STAMP lathund version 4.1 - 18oct2012

Scandiatransplant Acceptable Mismatch Program (STAMP)
and
Local Acceptable Mismatch Program (LAMP)

STAMP

1. General STAMP guidelines

Purpose
To increase the likelihood of offering a suitable kidney graft to highly immunized (HI) recipients, thus reducing their time on the waiting list.

Success criteria
- Reduced waiting time for highly immunized patients.
- Acceptable frequency of when a shipped kidney is not transplanted to the indicated STAMP patient (< 10 %?).
- Survival of grafts comparable to graft survival in PRA-negative patients.

Acceptance criteria
1. On waiting list > 1 year (Not necessary for paediatric patients)
2. HI status PRA ≥ 80% reactivity based on CDC and/or solid phase assay
   - 2.1 Must be identified in two consecutive samples over a periode of more than 3 months (calculated from last tested sample)
   - 2.2 With proven reactivity against HLA class I or II antigens OR both HLA class I and II antigens.
3. The last tested sample drawn less than 3 months before acceptance

Recipient HLA typing
Recipient HLA-antigens must be assigned at split level, by serology or molecular typing.

Recipient acceptable HLA-antigens
Definition of acceptable HLA-mismatches is performed by laboratory at recipient center.
Acceptable mismatches may be HLA-A, -B, -DR, -DQ antigens.
Acceptable mismatches may include repeated mismatches from previous transplantations.
Definition of acceptable mismatches may be based on CDC and/or solid phase assays.

Wait listing and matching:
Recipients own antigens and the defined acceptable mismatches are treated like.
Recipients in the program must be regularly screened at least every 3 months; PRA reactivity must be re-evaluated at least once a year.
Once accepted, patients will stay included even if PRA drops below 80%.

For each donor search, a special search among AM-recipients based on split level HLA typing is performed. Exchange obligation is marked when the donor only has HLA-A,-B,-DR, -DQ antigen specified in the recipient as own or acceptable.
Exchange priority will follow Scandiatransplant rules and placed as priority number 3: *Patient with STAMP-status when all donor HLA-A, -B, -DR, -DQ antigens are either shared with the recipient or are among those defined as acceptable.* Return obligation as for other exchange rules.
Exchanged organ may be used for other local recipient if the indicated STAMP patient for any reason not can be transplanted.
Only the centers joining STAMP have an obligation to exchange kidneys to a STAMP recipient.

Re-evaluation by the steering committee
- A STAMP patient not transplanted with a shipped kidney because of a positive cross-match should be temporarily withdrawn from STAMP, re-evaluated and eventually re-admitted.

- When removing defined antibodies and adding them as acceptable mismatches the patient must be re-evaluated by the committee. The responsible laboratory is obliged to inform the committee in such cases. Re-evaluation is not needed when adding new antibodies and removing them as acceptable mismatches.

Event reporting

Donor centers must notify Scandiatransplant when exchanging a kidney to a STAMP recipient. Recipient centers must notify Scandiatransplant if the kidney is transplanted to somebody else than the indicated STAMP patient.

Recipient center must give detailed follow-up information on performed transplantations.

Steering committee:

A steering committee (SC) for the project must be appointed by the board of Scandiatransplant. SC shall be composed by one tissue-typer from each of the countries Denmark, Finland, Norway and Sweden together with two representatives from the Nordic Kidney Group.

Proposals of STAMP candidates from individual centers must be evaluated and accepted by SC.

SC must keep updated on all effects of the program, including:
- Number of exchanged organs.
- Changes in waiting time for STAMP recipients and for other waiting patients.
- Changed reactivity in individual waiting recipients
- Positive crossmatches at donor center.
- Fate of performed transplants.

SC may decide to withdraw STAMP-status if antibody reactivity changes.

SC must give yearly status reports to Scandiatransplant.

2. Finding the menu for entering STAMP-data

```
                      MAIN MENU


          ▌ 1. Organ Transplantation
            2. Nordic Living Kidney Donor Follow-up
            3. Nordic Liver Transplantation Registry
            4. Nordic Thorax Transplantation Registry
            5. Heart/Lung rotation list
            6. Waiting list reports
            7. Quality Control
            8. Liver rotation list
            9. Special reports
           10. Exit

              Enter your choice: 1_____




Application: SCTP_UK     Menu: SCTP_UK      v                        <Rep>
```

```
                    ORGAN TRANSPLANTATION


            ▌ 1. Recipient And Waiting List System
              2. Organ Donor System
              3. Transplantation And Follow Up
              4. Search
              5. Reports
              6. Previous Menu




                 Enter your choice: 1_____
```

```
                      RECIPIENT SYSTEM



              1. Registration Of New Patient
              2. Updating Of Waiting List Data
              3. Antibody Screen Test
            ▌ 4. STAMP - Acceptable Mismatches Programm
              5. Withdrawal From Waiting List
              6. Previous Menu




                 Enter your choice: 4_____
```

```
          STAMP - Acceptable Mismatches Programme



            ▌ 1. STAMP/LAMP pre transplantation
              2. Patients being prepared for STAMP/LAMP
              3. Patients ready to go on STAMP
              4. Patients on STAMP
              5. Patients temporarily off STAMP
              6. Patients on LAMP (local programme)
              7. Patients permanently withdrawn from STAMP
              8. STAMP reports
              9. Previous Menu

                 Enter your choice: 1_____
```

3. STAMP pre transplantation

3.1 Query

Any patient with a treatment record, meaning that they are actively on a waiting list with an urgency,
T = Transplantable
NT = Temporarily not transplantable
WU = Temporarily withdrawn until specified date
can be looked up.

If you are unable to query the patients, it means;
That the individual has not been Notified to the waiting list yet – OR-
the person has newer been entered into the system – OR –
you are using a wrong Scandia-/Person-number.

```
           STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

Scandia Number      _____     Pers Num 111111 1111  Sex █ _____   ABO ___

Surname          _____  First name   _____
Tx Center        __ _____   Country    __ _____
Curr wait list   __ _____            Wl status  _  Wait for tx number  __
Date of wl entry _____            Dial/Tr cn __ _____
Narr eq ser HLA  _____
Repea mismatches _____
Most recent PRA 1 _____  I% ___ _____ II% ___ _____
Most recent PRA 2 _____  I% ___ _____ II% ___ _____
Identif antib     _____

Date of accept      _____    Sign up _ ___ Status _ _____
Methods of determ _ _____
Acc. mismatches   _ _____
Comments            _____
STAMP check       _ Event log _   Calc. frequency   _ Perm. withdrawal    _
Date/User of First Reg/Last Change _____ _____ _____ _____

Enter a query;  press F12 to execute, F4 to cancel.
Count: *0                        ENTER QUERY                  <Replace>
```

3.2 Entering STAMP data in pre transplantation

3.2.1 Date of acceptance
First enter "Date of accept" and press <F10>

```
         STAMP - ACCEPTABLE MISMATCHES PROGRAMME                9201

Scandia Number     126645       Pers Num 210563 1111   Sex M Male     AB0 AB

Surname          test person          First name     test person
Tx Center        AR Aarhus            Country     DK Denmark
Curr wait list   KI Kidney            Wl status    N  Wait for tx number   1
Date of wl entry 01-JAN-2006          Dial/Tr cn AC Aarhus
Narr eq ser HLA  A 1,2;B 5,7;DR 1,2;
Repea mismatches
Most recent PRA 1 01-JAN-2008 I% _55 AUTO         II% _89 BLOCK
Most recent PRA 2 26-JAN-2007 I% 100 CDC          II% ___
Identif antib    A3,+X;Cw4,5;DQ1,+X;DR10

Date of accept   26-JAN-2009        Sign up N No          Status I Inactive
Methods of determ _
Acc. mismatches   _
Comments
Event log        _
Date/User of First Reg/Last Change 26-JAN-2009 SCTP

FRM-40400: Transaction complete -- 1 records posted and committed.
Count: *0                                                        <Replace>
```

3.3.2 Methods of determination
Go to "Methods of determ" and get a POP-UP window using <F7>
Pres <F5> to select one to many values from the list.

```
         STAMP - ACCEPTABLE MISMATCHES PROGRAMME                9201

Scandia Number     _____    Pers Num _____ __   Sex F Female   AB0 0

                                                                      2

                       Find: _____

   AUTO    Autoantibody examination
   OTHER   Other routines                                   tot
   FLOW    FLOW-PRA
   CDC     Complement Dependent lymphocyte Cytotoxicity test
   LUMI    Luminex

                                                                  ,11,12
                                                                  s iden
Event log        _
Date/User of First Reg/Last Change 16-APR-2009 _____   16-APR-2009

Press F10 to pick selection, F4 to cancel.
Count: *3                                               <List><Replace>
```

Save your input by pressing <F10>
Go back by pressing <F4>

3.3.3. Acceptable mismatches
Go to "Acc mismatches" and get a POP-UP window using <F7>
Pres <F5> to select one to many values from the list.

```
           STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

  Scandia Number    111_____      Pers Num          Sex F Female   ABO 0__

  ___Ac_____  Narrow equivalent serological HLA
  |        HLA-A            |  A 2;B 7,57;DR 7,13;DQ 9,6;_____
  A |                         |  _____
  74 |  Find: _____          |  Identified Antibodies
  ___|                         |  A3,11,23,24,25,26,29,30,31,32,33,34,36,43,66,68,
     | ██1                     |  80;B13,18,35,37,38,39,41,42,44,47,48,49,50,51,52,
  ___| ██203                   |  54,56,59,60,61,62,63,64,65,71,72,75,77,78,+X;Cw5;
     | ██210                   |  4,5,6,7;_____
  ___|    3                    |  _____
     |    9                    |  _____
  ___|   10                    |  _____
     |   11                    |  Repeated Mismatches
  ___| v 19                    |  A1;B8;DR3;_____
     |_____|  _____
  ___|_____ _____17___ ____|  _____
  _____  _____

  Press F10 to pick selection, F4 to cancel.
  Count: *1                                        <List><Replace>
```

Save your input by pressing <F10>

Please note that the patients own A-, B-, and DR- Tissue types can't be selected.
However the patients acceptable DQ- must also contain the patients own DQ


```
           STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

  Scandia Number    111___        Pers Num _____ _____   Sex F Female   ABO 0__

  ___Acc mismatches_____  Narrow equivalent serological HLA
  |                         |  A 2;B 7,57;DR 7,13;DQ 9,6;_____
  A    B    DR   DQ         |  _____
  █74   8    1    8         |  Identified Antibodies
  ___  27   103  9          |  A3,11,23,24,25,26,29,30,31,32,33,34,36,43,66,68,
  ___  46   4    ___        |  80;B13,18,35,37,38,39,41,42,44,47,48,49,50,51,52,
  ___  55   8    ___        |  54,56,59,60,61,62,63,64,65,71,72,75,77,78,+X;Cw5;
  ___  58   9    ___        |  4,5,6,7;_____
  ___  67   10   ___        |  _____
  ___  73   11   ___        |  _____
  ___  81   12   ___        |  _____
  ___  ___  14   ___        |  Repeated Mismatches
  ___  ___  15   ___        |  A1;B8;DR3;_____
  ___  ___  16   ___        |  _____
  ___  ___  17   ___        |  _____
  _____  _____

  Count: *1                                        <List><Replace>
```

Go back by pressing <F4>

3.3.4 Comments
Go to "Comments" if you have any additional information
Save your input by pressing <F10>
- OR – if you have nothing more to add leave the patient for now by pressing <F4>

```
          STAMP - ACCEPTABLE MISMATCHES PROGRAMME                    9201

Scandia Number    126645       Pers Num 210563 1111   Sex M Male     ABO AB

Surname         test person           First name    test person
Tx Center       AR Aarhus             Country     DK Denmark
Curr wait list  KI Kidney             Wl status   N  Wait for tx number   1
Date of wl entry 01-JAN-2006          Dial/Tr cn AC Aarhus
Narr eq ser HLA  A 1,2;B 5,7;DR 1,2;DQ 4,9;
Repea mismatches
Most recent PRA 1 01-JAN-2008 I% _55 AUTO         II% _89 BLOCK
Most recent PRA 2 26-JAN-2007 I% 100 CDC          II% ___
Identif antib    A3,+X;Cw4,5;DQ1,+X;DR10

Date of accept   26-JAN-2009      Sign up Y Yes        Status A Active
Methods of determ _ CDC,FLOW
Acc. mismatches  _ A3,11;B703,21;DQ4,9;DR9,13
Comments           this is freetext for additional comment█
Event log        _
Date/User of First Reg/Last Change 26-JAN-2009 SCTP     26-JAN-2009 SCTP

Count: *1                                                    <Replace>
```

TIP!
You can always start entering data on the person – leave the person – and then return to enter more data. You don't have to have all data ready at once, when you start work-up on a possible STAMP-patient.

4. Patients being prepared for STAMP

In the Menu "Patients being prepared for STAMP" you can always see the patients you at the moment is finalizing data on.

```
          S C A N D I A T R A N S P L A N T                         9202
             Patients being prepared for STAMP

Cnt Scandia Personnumber W.s. Name                  Status date   Days

█AR 146             _   _ N                         04-NOV-2008     83
 AR 126645 210563 1111  N     test person, test person  26-JAN-2009   0
 CP 3737            _   _ N                         12-AUG-2008    167
 CP 11634           .   _ N                         13-AUG-2008    166
 CP 4743       .   . .   N                          10-SEP-2008    138
 ML 411             .   N                           06-NOV-2008     81
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___
 ___    ___    ___    _ _  _____      _____    ___

         Pres [F7] to query and edit patient on current line

* POP UP *
Count: *6                                                    <Replace>
```

TIP!
Here you can place the cursor on the patient you want to work on and get to the data by pressing <F7>

5. Quality check of STAMP data

When all data have been entered on the patient a quality check must be performed.
Go to 'STAMP check' and press <F7>.

```
              STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

Scandia Number                    Pers Num !_____  _____   Sex F Female   AB0 0_

Surname         _____   First name  _____
Tx Center       UP _____    Country   S_ Sweden_____
Curr wait list  KI Kidney_____            Wl status  N  Wait for tx number  _1
Date of wl entry 01-MAR-2002              Dial/Tr cn
Narr eq ser HLA  A 28,29;B 62,27;DR 1,4;DQ 5,3;_____
Repea mismatches _____
Most recent PRA 1 03-NOV-2010 I% _96 _____   II% __0 _____
Most recent PRA 2 09-AUG-2010 I% _92 _____   II% _51 _____
Identif antib     A1,11,2,23,24,25,3,31,32,36,69,9; B12,13,17,18,27,38,40,41

Date of accept    14-JAN-2010      Sign up N No_ Status I Inactive_____
Methods of determ _ _____
Acc. mismatches   _ _____
Comments          _____
STAMP check      ■ Event log  _   Calc. frequency  _ Perm. withdrawal   _
Date/User of First Reg/Last Change 14-JAN-2010 UPVT_____ _____ _____

* POP UP *
Count: *1                                                      <Replace>
```

```
              STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

Scandia Number      _____    Pers Num             Sex F Female   AB0 A_
              ┌──────────────── STAMP Quality Control ───────────────────┐
              │■Wait time > 1 yr or child     Age: 32 years Wait time: 151 months Yes│
              │ HI PRA >= 80% at present                  HI Highly immunized Yes│
              │ Most recent PRA < 3 months        13-DEC-2010 9 months 10 days No_│
              │ HI >= x2 > 3 months         25 samples over 134 months 6 days Yes│
              │ A,B,DR,DQ splits         A 24,3; B 7,70; DR 12,14; DQ 5,7; Yes│
              │ Acc. mm. splits                                DR *3; No_│
              │ Id. antib. splits    All identified antibodies are splits Yes│
              │ Patient DQ in Acc. mm.                       DQ 5,7; Yes│
              │ No identif. AB in Acc. mm.              DQ 2; DR 11; No_│
              └───────────────────────────────────────────────────────┘
Acc. mismatches   _ A1,30;B73,81;DQ2,4,5,7;DR3,4,8,11,13,1403,1404,17,18
Comments          _____
STAMP check      _ Event log  _   Calc. frequency  * Perm. withdrawal   _
Date/User of First Reg/Last Change 23-AUG-2010 _____ 29-AUG-2011 SCTP _____

Count: *0                                                      <Replace>
```

By doing this all STAMP acceptance criteria, as described in the STAMP lathund, are checked.
Yes/No statement to the right defines for each criteria if it passes the quality check or not.

Check and calculations are done on all the following variables:

5.1 Wait time > 1 yr or child
The total waiting time on kidney waiting list and present age on the patient is calculated. Total waiting time on kidney waiting list must be more than one year. (Excepted are children they do not have to wait one year before acceptance).

5.2 HI PRA >= 80% at present
Defines if the patient is highly immunized (PRA ≥ 80%) in last registered antibody screen test

5.3 Most recent PRA < 3 months
Checks if the last registered antibody screen test is done within the last 3 months

5.4 HI >= x2 > 3 months
Identifies if highly immunized test result is identified in two consecutive samples over a period of more than 3 months.

5.5 A,B,DR,DQ splits
A check is done weather the recipient HLA-antigens are assigned at split level. A '*' in front of an allele indicates that the assigned HLA type contains a broad type which is serological typed. A '!' in front of an allele indicates that the problematic broad type is genomic typed.

5.6 Acc. mm. Splits
Checks if all acceptable mismatches are registered as splits

5.7 Id. antib. splits
Checks if all identified antibodies are registered as splits

5.8 Patient DQ in Acc. mm.
Checks if patients own DQ is entered as acceptable mismatch.

5.9 No identif. AB in Acc. mm.
Compares one to one if any identified antibodies by mistake are given as acceptable mismatches.

5.10 An example of a STAMP record check;

To the right it is stated if every single criteria is accepted or not. The conclusion of this check is that:
- a new sample needs to be antibody screen tested (and the result entered into Scandiatransplant)
- a broad type DR3 is given as an acceptable mismatch this indicates that it is necessary also to check if DR17 and DR18 are given as acceptable mismatches.

The STAMP check is a quality control and is meant as a help, it does not inflict with the activation of patients to STAMP. If you have an explanation of why a criteria is not fulfilled, please enter a message to the STAMP committee, in the field for comments.

6. Patients ready to go on STAMP

When you have done the quality check and you believe that sufficient data has been entered you have to change "Status" from I = Inactive to A = Active.
Go to the field 'Status'

```
              STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

   Scandia Number              Pers Num .           Sex F Female   AB0 0 __

   Surname        _____ First name   _____
   Tx Center      UP _____ _ Country   S_ Sweden _____
   Curr wait list KI Kidney _____        Wl status N Wait for tx number  _1
   Date of wl entry 01-MAR-2002            Dial/Tr cn __ _____
   Narr eq ser HLA  A 28,29;B 62,27;DR 1,4;DQ 5,3; _____
   Repea mismatches _____
   Mcst recent PRA 1 03-NOV-2010 I%  _96 _____ II%  _0 _____
   Mcst recent PRA 2 09-AUG-2010 I%  _92 _____ II% _51 _____
   Identif antib   A1,11,2,23,24,25,3,31,32,36,69,9; B12,13,17,18,27,38,40,41

   Date of accept   14-JAN-2010      Sign up N No_ Status I Inactive _____
   Methods of determ _ _____
   Acc. mismatches   _ _____
   Comments            _____
   STAMP check     _ Event log  _   Calc. frequency   _ Perm. withdrawal   _
   Date/User of First Reg/Last Change 14-JAN-2010 UPVT____ _____ _____

Count: *1                                               <List><Replace>
```

Press <F5> and chose 'Active' by pressing <Enter>. Save by pressing <F10>.

```
              STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

   Scandia Number      .        _  Pers Num _____ _____  Sex F Female   AB0 0 _

   Su  ┌──────────────────────────────────┐ _ First name   _____
   Tx  │          AMP Status              │ _ Country   S_ Sweden _____
   Cu  │                                  │   Wl status N Wait for tx number  _1
   Da  │     Find: _____                 │   Dial/Tr cn __ _____
   Na  │                                  │ 1,4;DQ 5,3; _____
   Re  │ ┌──────────────────────────────┐ │
   Mc  │ │A       Active                │ │ _____ II%  _0 _____
   Mc  │ │I       Inactive              │ │ _____ II% _51 _____
   Id  │ │L       Local programme       │ │ 31,32,36,69,9; B12,13,17,18,27,38,40,41
       │ │                              │ │
   Da  │ │                              │ │ gn up N No_ Status I Inactive _____
   Me  │ │                              │ │ _____
   Ac  │ │                              │ │ _____
   Cc  │ └──────────────────────────────┘ │ _____
   STAMP check     _ Event log  _   Calc. frequency   _ Perm. withdrawal   _
   Date/User of First Reg/Last Change 14-JAN-2010 UPVT____ _____ _____

Press F10 to pick selection, F4 to cancel.
Count: *1                                               <List><Replace>
```

You will then get a note, that an email has been send to the STAMP committee – Please acknowledge the message by pressing <ENTER>. An Email has now been send to the committee and they will then go trough the patient to see if the person is valid for the program.
The results of the STAMP quality check will automatically be included in this message.

Example of an email message

You will now be able to find the STAMP record on the patient by entering the menu "Patients ready to go on STAMP"

NOTE
When at least two of the Committee members has accepted the candidate, the "Sign up" will be altered by Scandiatransplant from N = No to Y = Yes, this will make the patient active on STAMP.

7. Patients on STAMP

In the Menu "Patients on STAMP" all the patients accepted on STAMP is displayed together with the number of days they have been waiting on the program.

8. Quality control of antibody screening

Patients on STAMP must be HLA antibody screen tested at least every 3 months. To ensure that all complies with this rule go to the menu 'STAMP patients with PRA older than 3 months'.

```
                    STAMP - Acceptable Mismatches Programme


              1. STAMP pre transplantation
              2. Patients being prepared for STAMP
              3. Patients ready to go on STAMP
              4. Patients on STAMP
              5. Patients temporarily off STAMP
              6. STAMP patients with PRA older than 3 months
              7. STAMP reports
              8. Edit STAMP Committee Members
              9. Edit STAMP Committee Email Messages
             10. Previous Menu

                    Enter your choice: 6


Application: SCTP_UK     Menu: STAMP      v ^            <OSC><DBG>      <Rep>
```

```
                 S C A N D I A T R A N S P L A N T          9308
              STAMP patients with PRA older than 3 months
              http://www.scandiatransplant.org/man/9308.htm

Cnt Scandia Personnumber Name                    Im AB-date     Mon Day

 GO 13                                         __ HI 20-APR-2011 5   0
 OS 11                                         __ I  30-MAY-2011 3   23
 OS 12 _____ _____ _____    __ I  23-MAY-2011 3   0
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __
 __ _____ _____ _____       __ __ _____ __  __

          Pres [F7] to query and edit patient on current line
* POP UP *
Count: *3                                                   <Replace>
```

By entering this menu you get a display of patients missing the regular antibody screen test. To the right is a count of days since last registered screen test.

9. Patients temporary off STAMP

After acceptance to STAMP, the center responsible for the patient, has the possibility to remove the patient temporary from the program (for instance after a positive X-match).
If you want to do so, you have to change "Status" from A = Active to I = Inactive.

```
        STAMP - ACCEPTABLE MISMATCHES PROGRAMME                    9201

  Scandia Number    _____   Pers Num _____ _____   Sex F Female   ABO A

  Su  _____ _   First name _____
  Tx  |            AMP Status        | _   Country    DK Denmark _____
  Cu  |                              |     Wl status   W Wait for tx number  _4
  Da  |        Find: _____          |     Dial/Tr cn __ _____
  Na  |                              |  ,14;DQ 7,5;
  Re  |    A      Active             |  ,2,3
  Mc  |██  I      Inactive           | CDC,LUMI      II% _54 CDC,LUMI
  Mc  |    L      Local programme    | CDC,LUMI      II% _56 CDC,LUMI
  Id  |                              | 26,29,31,32,33,34,36,43,66,68,69,74,80;
  ___ |                              |
  Da  |                              | gn up Y Yes Status A Active _____
  Me  |                              |
  Ac  |                              | 4,5,7;DR3,4,8,11,13,1403,1404,17,18
  Cc  |_____|
  STAMP check    _ Event log _   Calc. frequency    * Perm. withdrawal  _
  Date/User of First Reg/Last Change 23-AUG-2010 ARPKN   29-AUG-2011 SCTP

  Press F10 to pick selection, F4 to cancel.
  Count: *1                                           <List><Replace>
```

When pressing <F10> to save, an email will automatically be send to the STAMP committee.
After this a pop-up appears where the cause of temporary withdrawal must be registered.
Press <F5> and select cause from list of value. Press <F10> to save.

Note
The patient will of cause still be searchable in Kidney-search only the STAMP exchange obligation will be suppressed.

In the menu "Patients temporarily off STAMP" a list of patients temporarily of STAMP are displayed.

```
        S C A N D I A T R A N S P L A N T                          9202
               Patients temporarily off STAMP

  Cnt Scandia Personnumber W.s. Name                  Status date  Days

  ██AR 3       ____ - ____   W    _     _ __ _____   01-SEP-2008   147
    AR 7       ____  .        N    ____ ___ _____   12-SEP-2008   136
    AR 126645  210563 1111    N   test person, test person  26-JAN-2009    0
    CP 11617   _  _    _  _    N   _____ _____   17-NOV-2008    70
    OS 106185  __      ____    N   _____ _____   28-OCT-2008    90
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____
    __ _____ ____ ____ ____  __  _____ _____   _____  ____

           Pres [F7] to query and edit patient on current line

  * POP UP *
  Count: *5                                              <Replace>
```

10. Patients permanent off STAMP

Patients no longer eligible for STAMP, must be permanently withdrawn from STAMP.
Go to 'Perm. Withdrawal' and press <F7>.

```
                STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

  Scandia Number         _      Pers Num _____ _____   Sex F Female   ABO A

  Surname     _____  First name   '_____
  Tx Center    AR _____       Country     DK Denmark_____
  Curr wait list  KI Kidney_____          Wl status   W  Wait for tx number  4
  Date of wl entry  21-JAN-1999           Dial/Tr cn             _____
  Narr eq ser HLA   A 3,24;B 7,70;DR 12,14;DQ 7,5;_____
  Repea mismatches  A2,11;B14,18,22;DR1,2,3_____
  Most recent PRA 1 13-DEC-2010 I% _94 CDC,LUMI_____  II% _54 CDC,LUMI_____
  Most recent PRA 2 29-SEP-2010 I% _94 CDC,LUMI_____  II% _56 CDC,LUMI_____
  Identif antib   A+X,(1),11,2,23,25,26,29,31,32,33,34,36,43,66,68,69,74,80;

  Date of accept    23-AUG-2010      Sign up Y Yes Status I Inactive_____
  Methods of determ _ CDC,LUMI_____
  Acc. mismatches   _ A1,30;B73,81;DQ2,4,5,7;DR3,4,8,11,13,1403,1404,17,18
  Comments          _____
  STAMP check       _ Event log  _   Calc. frequency   * Perm. withdrawal ▮
  Date/User of First Reg/Last Change 23-AUG-2010 ARPKN   29-AUG-2011 SCTP
 ■ POP UP ■
  Count: *1                                              <Replace>
```

Press <F5> and select cause from list of value. Press <F10> to save.

```
                STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

  Scandia Number     _____      Pers Num .        Sex F Female   ABO A

                          Withdrawal cause

                         Find: _____

  ▮PRNOCR   In preparation, does not meet STAMP criteria
   EVNOCR   Reevaluated, does not meet STAMP criteria
   NOTACC   Not accepted on STAMP
   NOPRA    PRA not provided according to rules
   XMATCH   Persistent positive cross match
   NOMMHL   HLA antibodies / acceptable mismatches cannot be provided
   OT       Other cause


  STAMP check       _ Event log  _   Calc. frequency   * Perm. withdrawal _
  Date/User of First Reg/Last Change 23-AUG-2010 _____  29-AUG-2011 SCTP _
 Press F10 to pick selection, F4 to cancel.
  Count: *0                                              <List><Replace>
```

11. STAMP reports

If you want to gain insight into STAMP history and activities you can do so by entering the menu "STAMP reports".

11.1 Patient History Report

Here it's possible to enter a query on a patient no longer on STAMP and see historically data.

```
                    STAMP - PATIENT HISTORY REPORT                    9301

Scandia Number              Person Number              Sex M Male    ABO O

    Surname         _____
    First name      _____

    Country         N  Norway_____
    Tx Center       OS _____
    Dial/Tr center  __ _____
    Curr. wait list __ _____
    Curr entry date _____            Waiting list status _

    STAMP notific.  17-MAR-2009_____

    Narrow eq ser HLA A 2,11;B 18,35;DR 1,14;DQ 5,5;_____
    Repea mismatches  A19,28;B5,7,12;DR4,7_____
    Identif antib     A1,23,24,25,29,32,43; B13,27,37,38,44,45,47,49,51,52,53,57

    <F2>: view events, Ctr-P: print report, <F7>: display report
```

Count: *1   <Replace>

When you have a STAMP-patient on screen you can press <Ctrl-p> to print or <F7> to display the data on the screen.
A typical printout will look like this

```
SCANDIATRANSPLANT                                           stamp_details
Report produced: 20-SEP-2011  09:34 requested by user: CP_USER      Page  1


*------------------------------------------------------------------------*
|                         STAMP history                                  |
*------------------------------------------------------------------------*


Scandianumber:                 123
Person number:                 123456
Gender:                        M Male
Name:                          Test
Country:                       N Norway
Tx-Center:                     OS Oslo
Dialysis/Treatment center:     02 Sykehus
Waiting list:                  KI Kidney
Date of entry on waiting list: 21-JUN-2005
Waiting list status:
Waiting for tx number:         2
Blood group:                   O
Narrow HLA:                    A 2,11;B 18,35;DR 1,14;DQ 5,5;
Repeated mismatches:           A19,28;B5,7,12;DR4,7
Antibody Screen Test:          07-APR-2009 I% 80 II% 80
                               10-FEB-2009 I% 80 II% 80
Identified antibodies:         A1,23,24,25,29,32,43; B13,27,37,38,44,45,47,49,
                               51,52,53,57,58,59,63,76,77,78; DQ2,4,7,8,9;
                               DR10,11,12,13,15,16,4,7,8,9;
Date of entry on STAMP:        11-MAR-2009
Date of acceptance on STAMP:   17-MAR-2009
Signed up:                     Y Yes
STAMP status:                  A Active
Determination methods:         OTHER
Acceptable mismatches:         A3,26,30,31,33,34,66,68,69;B7,8,39,41,42,46,48,
                               50,54,55,56,60,61,64,65,67,71,73,75,81;DQ5;DR103
Comments:
STAMP events:                  N:I:11-MAR-2009:LEIVOS,N:A:11-MAR-2009:LEIVOS,
                               Y:A:17-MAR-2009:SCTP


Waiting time > 1 year or child Yes Age: 72 years Wait time: 74 months
Most recent PRA < 3 months     No  07-APR-2009 29 months 26 days
```

```
HI PRA >= 80% at present      Yes HI Highly immunized
HI >= x2 > 3 months           Yes 5 samples over 20 months 0 days
A,B,DR,DQ splits              Yes A 11,2; B 18,35; DR 1,14; DQ 5,5;
Acc. mm. splits               Yes All acc. mismatches are splits
Id. antib. splits             Yes All identified antibodies are splits
Patient DQ in Acc. mm.        Yes DQ 5,5;
No identif. AB in Acc. mm.    Yes No identified AB in AM


First registered:            11-MAR-2009 LEIVOS
Last changed:                27-MAR-2009 LEIVOS
```

11.2 Summary Reports

In the menu "Summary Reports" you can press <F5> to get at list of possible choices of reports

11.2.1 STAMP Notifications (Name of excel file: STAMP_pre_tx_not.xls)
If you choose this report you will get all patients with a STAMP record. In other words the report will contain patients that are: Preparing to go on STAMP, active/inactive on STAMP, transplanted and permanently withdrawn.

11.2.2 Withdrawals from KI Waiting List (Name of excel file: STAMP_pre_tx_wtd.xls)
Consist of all patients with a STAMP record that have been withdrawn from the main kidney waiting list.

11.2.3 STAMP Permanent Withdrawals (Name of excel file: STAMP_pre_tx_pwd.xls)
This extraction contains patients permanent withdrawn from STAMP together with cause and date.

11.2.4 STAMP Temporary Withdrawals (Name of excel file: STAMP_pre_tx_twd.xls)
If you choose this report you will get a list patients that have been temporary off STAMP along with cause and date.
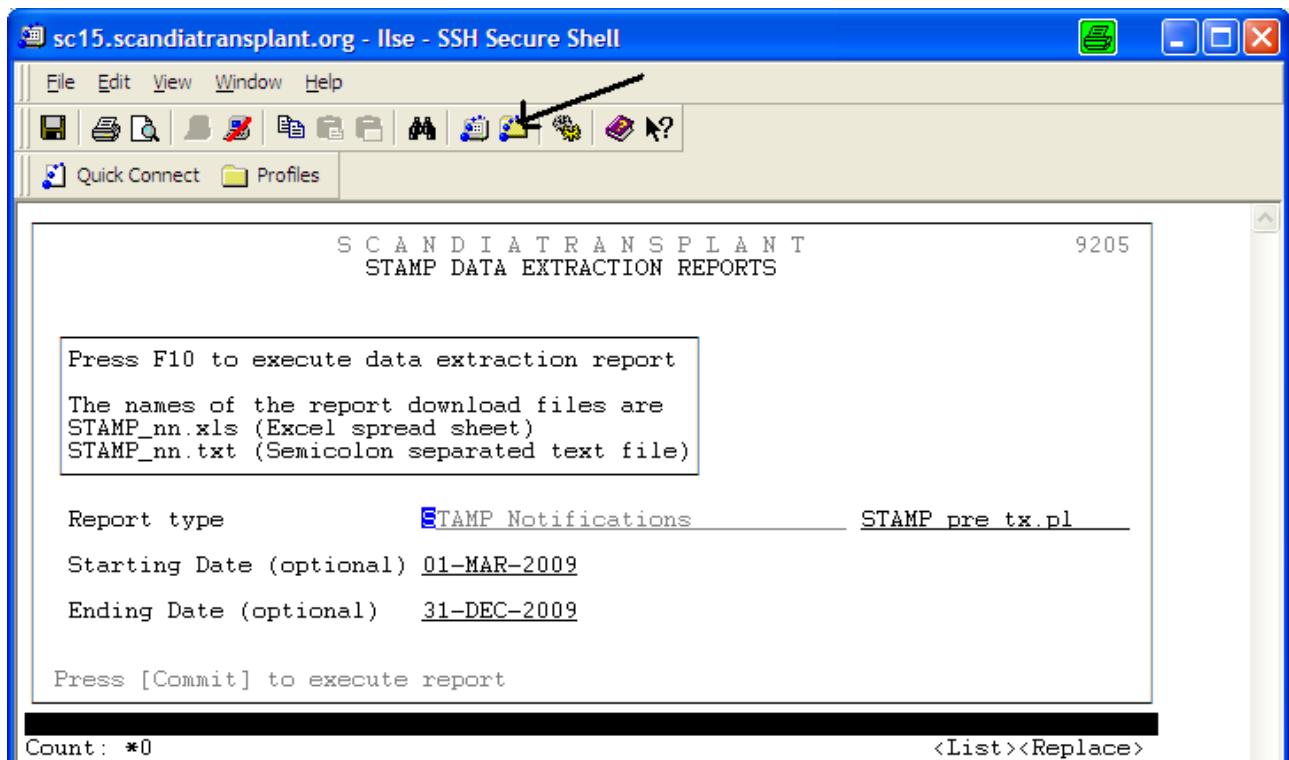
11.2.3 STAMP Transplantations (Name of excel file: STAMP_tx.xls)
If you choose this report you will get a list of patients transplanted while they we signed up on STAMP waiting list.
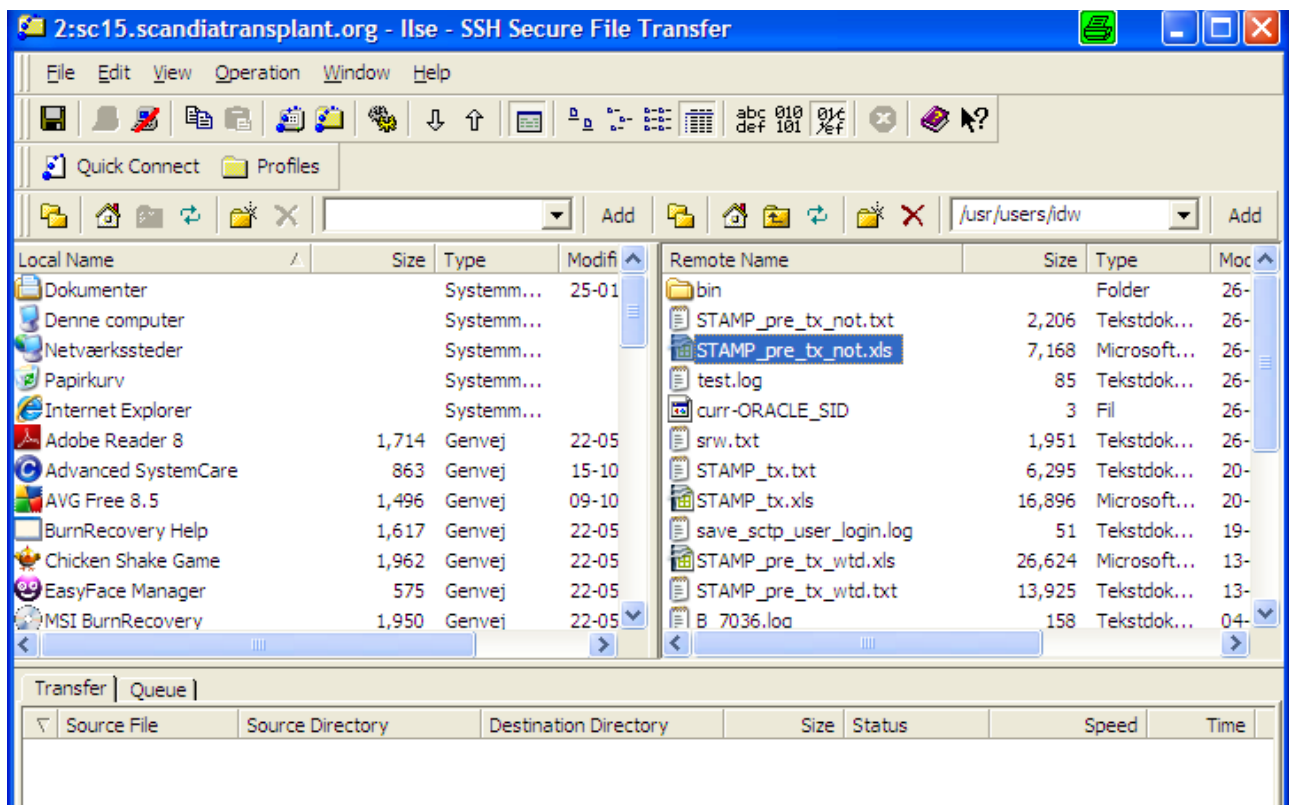
It is possible to do the search for a specific period just enter starting and/or ending date.

Commit the extraction by pressing <F10>
You find the extracted excel file by pressing the icon marked with an arrow on the next picture
(New File Transfer Window)

Find the file and click on it to open the excel file

Now it is possible to work as you like with the extracted data

LAMP

1. Introduction

Purpose
This program is a local alternative for patients that do not meet STAMP criteria. At recipient search the patients are matched the same way as STAMP patients, due to defined acceptable mismatches. The program does not result in any exchange obligations between centers.

Acceptance criteria
Each center defines the acceptance criteria themselves and there is no approval for inclusion to the program from the committee. Patients can both go directly on LAMP and no matter their STAMP status be 'transferred' to LAMP.

2. Finding the menus for entering LAMP-data and LAMP pre transplantation information

You use the same menus, facilities and screens as described for STAMP patients.


```
STAMP - Acceptable Mismatches Programme

  1. STAMP/LAMP pre transplantation
  2. Patients being prepared for STAMP/LAMP
  3. Patients ready to go on STAMP
  4. Patients on STAMP
  5. Patients temporarily off STAMP
  6. Patients on LAMP (local programme)
  7. Patients permanently withdrawn from STAMP
  8. STAMP reports
  9. Previous Menu


        Enter your choice: 1
```

Methods of determination, acceptable mismatches and comments are registered the same way as for STAMP patients.

3. Patients ready to go on LAMP

When you have done the quality check and you believe that sufficient data has been entered you have to change "Status" from I = Inactive to L = Local programme.
Go to the field 'Status'

```
              STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

Scandia Number                     Pers Num .              Sex F Female   ABO 0

Surname          _____   First name   _____
Tx Center        UP _____   Country    S_ Sweden _____
Curr wait list   KI Kidney_____           Wl status  N  Wait for tx number   1
Date of wl entry 01-MAR-2002               Dial/Tr cn __ _____
Narr eq ser HLA  A 28,29;B 62,27;DR 1,4;DQ 5,3;_____
Repea mismatches _____
Mcst recent PRA 1 03-NOV-2010 I% _96_ _____   II% __0 _____
Mcst recent PRA 2 09-AUG-2010 I% _92_                   II% _51 _____
Identif antib    A1,11,2,23,24,25,3,31,32,36,69,9; B12,13,17,18,27,38,40,41

Date of accept   14-JAN-2010        Sign up N No  Status I Inactive
Methods of determ _ _____
Acc. mismatches   _ _____
Comments          _ _____
STAMP check       _ Event log _   Calc. frequency   _ Perm. withdrawal    _
Date/User of First Reg/Last Change 14-JAN-2010 UPVT____ _____ _____

Count: *1                                                   <List><Replace>
```

Press <F5> and chose 'Local programme', then press <Enter>. Save by pressing <F10>.

```
              STAMP - ACCEPTABLE MISMATCHES PROGRAMME              9201

Scandia Number                     Pers Num .              Sex F Female   ABO 0

Su┌──────────────────────────────────┐ _  First name   _____
Tx│         AMP Status               │ _  Country    S_ . _____
Cu│                                  │    Wl status  N  Wait for tx number   1
Da│       Find: _____               │    Dial/Tr cn    ____
Na│                                  │ 1,4;DQ 5,3;
Re│    A      Active                 │ _____
Mc│    I      Inactive               │ _____   II% __0 _____
Mc│■L         Local programme        │ _____   II% _51 _____
Id│                                  │ 31,32,36,69,9; B12,13,17,18,27,38,40,41
__│                                  │
Da│                                  │ gn up N No  Status I Inactive
Me│                                  │ _____
Ac│                                  │ _____
Cc└──────────────────────────────────┘ _____
STAMP check       _ Event log _   Calc. frequency   _ Perm. withdrawal    _
Date/User of First Reg/Last Change 14-JAN-2010 UPVT____ _____ _____
Press F10 to pick selection, F4 to cancel.
Count: *1                                                   <List><Replace>
```

The patient is now on LAMP

Please note *that no matter what STAMP status a patient has it can always become a LAMP patient.*

4. Patients on LAMP

In the Menu "Patients on LAMP (local programme) all the patients included on LAMP are displayed together with the number of days they have been waiting on LAMP (and STAMP).

```
            STAMP - Acceptable Mismatches Programme


            1. STAMP/LAMP pre transplantation
            2. Patients being prepared for STAMP/LAMP
            3. Patients ready to go on STAMP
            4. Patients on STAMP
            5. Patients temporarily off STAMP
            6. Patients on LAMP (local programme)
            7. Patients permanently withdrawn from STAMP
            8. STAMP reports
            9. Previous Menu


               Enter your choice: 6_____



Application: SCTP_UK     Menu: STAMP        v ^                    <Rep>
```

5. Recipient search result LAMP

In the search selection screen a new line has been added
If a match is found for a LAMP patient it will appear on the search result list (marked with an L to

```
       KIDNEY WAITING LIST SURVEY              Page    4/6      2501

ABO Compat.:      All _1253  Own ___226   Ex. Obligation _____0

                    No.        Sel   Waiting Time         No.        Sel
Local prior.:  Yes 9_____       ■    in Months:   0 - 11 427____      _
               No  1242____     _                12 - 23 411____      _
  R<18 D<55 MMmx3-1 0_____      _                24 - 59 319____      _
Local acc. mism.:   1_____      _                60 - *  96_____      _

                    No.        Sel                       No.        Sel
Age in     0 - 15 2_____       _     CMV:     Positive 764____       _
Years:    16 - 19 2_____       _              Negative 222____       _
          20 - 39 192____      _
          40 - 59 617____      _
          60 - *  440____      _                         No.        Sel
                                     HCV_Ab:  Positive 20_____       _
                                     HCV_Ag:  Positive 3_____       _
                                     HBs_Ag:  Positive 5_____       _



Count: *0                                              <Replace>
```

the far left) depending on search selections.

Printout off STAMP and LAMP information

When you have a STAMP/LAMP-patient on screen you can press <Ctrl-p> to print or display the
data.

```
         STAMP - ACCEPTABLE MISMATCHES PROGRAMME                    9201

  Scandia Number    126645      Pers Num 210563 1111  Sex M Male     AB0 AB

  Surname        test person           First name    test person
  Tx Center      AR Aarhus             Country     DK Denmark
  Curr wait list KI Kidney             Wl status   N  Wait for tx number   1
  Date of wl entry 01-JAN-2006         Dial/Tr cn AC Aarhus
  Narr eq ser HLA  A 1,2;B 5,7;DR 1,2;DQ 4,9;
  Repea mismatches
  Most recent PRA 1 01-JAN-2008 I% _55 AUTO       II% _89 BLOCK
  Most recent PRA 2 26-JAN-2007 I% 100 CDC        II% ___
  Identif antib     A3,+X;Cw4,5;DQ1,+X;DR10

  Date of accept    26-JAN-2009      Sign up Y Yes       Status A Active
  Metho
  Acc.                      STAMP REPORT
  Comme
  Event  ■ <RETURN>: print report, <F7>: display report, <F4>: cancel.
  Date/                                                             TP
```

Count: *0   <Replace>

A typical printout will look like this

```
SCANDIATRANSPLANT                                         stamp_details
Report produced: 18-MAR-2009  13:50 requested by user: SCTP        Page  1


*------------------------------------------------------------------------*
|                         STAMP details                                  |
*------------------------------------------------------------------------*

Scandianumber:                126645
Person number:                210563-1111
Gender:                       M Male
Name:                         test person, test person
Country:                      DK Denmark
Tx-Center:                    AR Aarhus
Dialysis/Treatment center:    AC Aarhus
Waiting list:                 KI Kidney
Date of entry on waiting list: 01-JAN-2006
Waiting list status:          N Notified
Waiting for tx number:        1
Blood group:                  AB
Narrow HLA:                   A 1,2;B 5,7;DR 1,2;DQ 4,9;
Repeated mismatches:
Antibody Screen Test:         01-JAN-2008 I% 55 AUTO II% 89 BLOCK
                              26-JAN-2007 I% 100 CDC II%
Identified antibodies:        A3,+X;Cw4,5;DQ1,+X;DR10
Date of acceptance on STAMP:  26-JAN-2009
Signed up:                    Y Yes
STAMP status:                 A Active
Determination methods:        CDC,FLOW
Acceptable mismatches:        A3,11;B703,21;DQ4,9;DR9,13
Comments:                     this is freetext for additional comment
STAMP events:                 Y:A:26-FEB-2009:SCTP,N:I:26-JAN-2009:SCTP,
                              N:A:26-JAN-2009:SCTP,Y:A:26-JAN-2009:SCTP,
                              Y:I:26-JAN-2009:SCTP
First registered:             26-JAN-2009 SCTP
Last changed:                 26-JAN-2009 SCTP
```

Calculated frequency for PRA and transplantability

A donor pool, based on 1000 recently HLA typed deceased donors registered in Scandiatransplant, has been made. The pool forms the basis of the following calculations.

1. Frequency calculated combined PRA

On the basis of registered identified antibodies on a specific patient it is possible to make a percentage calculation of a combined PRA class I and II.

Enter the menu 'Updating Of Waiting List Data', make a query on the specific patient and go into the 'Antibody screen test' menu on page 3/3 with <F7>.

```
          S C A N D I A T R A N S P L A N T              2001
                  RECIPIENT SYSTEM PAGE 3/3

  Scandia Number      _____  _____.



  5. HLA TYPING:                                          *

  6. ANTIBODY SCREEN TEST:                                *

  7. SENSITIZATION HISTORY:                               *

  8. VARIOUS IMMUNOLOGY:    Immunol. Requirements        _____

                           Previous / allowable mismatches &    *
                           Waiting for organ number

                           Edit transplantation number      _


* POP UP *
Count: *1                                            <Replace>
```

Press >F1< and a combined PRA value, containing class I and II antibodies, will be calculated and saved. Recalculating can be made by pressing >F1< again. The last date of calculation together with the PRA value will always be displayed.

```
          S C A N D I A T R A N S P L A N T              2001
                  RECIPIENT SYSTEM PAGE 3/3

  Scandia Number                                   _____

                         ANTIBODY SCREEN TEST          2008
        Date of Current Serum Sample                24-FEB-2011
  5.    HLA Antibodies in Current Serum:  Class I  15%   Class II  91%
        Calculated combined PRA:                94%     21-SEP-2011
  6.    Serol. Routines used to disclose  Class I   _     Class II   _
        Edit allowable antibodies   _
  7.
        Anti HLA-A   Anti HLA-B   Anti HLA-Cw   Anti HLA-DR   Anti HLA-DQ
  8.    _____      _____      _____       _____       _____
        _____      _____      _____       _____       _____

        _____      _____      _____       _____       _____
        Summary A2,3,32; B49; DQ4,5,6,8,9; DR15; _____

        ArrDown: next record, ArrUp: previous record, F1: calculate PRA


Count: *9                      ^                      <Replace>
```

2. Frequency calculated transplantability

In STAMP it is possible to get
- a 'frequency calculated transplantability' based on patient's own tissuetype
- a ' frequency calculated transplantability with acceptable mismatches' based on patient's own tissuetype and acceptable mismatches.

The calculation is based on the HLA tissuetypes and AB0 blodtypes represented in the donor pool.

Place the cursor in the field 'Calc. frequency' and press >F7< to get a pop up.

```
                   STAMP - ACCEPTABLE MISMATCHES PROGRAMME            9201

Scandia Number                  Pers Num _____ _____   Sex F Female   AB0 A

Surname          _____  First name _____
Tx Center        AR Aarhus             Country   DK Denmark
Curr wait list   KI Kidney             Wl status  W  Wait for tx number    4
Date of wl entry 21-JAN-1999           Dial/Tr cn AB
Narr eq ser HLA  A 3,24;B 7,70;DR 12,14;DQ 7,5;
Repea mismatches A2,11;B14,18,22;DR1,2,3
Most recent PRA 1 13-DEC-2010 I%  94 CDC,LUMI      II%  54 CDC,LUMI
Most recent PRA 2 29-SEP-2010 I%  94 CDC,LUMI      II%  56 CDC,LUMI
Identif antib     A+X,(1),11,2,23,25,26,29,31,32,33,34,36,43,66,68,69,74,80;

Date of accept   23-AUG-2010       Sign up Y Yes Status A Active
Methods of determ _ CDC,LUMI
Acc. mismatches   _ A30;B73,81;DQ2,4,5,7;DR3,4,8,11,13,1403,1404,17,18
Comments          _
STAMP check       _ Event log _ [Calc. frequency    *] Perm. withdrawal  _
Date/User of First Reg/Last Change 23-AUG-2010 ARPKN    25-AUG-2010 ARPKN

* POP UP *
Count: *1                                               <Replace>
```

By pressing >F10< you get the calculated match frequency among the 1000 donor types with and without acceptable mismatches.

```
                   STAMP - ACCEPTABLE MISMATCHES PROGRAMME            9201

Scandia Number                  Pers Num _____ _____   Sex M Male     AB0 A

Surname          _____  First name _____
Tx Center        GO Göteborg           Country   S  Sweden
Curr wait list   KI Kidney             Wl status  N  Wait for tx number   3
Date of wl entry 19-FEB-2008           Dial/Tr cn                        _
Narr eq ser HLA  A 2,28;B 27,37;DR 10,11;DQ 7,5;
Repea mismatches A3;B8,15;DR2,4,6         ┌─────────────────────────────┐
Most recent PRA 1 20-JAN-2011 I%  97     │      Calculated Frequency    │
Most recent PRA 2 21-OCT-2010 I%  99     ├─────────────────────────────┤
Identif antib     A1,11,24,29,3,30,31,34,36,│ Without STAMP         0.0% │
                                         │ With STAMP           0.1% │
Date of accept   11-FEB-2010      Sign up Y│ Last calculated 23-AUG-2011│
Methods of determ _ CDC,FLOW             │                             │
Acc. mismatches   _ A25,26,32,33,43,66,68,69│ ■ Press F10 to (re)calculate│
Comments          _                      └─────────────────────────────┘
STAMP check       _ Event log _    Calc. frequency   _ Perm. withdrawal  _
Date/User of First Reg/Last Change 11-FEB-2010 JLR      11-MAR-2010 JLR

FRM-40400: Transaction complete -- 1 records posted and committed.
Count: *1                                               <Replace>
```