Assignment 1

This assignment is meant to provide some experience with looking at study designs and assessing possible confounding.

Read the article by Peters et. al. You may skip the sections on cellular support and toxicity if you wish.

1. What is the purpose and conclusion of this paper (short answer – can base on abstract).

2. What is the primary outcome-short answer?

3. What is the study design? Indicate all that are correct.
   3a. Randomized trial
   3b. Experiment
   3c. Observational study
   3d. Case-control study
   3e. Prospective study
   3g. Study with historical controls.
   3h. Cross sectional study

4. Consider table 4, where some, but not necessarily all, characteristics of the different treatment groups are compared. Overall, are the groups comparable (not just on the factors in Table 4)? For example, are the groups comparable on age? On what factor(s) might they be non comparable (some might not be in the article or Table 4). That is, list any serious potential confounders and sources of bias, even those not necessarily in the paper, or state that there are none.

5. Indicate all the method(s) below that could be used to carry out a reanalysis of the current data that might give a more fair assessment of the new treatment compared to the older treatments (ie help control for confounding). This is NOT a study redesign, but new use of the existing raw data already collected. NO new data is collected. You can assume you have access to all of the data for each patient.
   5a. Matching
   5b. Randomization
   5c. Stratification
   5d. Validation
   5e. Modeling
Read the article by Stadtmauer et. al.

6. Are there important differences between the populations targeted in the two studies? Are there differences in the design of the two studies? Briefly, suggest why the conclusions in the two studies may differ or explain why they do not differ.

7. Is a new study needed for the population targeted by the Peters study? Is a new study needed for the population targeted by the Stadtmauer population? If so, what study design should be used. Also comment on follow up time needed.