/\*\*\*\*\*\* Bench-marking Dr. Smith  \*\*\*\*\*\*/

USE DrSmith -- Name of your database is likely to be different

DROP TABLE  #Cases, #Controls, #Match-- Drop temporary files if they already exist

-- Cases: patient is cared for by Dr Smith

SELECT COUNT([LOS]) AS nCases -- Number of patients seen by Dr. Smith

              , Sum(IIF([LOS]>3.99,1.,0.)) AS a  -- Number of Dr. Smith patients staying more than expected

              , COUNT([Cared for by Dr Smith])-SUM(IIF([LOS]>3.99,1.,0.)) AS b  -- Number Smith patients staying expected or below

              , [Hypertension],[Anemia],[Diabetes], [HIV],[Stomach Cancer],[Lung Cancer],[Myocardial Infarction],[Heart Failure],[Metastetic Cancer]

INTO #Cases  -- Save in temporary file called Cases

FROM [dbo].[Data2]  -- Name of your table may be different

WHERE [Cared for by Dr Smith] = 1 -- Select only patients care for by Dr. Smith

GROUP BY  -- Create strata as combinations of the 10 diseases

      [Hypertension],[Anemia],[Diabetes],[HIV],[Stomach Cancer],[Lung Cancer],[Myocardial Infarction],[Heart Failure],[Metastetic Cancer]

-- (512 row(s) affected)

--Controls: patients seen by peer group

SELECT COUNT([Cared for by Dr Smith]) AS nControls -- Number of patients seen by peer group

              , Sum(IIF([LOS]>3.99,1.,0.)) AS c  -- Number of peer group patients staying more than expected

              , COUNT([Cared for by Dr Smith])-SUM(IIF([LOS]>3.99,1.,0.)) AS d  -- Number staying expected or below

              , [Hypertension],[Anemia],[Diabetes], [HIV],[Stomach Cancer],[Lung Cancer],[Myocardial Infarction],[Heart Failure],[Metastetic Cancer]

INTO #Controls  -- Save in temporary file called Controls

FROM [dbo].[Data2]  -- Name of your table may be different

WHERE [Cared for by Dr Smith] = 0 -- Select only patients care for by peer group

GROUP BY  -- Create strata as combinations of the 10 diseases

      [Hypertension],[Anemia],[Diabetes],[HIV],[Stomach Cancer],[Lung Cancer],[Myocardial Infarction],[Heart Failure],[Metastetic Cancer]

-- (512 row(s) affected)

-- Match cases with controls and calculate common odds ratio

SELECT sum(a\*d/(a+b+c+d))/sum(b\*c/(a+b+c+d)) As [Common Odds]

FROM #Cases inner join #Controls on

#Cases.[Hypertension] =#Controls.[Hypertension]

and #Cases.[anemia] = #Controls.[Anemia]

and #Cases.[Diabetes]= #Controls.[Diabetes]

and #Cases.[HIV]= #Controls.[HIV]

and #Cases.[Stomach Cancer]= #Controls.[Stomach Cancer]

and #Cases.[Lung Cancer]= #Controls.[Lung Cancer]

and #Cases.[Myocardial Infarction]= #Controls.[Myocardial Infarction]

and #Cases.[Heart Failure]= #Controls.[Heart Failure]

and #Cases.[Metastetic Cancer]= #Controls.[Metastetic Cancer]