**Treatment Duration Assignment:**

Please find below a sample data set with three variables:

|  |  |  |  |
| --- | --- | --- | --- |
| **PATID** | **FILL\_DT** | **INDEX\_DATE** | **DAYS\_SUPP** |
| 1 | 01-Jan-14 | 01-Jan-14 | 30 |
| 1 | 01-Mar-14 | 01-Jan-14 | 30 |
| 1 | 01-Feb-14 | 01-Jan-14 | 20 |
| 1 | 22-Mar-14 | 01-Jan-14 | 15 |
| 1 | 01-Apr-14 | 01-Jan-14 | 16 |
| 1 | 15-Apr-14 | 01-Jan-14 | 10 |
| 2 | 01-Jan-15 | 01-Jan-15 | 20 |
| 2 | 01-Apr-15 | 01-Jan-15 | 15 |
| 2 | 01-Feb-15 | 01-Jan-15 | 10 |
| 2 | 15-Jan-15 | 01-Jan-15 | 16 |
| 2 | 15-Apr-15 | 01-Jan-15 | 10 |
| 2 | 05-May-15 | 01-Jan-15 | 50 |
| 3 | 01-Jan-14 | 01-Jan-14 | 20 |
| 3 | 01-Mar-14 | 01-Jan-14 | 20 |
| 4 | 22-Mar-16 | 22-Mar-16 | 40 |
| 4 | 10-Apr-16 | 22-Mar-16 | 25 |
| 4 | 01-Apr-16 | 22-Mar-16 | 10 |

*Where* ***PATID*** *= Patient ID;*

***FILL\_DT*** *= Date the prescription was filled by the pharmacy;*

***INDEX\_DATE =*** *Date of treatment initiation*

***DAYS\_SUPP****= Estimated day count the drug supply should last.*

**Objective:**

Estimate the number of days with continuous treatment prescription (starting from the INDEX\_DATE) for every patient

**Approach:**

Treatment will be considered as continuous when the subsequent FILL\_DT of a patient lies immediately after/within the end day of the previous treatment (where END\_DATE = FILL\_DT + DAYS\_SUPP). You need to start from the index date and find the number of days with continuous treatment for every patient. For this, continue following the above-mentioned condition as long as there is break in treatment prescription.

Further, delete the records which do not comply with the continuation criteria. The last date with continuous treatment criteria will be the true end date for each patient.

**Outcomes of interest:**

Two new variables:

**TRUE\_END\_DATE:** The last date fulfilling the continuous treatment criteria for each patient

**TX\_DURATION:** Number of days with continuous treatment based on the above-mentioned criteria