**Liver Transplant Standard Datasets Description**

This document contains a description of the liver transplant standard datasets and the variables found in them. The data is split into two separate tables, with transplant related data recorded in transplant.csv file and follow-up related data recorded in followup.csv where an anonymised transplant identification links the two tables. The description of the transplant.csv file can be found in pages 2-12 and the followup.csv description pages 13-18 of this document. Each csv file will have a date in the title which is the date at which the datasets were last updated.

The Ref Domain spreadsheet accompanying this document is used to give information about the levels recorded for variables that have a large range of potential levels and is referenced appropriately in the Level column of the tables with the specified sheet to look at.

NOTE: Some variables on donor details are missing for earlier transplants as the data was only collected from the year 2000.

**Liver Transplant Dataset Describer (transplant)**

|  |  |  |  |
| --- | --- | --- | --- |
| **VARIABLE** | **DESCRIPTION** | **CODE** | **LEVEL** |
|  |  |  |  |
| **TRANSPLANT DETAILS** |  |  |  |
| TXID | Anonymous transplant identification number |  |  |
| REGID | Anonymous registration identification number |  |  |
| TRANSPLANT\_UNIT | Anonymised transplant unit |  |  |
| TRANSPLANT\_DATE | Date of transplant |  |  |
| FIN\_YR | Full financial year of transplant |  |  |
| TX\_YR | Year of transplant |  |  |
| REREG | Re-registered after transplant indicator | 1 | Yes |
|  | 0 | No |
| REREG\_YR | Year of re-registration after transplant (if applicable) |  |  |
| RE\_TXD | Re-transplanted indicator | 1 | Yes |
|  |  | 0 | No |
| NEXT\_TX | Date of next transplant (if applicable) |  |  |
| TX\_TYPE | Type of transplant | 40 | Liver only |
|  |  | 80 | Intestinal Failure Liver-Only |
|  |  | 83 | Intestinal Failure Liver, Small Bowel & Pancreas |
|  |  | 84 | Intestinal Failure Multivisceral |
|  |  | 110 | Liver & Kidney |
|  |  | 115 | Liver, Kidney & Pancreas |
|  |  | 120 | Liver, Heart & Lung |
|  |  | 140 | Liver & Pancreas |
|  |  | 160 | Liver & Heart |
|  |  | 190 | Liver & Lung |
| MULTI\_TX | Multi-organ transplant indicator | 0 | Liver only transplant |
|  |  | 1 | Multiple organ transplant |
| SM\_BOWEL | Liver and small bowel combined transplant indicator | 0 | No small bowel |
|  | 1 | Liver and small bowel combined transplant |
| TX\_METHOD | Transplant method | 1 | Orthotopic |
|  |  | 2 | Heterotopic |
|  |  | 8 | Missing |
|  |  | 9 | Unknown |
| ORGAN | Lobe/segment of liver transplanted | 40 | Whole liver |
|  | 41 | Left lobe |
|  |  | 42 | Right lobe |
|  |  | 46 | Left lateral segment |
|  |  | 47 | Liver segment IV |
| ORG\_TXD | Organ grafted as reported on the Liver Tx Record Form  (Note: data taken from GRAFTED\_ORGAN regarding the type of liver grafted will be more reliable) | 1 | Whole liver |
|  | 2 | Reduced liver |
|  | 3 | Split liver |
|  | 4 | Auxiliary |
|  | 8 | Missing |
|  | 9 | Unknown |
| URGENT | Urgency status at registration | 0 | Elective |
|  |  | 1 | Super-urgent |
| SU\_FLAG | Super-urgent query indicator  (only populated where OLD\_URGENT=9) | NULL | Registered transplant |
|  | 91 | No active record |
|  | 92 | Transplanted whilst suspended |
|  |  | 93 | Transplanted after transplant |
|  |  | 94 | Transplanted after removal |
| LIVER | Completeness of liver transplanted  (note: there must be two recipients of one liver for it to be classed as split) | 0  1 | Whole  Reduced |
|  |  | 2 | Split |
| ALLTX\_NO | Recipient transplant number |  | Counts all solid organ transplants |
| GRAFT\_NO | Number of liver transplant |  | Counts liver transplants only |
| TXNATION | Nation of transplant centre |  |  |
| TXCOUNTRY | Country where transplant was performed |  |  |
| PRES\_FLUID | Preservation fluid used for organ |  | See ref domain spreadsheet (preservation) |
| ORG\_APP | Donor organ appearance | 1 | Healthy |
|  |  | 2 | Suboptimal (8,9 missing codes) |
| HEP\_ARTERY | Hepatic artery appearance | 1 | Single |
|  |  | 2 | Accessory (8,9 missing codes) |
| CIT | Cold ischaemia time (mins) | 8888, 9909, 9999 missing codes | |
| VV\_TIME | Veno-venous bypass time (mins) | 0 not used, 8888, 9999 missing codes | |
| REP\_TIME | Operative reperfusion time (mins) | 8888, 9909, 9999 missing codes | |
| BA | Biliary anastomosis | 1 | No stent |
|  |  | 2 | T-Tube |
|  |  | 3 | Roux |
|  |  | 4 | Stent (8,9 missing codes) |
| AA | Hepatic artery anastomosis | 1 | Single |
|  |  | 2 | Multiple (8,9 missing codes) |
| RANTI\_FIB | Indicator for anti-fibrinolytic therapy used | 1 | No |
|  |  | 2 | Yes (8,9 missing codes) |
| IO\_D | Indicator for intraoperative death | 1 | No |
|  |  | 2 | Yes (8,9 missing codes) |
| IO\_BLOOD | Intraoperative blood (units) | 0 not used, 888, 999 missing codes | |
| IO\_PLASMA | Intraoperative fresh frozen plasma (units) | 0 not used, 888, 999 missing codes | |
| IO\_PLATELETS | Intraoperative platelets (units) | 0 not used, 888, 999 missing codes | |
| IO\_CRYO | Intraoperative cryoprecipitate (units) | 0 not used, 888, 999 missing codes | |
| PO\_BLOOD | Postoperative blood (units) | 0 not used, 888, 999 missing codes | |
| PO\_PLASMA | Postoperative plasma (units) | 0 not used, 888, 999 missing codes | |
| PO\_PLATELETS | Postoperative platelets (units) | 0 not used, 888, 999 missing codes | |
| PO\_CRYO | Postoperative cryoprecipitate (units) | 0 not used, 888, 999 missing codes | |
|  |  |  |  |
| **DONOR DETAILS** |  |  |  |
| DONORID | Anonymous donor identification number |  |  |
| DDATE | Month and year of donation |  |  |
| DTYPE | Type of donor |  | See ref domain spreadsheet (donor type) |
| DGRP | Donor type group | 1 | Donor after brain death |
|  |  | 2 | Donor after circulatory death |
|  |  | 3 | Living (related, unrelated) |
|  |  | 4 | Domino |
| DBMI | Donor BMI |  |  |
| DAGE | Donor age at donation |  |  |
| DAGE\_GRP | Donor paediatric/ adult indicator according to liver definition | 0 | Paediatric (<16) |
|  | 1 | Adult (16 or over) |
|  | 9 | Unknown |
| DSEX | Donor sex | 1 | Male |
|  |  | 2 | Female |
| DBG | Donor blood group | 1 | Group O |
|  |  | 2 | Group A |
|  |  | 3 | Group B |
|  |  | 4 | Group AB |
| DCOD | Donor cause of death |  | See ref domain spreadsheet (donor cod) |
| DCMV | Donor CMV test result |  | See ref domain spreadsheet (test result) |
| DNATION | Nation of donor hospital |  |  |
| DCOUNTRY | Country of donor hospital |  |  |
| RETRIEVAL\_UNIT | Anonymised retrieval unit |  |  |
| RETRIEVAL\_DATE | Date and time of organ removal from donor(HOT forms) |  |  |
| VENTILATION\_CEASE\_DATE | Date and time of ventilation ceasation |  |  |
| CIRCULATORY\_ARREST\_DATE | Date and time of circulatory arrest |  |  |
| HEPATECTOMY\_DATE | Date and time of hepatectomy |  |  |
| IN\_ICE\_DATE | In ice date and time |  |  |
| PORTAL\_PERFUSION | Date and time of in situ portal perfusion |  |  |
| AORTIC\_PERFUSION | Date and time of in situ aortic perfusion |  |  |
| TRANSPORT\_FLUID | Transport Fluid |  | See ref domain spreadsheet (transport fluid type) |
| NORMAL\_ANATOMY | Normal Anatomy | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| LEFT\_HEPATIC\_GASTRIC | Left Hepatic Gastric | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| RIGHT\_HEPATIC\_SMA | Right Hepatic Sma | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| LEFT\_AND\_RIGHT\_HEPATIC | Left And Right Hepatic | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| LIVER\_BOX\_DATE | Liver in box date and time |  |  |
| HEPATIC\_ARTERY | Number of hepatic arteries |  |  |
| PATCH | Patch on liver | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| COMMON\_HEP\_ARTERY | Common Hep Artery | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| MAIN\_PORTAL\_VEIN | Main Portal Vein | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| COMMON\_BILE\_DUCT | Common Bile Duct | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| VENA\_CAVA | Vena Cava | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| ILIAC\_ARTERY | Iliac Artery present | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| ILIAC\_VEIN | Iliac Vein present | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| LYMPH\_NODE | Lymph Node present | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| SPLEEN | Spleen present | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| STEATOSIS | Steatosis | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| CAPSULAR\_DAMAGE | Capsular Damage | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| MULTIDON | Donated more than one type of solid organ | 0 | No |
|  |  | 1 | Yes |
| KIDDONOR | Kidney(s) retrieved | 0 | No |
|  |  | 1 | Yes |
| PANDONOR | Pancreas retrieved | 0 | No |
|  |  | 1 | Yes |
| SMBDONOR | Small bowel retrieved | 0 | No |
|  |  | 1 | Yes |
| HRTDONOR | Heart retrieved | 0 | No |
|  |  | 1 | Yes |
| LNGDONOR | Lung(s) retrieved | 0 | No |
|  |  | 1 | Yes |
|  |  |  |  |
| **RECIPIENT DETAILS** |  |  |  |
| RECIPID | Anonymous recipient identification number |  |  |
| RAGE | Recipient age at transplant |  |  |
| RAGE\_GRP | Recipient paediatric/ adult indicator according to liver definition | 0 | Paediatric (≤16) |
|  | 1 | Adult (17 or over) |
|  | 9 | Unknown |
| RSEX | Recipient sex | 1 | Male |
|  |  | 2 | Female |
| RIMD | Recipient’s 2010 IMD deprivation score based on postcode |  |  |
| RIMD\_RANK | Recipient’s 2010 IMD deprivation ranking order, 1 being the most deprived |  |  |
| RBG | Recipient blood group | 1 | Group O |
|  |  | 2 | Group A |
|  |  | 3 | Group B |
|  |  | 4 | Group AB |
| RWEIGHT | Recipient weight at registration (kg) |  | 999.9 missing code |
| RHEIGHT | Recipient height at registration (cm) |  |  |
| RETHNIC | Recipient ethnicity group |  | See ref domain spreadsheet (ethnicity) |
| RCMV | CMV test result at registration |  | See ref domain spreadsheet (test result) |
| RHCV | Most recent recipient HCV test result |  | See ref domain spreadsheet (test result) |
|  |  |  |
| RCOD | Primary recipient cause of death |  | See ref domain spreadsheet (recip cod) |
| RCOD2 | Secondary recipient cause of death |  | See ref domain spreadsheet (recip cod) |
| NHS\_GRP | NHS group status | 1 | Group 1 |
|  |  | 2 | Group 2 |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| ABOMATCH | Donor vs recipient blood group | 1 | Identical |
|  |  | 2 | Compatible |
|  |  | 3 | Incompatible |
| RCSPLD1 | Primary liver disease at tx |  | See ref domain spreadsheet (liver disease) |
| RCSPLD2 | Secondary liver disease at tx |  | See ref domain spreadsheet (liver disease) |
| RCSPLD3 | Tertiary liver disease at tx |  | See ref domain spreadsheet (liver disease) |
| RFAIL\_GRADE | Recipient liver failure grading prior to tx | 1 | Hyperacute |
|  | 2 | Acute |
|  |  | 3 | Subacute |
|  |  | 4 | Not acute (8,9 missing codes) |
| RLIFE | Recipient life style activity score prior to tx |  | See ref domain spreadsheet (lifestyle) |
| RIN\_PAT | Recipient in patient status prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
| RVENT | Recipient ventilation status prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
| RREN\_SUP | Recipient renal support status prior to tx | 1 | Haemodialysis |
|  | 2 | Filtration |
|  |  | 3 | Not required (8,9 missing codes) |
| RASCITES | Recipient clinically detectable ascities status prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
| RDIURETIC | Recipient diuretic therapy status prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
|  |  |  |  |
| RENCEPH | Recipient encephalopathy grade prior to tx | 0 | Not encephalopathic |
|  | 1 | Grade 1 |
|  |  | 2 | Grade 2 |
|  |  | 3 | Grade 3 |
|  |  | 4 | Grade 4 (8,9 missing codes) |
| RAB\_SURGERY | Recipient abdominal surgery indicator prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
| RICP\_MON | Recipient ICP monitor results prior to tx | 1 | Normal pressure |
|  | 2 | Raised pressure |
|  |  | 3 | Not used (8,9 missing codes) |
| ROES\_VARICES | Recipient oesophageal varices prior to tx | 1 | No previous variceal bleed |
|  | 2 | Previous variceal bleed |
|  |  | 3 | Not present (8,9 missing codes) |
| ROES\_SHUNT | Recipient shunt for varices (if present) prior to tx | 1 | No portosystemic shunt |
|  | 2 | Surgical shunt |
|  |  | 3 | TIPS (8,9 missing codes) |
| RPYREXIAL | Recipient pyrexial indicator prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
| RSEPSIS | Recipient sepsis confirmed indicator prior to tx | 1 | No |
|  | 2 | Yes (8,9 missing codes) |
| RSEPSIS\_SITE | Recipient site of sepsis (if present) prior to tx | 1 | Sputum |
|  | 2 | Blood |
|  |  | 3 | Urine |
|  |  | 4 | Ascities/drain fluid |
|  |  | 5 | Wound |
|  |  | 7 | Other (8,9 missing codes) |
| RHB | Recipient haemoglobin (gm/dl) prior to tx |  | 88.8, 99.9 missing codes |
| RWBC | Recipient white blood cells (x10^9/l) prior to tx |  | 888.8, 999.9 missing codes |
| RPLATELETS | Recipient platelets (x10^9/l) prior to tx |  | 8888, 9999 missing codes |
| RCREAT | Recipient creatinine (μmol/l) prior to tx |  | 8888, 9999 missing codes |
| RCREAT\_CORR | Recipient creatinine (μmol/l) prior to tx after applying the Royal Free correction factor |  | 8888, 9999 missing codes |
| RALBUMIN | Recipient albumin (g/l) prior to tx |  | 88, 99 missing codes |
| RUREA | Recipient urea (mmol/l) prior to tx |  | 888.8, 999.9 missing codes |
| RINR | Recipient INR prior to tx |  | 88.8, 99.9 missing codes |
| RBILRUBIN | Recipient bilrubin (μmol/l) prior to tx |  | 8888, 9999 missing codes |
| RSODIUM | Recipient sodium (mmol/l) prior to tx |  | 888, 999 missing codes |
| UKELD | Recipient UK End-stage Liver Disease score prior to transplant for elective patients |  |  |
| MELD | Recipient Model for End-stage Liver Disease score prior to transplant for elective patients |  |  |
| RPOTASSIUM | Recipient potassium (mmol/l) prior to tx |  | 88.8, 99.9 missing codes |
| RPH | Recipient pH prior to tx |  | 88.88, 99.99 missing codes |
| ROXYGEN | Recipient oxygen pressure (KPa) prior to tx |  | 88.8, 99.9 missing codes |
| RHBV\_DNA | HBV DNA antigen result prior to tx |  | See ref domain spreadsheet (test result) |
| RHBS\_AG | HBs AG antigen result prior to tx |  | See ref domain spreadsheet (test result) |
| RHBE\_AG | HBe AG antigen result prior to tx |  | See ref domain spreadsheet (test result) |
| RHCV\_RNA | HCV-RNA (PCR) antigen result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_HBCLGM | Anti HBclgM result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_HBS | Anti HBs result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_HBE | Anti HBe result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_HCV | Anti HCV result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_DELTA | Anti DELTA result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_CMV | Anti CMV result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_HSV | Anti HSV result prior to tx |  | See ref domain spreadsheet (test result) |
| RANTI\_HIV | Anti HIV result prior to tx |  | See ref domain spreadsheet (test result) |
| COF | Cause of transplant failure |  | See ref domain spreadsheet (cof) |
| LOST\_FUP | Recipient lost to follow-up | 1 | No |
|  |  | 2 | Yes (8,9 missing code) |
| FAILDATE | Month and year of graft failure |  |  |
| TSURV | Transplant survival time (days) |  | -100 missing code |
| TCENS | Transplant censoring indicator | 0 | Censored |
|  |  | 1 | Event (Graft failure or death) |
| GSURV | Graft survival time (days) |  | -100 missing code |
| GCENS | Graft censoring indicator | 0 | Censored |
|  |  | 1 | Event (Graft failure only) |
| GSTATUS | Graft status of that particular graft | 1 | Still alive, graft functioning |
|  | (Note: if graft failed and patient died then GSTATUS will be 2) | 2 | Graft failed |
|  | 3 | Death with a functioning graft |
|  | 4 | Death only reported |
| LASTSTAT | Graft status of latest graft | 1 | Still alive, graft functioning |
|  | (Notes: If graft failed and patient died then LASTSTAT will be 2.  If patient has had more than one graft this field will be the same for all grafts.) | 2 | Graft failed |
|  | 3 | Death with a functioning graft |
|  | 4 | Death only reported |
| LAST\_GRAFT\_NO | Graft number of latest graft |  |  |
| PSURV | Patient survival time (days)  (Note: populated for first grafts only but can include survival time following a subsequent liver transplant) |  | -100 missing code |
| PCENS | Patient censoring indicator | 0 | Censored |
|  | (Note: populated for first grafts only) | 1 | Event (Death of recipient) |

**Liver Transplant Follow Up Dataset Describer (followup)**

|  |  |  |  |
| --- | --- | --- | --- |
| **VARIABLE** | **DESCRIPTION** | **CODE** | **LEVEL** |
|  |  |  |  |
| TXID | Anonymous transplant identification number |  |  |
| FUP\_PERIOD | Number of months follow up period is for |  | 3, 12, 60 months |
| LIFESTYLE | Lifestyle activity score post transplant |  | See ref domain spreadsheet (lifestyle) |
| REJECTION\_EPISODES | Number of treated rejection episodes since transplant |  | 88,99 missing codes |
| DAYS\_VENTILATED | Number of days ventilated post-transplant |  | 888,999 missing codes |
| DAYS\_IN\_ITU | Number of days in ITU post-transplant |  | 888,999 missing codes |
| RENAL\_STATUS | Renal status post-transplant | 1 | No or minor renal impairment |
|  |  | 2 | Required transient renal filtration |
|  |  | 3 | Short-term dialysis |
|  |  | 4 | Long-term dialysis (8,9 missing codes) |
| HEPATIC\_ART\_THROMBOSIS | Complications hepatic artery thrombosis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| PORTAL\_VEIN\_THROMBOSIS | Complications portal vein thrombosis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| IVC | Complications IVC/hepatic vein occlusion | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| HAEMORRHAGE | Complications haemorrhage requiring reoperation | 1 | No |
|  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| BILIARY\_TRACT\_LEAK | Complications biliary tract leaks | 1 | No leak |
|  |  | 2 | Leak not treated |
|  |  | 3 | Leak requiring reoperation |
|  | 4 | Other radiological intervention (8,9 missing codes) |
| BILIARY\_TRACT\_STRICTURE | Complications biliary tract stricture | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| BILIARY\_STRICTURE\_TREAT | Complications biliary tract stricture treatment | 1 | Reoperated |
|  | 2 | Balloon dilatation |
|  |  | 3 | Stenting (8,9 missing codes) |
| CMV\_INFECTION | Post-operative CMV infection | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| FUNGAL\_INFECTION | Post-operative fungal infection | 1 | No |
|  | 2 | Yes |
|  | 8 | Not reported |
|  |  | 9 | Unknown |
| SPUTUM\_SEPSIS | Post-operative sputum sepsis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  | 9 | Unknown |
| BLOOD\_SEPSIS | Post-operative blood sepsis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| URINE\_SEPSIS | Post-operative urine sepsis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| ASCITIES\_SEPSIS | Post-operative ascities sepsis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| WOUND\_SEPSIS | Post-operative wound sepsis | 1 | No |
|  | 2 | Yes |
|  | 8 | Not reported |
|  |  | 9 | Unknown |
| OTHER\_SEPSIS | Post-operative other sepsis | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| DAYS\_INPATIENT | Total number of days as an impatient, only for 12, 60 month FUP |  | 888,999 missing codes |
| READMISSIONS | Number of readmissions, only for 12, 60 month FUP |  | 888 missing code |
| PROTOCOL | Number of readmissions if protocol was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| ACUTE\_REJECTION | Number of readmissions if acute rejection was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| CHRONIC\_REJECTION | Number of readmissions if chronic rejection was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| BILIARY\_COMP | Number of readmissions if biliary complications was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| VASCULAR\_COMP | Number of readmissions if vascular complications was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| DISEASE\_RECUR | Number of readmissions if disease recurrence was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| INFECTION | Number of readmissions if infection was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| READMIT\_OTHER | Number of readmissions if other was the primary reason for readmittance, only for 12, 60 month FUP |  | 88,99 missing code |
| BILIRUBIN | Bilirubin (μmol/l) only for 12, 60 month FUP |  | 8888,9999 missing code |
| ALK\_PHOSPHATE | Alk phosphatase (IU/L) only for 12, 60 month FUP |  | 8888,9999 missing code |
| ALT\_SGOT | ALT/SGOT (IU/L) only for 12, 60 month FUP |  | 8888,9999 missing code |
| AST\_SGPT | AST/SGPT (IU/L) only for 12, 60 month FUP |  | 8888,9999 missing code |
| BLOOD\_UREA | Blood urea (mmol/l) only for 12, 60 month FUP |  | 888.8,999.9 missing code |
| DYSFUNCTION | Is renal dysfunction present, only for 12, 60 month FUP | 1 | No |
|  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| TUMOUR | Tumour been detected, only for 12, 60 month FUP | 1 | No |
|  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| CYCLOSPORIN | Immunosuppression: Cyclosporin A | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| TACROLIMUS | Immunosuppression: Tacrolimus | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| AZATHIOPRINE | Immunosuppression: Azathioprine | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| MYCOPHENOLATE | Immunosuppression: Mycophenolate mofetil | 1 | No |
|  | 2 | Yes |
|  |  | 8 | Not reported |
|  | 9 | Unknown |
| PREDNISOLONE | Immunosuppression: Prednisolone | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |
| IMMUNO\_DRUG\_OTHER | Immunosuppression: Other | 1 | No |
|  |  | 2 | Yes |
|  |  | 8 | Not reported |
|  |  | 9 | Unknown |