



Australia & New Zealand
Dialysis & Transplant
Registry



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Data Requests

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How to request data

ANZDATA Data Requests

** The 2017 ANZSN ASM will be held in Darwin from **4th-6th September 2017** with a closing date for abstract submissions of **19th April 2017**. The registry receives a high volume of requests in the run up to this event. We recommend that all data requests for abstracts be submitted as soon as possible and regret that requests received after **5th April 2017** may

not be completed prior to the abstract closing date. 

We receive many data requests which vary in size and complexity. We encourage communication with the Registry to help us to meet your request, particularly if you have not used Registry data before or have a [research project request](#).

These and other data collection and analysis issues should be discussed with Stephen McDonald or Graeme Russ at the Registry (requests@anzdata.org.au). This is particularly important when assessing whether a particular question has been previously addressed.

Provided they fall within our guidelines, simple requests for tabular data are usually dealt with within 2 weeks; more complex requests may take a little longer.

Request Guidelines

Data requests will be considered within several broad headings.

SETTING UP THE DATASET



EXAMPLE

- **Research Question:** To investigate the relationship between longitudinal changes in BMI and time to death in patients undergoing dialysis treatment.
- **Inclusion Criteria:** All patients who started renal replacement therapy after 2004.
- **Exclusion Criteria:** Patients age <18 at start. No pre-emptive transplants.
Exclude patients who started dialysis outside AUS.
- **Outcome Variables:** BMI; Time-to-death; Time-to-transplant; Time-to-change in treatment modality.
- **Requested Data:** Demographic Data, Comorbid Data, Dialysis Data, Change in Treatment, Death Data , Transplant Data.
- **Data Format:** STATA

- Set up the data for analysis.
- Merging of dataset to answer research questions.
- There are 4 types of merging:
 - TYPE 1:1 - Single line data into another single line (per patient) data.
 - TYPE 1:n - Single line data into multiple lines (per patient) data.
 - TYPE n:1 - Multiple lines data into single line data.
 - TYPE n:n - Multiple lines data into another multiple lines data.
- STATA Command : **mmerge** ([ssc install mmerge](#))
mmerge match-variable(s) using "filename.dta", type(1:1) unmatched(master) ukeep(vars)

Example: TYPE 1:1- Merging Incident dialysis (main) data with Demographic data

Course of Treatment Table

| id | sequenceno | treatmentd~e | treatmentcode |
|----------|------------|--------------|---------------------------------|
| P9063901 | 1 | 23may2005 | B - Hospital HD |
| P9882653 | 1 | 05sep2005 | L - CAPD Hospital/Outpatient |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outpatient |
| P7473859 | 1 | 28may2014 | BC - HD Hospital - Conventional |
| P7184454 | 1 | 16sep2015 | BC - HD Hospital - Conventional |
| P1096472 | 1 | 23sep2013 | BC - HD Hospital - Conventional |

ANZDATA Patient Table

| id | gendercode | latereferr~e | racialorigincode | primaryrenaldiseasecode | creatinine~y | height | weight | smokingcode |
|----------|------------|--------------|-----------------------|---|--------------|--------|--------|-------------|
| P9063901 | F | N | Caucasoid | Renal Vascular Disease-Hypertension (Nephrosclerosis) | 270 | 164 | 71 | N |
| P9882653 | F | N | Caucasoid | Obstructive Nephropathy | 500 | 162 | 75 | F |
| P9750093 | M | N | Caucasoid | Polycystic Kidney Disease | 769 | 186 | 88 | N |
| P7473859 | M | N | Caucasoid | Membranous GN | 469 | 176 | 78.6 | C |
| P7184454 | F | N | Other (Specify) | Reflux Nephropathy | 580 | 125 | 19.1 | N |
| P1096472 | F | N | Oceanian - Australian | Diabetes Type I (Insulin Dependent) | 514 | 159 | 48 | N |

TYPE 1:1 - mmerge command

mmerge id using "S:\DataSets\ANZDATADatabase2015\AnzdataPatients_12_15.dta",
type(1:1) unmatched(master) ukeep(gendercode height weight primaryrenaldiseseasecode)

| | | |
|--------------------|------------|---|
| merge specs | | |
| matching type | 1:1 | |
| mv's on match vars | none | |
| unmatched obs from | master | |
| master | file | S:\DataSets\ANZDATADatabase2015\AnzdataCourseOfTreatments_12_15.dta |
| | obs | 34470 |
| | vars | 11 |
| | match vars | patientid (key) |
| using | file | S:\DataSets\ANZDATADatabase2015\AnzdataPatients_12_15.dta |
| | obs | 74457 |
| | vars | 5 (selection via udrop/ukeep) |
| | match vars | patientid (key) |
| result | file | S:\DataSets\ANZDATADatabase2015\AnzdataCourseOfTreatments_12_15.dta |
| | obs | 34470 |
| | vars | 17 (including _merge) |
| _merge | | 34470 obs both in master and using data (code==3) |

Example: TYPE 1:N - Incident dialysis (main data) merged with Dialysis data.

merge id using "S:\DataSets\ANZDATADatabase2015\AnzdataDialysis_12_15.dta",
type(1:n) unmatched(master)

| | | |
|--------------------|------------|---|
| merge specs | | |
| matching type | | 1:n |
| mv's on match vars | | none |
| unmatched obs from | | master |
| master | file | S:\DataSets\ANZDATADatabase2015\AnzdataCourseOfTreatments_12_15.dta |
| | obs | 34470 |
| | vars | 10 |
| | match vars | patientid (key) |
| using | file | S:\DataSets\ANZDATADatabase2015\AnzdataDialysis_12_15.dta |
| | obs | 373953 |
| | vars | 12 |
| | match vars | patientid (not a key) |

variable patientid does not uniquely identify observations in
C:\Users\Aarti\AppData\Local\Temp\ST_1j000003.tmp

| | | |
|--------|--------|---|
| result | file | S:\DataSets\ANZDATADatabase2015\AnzdataCourseOfTreatments_12_15.dta |
| | obs | 132567 |
| | vars | 23 (including _merge) |
| | _merge | 4 obs only in master data (code==1) |
| | | 132563 obs both in master and using data (code==3) |

Output Table

| id | sequenceno | treatmentd-e | treatmentcode | primaryrenal diseasecode | height | weight | dialysistypecode | phosphate | haemoglobin | ferritin | saturation-n | surveydate |
|----------|------------|--------------|---------------------------|---------------------------|--------|--------|---|-----------|-------------|----------|--------------|------------|
| P9063901 | 1 | 23may2005 | B - Hospital HD | Renal Vascular Disease... | 164 | 71 | Haemodialysis-Hollow Fibre Dialysers | 1 | 130 | 739 | 24 | 31dec2005 |
| P9063901 | 1 | 23may2005 | B - Hospital HD | Renal Vascular Disease... | 164 | 71 | Haemodialysis-Hollow Fibre Dialysers | 1 | 130 | 519 | 23 | 31dec2006 |
| P9063901 | 1 | 23may2005 | B - Hospital HD | Renal Vascular Disease... | 164 | 71 | Haemodialysis-Hollow Fibre Dialysers | 1.5 | 126 | 156 | 18 | 31dec2007 |
| P9063901 | 1 | 23may2005 | B - Hospital HD | Renal Vascular Disease... | 164 | 71 | Haemodialysis-Hollow Fibre Dialysers | 1.2 | 117 | 477 | 42 | 31dec2008 |
| P9063901 | 1 | 23may2005 | B - Hospital HD | Renal Vascular Disease... | 164 | 71 | Haemodialysis-Hollow Fibre Dialysers | .99 | 117 | 719 | 28 | 31dec2009 |
| P9063901 | 1 | 23may2005 | B - Hospital HD | Renal Vascular Disease... | 164 | 71 | Haemodialysis-Hollow Fibre Dialysers | .99 | 119 | 719 | 28 | 31dec2010 |
| P9882653 | 1 | 05sep2005 | L - CAPD Hospital/Outp... | Obstructive Nephropathy | 162 | 75 | Peritoneal - Continuous Ambulatory (CAPD) | . | . | . | . | 31dec2005 |
| P9882653 | 1 | 05sep2005 | L - CAPD Hospital/Outp... | Obstructive Nephropathy | 162 | 75 | Peritoneal - Continuous Ambulatory (CAPD) | 2.1 | 91 | 635 | 33 | 31dec2006 |
| P9882653 | 1 | 05sep2005 | L - CAPD Hospital/Outp... | Obstructive Nephropathy | 162 | 75 | Peritoneal - Continuous Ambulatory (CAPD) | 1.33 | 93 | 948 | 27 | 31dec2007 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Peritoneal - Automated (APD) | 2.8 | 130 | 199 | 24 | 31dec2004 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 3.97 | 133 | 1120 | 20 | 31dec2005 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 2.77 | 149 | 432 | 27 | 31dec2006 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 2.12 | 150 | 447 | 35 | 31dec2007 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 1.89 | 146 | 196 | 20 | 31dec2008 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 1.67 | 74 | 856 | 33 | 31dec2009 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 1.39 | 149 | 353 | 48 | 31dec2010 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 1.97 | 121 | 21 | 6 | 31dec2011 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 1.66 | 141 | 21 | 9 | 31dec2012 |
| P9750093 | 1 | 05apr2004 | L - CAPD Hospital/Outp... | Polycystic Kidney Disease | 186 | 88 | Haemodialysis-Hollow Fibre Dialysers | 2.1 | 165 | 23 | 16 | 31dec2013 |
| P7473859 | 1 | 28may2014 | BC - HD Hospital - Con... | Membranous GN | 176 | 78.6 | Haemodialysis-Hollow Fibre Dialysers | 2.11 | 111 | 476 | 40 | 31dec2014 |
| P7473859 | 1 | 28may2014 | BC - HD Hospital - Con... | Membranous GN | 176 | 78.6 | Haemodialysis-Hollow Fibre Dialysers | 2.2 | 111 | 255 | 21 | 31dec2015 |
| P7184454 | 1 | 16sep2015 | BC - HD Hospital - Con... | Reflux Nephropathy | 125 | 19.1 | Haemodialysis-Hollow Fibre Dialysers | 1.58 | 106 | 126 | 17 | 31dec2015 |

Example: TYPE N:1 - Merging Transplant data into incident (main) data

```
. mmerge patientid using `maindata' , type(n:1) unmatched(using)
```

| | | |
|---|------------|---|
| merge specs | | |
| matching type | n:1 | |
| mv's on match vars | none | |
| unmatched obs from | using | |
| master | file | anzdatatransplants_12_15.dta |
| | obs | 10952 |
| | vars | 5 |
| | match vars | patientid (not a key) |
| using | file | C:\Users\Aarti\AppData\Local\Temp\ST_1j000001.tmp |
| | obs | 34470 |
| | vars | 4 |
| | match vars | patientid (key) |
| variable patientid does not uniquely identify observations in the master data | | |
| result | file | anzdatatransplants_12_15.dta |
| | obs | 34567 |
| | vars | 10 (including _merge) |
| | _merge | 28019 obs only in using data (code==2) |
| | | 6548 obs both in master and using data (code==3) |

Output Table

Time to transplant (in years) = (transplantdate-treatmentdate)/365.25

| id | graftno | transplant-e | donorsourcecode | graftfailu-e | sequenceno | treatmentd-e | treatmentcode | _merge |
|----------|---------|--------------|--------------------------|--------------|------------|--------------|----------------------------------|-------------------------------|
| P9063901 | . | . | . | . | 1 | 23may2005 | B - Hospital HD | only in using data |
| P9882653 | . | . | . | . | 1 | 05sep2005 | L - CAPD Hospital/Outpatient | only in using data |
| P9750093 | 1 | 30may2008 | Deceased | 03mar2009 | 1 | 05apr2004 | L - CAPD Hospital/Outpatient | both in master and using data |
| P9750093 | 2 | 30oct2013 | Deceased | . | 1 | 05apr2004 | L - CAPD Hospital/Outpatient | both in master and using data |
| P7015671 | 1 | 09apr2008 | Friend | . | 1 | 05apr2005 | B - Hospital HD | both in master and using data |
| P7015670 | 1 | 16aug2006 | Deceased | 21dec2009 | 1 | 07mar2005 | B - Hospital HD | both in master and using data |
| P7015670 | 2 | 20oct2011 | Deceased | . | 1 | 07mar2005 | B - Hospital HD | both in master and using data |
| P7473859 | . | . | . | . | 1 | 28may2014 | BC - HD Hospital - Conventional | only in using data |
| P7184454 | 1 | 22oct2015 | Father | . | 1 | 16sep2015 | BC - HD Hospital - Conventional | both in master and using data |
| P1096472 | 1 | 06apr2015 | Deceased | . | 1 | 23sep2013 | BC - HD Hospital - Conventional | both in master and using data |
| P7811473 | . | . | . | . | 1 | 09sep2011 | DC - HD Satellite - Conventional | only in using data |
| P7811462 | . | . | . | . | 1 | 27sep2011 | BC - HD Hospital - Conventional | only in using data |
| P7811439 | . | . | . | . | 1 | 16sep2011 | BC - HD Hospital - Conventional | only in using data |
| P7811416 | . | . | . | . | 1 | 23aug2011 | BC - HD Hospital - Conventional | only in using data |
| P7811405 | 1 | 25jul2013 | Directed kidney exchange | . | 1 | 25aug2011 | BC - HD Hospital - Conventional | both in master and using data |
| P7811394 | 1 | 21dec2012 | Deceased | 27dec2012 | 1 | 18oct2011 | BC - HD Hospital - Conventional | both in master and using data |
| P7811394 | 2 | 11may2013 | Deceased | . | 1 | 18oct2011 | BC - HD Hospital - Conventional | both in master and using data |
| P7811372 | . | . | . | . | 1 | 11aug2011 | BC - HD Hospital - Conventional | only in using data |
| P7811361 | . | . | . | . | 1 | 24aug2011 | BC - HD Hospital - Conventional | only in using data |
| P7811360 | . | . | . | . | 1 | 25aug2011 | BC - HD Hospital - Conventional | only in using data |

. tab graftno,miss

| Graft number | Freq. | Percent | Cum. |
|--------------|--------|---------|--------|
| 1 | 6,451 | 18.66 | 18.66 |
| 2 | 97 | 0.28 | 18.94 |
| . | 28,019 | 81.06 | 100.00 |
| Total | 34,567 | 100.00 | |

. di 34567-97
34470

Example: TYPE N:N - Merging Combined (Dx/TX) data into Comorbidity data

```
. mmerge patientid using "AnzdataComorbidities_12_15", type(n:n) unmatched(master)
```

| | | |
|--------------------|------------|--|
| merge specs | | |
| matching type | n:n | |
| mv's on match vars | none | |
| unmatched obs from | master | |
| master | file | AnzdataTransplants_12_15.dta |
| | obs | 34567 → (incident dialysis + transplant data) |
| | vars | 14 |
| | match vars | patientid (not a key) |
| using | file | AnzdataComorbidities_12_15.dta |
| | obs | 849190 |
| | vars | 17 |
| | match vars | patientid (not a key) |
| result | file | AnzdataTransplants_12_15.dta |
| | obs | 192953 |
| | vars | 32 (including _merge) |
| _merge | | 192953 obs both in master and using data (code==3) |

Outlook data

| id | graftno | transplant-e | donorsourcecode | sequenceno | treatmentd-e | treatmentcode | postcode | chroniclun-e | coronaryar-e | peripheral-e | cerebrovas-e | diabetescode | atentry | surveydate |
|----------|---------|--------------|-----------------|------------|--------------|---------------------------|----------|--------------|--------------|--------------|--------------|--------------|---------|------------|
| P9063901 | . | . | . | 1 | 23may2005 | B - Hospital HD | 4214 | N | Y | N | N | N | N | 31dec2005 |
| P9063901 | . | . | . | 1 | 23may2005 | B - Hospital HD | 4214 | N | Y | N | N | N | N | 31dec2006 |
| P9063901 | . | . | . | 1 | 23may2005 | B - Hospital HD | 4214 | N | Y | N | N | N | N | 31dec2007 |
| P9063901 | . | . | . | 1 | 23may2005 | B - Hospital HD | 4214 | N | Y | S | N | N | N | 31dec2008 |
| P9063901 | . | . | . | 1 | 23may2005 | B - Hospital HD | 4214 | N | Y | S | Y | N | N | 31dec2009 |
| P9063901 | . | . | . | 1 | 23may2005 | B - Hospital HD | 4214 | N | Y | S | Y | N | N | 31dec2010 |
| P9882653 | . | . | . | 1 | 05sep2005 | L - CAPD Hospital/Outp... | 3198 | N | Y | N | N | P | N | 31dec2005 |
| P9882653 | . | . | . | 1 | 05sep2005 | L - CAPD Hospital/Outp... | 3198 | N | Y | N | N | P | N | 31dec2006 |
| P9882653 | . | . | . | 1 | 05sep2005 | L - CAPD Hospital/Outp... | 3198 | N | Y | N | N | P | N | 31dec2007 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | . | N | N | N | N | N | N | 31dec2004 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2005 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2006 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2007 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2008 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2009 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2010 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2011 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | N | N | N | N | 31dec2012 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | N | N | N | N | 31dec2013 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | Y | N | P | N | 31dec2014 |
| P9750093 | 1 | 30may2008 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | Y | N | P | N | 31dec2015 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | . | N | N | N | N | N | N | 31dec2004 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2005 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2006 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2007 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2008 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2009 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2010 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | N | N | N | N | N | 31dec2011 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | N | N | N | N | 31dec2012 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | N | N | N | N | 31dec2013 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | Y | N | P | N | 31dec2014 |
| P9750093 | 2 | 30oct2013 | Deceased | 1 | 05apr2004 | L - CAPD Hospital/Outp... | 6530 | N | S | Y | N | P | N | 31dec2015 |

ANOTHER MMERGE OPTIONS:

* To check no of rejection episodes for transplanted patients

```
mmerge id graftno using AnzdataTransplantRejection_12_15, type(1:n) unmatched(master/both)
      ukeep/udrop(variable names) urename(oldname newname)
```

* To check for geographical location of prevalent patients at end of survey

```
mmerge patientid endyeardate using AnzdataHistory_12_15 , type(1:1) unmatched(master)
      umatch(patientid surveydate) ukeep(varname)
```

*Merging first ever transplant in dialysis data

```
mmerge patientid using AnzdataTransplants_12_15, type(1:n) unmatched(master)
      uif(graftno==1) mismatch(nomatch) ukeep(graftno transplantdate graftfailuredate)
```

*To check for unique entries in data

- isid patientid
- isid patientid graftno
duplicates tag, gen(temp)

Error:

```
. use `maindata', clear  
  
. mmerge patientid using anzdataendyearhistory_12_15, type(1:n) unmatched(master)
```

| merge specs | |
|--------------------|--------|
| matching type | 1:n |
| mv's on match vars | none |
| unmatched obs from | master |

| master | |
|------------|---|
| file | C:\Users\Aarti\AppData\Local\Temp\ST_li000001.tmp |
| obs | 34470 |
| vars | 4 |
| match vars | patientid (key) |

| using | |
|------------|---------------------------------|
| file | anzdataendyearhistory_12_15.dta |
| obs | 508746 |
| vars | 6 |
| match vars | patientid (not a key) |

| common vars | |
|---------------|--|
| treatmentcode | |

variable patientid does not uniquely identify observations in
C:\Users\Aarti\AppData\Local\Temp\ST_li000003.tmp

| result | |
|--------|---|
| file | C:\Users\Aarti\AppData\Local\Temp\ST_li000001.tmp |
| obs | 142307 |
| vars | 10 (including _merge) |

| _merge | |
|--|-----------|
| 2138 obs only in master data | (code==1) |
| 140169 obs both in master and using data | (code==3) |

| id | sequenceno | treatmentd-e | treatmentc-e | parentcent-d | centrecodeid | statecode | year | _merge |
|----------|------------|--------------|--------------|--------------|--------------|-----------|-----------|-------------------------------|
| P9063901 | 1 | 23may2005 | B | H834763 | H834763 | QLD | 31dec2005 | both in master and using data |
| P9063901 | 1 | 23may2005 | B | H834763 | H834763 | QLD | 31dec2006 | both in master and using data |
| P9063901 | 1 | 23may2005 | B | H834763 | H834763 | QLD | 31dec2007 | both in master and using data |
| P9063901 | 1 | 23may2005 | B | H834763 | H834763 | QLD | 31dec2008 | both in master and using data |
| P9063901 | 1 | 23may2005 | B | H834763 | H834763 | QLD | 31dec2009 | both in master and using data |
| P9882653 | 1 | 05sep2005 | L | H7119608 | H7119608 | VIC | 31dec2005 | both in master and using data |
| P9882653 | 1 | 05sep2005 | L | H7119608 | H7119608 | VIC | 31dec2006 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2004 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2005 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2006 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2007 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2008 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2009 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2010 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2011 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2012 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2013 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2014 | both in master and using data |
| P9750093 | 1 | 05apr2004 | L | H7358715 | H7358715 | WA | 31dec2015 | both in master and using data |

```
mmerge patientid using anzdataendyearhistory_12_15, type(1:n) unmatched(master)  
uname(end_) {urename(treatmentcode lasttreatment)}
```

- * assert if !missing(varname)
- * capture confirm treatmentcode

RESHAPING DATA FORMAT

long

| i | j | stub |
|---|---|------|
| 1 | 1 | 4.1 |
| 1 | 2 | 4.5 |
| 2 | 1 | 3.3 |
| 2 | 2 | 3.0 |

← reshape →

wide

| i | stub1 | stub2 |
|---|-------|-------|
| 1 | 4.1 | 4.5 |
| 2 | 3.3 | 3.0 |

`reshape wide stub, i(i) j(j)`
 j existing variable
`reshape long stub, i(i) j(j)`
 j new variable

Reshape wide transplantdate failedate , i(id) j(graftno)

Transplant data long format

| id | graftno | transplant~e | graftfailu~e |
|----------|---------|--------------|--------------|
| P9095468 | 1 | 27feb1979 | 06jull1979 |
| P9095446 | 1 | 10feb1980 | . |
| P9095435 | 1 | 19sep1978 | 06dec1978 |
| P9095435 | 2 | 03sep1980 | 08sep1980 |
| P9095323 | 1 | 19jun1979 | 04dec1991 |
| P9095323 | 2 | 08sep1992 | . |
| P9095412 | 1 | 17oct1980 | . |
| P9095401 | 1 | 13sep1982 | 07feb2012 |
| P9095401 | 2 | 22jan2014 | . |
| P9095400 | 1 | 31aug1980 | . |
| P9095378 | 1 | 22sep1978 | 28mar1979 |
| P9095378 | 2 | 16may1980 | 17may1980 |
| P9095378 | 3 | 11aug1981 | 11aug1981 |
| P9095378 | 4 | 11mar1987 | 11mar1987 |

Transplant data wide format

| id | transplant~1 | graftfailu~1 | transplant~2 | graftfailu~2 | transplant~3 | graftfailu~3 | transplant~4 | graftfailu~4 |
|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| P9999415 | 05feb1991 | 16aug1991 | 08may1996 | 04aug2000 | . | . | . | . |
| P9999449 | 01apr1989 | 03apr1990 | 05mar2008 | . | . | . | . | . |
| P9999460 | 02feb1989 | 08nov1991 | . | . | . | . | . | . |
| P9999472 | 15sep1990 | 11jan2000 | 09aug2000 | . | . | . | . | . |
| P9999505 | 10nov1989 | 20may1991 | 08sep1991 | 08oct2013 | . | . | . | . |
| P9999528 | 24oct1990 | 07sep1993 | 19mar1997 | 23may2012 | . | . | . | . |
| P9999550 | 20may1990 | . | . | . | . | . | . | . |
| P9999562 | 22mar1989 | . | . | . | . | . | . | . |
| P9999641 | 24may1990 | 11feb2014 | . | . | . | . | . | . |
| P9999652 | 28dec1989 | 12oct1995 | . | . | . | . | . | . |
| P9999663 | 11nov1989 | 01dec2006 | 03oct2015 | . | . | . | . | . |
| P9999674 | 15dec1989 | 15sep1992 | 01sep1993 | 12mar2003 | 12oct2011 | . | . | . |

RESHAPING DATA FORMAT

Serum Creatinine data wide format

| id | graftno | txdate | sc1m | sc2m | sc3m | sc6m | sc1y | sc2y | sc3y | sc5y | sc7y | sc10y | sc15y |
|----------|---------|-----------|------|------|------|------|------|------|------|------|------|-------|-------|
| P9011275 | 1 | 24nov1977 | 140 | 120 | 120 | 100 | 120 | 120 | 100 | 100 | 100 | 90 | 90 |
| P9011264 | 1 | 08dec1977 | . | . | 80 | 80 | 90 | 70 | 90 | 100 | 100 | 100 | 100 |
| P9011242 | 1 | 29sep1986 | 78 | 87 | 89 | 89 | 82 | 83 | 102 | 118 | . | . | . |
| P9012129 | 2 | 28feb1980 | . | . | . | . | . | 295 | . | 300 | . | . | . |
| P9012207 | 1 | 14nov1979 | . | . | 200 | 140 | 130 | 110 | . | . | . | . | . |
| P9012185 | 2 | 02nov1977 | . | . | 110 | 100 | 110 | 150 | . | 300 | . | . | . |
| P9012163 | 1 | 11nov1977 | . | . | 80 | 100 | | | | | | | |
| P9012152 | 1 | 05may1976 | 340 | 200 | 140 | 100 | 1 | | | | | | |

reshape long sc , i(id graftno) j(months)

Reshaping data long and generating a longitudinal serum creatinine date

```
*Reshaping generating a longitudinal serum creatinine date
rename sc*m sc*
foreach yr of numlist 1 2 3 5 7 10 (5) 40 {
  rename sc`yr'y sc`=`yr'*12'
}
reshape long sc , i(id graftno) j(time_months)
gen screatdate = txdate+time_months*30.24
format screatdate %td
```

| id | graftno | txdate | screatdate | time_months | sc |
|----------|---------|-----------|------------|-------------|-----|
| P9857103 | 1 | 26may2000 | 25jun2000 | 1 | 114 |
| P9857103 | 1 | 26may2000 | 25jul2000 | 2 | 150 |
| P9857103 | 1 | 26may2000 | 24aug2000 | 3 | 140 |
| P9857103 | 1 | 26may2000 | 23sep2000 | 4 | . |
| P9857103 | 1 | 26may2000 | 23nov2000 | 6 | 110 |
| P9857103 | 1 | 26may2000 | 23may2001 | 12 | 120 |
| P9857103 | 1 | 26may2000 | 21may2002 | 24 | 140 |
| P9857103 | 1 | 26may2000 | 19may2003 | 36 | 120 |
| P9857103 | 1 | 26may2000 | 14may2005 | 60 | 110 |
| P9857103 | 1 | 26may2000 | 10may2007 | 84 | 111 |
| P9857103 | 1 | 26may2000 | 02may2010 | 120 | . |
| P9857103 | 1 | 26may2000 | 21apr2015 | 180 | . |
| P9857103 | 1 | 26may2000 | 08apr2020 | 240 | . |
| P9857103 | 1 | 26may2000 | 28mar2025 | 300 | . |
| P9857103 | 1 | 26may2000 | 16mar2030 | 360 | . |
| P9857103 | 1 | 26may2000 | 04mar2035 | 420 | . |
| P9857103 | 1 | 26may2000 | 21feb2040 | 480 | . |

MISSINGNESS ERRORS

- Collection date is variant for data variables.
- To ensure the completeness of the date ; Check for actual collection date of the variable.

Example : Access at first haemodialysis

```
. misstable pattern accessfirsthdcode surveydate
```

Missing-value patterns
(1 means complete)

| Percent | Pattern |
|---------|---------|
| 56% | 1 |
| 44 | 0 |
| 100% | |

Variables are (1) accessfirsthdcode

Check date of collection of variable

```
. misstable pattern accessfirsthdcode surveydate if year(surveydate)>2003
```

Missing-value patterns
(1 means complete)

| Percent | Pattern |
|---------|---------|
| 97% | 1 |
| 3 | 0 |
| 100% | |

Variables are (1) accessfirsthdcode

THANK YOU !