This code does not remove events after unable to eat. You should do so. These events are on the causal path from unable to eat to mortality. Keeping them in the analysis could distort the estimated mortality level associated with unable to eat.

Prof Alemi

select \* from dbo.Assessments

SELECT [column1] AS ID

,Cast([column2] AS Float) + CAST([column6] AS Float)/365. AS [Age]

,Iif ([Column3]='M', 1, 0) AS [Male]

,[column4] AS [Number of assessments completed]

,[column5] AS [Days followed]

,CAST([column6] AS Float) AS [Days since first assessment]

,[column7] AS [days to last assessment]

,[column8] AS [Unable to eat]

,[column9] AS [unable to transfer]

,[column10] AS [Unable to groom]

,[column11] AS [Unable to toilet]

,[column12] AS [Unable to bathe]

,[column13] AS [Unable to walk]

,[column14] AS [Unable to dress]

,[column15] AS [Unable to bowel]

,[column16] AS [Unable to urine]

,[column17] AS [Dead]

,[column18] AS [Assessment number]

INTO #Data

FROM [dbo].[Assessments]

select \* from Dbo.#Data

SELECT ID AS [ID Dead]

, [Days since first assessment] AS [Dead on day]

INTO #Dead FROM #Data WHERE Dead=1

select \* from dbo.#Dead

SELECT #Data.\*

, iif(#dead.[Dead on Day]-#Data.[Days since first assessment]

between 0 and 183, 1,0) AS [Dead6M]

INTO #Data2 FROM #Data left join #Dead ON [ID]=[ID Dead]

select \* from dbo.#Data2

SELECT ID AS [ID unable to eat]

, Min([Days since first assessment]) AS [Unable to eat on day]

INTO #uEat FROM #Data

WHERE [Unable to eat]=1

GROUP BY [ID]

select \* from dbo.#uEat

Select MIN(Age) AS MinAge INTO #MinAge FROM #Data2 GROUP BY ID

Declare @AvgAge AS Float

SET @AvgAge=(SELECT Avg(MinAge) FROM #MinAge)

SELECT ID, [Assessment number], Dead6M, [Unable to Eat]

, Concat(IIF(Age<@AvgAge,'Y', 'O'), IIF(Male=1, 'M','F'),

IIF([unable to transfer]=1,'S',''), IIF([Unable to groom]=1, 'G',''),

IIF([Unable to toilet]=1, 'T',''), IIF([Unable to bathe]=1, 'B',''),

IIF([Unable to walk]=1, 'W', ''), IIF([Unable to dress]=1, 'D',''),

IIF([Unable to bowel]=1, 'L',''), IIF([Unable to urine]=1,'U','')) AS Strata

INTO #Data3 FROM #Data2 left join #uEat ON [ID]=[ID unable to eat]

WHERE #Data2.[Days since first assessment]<=#uEat.[Unable to eat on Day]

or #uEat.[Unable to eat on Day] is null

select \* from dbo.#MinAge

select \* from #Data3

SELECT COUNT([ID]) AS nCases

, Sum(IIF([Dead6M] = 1, 1., 0.)) AS DeadCase

, SUM(IIF([Dead6M] = 0, 1., 0.)) AS AliveCase

, Strata

INTO #Cases

FROM #Data3

WHERE [Unable to Eat] = 1

GROUP BY Strata

select \* from #Cases

SELECT COUNT([ID]) AS nControls

, Sum(IIF([Dead6M] = 1, 1., 0.)) AS DeadControl

, SUM(IIF([Dead6M] = 0, 1., 0.)) AS AliveControl

, Strata

INTO #Controls

FROM #Data3

WHERE [Unable to Eat] = 0

GROUP BY Strata

select \* from dbo.#Controls

SELECT nControls, DeadControl, AliveControl, #Cases.\*

INTO #Match

FROM #Cases inner join #Controls

ON #Cases.Strata =#Controls.Strata

select \* from dbo.#Match

SELECT sum(DeadCase\*AliveControl/(DeadCase+AliveCase+DeadControl+AliveControl))/

sum(AliveCase\*DeadControl/(DeadCase+AliveCase+DeadControl+AliveControl)) As [Common Odds Ratio]

FROM #Match

Declare @TotalCases Float

SET @totalCases = (SELECT Sum(nCases) FROM #Cases)

SELECT ROUND(SUM(nCases)\*100/@TotalCases,2) as [Percent Overlap]

FROM #Match

In a nursing home, data were collected on residents' survival and disabilities. The data are listed in the following order: ID, age, gender (M for male, F for Female), number of assessments completed on the person, number of days followed, days since first assessment, days to last assessment, unable to eat, unable to transfer, unable to groom, unable to toilet, unable to bathe, unable to walk, unable to dress, unable to bowel, unable to urine, dead (1) or alive (0), and assessment number. Does inability to eat increase probability of mortality in 6 months? Use SQL and stratified covariate balancing to determine if inability to eat contributes to mortality, after controlling for other disabilities of the patient.