

# MDS-PBMC report

In this report we will look at the difference between the PBMCs Me-Nam values in NR and placebo patients in the NADPARK trial.

For all graphs in the report, we have used the PBMCs Me-Nam ratio between the second and second visit for all patients (visit-2 / visit-1). To see if the drug has an effect on the PBMCs Me-Nam value in the patients we set the ratio threshold to 1.

## Questions

Is there a difference between established and probable PD patients?

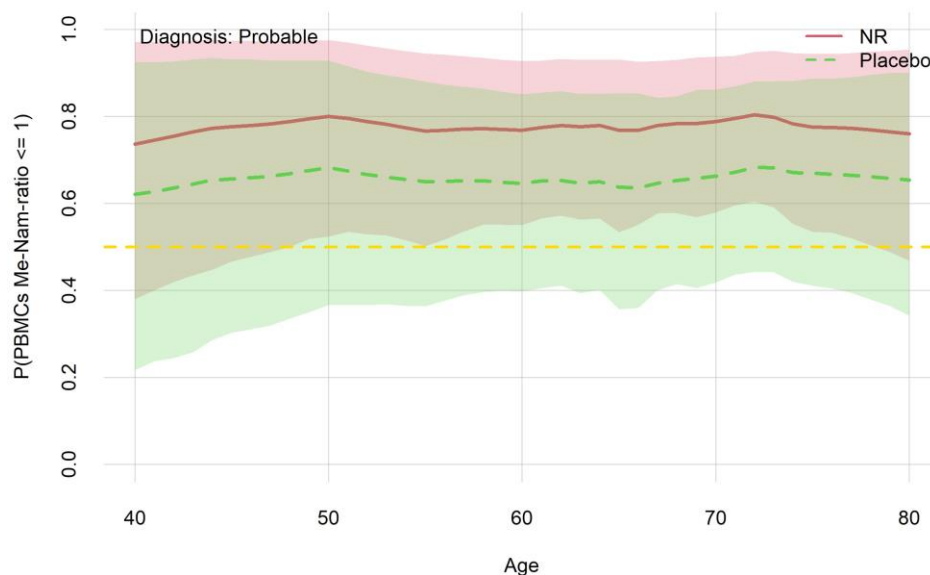
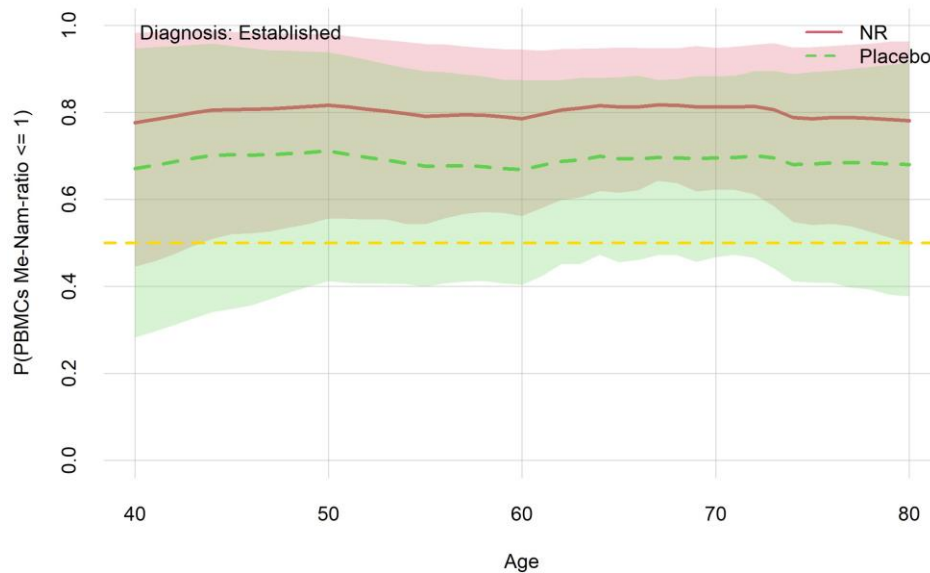
Does loss of smell disorder affect the PBMS ratio of the patients?

Does REM sleep disorder affect the PBMS ratio of the patients?

Does gender affect the PBMS ratio of the patients?

## Diagnosis versions

Is there a difference between established and probable PD patients?



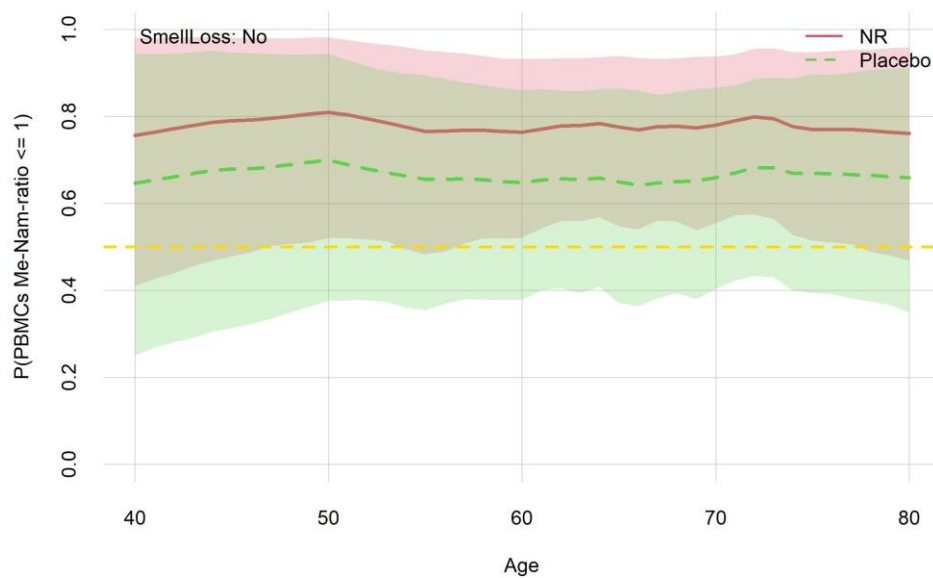
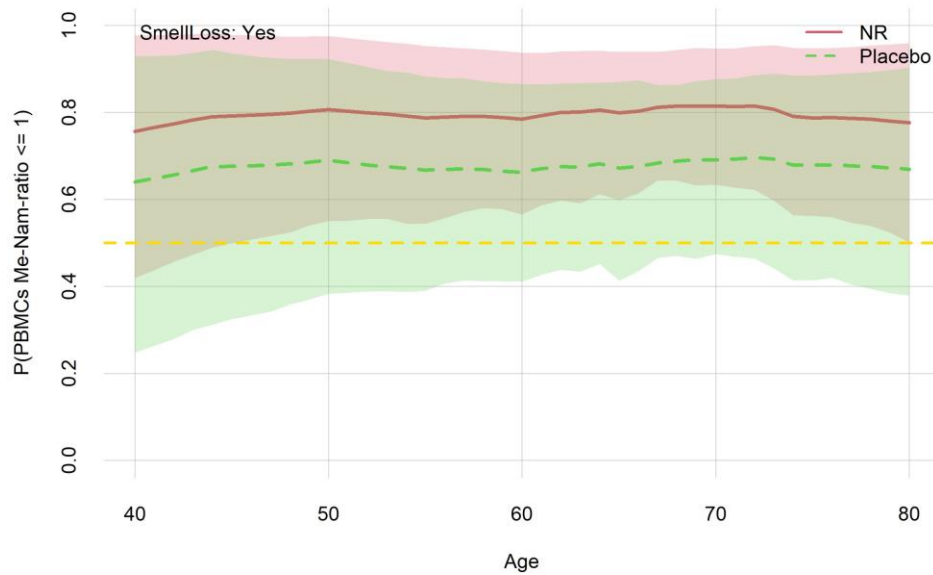
From these graphs we can see that there is a difference between the diagnosis. The established PD patients have a higher percent chance of an increase in PBMC values (~5%) after the treatment than the probable patients.

There can be multiple reasons for this. That in the “probable” group there can be patients who doesn’t have PD and will not have a reaction to the drug. If this is true, we can also prove that the treatment effects PD patients.

We can see from the large quantile-fields that there is a large uncertainty about the result due to the small sample size in the trial, and if we had more data these results can differ from what we see today.

## Loss of smell

Does loss of smell disorder affect the PBMS ratio of the patients?

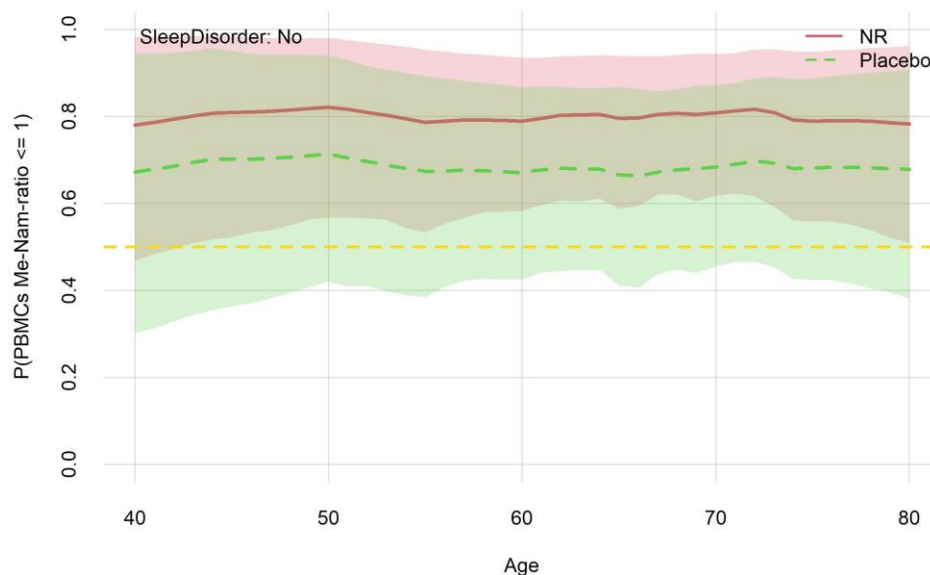
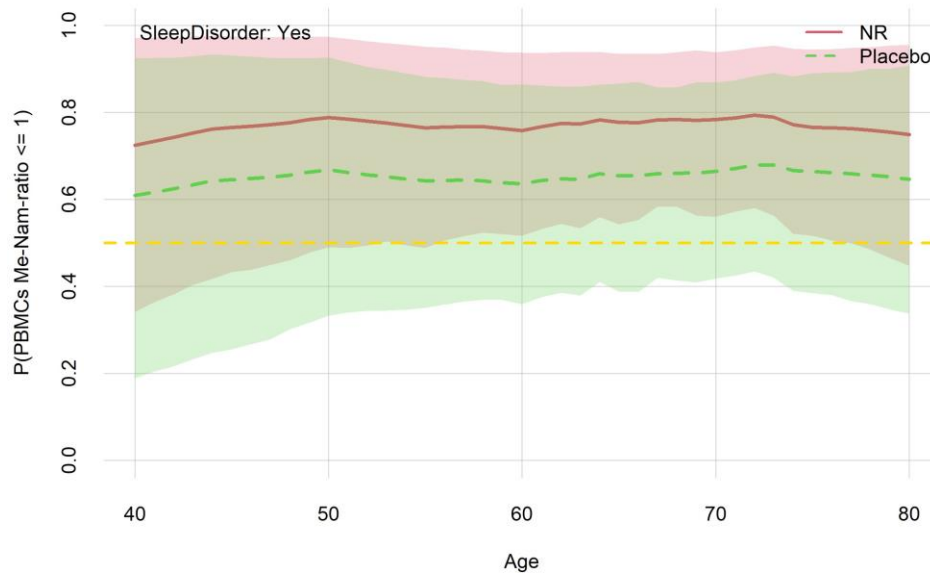


In the graphs over we can see that there is no noticeable difference in PBMC ratio between No loss of smell and loss of smell.

Again, this can change with a larger sample size.

## REM sleep

Does REM sleep disorder affect the PBMS ratio of the patients?

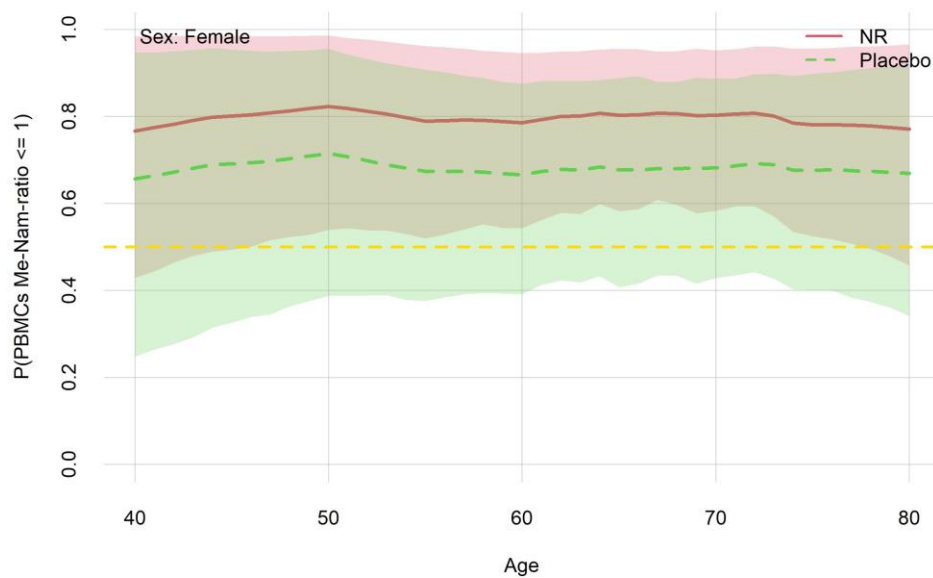


In the graphs above we can see a small difference in the NR-lines for the REM sleep disorder with about ~3% higher probability for people with the disorder to have a better effect from the treatment.

As with the other chapters there is a large uncertainty of the results, which means that the graphs can differ from these results shown here.

## Sex

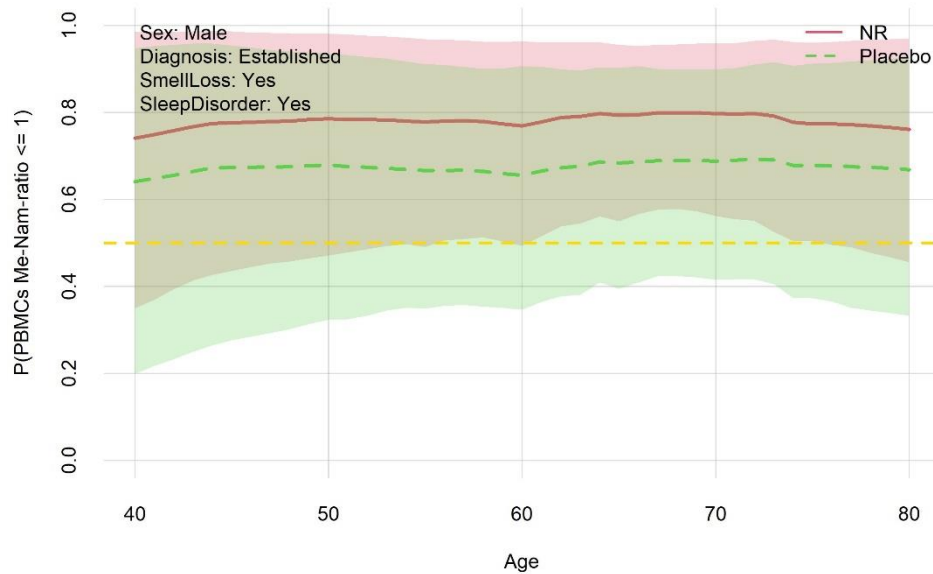
Does gender affect the PBMS ratio of patients?



There are no noticeable differences between the genders with the data given.

## Total

From the earlier chapters we can conclude that there is not enough data to know exactly how big these findings are, but there are noticeable differences between MDS-PBMS-NAD values in NR and placebo patients which should be worth looking more into.



Here is an example of what the software can do, it can calculate all possible subgroups from the data. So, each possible combination of subgroups can be plotted like this.