Practical S0 SPSS
OOA Course Basic Medical Statistics
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The exercises are a guide for you to practice with SPSS and get more familiar with it. If you save the commands (syntax), by using the paste button for each step, you have a completed syntax in the end that you can save and run (*step 10*).

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1. Open the file "trial_rt.sav". ***This file contains data from a trial with prostate cancer patients: see "variable view" for information on the variables.***
Secondly, open also the file "trial_acutetox.sav" .

Now you have 2 databases open in SPSS. Merge the file "trial_rt" with the file "trial_acutetox", which contains 2 new variables. Use the studnr as the key variable. *Check first if the studnr variable is sorted from low to high numbers. If not, sort this variable in both data sets.****Menu: data – merge files.***

2. Save the new (combined) file under a different name (e.g. trial_rt_all) in spss format and xls format. ***Menu: file – save as.***

3. Create a "case summary table' for all patients with Grade 3 rectal toxicity, containing information on ID, arm, dose, TURp, and RT Volume group. ***Menu: 1) data – select cases (var maxarect), 2) analyze – reports – case summaries.***

4. Create a Frequency Table for the variable "TNM_T". ***Menu: analyze – descriptive statistics.***

5. Explore the variable "PSA" (blood value: ***p****rostate* ***s****pecific* ***a****ntigen*) by using the "descriptives" and the "explore" option. Compare the output. Look up the mean and median value. How is this variable distributed ? Double-click on the Boxplot and change the color of the brown box. ***Menu: analyze – descriptive statistics.***

6. Recode the variable " PSA" into "PSA_level" with low level (=<10), intermediate level (10-20), high level (>20). Create a label (e.g. '*PSA categories'*) and create the values (1 = …, etc). ***Menu: transform – recode into diff variables.***

7. Generate a Frequency Table for "PSA_level" for each "study arm separately (variable 'arm'): use "split file" or "select". ***Menu: data – select cases / split file.***

8*.* Create a Crosstab of diabetes * Cardiovascular history (cardio). *First you have to "undo" the "split file" and/or "selection".* Use the button "cell" to add row and column %. Do diabetes pts have more often a cardiovasc. history ? ***Menu: analyze – descriptive statistics – crosstabs.***

9. Save a file under a different name, saving only a subset of variables (e.g. name "trial_rt_subset.sav"), e.g. saving patnr, arm, psa, psa_level. ***Menu: file – save as – button 'variables'.***

10. Save your syntax, close SPSS, open SPSS, read the syntax file, and run the program.
To run syntax you can select it with the mouse, and push the green "run" button.

Extra challenge (optional): Compute a new variable which indicates whether or not the received dose (indicated with the variable "dose") was according the planned dose (the variable "arm"). Create a second new variable that indicates the dose difference between planned and received dose
(There are several ways to go, think about using 'compute' option en 'recode diff var' option).

for this exercise there is no "answer sheet' available