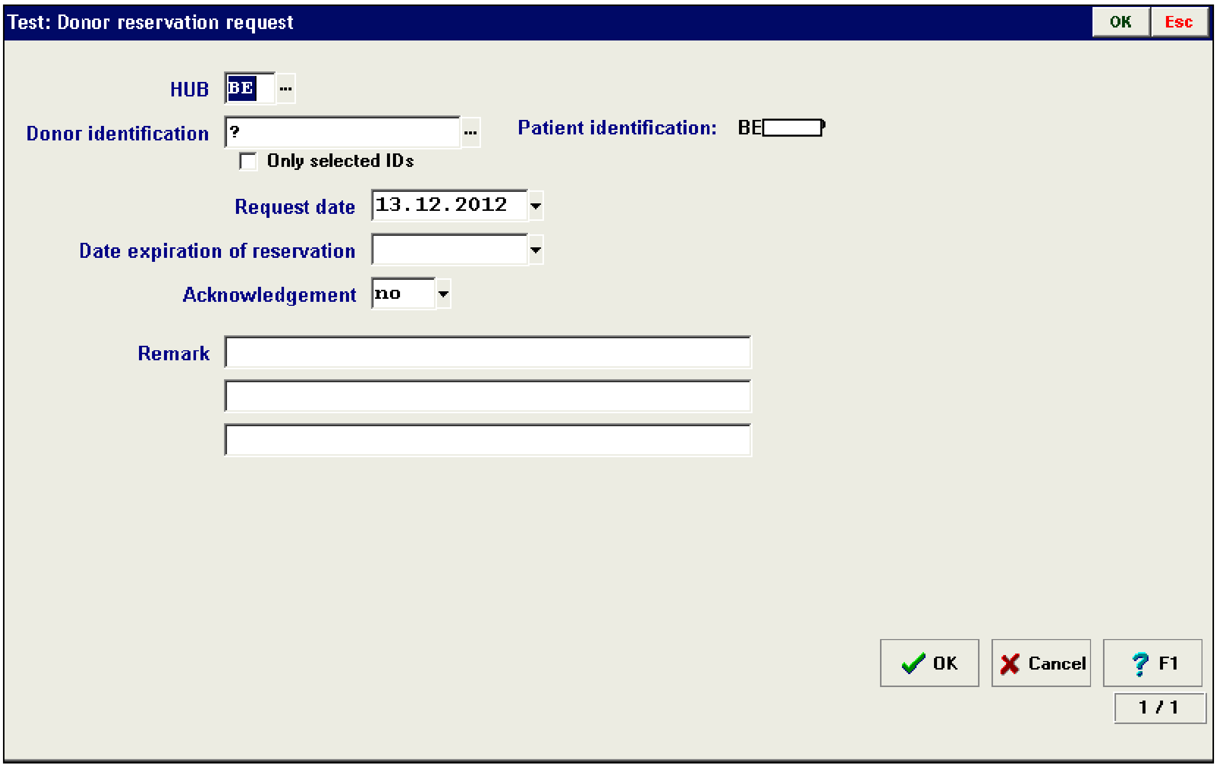
All messages are linked to each other: this means that a request is always linked to one answer. Therefore it is not possible to accumulate different requests into one answer. If a request to a marker is redundant, the message will automatically be rejected.

Prometheus does not allow to create 2 IDM messages for a couple donor-patient in one day to prevent mistakes. Therefore you have to cancel the old request and create a new one, when the first request has already been sent.

It is recommended that all markers required should be requested within one message.

IV.IV.4. Donor reservation request

The following screen will be displayed:



HUB: BE

Donor identification: ?

Patient identification: BE

☐ Only selected IDs

Request date: 13.12.2012

Date expiration of reservation:

Acknowledgement: no

Remark:

HUB:	HUB country code
Donor identification:	select the donor you wish to reserve.
Request date:	date of today.
Date of expiration of reservation:	select the date of expiration. But you have to take into account that the EMDIS countries have different reservation rules applicable.
Acknowledgement:	if you wish confirmation from the receiving HUB

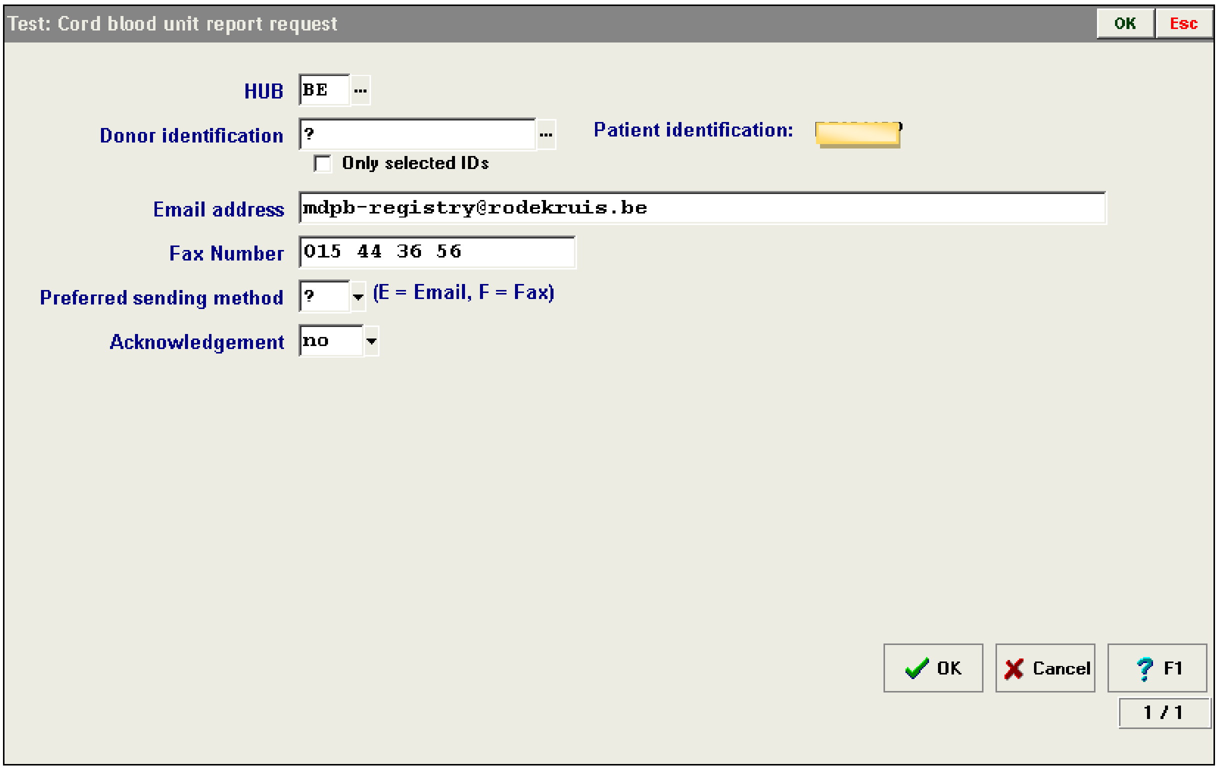
The answer to a donor reservation request:

- **Result of donor reservation** (positive reply);

- **If the reservation was not successful, an additional message will be sent: Donor status change will explain the reasons;**
- **Message denied** (the rejection of the request, negative reply) with additional reasons.

IV.IV.5. CBU report request

The following screen will be displayed:



Test: Cord blood unit report request

HUB: BE

Donor identification: ?

☐ Only selected IDs

Patient identification:

Email address: mdpb-registry@rodekruis.be

Fax Number: 015 44 36 56

Preferred sending method: ? (E = Email, F = Fax)

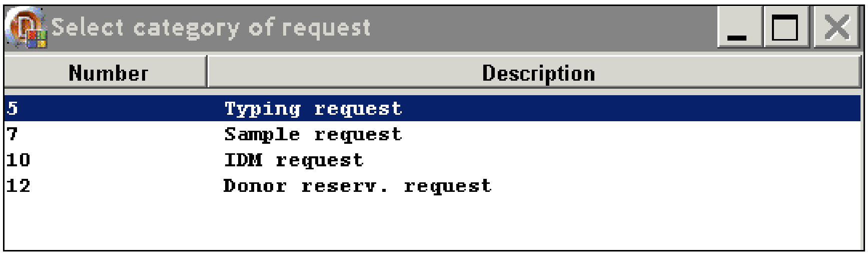
Acknowledgement: no

HUB:	HUB country code.
Donor identification:	select the CBU from which you want to receive a unit report.
Email address:	default e-mail address MDPB-Registry. The requested unit report will be sent to MDPB-Registry and the search coordinators will forward it to the requesting TC.
Fax number:	default fax number MDPB-Registry.
Preferred sending method:	selection between e-mail and fax.
Acknowledgement:	if you wish a confirmation message from the receiving HUB.

The answer to a cord blood unit report request: the unit report request will be sent by mail through the Registry.

IV.IV.6. Cancellation of request

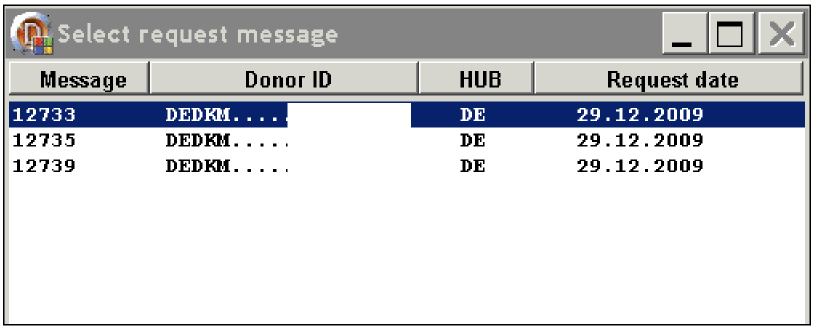
The following screen will be displayed: select the activation you wish to cancel.



Select category of request

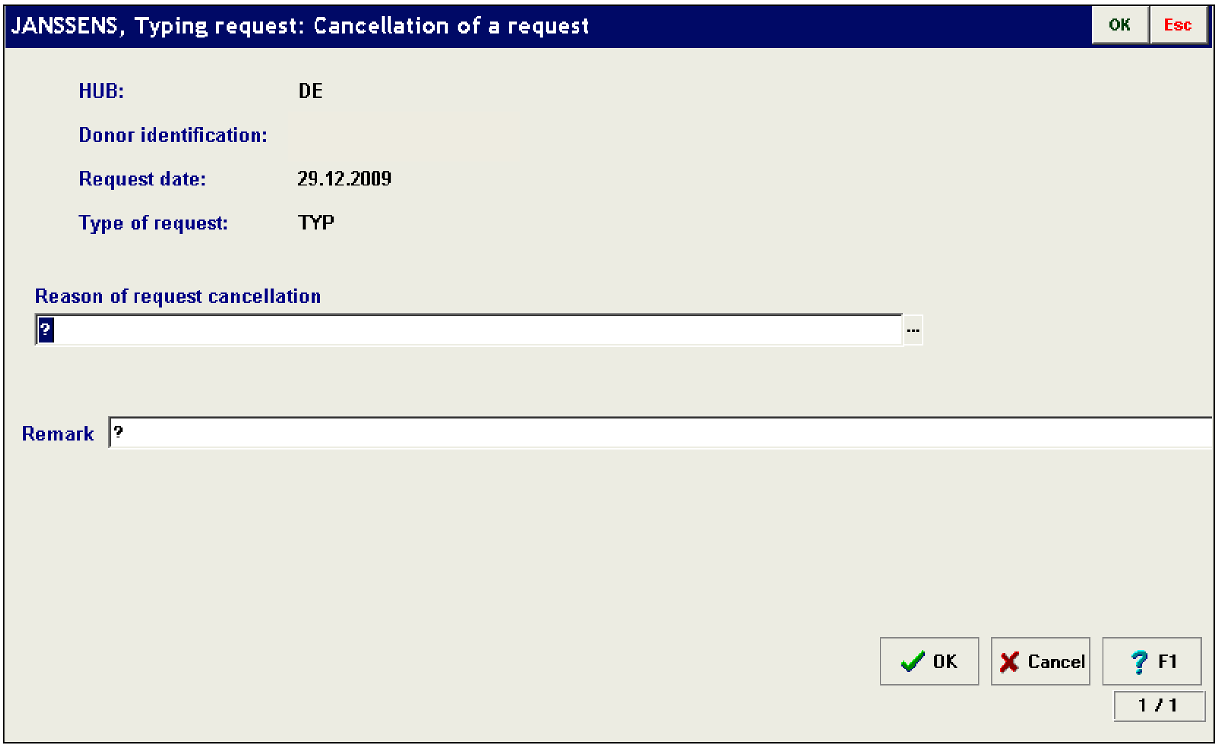
Number	Description
5	Typing request
7	Sample request
10	IDM request
12	Donor reserv. request

When you select “Cancellation of a typing request”, the active typing requests will be displayed in the following screen:



Message	Donor ID	HUB	Request date
12733	DEDKM.....	DE	29.12.2009
12735	DEDKM.....	DE	29.12.2009
12739	DEDKM.....	DE	29.12.2009

The following screen will be displayed:



HUB: DE

Donor identification:

Request date: 29.12.2009

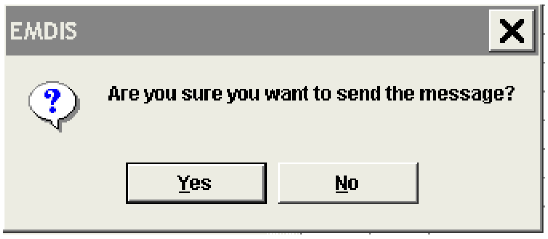
Type of request: TYP

Reason of request cancellation: ?

Remark: ?

Select the reason of cancellation and press OK to confirm you cancellation.

The procedure is similar for a cancellation of a sample, IDM and donor reservation request.
Press “yes” to send the message:



Are you sure you want to send the message?

The message REQ_CAN will be stored in the queue of outgoing messages.

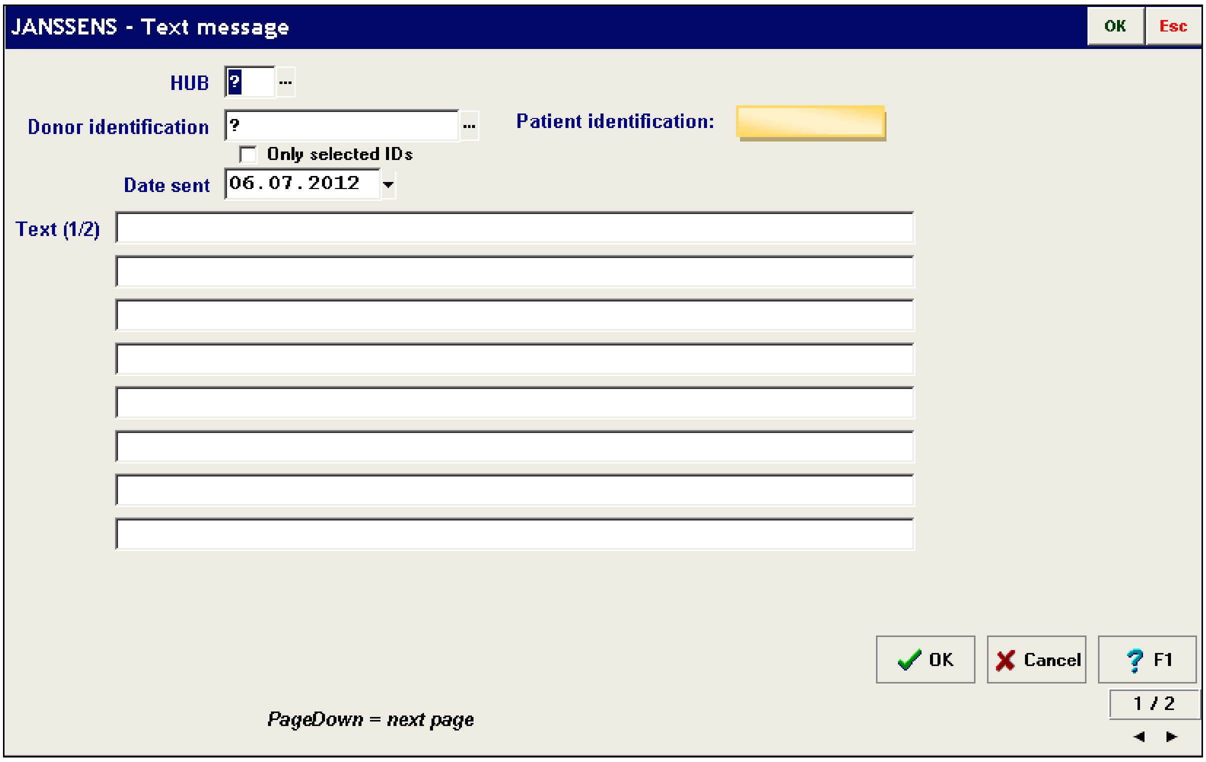
If the status of a patient is suspended, the active requests are not cancelled automatically, if the active requests are no longer needed, they have to be cancelled via the “Cancel of the request” option.

If the status of patient is changed to STP, all requests are automatically cancelled.

IV.IV.7. Text message

The text message contains the identifier of the patient and of the donor. It is suitable e.g. as the commentary on an action for the couple patient-donor.

This option enables to transmit free text messages: it serves as a comment function for a certain patient-donor pair to be directly included .For other communication standard email should be used.



HUB ?

Donor identification ?

☐ Only selected IDs

Patient identification:

Date sent 06.07.2012

Text (1/2)

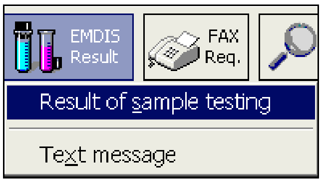
IV.IV.8. Message acknowledgement

The quick explicit confirmation by the receiving HUB can be requested via the message acknowledgment option. This option is offered in several EMDIS messages. When message acknowledgement has been selected, the receiving Registry will send back a confirmation immediately after receiving the request.

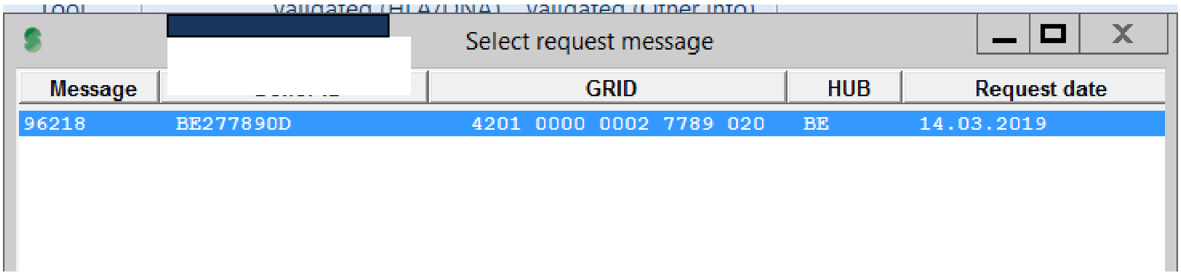
IV.IV.9. EMDIS result: result of sample testing

Use this section of the program to transfer the confirmatory typing results to the Donor Center and to inform the Donor Center that you are still interested in the donor.

After selecting the patient, go to EMDIS result|Result of sample testing:



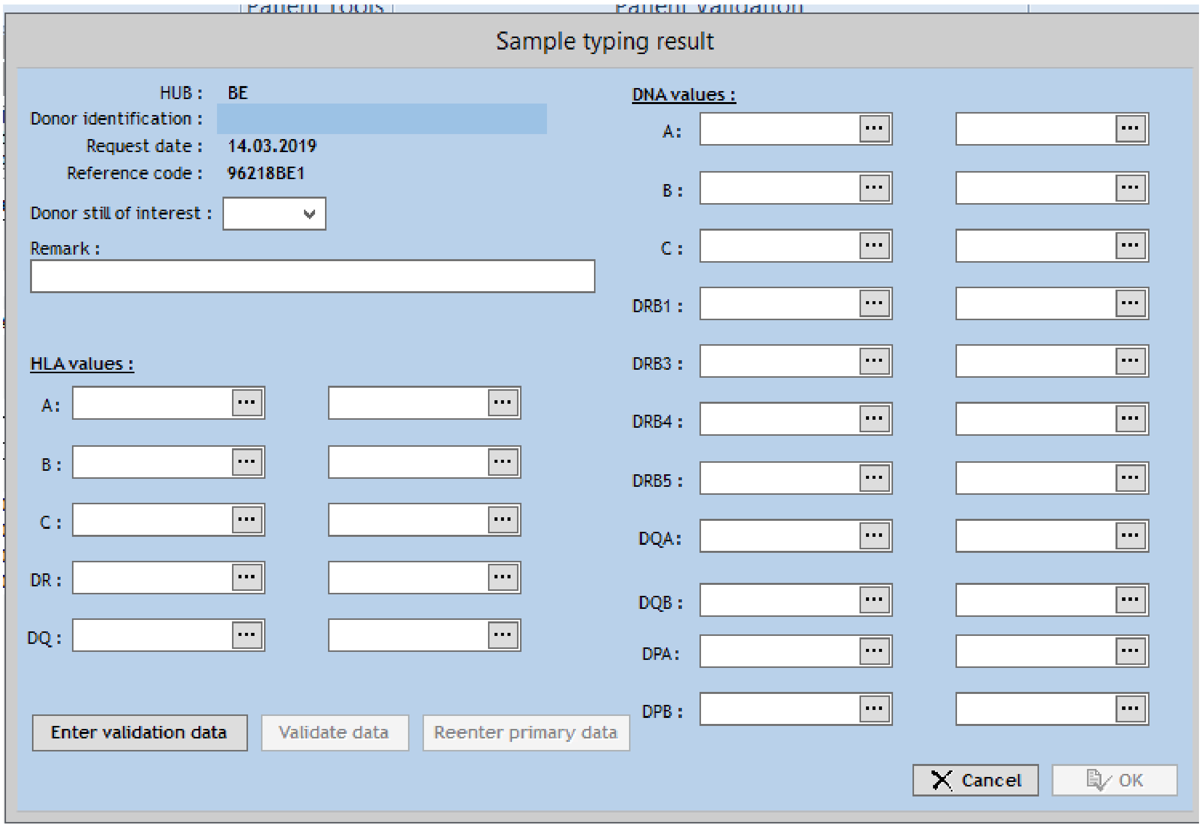
A window screen with the activated sample requests will be displayed: select the donor ID of the sample for which you wish to enter confirmatory typing results:



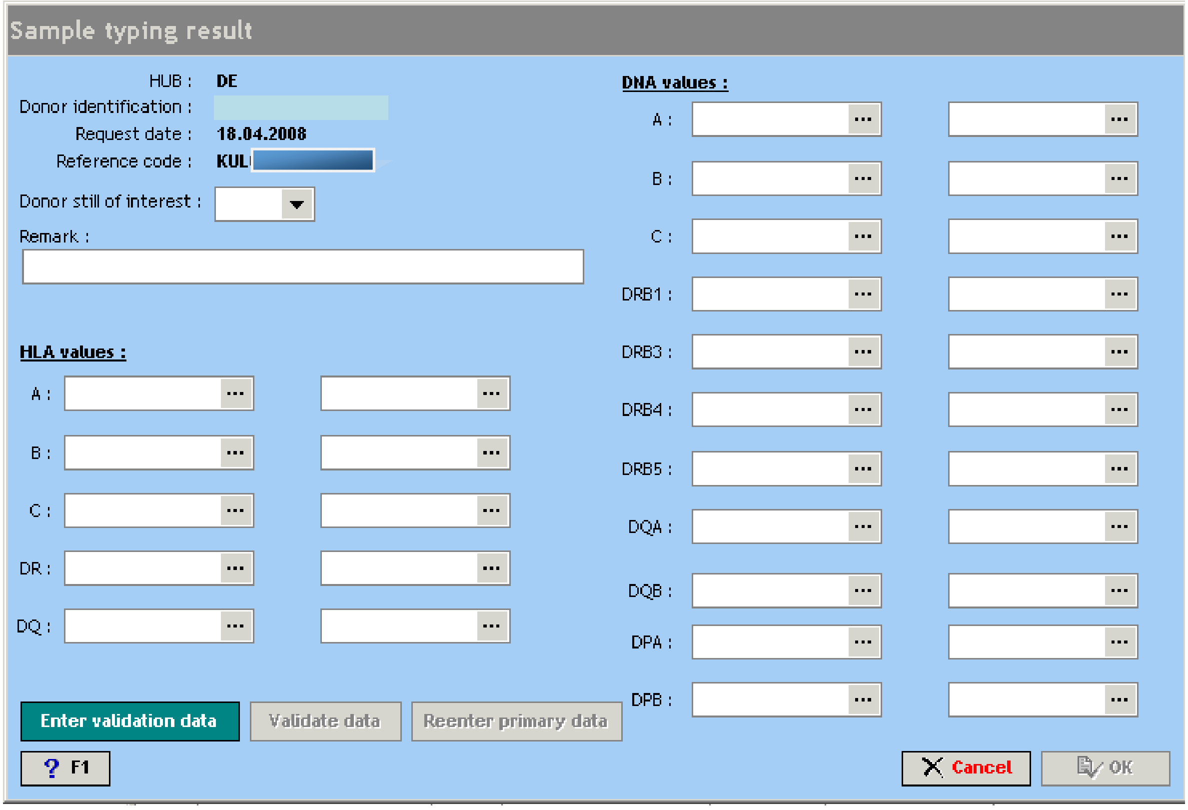
Message		GRID	HUB	Request date
96218	BE277890D	4201 0000 0002 7789 020	BE	14.03.2019

IV.IV.9.1. Entering confirmatory typing results:

The following screen will be displayed:

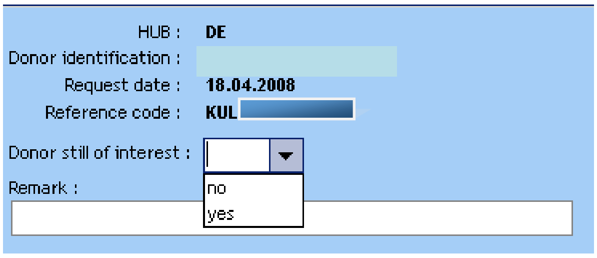


HUB : BE
Request date : 14.03.2019
Reference code : 96218BE1

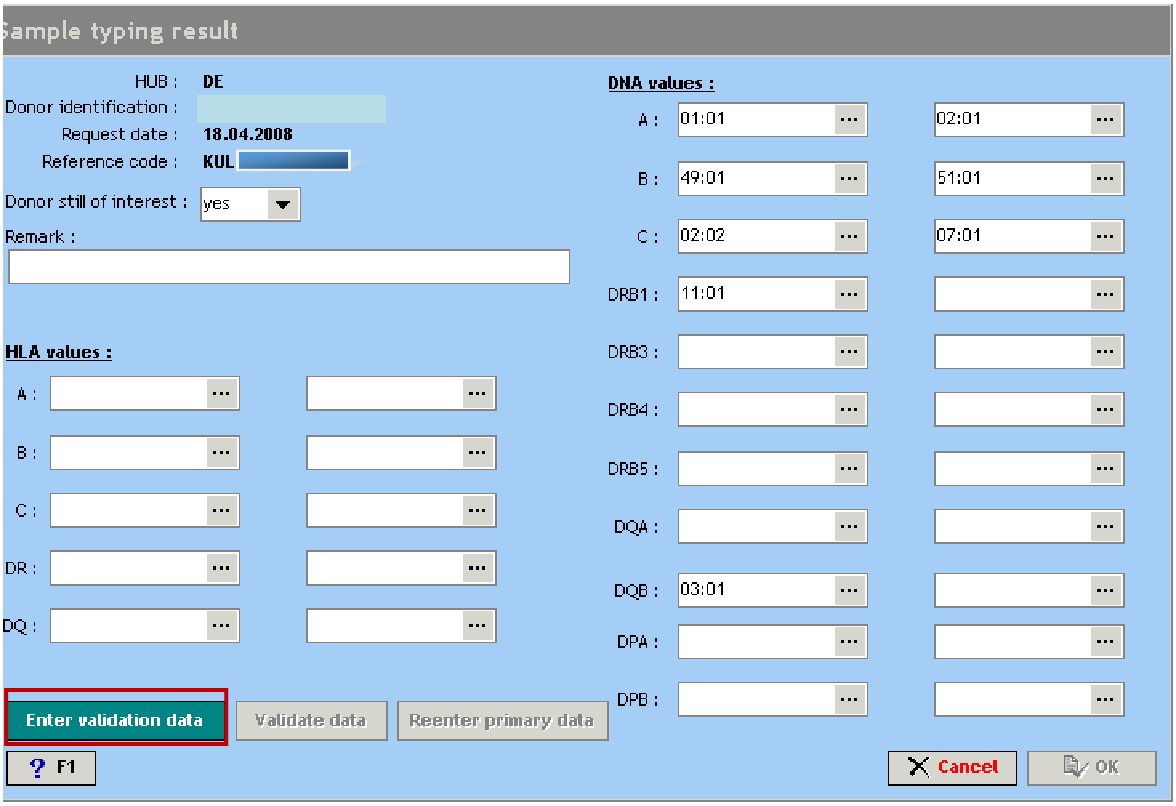


(HUB code of donor Registry - donor identification - request date and reference code of the message are pre-filled)

Indicate if you are interested in the donor (decision for reservation will follow): it is possible to add a comment.



Enter the confirmatory sample typing result (DNA values):

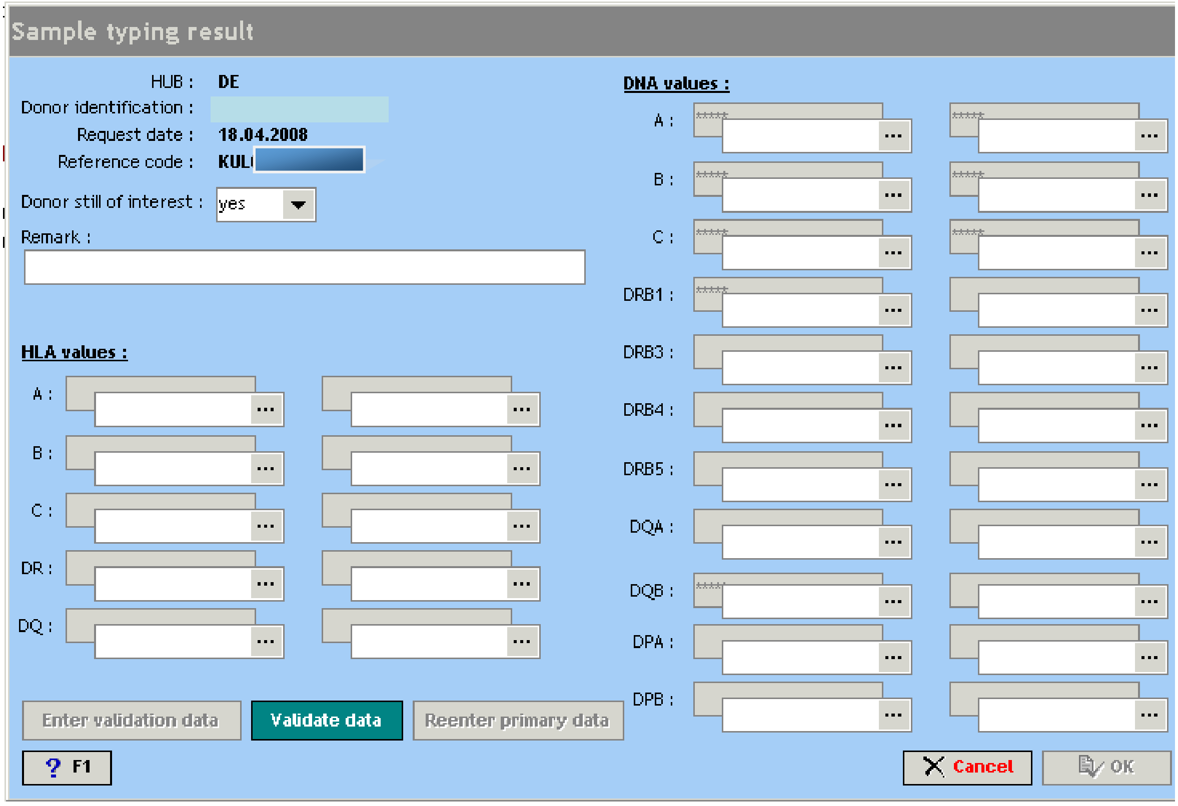


HUB : DE
Donor identification :
Request date : 18.04.2008
Reference code : KUL [redacted]
Donor still of interest : yes
Remark :

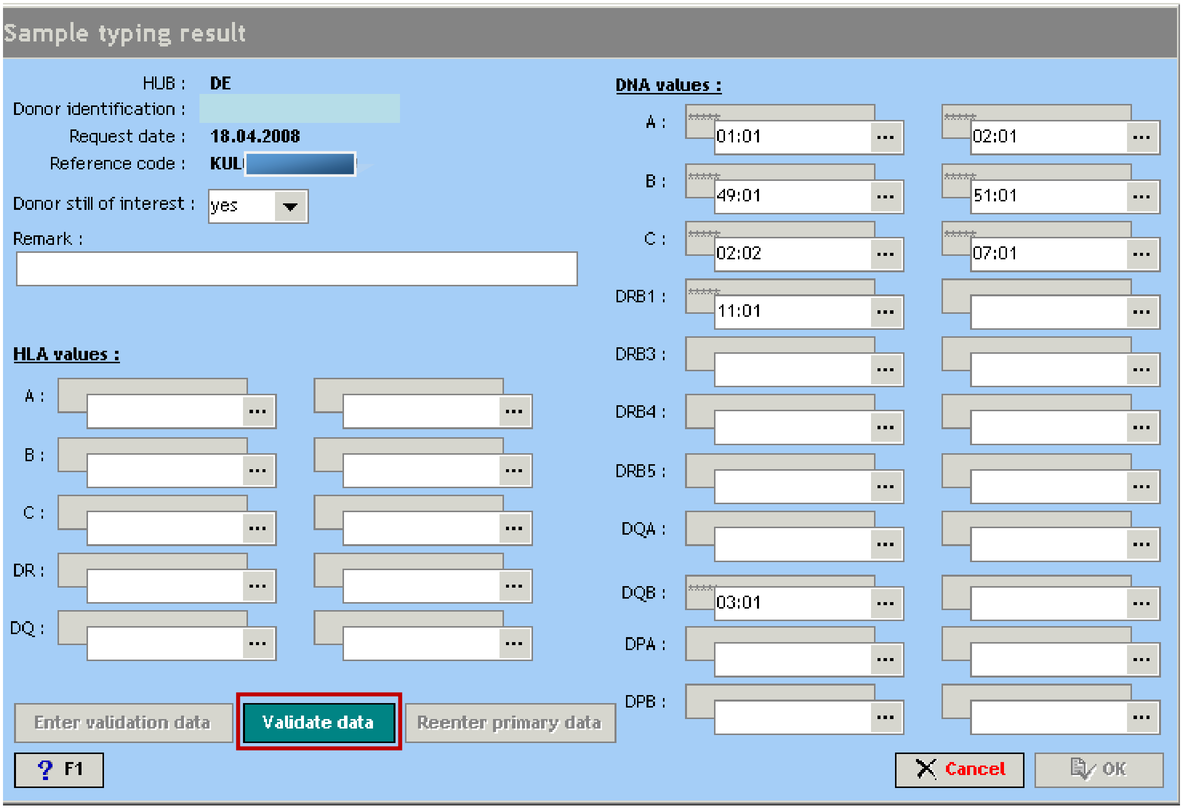
DNA values :
A : 01:01 02:01
B : 49:01 51:01
C : 02:02 07:01
DRB1 : 11:01
DRB3 :
DRB4 :
DRB5 :
DQA :
DQB : 03:01
DPA :
DPB :

Press “enter validation data” to validate the entered typing results:

The following screen will be opened:



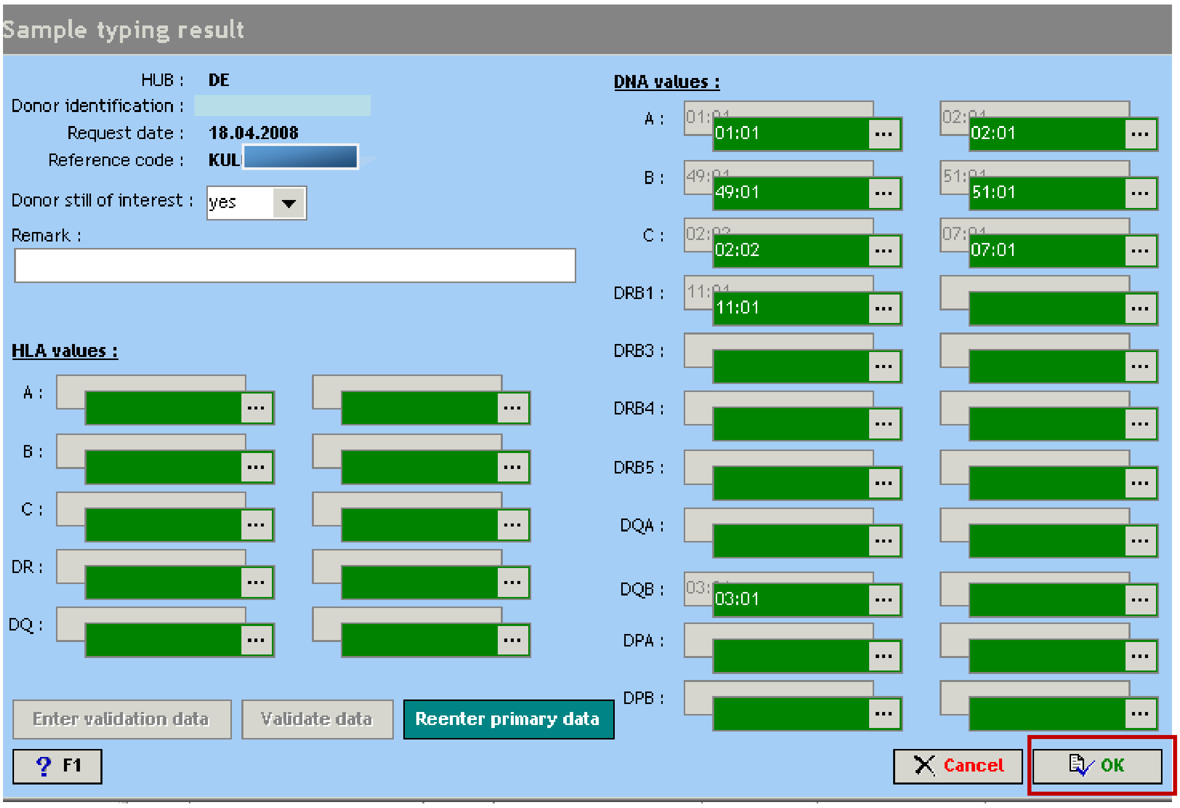
HUB : DE
Donor identification :
Request date : 18.04.2008
Reference code : KUL [redacted]
Donor still of interest : yes
Remark :



HUB : DE
Donor identification : [redacted]
Request date : 18.04.2008
Reference code : KUL[redacted]
Donor still of interest : yes
Remark :

DNA values :
A : 01:01 02:01
B : 49:01 51:01
C : 02:02 07:01
DRB1 : 11:01
DRB3 :
DRB4 :
DRB5 :
DQA :
DQB : 03:01
DPA :
DPB :

Press “**validate data**”:



HUB : DE
Donor identification : [redacted]
Request date : 18.04.2008
Reference code : KUL[redacted]
Donor still of interest : yes
Remark :

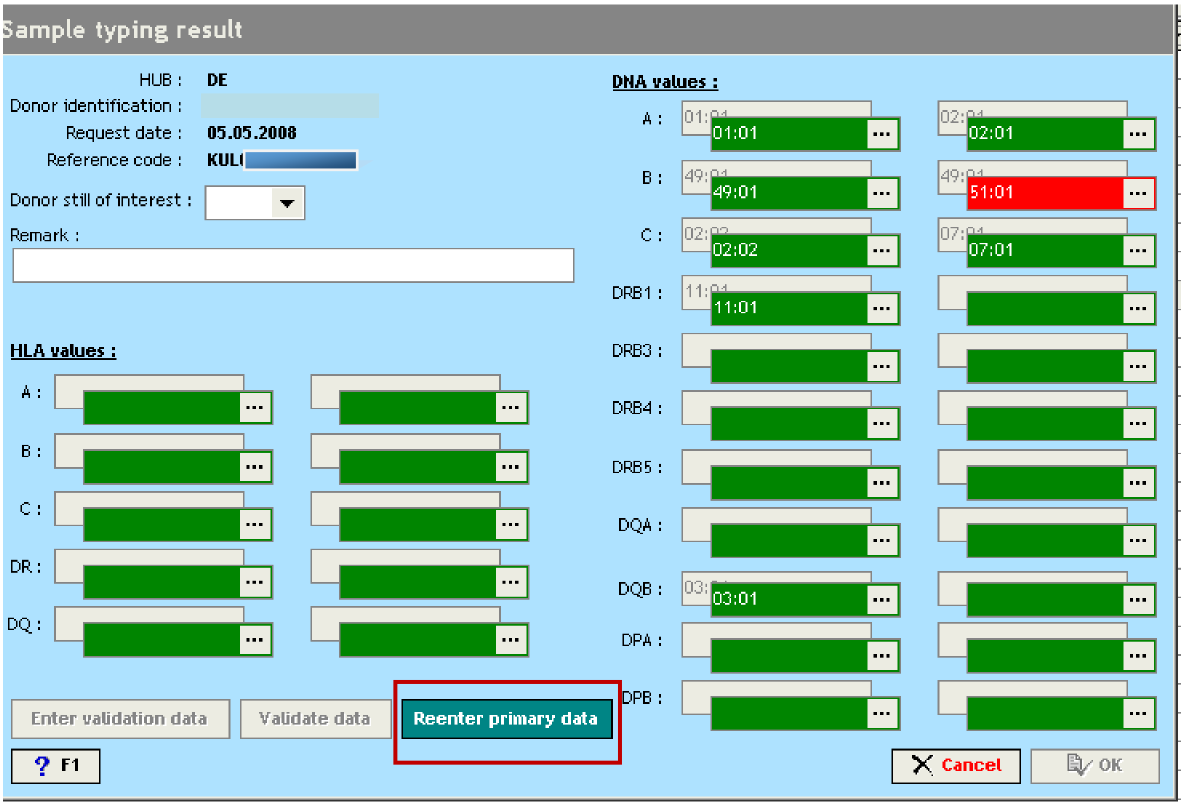
DNA values :
A : 01:01 02:01
B : 49:01 51:01
C : 02:02 07:01
DRB1 : 11:01
DRB3 :
DRB4 :
DRB5 :
DQA :
DQB : 03:01
DPA :
DPB :

The correct validated fields will be highlighted in green, press OK to end the validation:

the SMP_RES message will be stored in the queue of outgoing messages until the next processing session:

The message SMP_RES was stored in the queue of outgoing messages.

If a typing has not been re-entered correctly, the field will be highlighted in red:



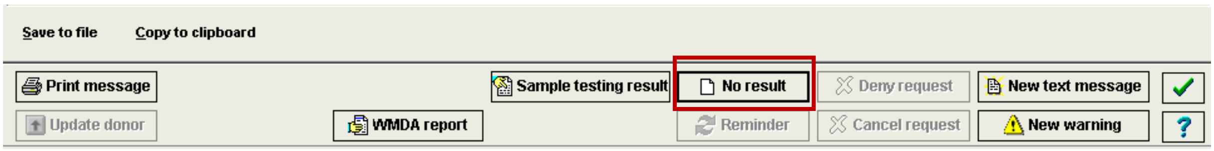
HUB : DE
Donor identification :
Request date : 05.05.2008
Reference code : KUL[redacted]
Donor still of interest :
Remark :

A : 01:01 02:01
B : 49:01 51:01
C : 02:02 07:01
DRB1 : 11:01
DQB : 03:01

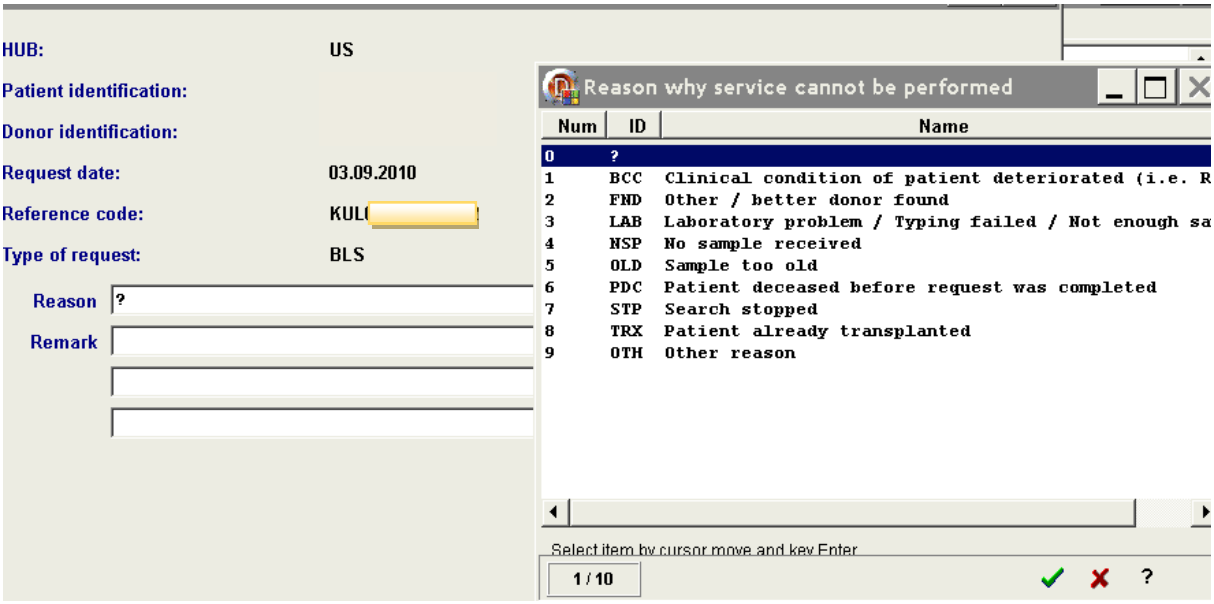
Press re-enter primary data correct the error and then press **OK** if all fields are validated and highlighted in green.

IV.IV.9.2. Missing Confirmatory Typing results:

When it is however impossible to report the confirmatory typing results, you must open the message “sample request” and then select **“no result”**:



Enter the reason why the service cannot be performed:



HUB: US
Patient identification:
Donor identification:
Request date: 03.09.2010
Reference code: KUL
Type of request: BLS
Reason ?
Remark

Reason why service cannot be performed

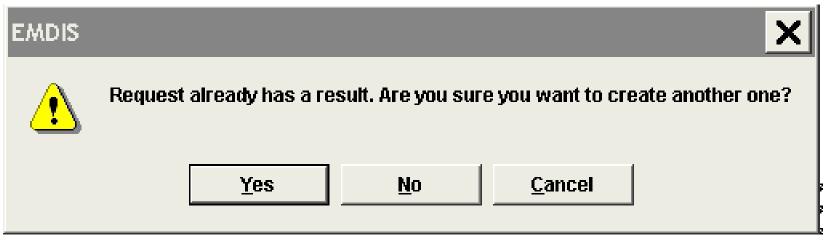
Num	ID	Name
0	?	
1	BCC	Clinical condition of patient deteriorated (i.e. R
2	FND	Other / better donor found
3	LAB	Laboratory problem / Typing failed / Not enough sa
4	NSP	No sample received
5	OLD	Sample too old
6	PDC	Patient deceased before request was completed
7	STP	Search stopped
8	TRX	Patient already transplanted
9	OTH	Other reason

Select item by cursor move and key Enter
1 / 10

And press ✓ to confirm.

IV.IV.9.3. Update confirmatory typing results

If you want to update the confirmatory typing results, after selecting **Sample testing result**, Prometheus will give an alert that the request has already a result. “Are you sure you want to create another one”:



EMDIS

Request already has a result. Are you sure you want to create another one?

After pressing “yes”, an empty sample typing result screen will be opened for data entry, with the same validation flow as explained under point a.

If you want to check the previous reported results, you must first open the old “sample testing result” message.

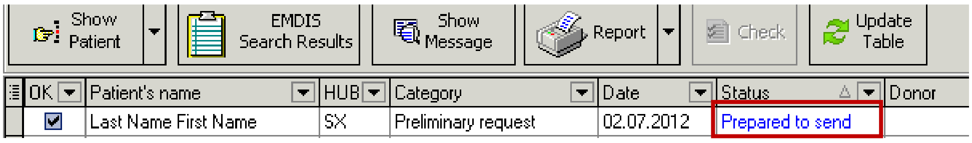
IV.IV.9.4. Discrepant typing results:

When the Transplant Center finds discrepancies when performing the verification typing tests, the discrepancy must be reported using the “MDPB004 discrepant typing v2 2011”. The Transplant Center finding the discrepant type must complete section A, the Donor Center must complete section B and return via the Registry to the Transplant Center specifying the type of error: clerical error or technical error. The Registry must report confirmatory typing results to WMDA annually.

IV.V. EMDIS MESSAGES

IV.V.1.Status of messages

The status of the message can be consulted in the status field**:**



OK	Patient's name	HUB	Category	Date	Status	Donor
☑	Last Name First Name	SX	Preliminary request	02.07.2012	Prepared to send	

The different options:

- **Prepared to send**: the message has not yet been sent, will be sent with next processing session
- **Sent:** the message has been sent
- **Received:** message received
- **Prep. to send, canc.**: the message was cancelled before being sent
- **Sent, cancelled**: the message has been sent, but cancelled afterwards
- **Received, cancelled**: the message has been received, but cancelled later by the sender
- **Received,not proc**: received search request but the system has not yet done a search. This is a very temporary state.
- **Received,denied**: a formal message denial because breaking EMDIS rules

IV.V.2.New and old messages – requests without answers

The button EMDIS new will display all new messages:

Requests without answer – pending requests (typing – blood sample – IDM requests).

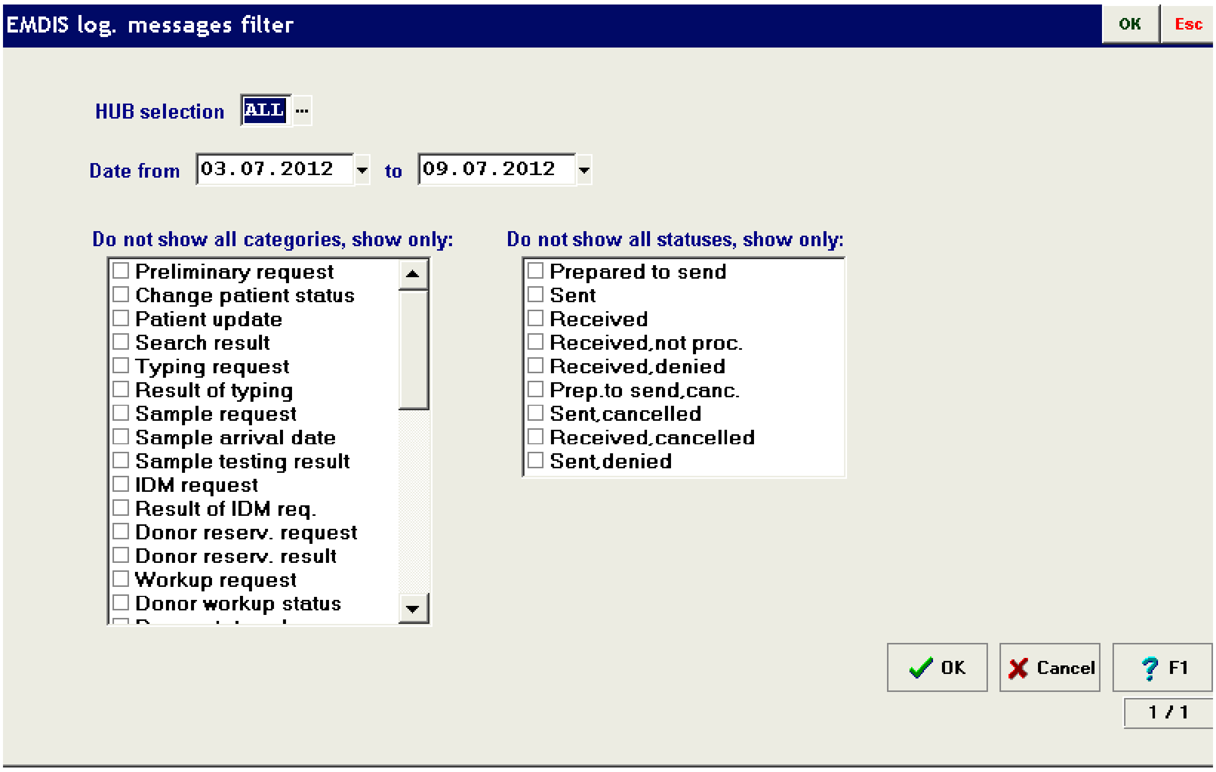
New – all recently received or sent messages

Old – messages marked by the user as processed will be listed under the EMDIS – old section

It is possible to use the filter to add some conditions to the messages you want to display. You can limit e.g. the date range (date from a date to….) and make a selection of message type:

Old EMDIS messages

HUBs: ALL
Dates: from 03.07.2012 to 09.07.2012
Categories:
Statuses:



EMDIS log. messages filter

HUB selection ALL ...

Date from 03.07.2012 to 09.07.2012

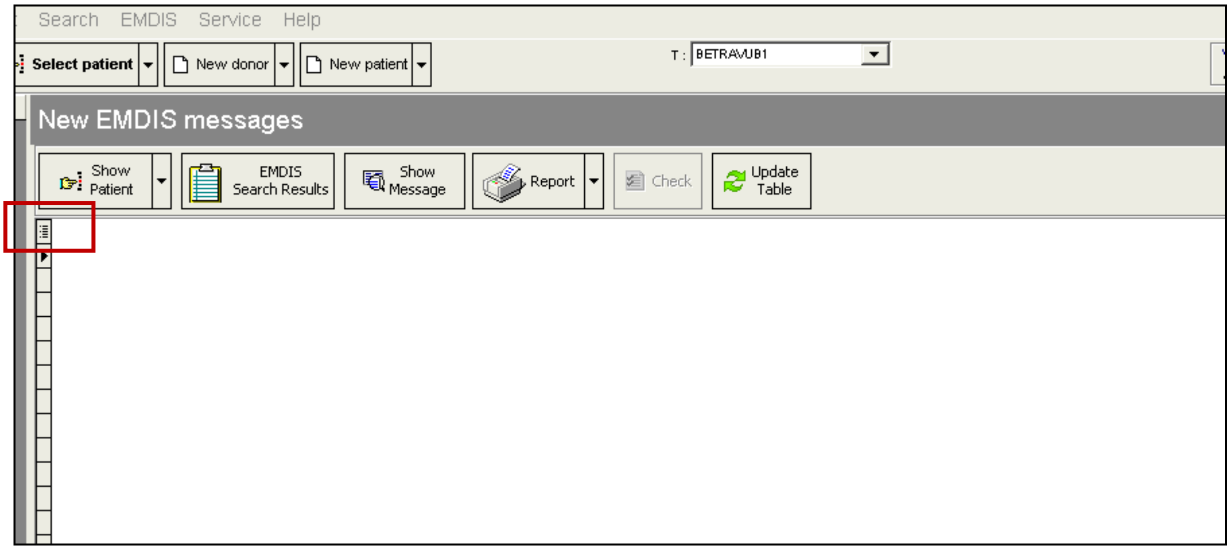
Do not show all categories, show only:

- ☐ Preliminary request
- ☐ Change patient status
- ☐ Patient update
- ☐ Search result
- ☐ Typing request
- ☐ Result of typing
- ☐ Sample request
- ☐ Sample arrival date
- ☐ Sample testing result
- ☐ IDM request
- ☐ Result of IDM req.
- ☐ Donor reserv. request
- ☐ Donor reserv. result
- ☐ Workup request
- ☐ Donor workup status

Do not show all statuses, show only:

- ☐ Prepared to send
- ☐ Sent
- ☐ Received
- ☐ Received,not proc.
- ☐ Received,denied
- ☐ Prep.to send,canc.
- ☐ Sent,cancelled
- ☐ Received,cancelled
- ☐ Sent,denied

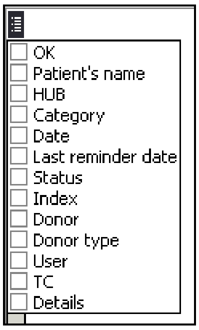
NOTE: the first time you login you have to set your column settings (Requests without answer, Emdis – new, Emdis – old), the following screen will be displayed:



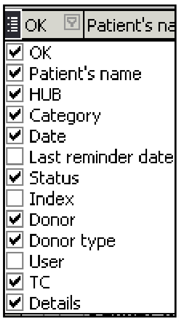
T : BETRAVUB1

New EMDIS messages

Click on and the list of available columns will be opened :



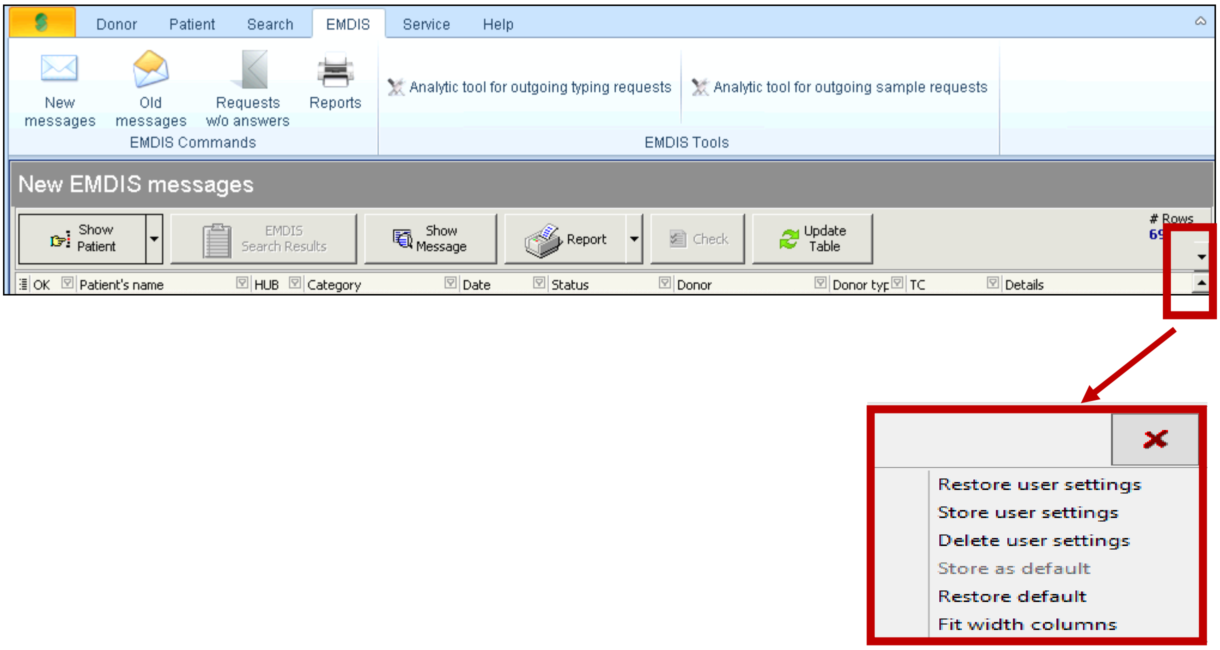
- ☐ OK
- ☐ Patient's name
- ☐ HUB
- ☐ Category
- ☐ Date
- ☐ Last reminder date
- ☐ Status
- ☐ Index
- ☐ Donor
- ☐ Donor type
- ☐ User
- ☐ TC
- ☐ Details



- ☑ OK
- ☑ Patient's name
- ☑ HUB
- ☑ Category
- ☑ Date
- ☐ Last reminder date
- ☑ Status
- ☐ Index
- ☑ Donor
- ☑ Donor type
- ☐ User
- ☑ TC
- ☑ Details

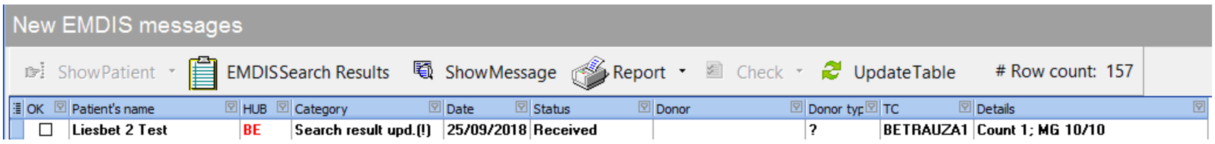
The following selection is recommended: , the **"OK"** option is mandatory to be able to set new **EMDIS** messages to the old messages section.

New in version 184:



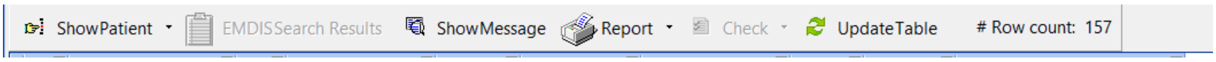
You can the settings you selected by clicking on "Store user settings".

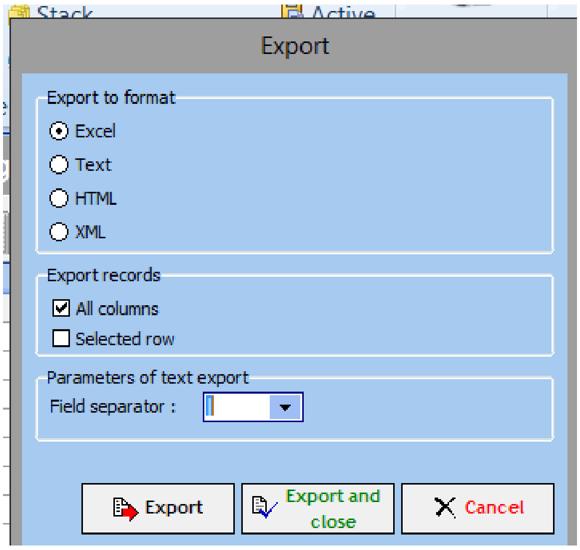
New in version 185:


New EMDIS messages

OK	Patient's name	HUB	Category	Date	Status	Donor	Donor typ	TC	Details
☐	Liesbet 2 Test	BE	Search result upd.(!)	25/09/2018	Received		?	BETRAUZA1	Count 1; MG 10/10

Select Report:




Export

Export to format

● Excel

○ Text

○ HTML

○ XML

Export records

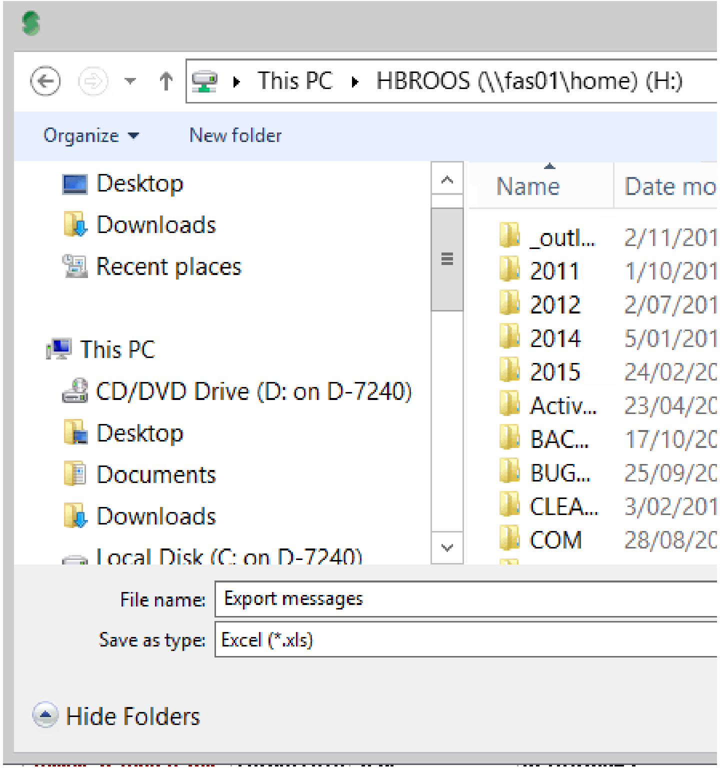
☑ All columns

☐ Selected row

Parameters of text export

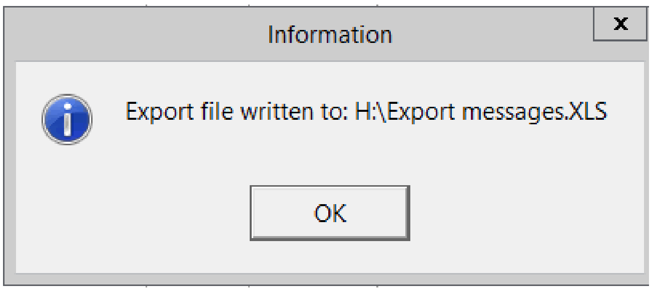
Field separator : |

And then press Exp



File name: Export messages

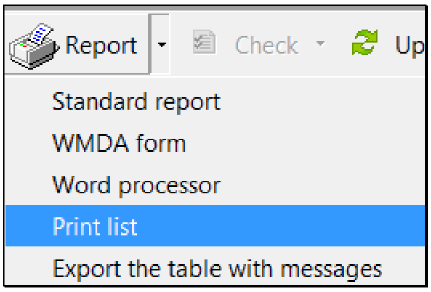
Save as type: Excel (*.xls)



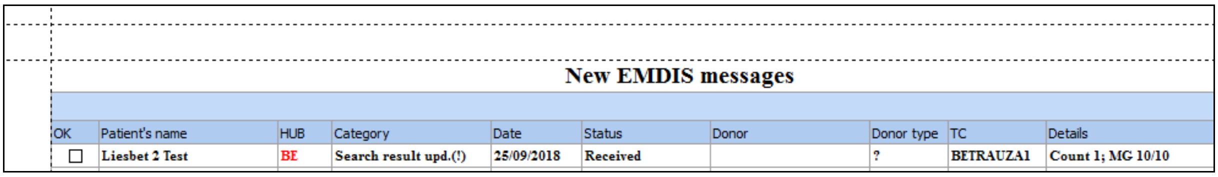
Export file written to: H:\Export messages.XLS

The **EMDIS** messages will be exported to an Excel file:

Patient's name	HUB	Category	Date	Status
Liesbet 2 Test	**BE**	**Search result upd.(!)**	**25/09/2018**	**Received**
Liesbet 1 Test	**BE**	**Result reminder**	**24/09/2018**	**Sent**
Liesbet 2 Test	**BE**	**Text message**	**24/09/2018**	**Message**
Liesbet 2 Test	**BE**	**Result of IDM req.**	**24/09/2018**	**Received**
Liesbet 2 Test	**BE**	**IDM request**	**24/09/2018**	**Sent**
Liesbet 2 Test	**BE**	**Sample arrival date**	**24/09/2018**	**Received**
Liesbet 2 Test	**BE**	**Typing request**	**24/09/2018**	**Sent**
Liesbet 2 Test	**BE**	**Sample request**	**24/09/2018**	**Sent**
Liesbet 1 Test	**BE**	**Result of typing**	**24/09/2018**	**Received**
Liesbet 1 Test	**BE**	**Sample request**	**24/09/2018**	**Sent**
Liesbet 1 Test	**BE**	**CBU report request**	**24/09/2018**	**Sent**
Liesbet 1 Test	**BE**	**Typing request**	**24/09/2018**	**Sent**
Liesbet 3 Test	**BE**	**Search result**	**24/09/2018**	**Received**
Liesbet 2 Test	**BE**	**Search result**	**21/09/2018**	**Received**
Liesbet 1 Test	**BE**	**Search result**	**21/09/2018**	**Received**



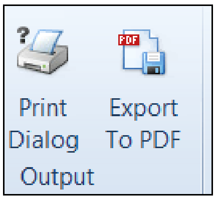
The messages will be displayed



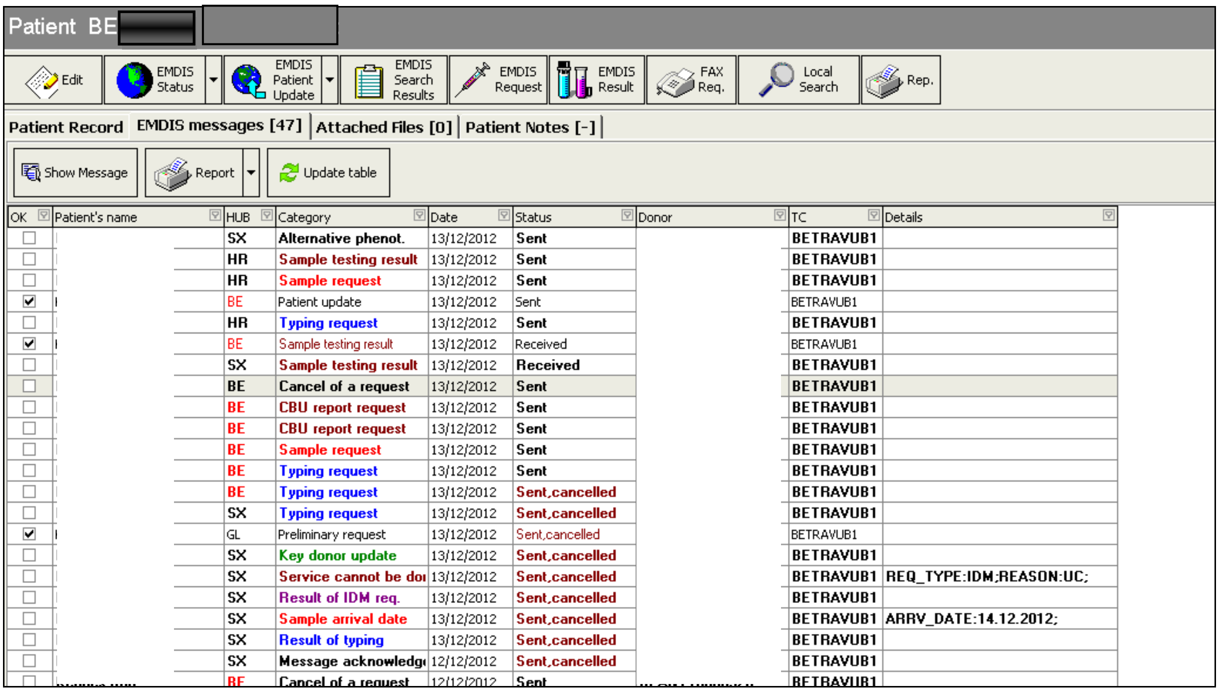
New EMDIS messages

OK	Patient's name	HUB	Category	Date	Status	Donor	Donor type	TC	Details
☐	Liesbet 2 Test	BE	Search result upd.(!)	25/09/2018	Received		?	BETRAUZA1	Count 1; MG 10/10

And can be printed:



IV.V.3. Window panel EMDIS messages

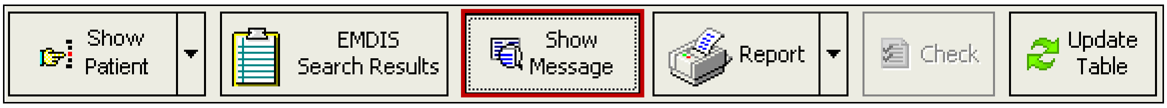


OK	Patient's name	HUB	Category	Date	Status	Donor	TC	Details
☐	[redacted]	SX	Alternative phenot.	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	HR	Sample testing result	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	HR	Sample request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☑	[redacted]	BE	Patient update	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	HR	Typing request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☑	[redacted]	BE	Sample testing result	13/12/2012	Received	[redacted]	BETRAVUB1	
☐	[redacted]	SX	Sample testing result	13/12/2012	Received	[redacted]	BETRAVUB1	
☐	[redacted]	BE	Cancel of a request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	BE	CBU report request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	BE	CBU report request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	BE	Sample request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	BE	Typing request	13/12/2012	Sent	[redacted]	BETRAVUB1	
☐	[redacted]	BE	Typing request	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☐	[redacted]	SX	Typing request	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☑	[redacted]	GL	Preliminary request	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☐	[redacted]	SX	Key donor update	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☐	[redacted]	SX	Service cannot be do	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	REQ_TYPE:IDM;REASON:UC;
☐	[redacted]	SX	Result of IDM req.	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☐	[redacted]	SX	Sample arrival date	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	ARRV_DATE:14.12.2012;
☐	[redacted]	SX	Result of typing	13/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☐	[redacted]	SX	Message acknowledg	12/12/2012	Sent,cancelled	[redacted]	BETRAVUB1	
☐	[redacted]	BE	Cancel of a request	12/12/2012	Sent	[redacted]	BETRAVUB1	

- If you tick the ok field, the message will be transferred to the old messages section, update the table.
- Other escape of the window will not save the changes.
- Column headings of the table behave intelligent: If you click on them by the mouse, you can sort them by ascending or descending order.
- You can filter the displayed values in this column by the click on the arrow in the column heading.
- You can edit the column width.
- You can change the displayed order of the columns by the "drag & drop" of the column heading between two other column headings.

IV.V.4. Message contenance

This chapter describes the window browsing of the messages:



Clicking on the message or selecting “show message”' will open the message:

- **Print message**: the new report of the log. message will be displayed;
- **New result**: if the log. message Request is displayed, it makes possible to create a new answer to this request. It is a context number and it means that e.g. if the log. message Typing request is displayed, the button serves for the creation of a new Typing result;
- **Donor status change**: it serves for the creation of a negative answer for the displayed request;
- **Deny request**: it serves for the rejection of the displayed request;
- **Cancel request**: it serves for the cancellation of a request;
- **New Text msg.**: it serves for the creation of a new text message which is connected with the same couple patient-donor as the displayed message is;
- **New warning**: it serves for the creation of a new warning which is connected with the same couple patient-donor as the displayed message is.

MESSAGE

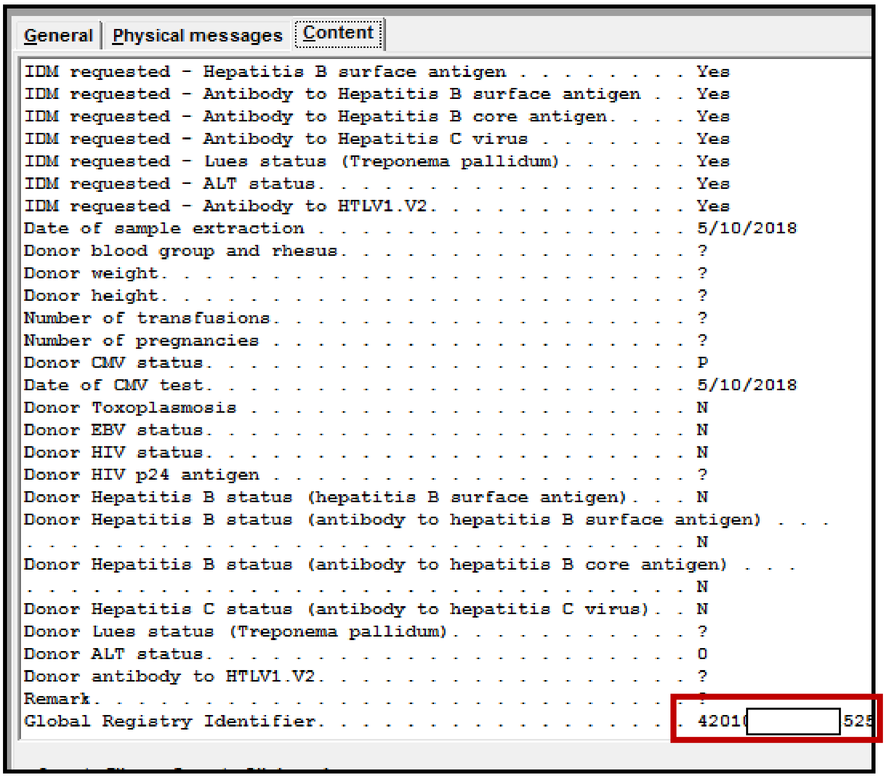
The message consists of 3 tabs: General – Physical messages – Content.

When you open the message the **Content tab** will be immediately opened.

The basic information of your message (request – result) is available in the screen: the buttons below will allow you either print the message, create a WMDA report or to send an answer (result, warning, reminder, cancellation, …) to the other HUB (or Belgium).

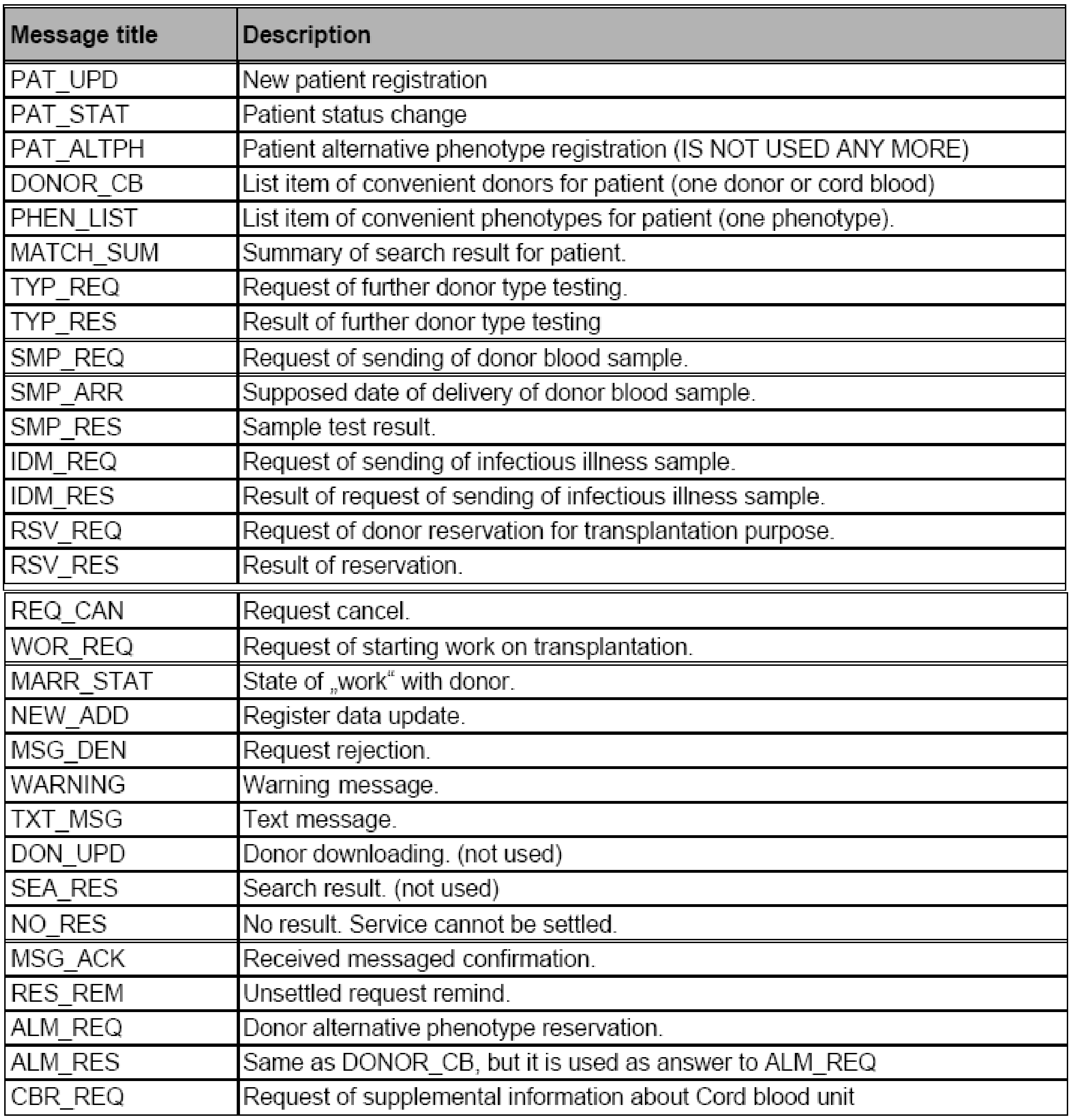
The EMDIS system data message is available in the **Physical message tab**, technical information about the message (inserted in the database, status, message number, ….) is available in the **General** tab.

In the content the **GRID code** (Global Registry Identifier) has been added : Donor GRID codes will be uploaded to BMDW from 01.01.2019, but not yet used in the EMDIS communication – search work flow.



```
IDM requested - Hepatitis B surface antigen . . . . . . . . Yes
IDM requested - Antibody to Hepatitis B surface antigen . . Yes
IDM requested - Antibody to Hepatitis B core antigen. . . . Yes
IDM requested - Antibody to Hepatitis C virus . . . . . . . Yes
IDM requested - Lues status (Treponema pallidum). . . . . . Yes
IDM requested - ALT status. . . . . . . . . . . . . . . . . Yes
IDM requested - Antibody to HTLV1.V2. . . . . . . . . . . . Yes
Date of sample extraction . . . . . . . . . . . . . . . . . 5/10/2018
Donor blood group and rhesus. . . . . . . . . . . . . . . . ?
Donor weight. . . . . . . . . . . . . . . . . . . . . . . . ?
Donor height. . . . . . . . . . . . . . . . . . . . . . . . ?
Number of transfusions. . . . . . . . . . . . . . . . . . . ?
Number of pregnancies . . . . . . . . . . . . . . . . . . . ?
Donor CMV status. . . . . . . . . . . . . . . . . . . . . . P
Date of CMV test. . . . . . . . . . . . . . . . . . . . . . 5/10/2018
Donor Toxoplasmosis . . . . . . . . . . . . . . . . . . . . N
Donor EBV status. . . . . . . . . . . . . . . . . . . . . . N
Donor HIV status. . . . . . . . . . . . . . . . . . . . . . N
Donor HIV p24 antigen . . . . . . . . . . . . . . . . . . . ?
Donor Hepatitis B status (hepatitis B surface antigen). . . N
Donor Hepatitis B status (antibody to hepatitis B surface antigen) . . .
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N
Donor Hepatitis B status (antibody to hepatitis B core antigen) . . .
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . N
Donor Hepatitis C status (antibody to hepatitis C virus). . N
Donor Lues status (Treponema pallidum). . . . . . . . . . . ?
Donor ALT status. . . . . . . . . . . . . . . . . . . . . . O
Donor antibody to HTLV1.V2. . . . . . . . . . . . . . . . . ?
Remark. . . . . . . . . . . . . . . . . . . . . . . . . . . ?
Global Registry Identifier. . . . . . . . . . . . . . . . . 4201[redacted]52
```

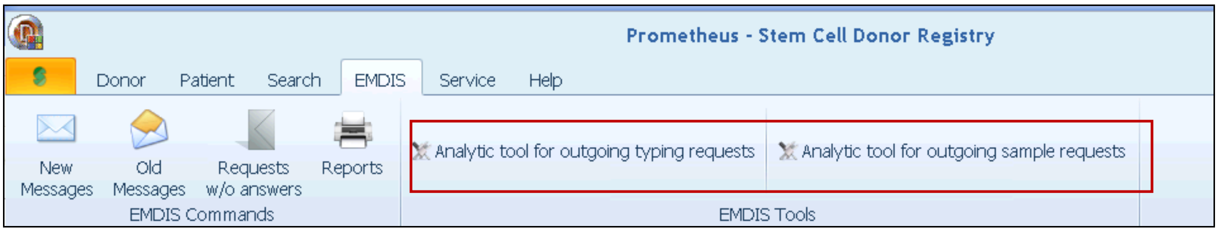
IV.V.5. Message types



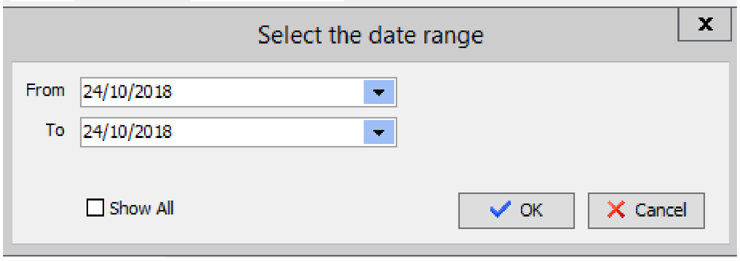
Message title	Description
PAT_UPD	New patient registration
PAT_STAT	Patient status change
PAT_ALTPH	Patient alternative phenotype registration (IS NOT USED ANY MORE)
DONOR_CB	List item of convenient donors for patient (one donor or cord blood)
PHEN_LIST	List item of convenient phenotypes for patient (one phenotype).
MATCH_SUM	Summary of search result for patient.
TYP_REQ	Request of further donor type testing.
TYP_RES	Result of further donor type testing
SMP_REQ	Request of sending of donor blood sample.
SMP_ARR	Supposed date of delivery of donor blood sample.
SMP_RES	Sample test result.
IDM_REQ	Request of sending of infectious illness sample.
IDM_RES	Result of request of sending of infectious illness sample.
RSV_REQ	Request of donor reservation for transplantation purpose.
RSV_RES	Result of reservation.
REQ_CAN	Request cancel.
WOR_REQ	Request of starting work on transplantation.
MARR_STAT	State of „work" with donor.
NEW_ADD	Register data update.
MSG_DEN	Request rejection.
WARNING	Warning message.
TXT_MSG	Text message.
DON_UPD	Donor downloading. (not used)
SEA_RES	Search result. (not used)
NO_RES	No result. Service cannot be settled.
MSG_ACK	Received messaged confirmation.
RES_REM	Unsettled request remind.
ALM_REQ	Donor alternative phenotype reservation.
ALM_RES	Same as DONOR_CB, but it is used as answer to ALM_REQ
CBR_REQ	Request of supplemental information about Cord blood unit

IV.V.6. Analytical tool

Analytical tool for message analysis allows working with the whole message database and their substantial data. The analytic tool for outgoing typing requests and outgoing sample requests are available for the Transplant Center.



First select the period for which you wish to export the requests:



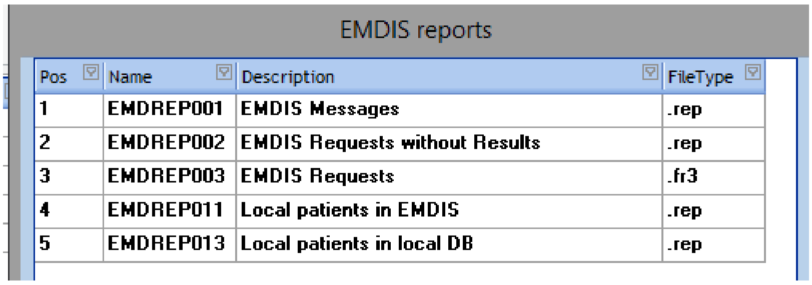
From 24/10/2018

To 24/10/2018

☐ Show All

IV.VI. EMDIS reports

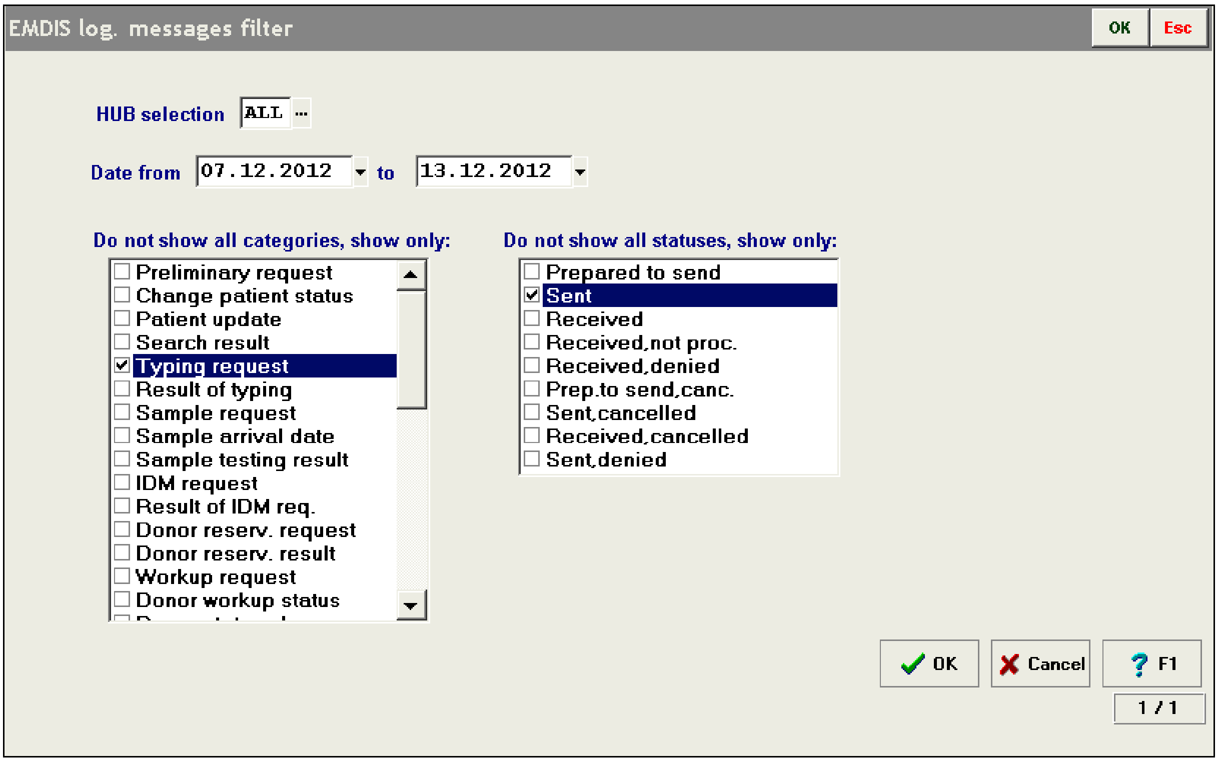
The EMDIS reports are called up by the menu command EMDIS | Reports.



Pos	Name	Description	FileType
1	EMDREP001	EMDIS Messages	.rep
2	EMDREP002	EMDIS Requests without Results	.rep
3	EMDREP003	EMDIS Requests	.fr3
4	EMDREP011	Local patients in EMDIS	.rep
5	EMDREP013	Local patients in local DB	.rep

IV.VI.1.EMDREP001 EMDIS messages

Selecting the 1. EMDREP001 will open the following filter: make a selection of the messages you wish to print:



EMDIS log. messages filter

HUB selection ALL

Date from 07.12.2012 to 13.12.2012

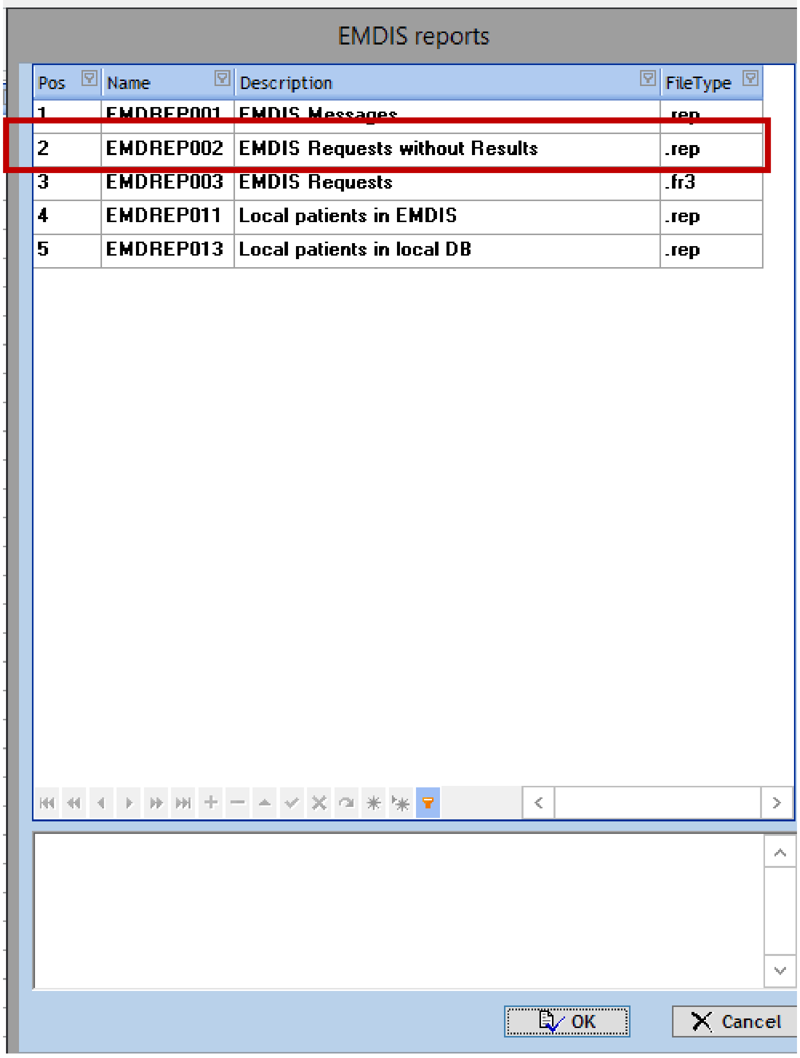
Do not show all categories, show only:

- ☐ Preliminary request
- ☐ Change patient status
- ☐ Patient update
- ☐ Search result
- ☑ Typing request
- ☐ Result of typing
- ☐ Sample request
- ☐ Sample arrival date
- ☐ Sample testing result
- ☐ IDM request
- ☐ Result of IDM req.
- ☐ Donor reserv. request
- ☐ Donor reserv. result
- ☐ Workup request
- ☐ Donor workup status

Do not show all statuses, show only:

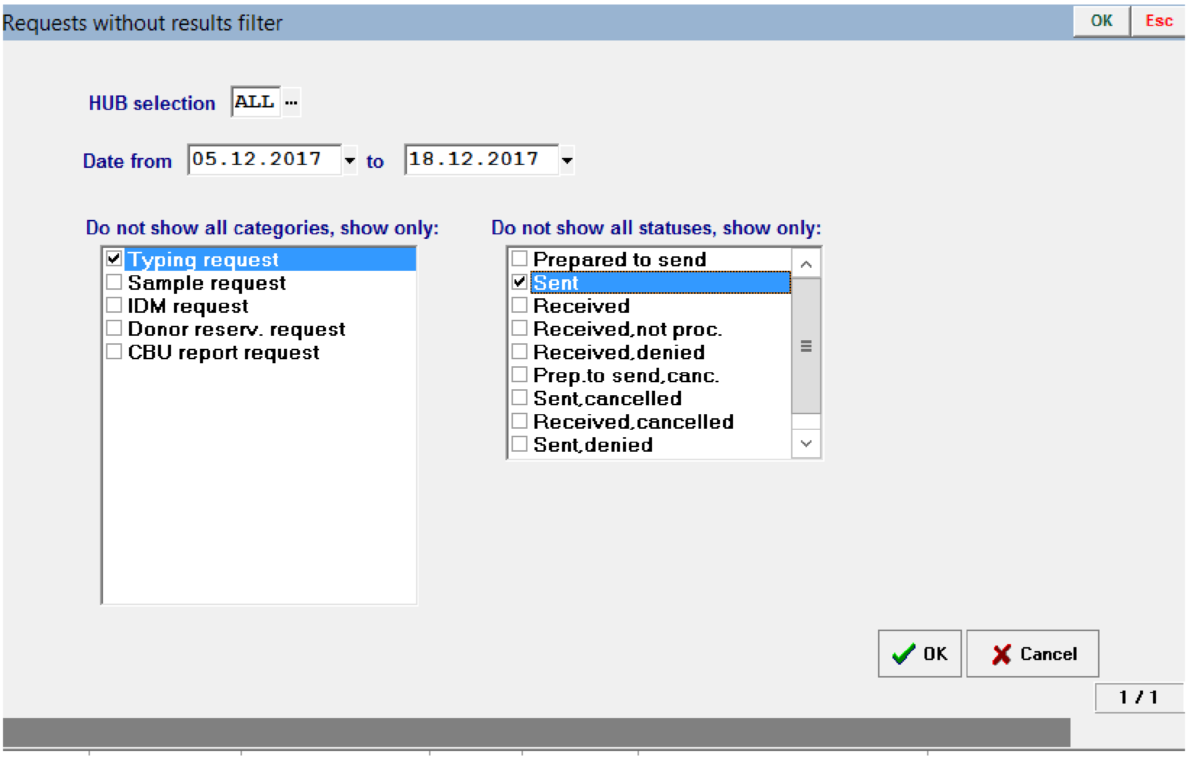
- ☐ Prepared to send
- ☑ Sent
- ☐ Received
- ☐ Received,not proc.
- ☐ Received,denied
- ☐ Prep.to send,canc.
- ☐ Sent,cancelled
- ☐ Received,cancelled
- ☐ Sent,denied

IV.VI.2.EMDREP002 EMDIS Requests without results



Pos	Name	Description	FileType
1	EMDREP001	EMDIS Messages	.rep
2	EMDREP002	EMDIS Requests without Results	.rep
3	EMDREP003	EMDIS Requests	.fr3
4	EMDREP011	Local patients in EMDIS	.rep
5	EMDREP013	Local patients in local DB	.rep

EMDIS requests without results: possible options: check status of Typing request, Sample request, IDM request, Donor reservation request and CBU requests.   (status of Belgian requests is received).



Requests without results filter

HUB selection ALL

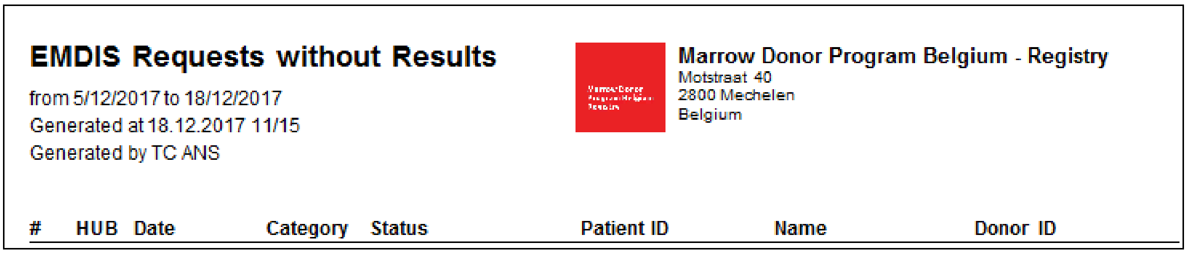
Date from 05.12.2017 to 18.12.2017

Do not show all categories, show only:

- ☑ Typing request
- ☐ Sample request
- ☐ IDM request
- ☐ Donor reserv. request
- ☐ CBU report request

Do not show all statuses, show only:

- ☐ Prepared to send
- ☑ Sent
- ☐ Received
- ☐ Received,not proc.
- ☐ Received,denied
- ☐ Prep.to send,canc.
- ☐ Sent,cancelled
- ☐ Received,cancelled
- ☐ Sent,denied



EMDIS Requests without Results

from 5/12/2017 to 18/12/2017
Generated at 18.12.2017 11/15
Generated by TC ANS

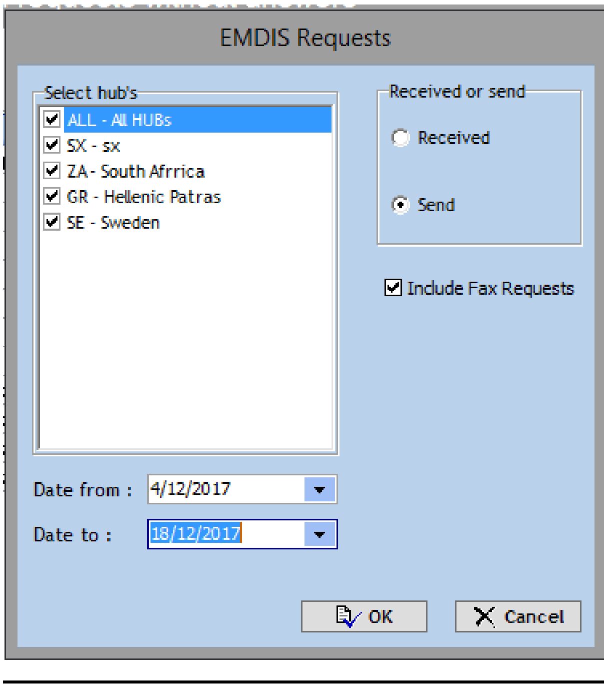
Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

#	HUB	Date	Category	Status	Patient ID	Name	Donor ID

IV.VI.3.EMDREP003 EMDIS Requests

Report how many requests were sent:

The table gives an overview of the sent, cancelled, denied typing requests, sample requests, IDM requests and Reservation requests for international EMDIS donors.



EMDIS Requests

Select hub's

☑ ALL - All HUBs
☑ SX - sx
☑ ZA - South Afrrica
☑ GR - Hellenic Patras
☑ SE - Sweden

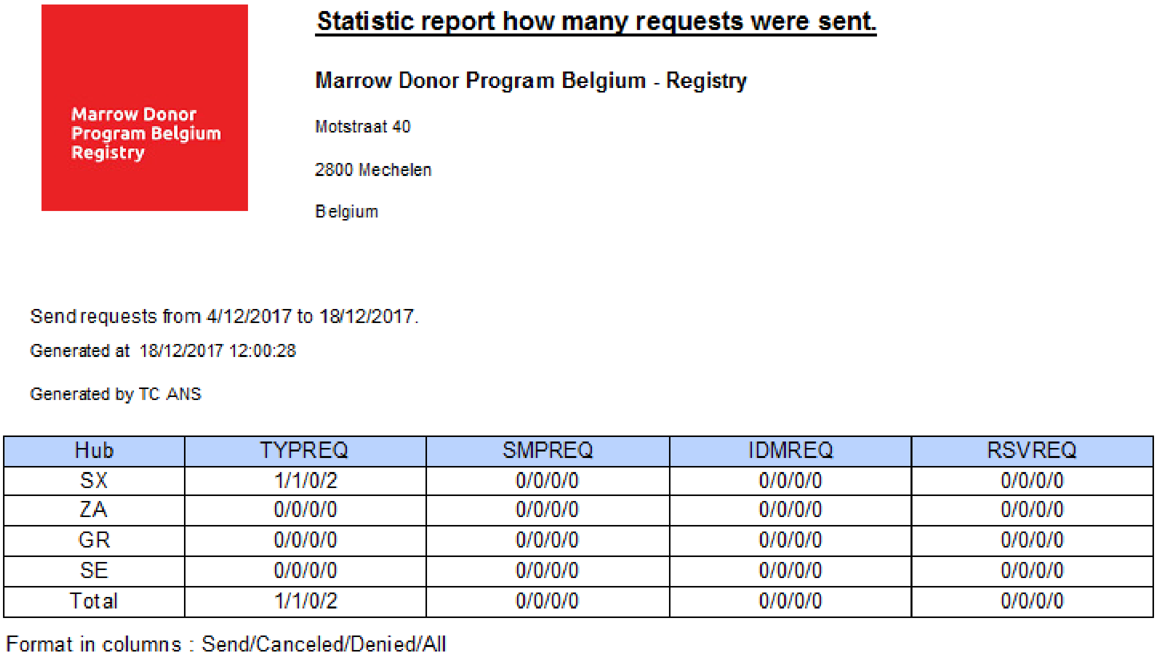
Received or send

○ Received
● Send

☑ Include Fax Requests

Date from : 4/12/2017

Date to : 18/12/2017



Statistic report how many requests were sent.

Marrow Donor Program Belgium - Registry

Motstraat 40
2800 Mechelen
Belgium

Send requests from 4/12/2017 to 18/12/2017.

Generated at 18/12/2017 12:00:28

Generated by TC ANS

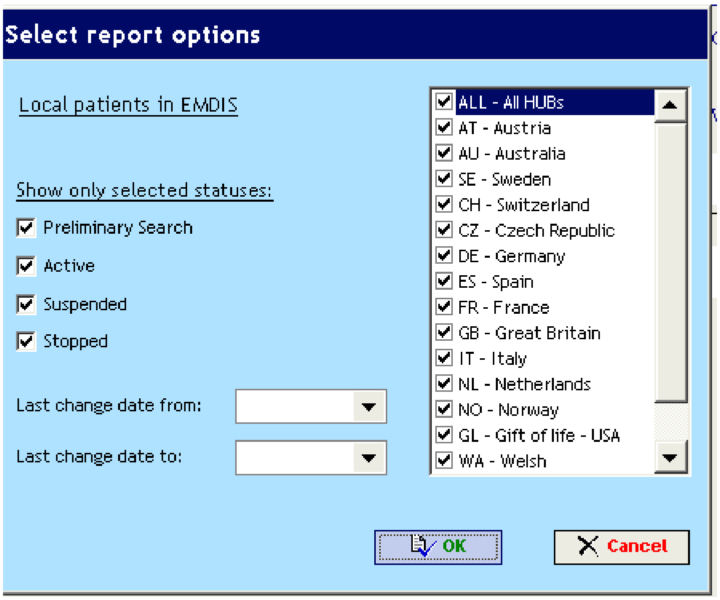
Hub	TYPREQ	SMPREQ	IDMREQ	RSVREQ
SX	1/1/0/2	0/0/0/0	0/0/0/0	0/0/0/0
ZA	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0
GR	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0
SE	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0
Total	1/1/0/2	0/0/0/0	0/0/0/0	0/0/0/0

Format in columns : Send/Canceled/Denied/All

IV.VI.4.EMDREP011 Local patients in EMDIS

This option enables to verify changed patient statuses in EMDIS : selecting the 1. EMDREP011 will open the following select report options screen:

Please select the status, the HUBs and date of last change from – to:



Show only selected statuses:

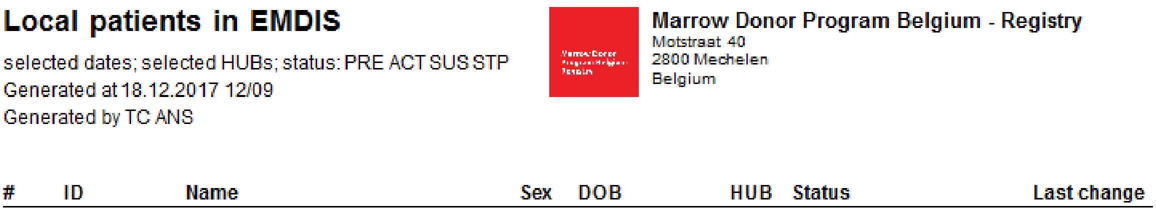
- ☑ Preliminary Search
- ☑ Active
- ☑ Suspended
- ☑ Stopped

Last change date from:

Last change date to:

- ☑ ALL - All HUBs
- ☑ AT - Austria
- ☑ AU - Australia
- ☑ SE - Sweden
- ☑ CH - Switzerland
- ☑ CZ - Czech Republic
- ☑ DE - Germany
- ☑ ES - Spain
- ☑ FR - France
- ☑ GB - Great Britain
- ☑ IT - Italy
- ☑ NL - Netherlands
- ☑ NO - Norway
- ☑ GL - Gift of life - USA
- ☑ WA - Welsh

The system will generate a patient list and the status of the search of the selected HUBs within the indicated time interval:



Local patients in EMDIS

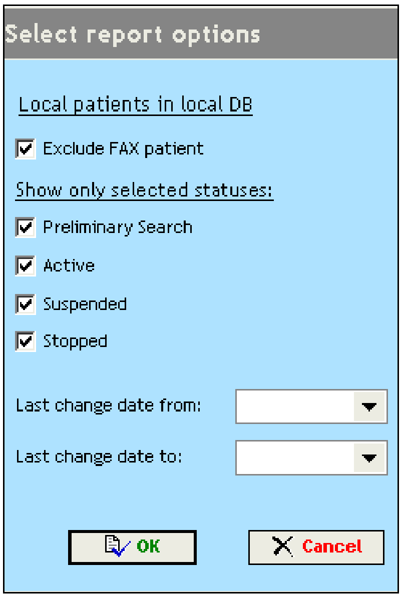
selected dates; selected HUBs; status: PRE ACT SUS STP
Generated at 18.12.2017 12/09
Generated by TC ANS

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

#	ID	Name	Sex	DOB	HUB	Status	Last change

IV.VI.5. EMDREP013 Local patients in Local DB

This option enables to verify changed patient statuses in the local database: selecting the 3. EMDREP013 will open the following select report options screen:



Select report options

Local patients in local DB

☑ Exclude FAX patient

Show only selected statuses:

☑ Preliminary Search

☑ Active

☑ Suspended

☑ Stopped

Last change date from:

Last change date to:

The system will generate a report with the status of your patients in the Belgian HUB (note: : exclude fax patients is a Registry option).

Local patients in local DB

selected dates; status: PRE ACT SUS STP
Generated at 18.12.2017 12/56
Generated by TC ANS

Marrow Donor Program Belgium - Registry
Motstraat 40
2800 Mechelen
Belgium

V. NON EMDIS REQUESTS

When you want to perform a preliminary search for a Non EMDIS country send the "MDPB FRM002 Non EMDIS search request" to the Registry.

The BMDW (www.BMDW.org) non EMDIS country codes are listed, thick the appropriate countries and fill out the search date. Send the form to the Registry. The Registry coordinator will send the preliminary search request by mail to the respective countries.

When receiving non EMDIS search results additional requests can be sent to the Registry using the MDPB SOP forms.

V.I. Registration of fax donor

Not applicable.

V.II. Activating requests for fax donor

Not applicable.