

# CYSTIC FIBROSIS (CF) OUTPATIENT TREATMENT COSTS: A RETROSPECTIVE ANALYSIS

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## OBJETIVES

- To assess the pharmaceutical cost associated with CF outpatients from the Adult Cystic Fibrosis Unit at third level hospital.

## METHODS

- Retrospective observational study of CF medication in adult patients throughout the year 2017.
- Patients without complete annual monitoring were excluded.
- SPSS program (15.0 version) was used for data analysis.
- CFTR modulators drugs and hypertonic 7% sodium chloride solution as master preparation were not considered for overall costs (purchase price was zero).

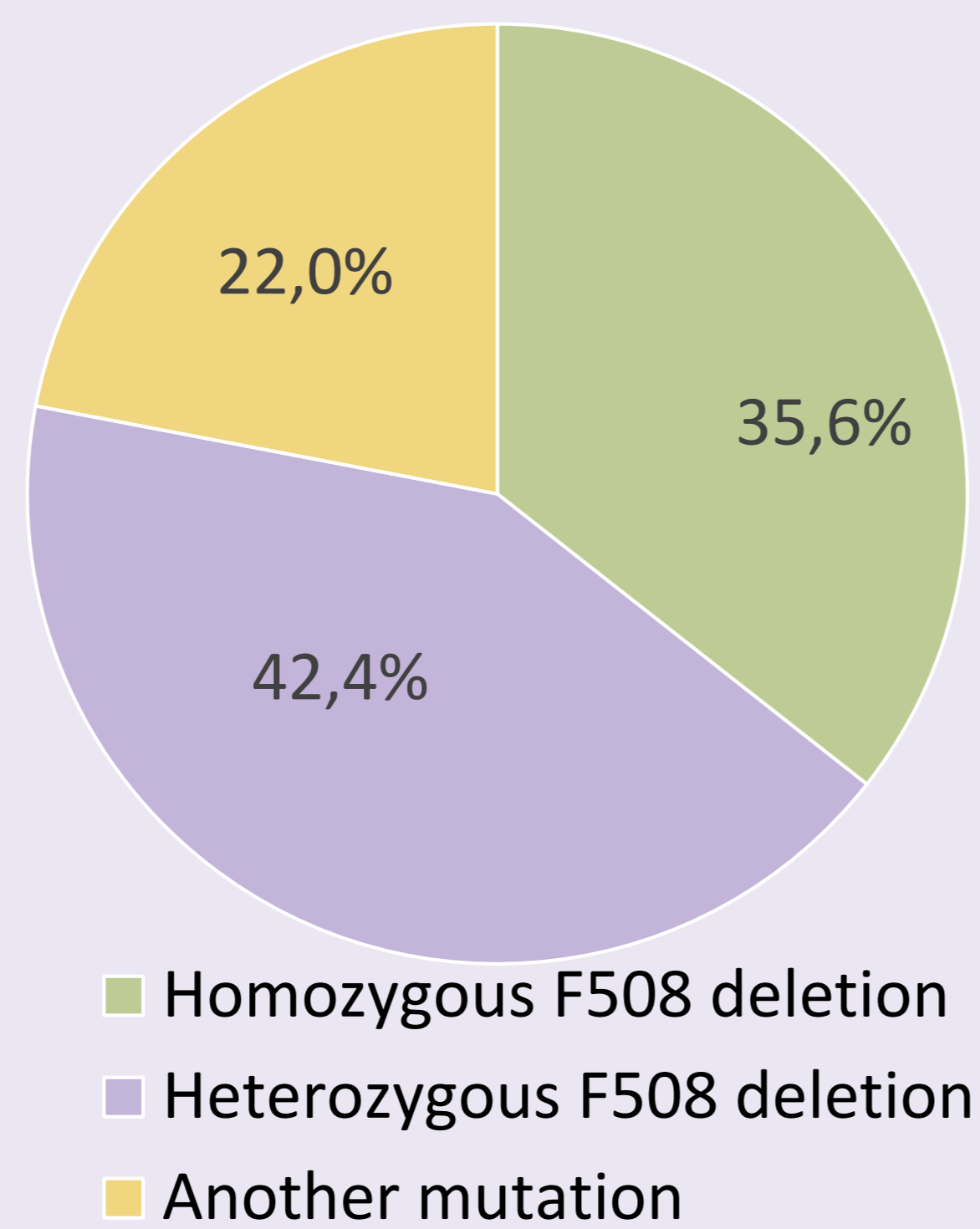
### Collected data

Age, sex
Mutation of cystic fibrosis transmembrane conductance regulator (CFTR) gene
Forced expiratory volume in 1 second (FEV1)
Colonization by <i>Pseudomonas aeruginosa</i> (PA)
Drug therapy costs (laboratory selling price notified in Nomenclator)

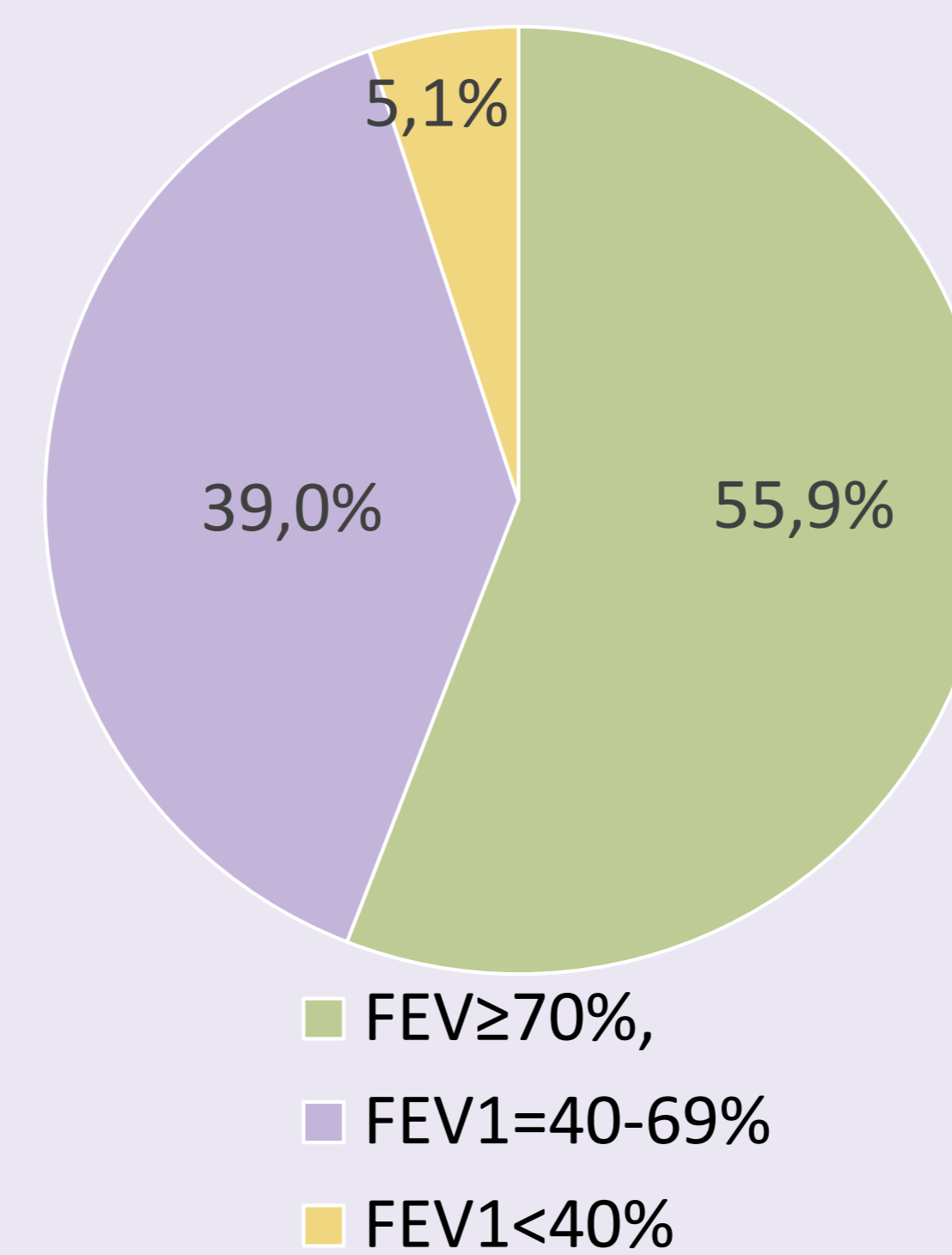
## RESULTS

- Nº pacientes:** 59
- Mediana de edad:** 32,2 years ( $\pm 9.2$ )
- Sexo:** 54,2 % were female

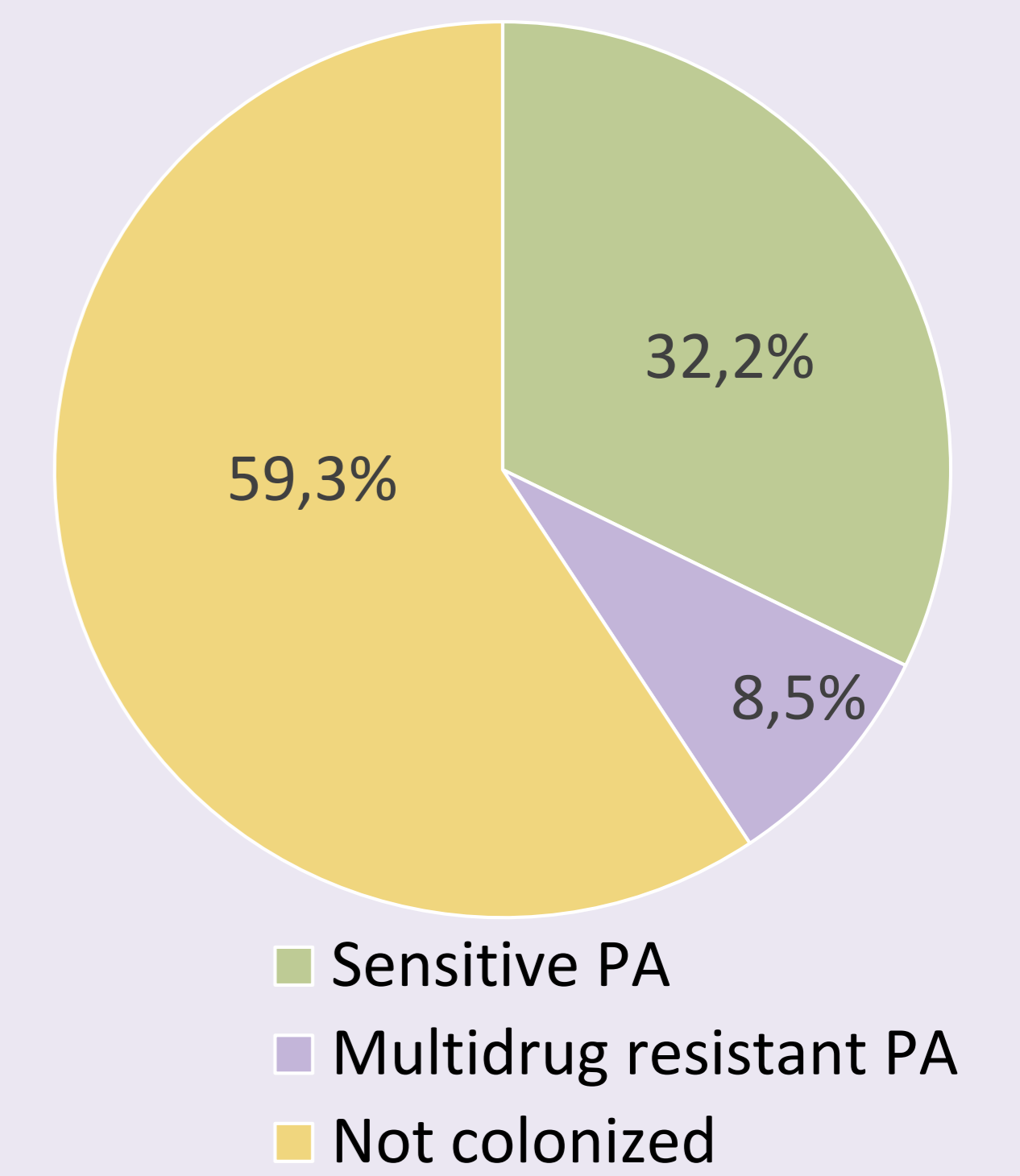
### CFTR mutation



### FEV1



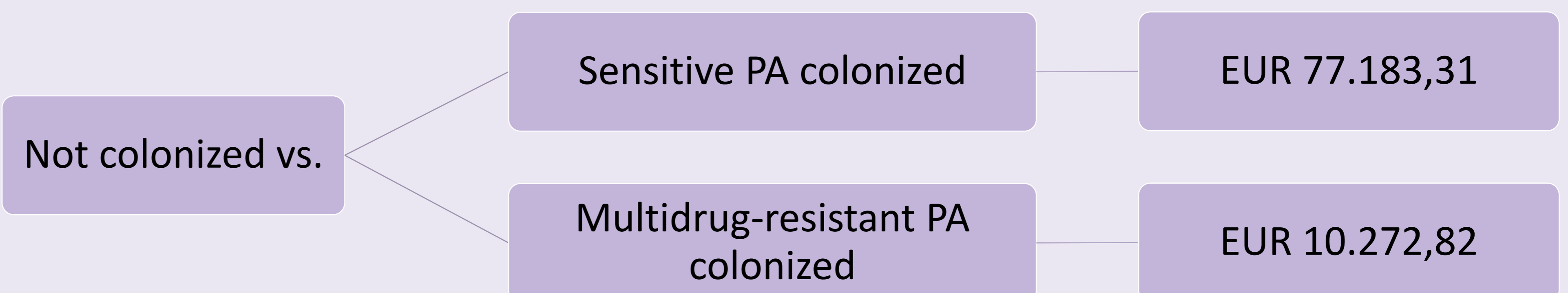
### Colonization by PA



## Analysis cost

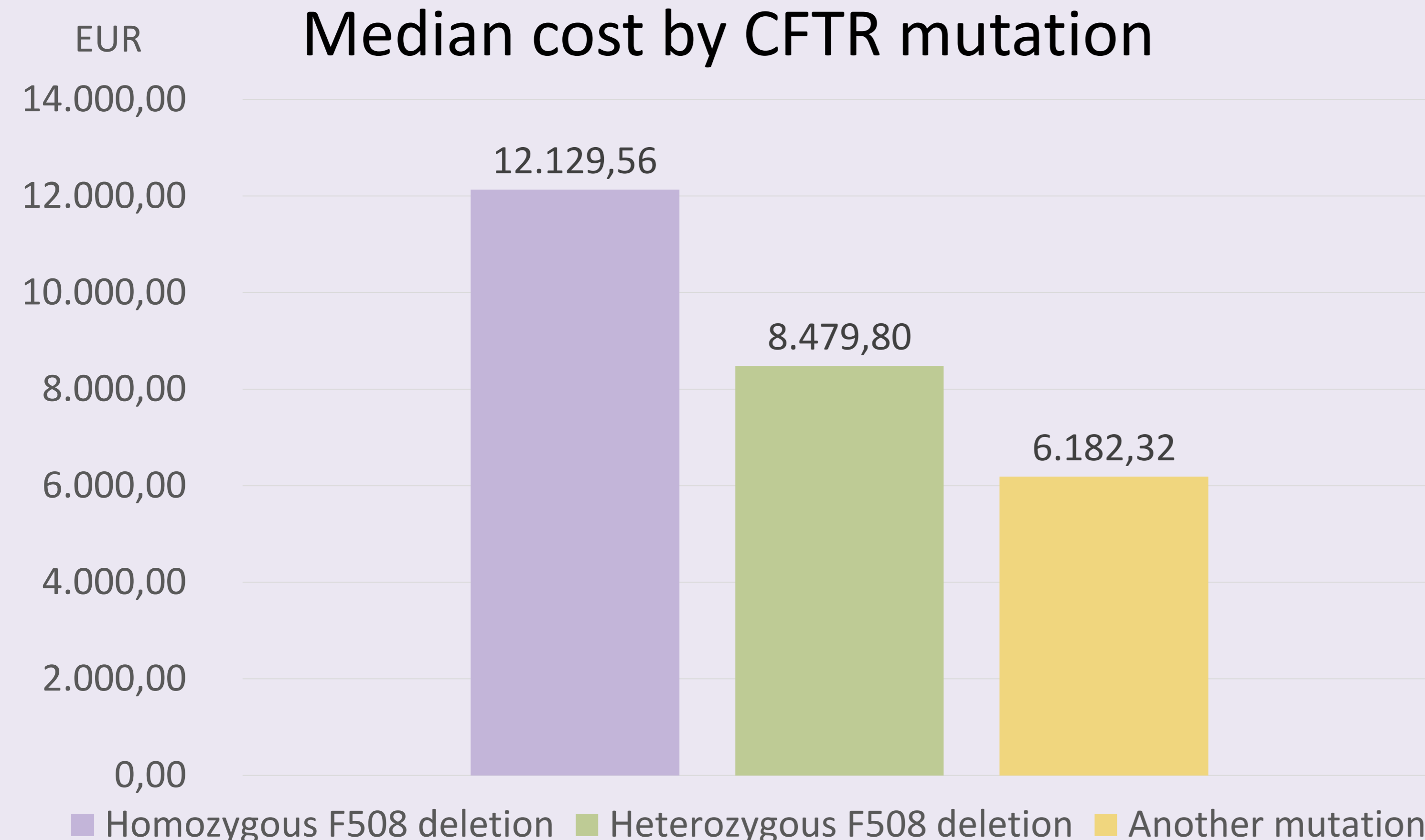
<b>Total cost</b>	EUR 54.7085,70
<b>Median cost</b>	EUR 7.147,58

### Difference cost by PA colonization

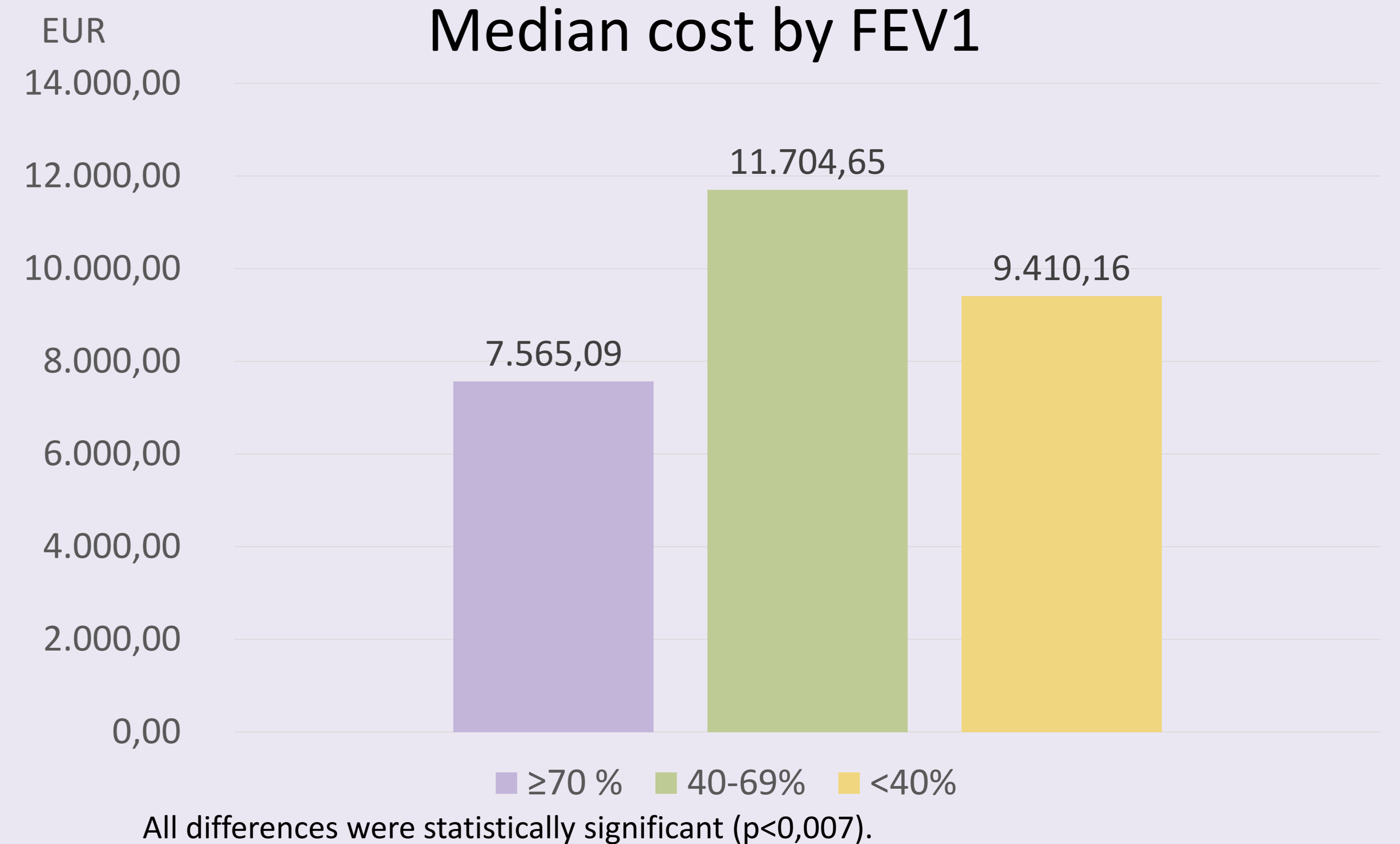


All differences were statistically significant ( $p < 0,007$ ).

### Median cost by CFTR mutation



### Median cost by FEV1



All differences were statistically significant ( $p < 0,007$ ).

## DISCUSSION

- Treatment costs per patient are similar to those reported in literature.
- Severe dysfunction means lower expenditure than intermediate function, on account of excluding CFTR modulators.
- Homozygous F508 deletion, associated with a worse prognosis, means high expenditure.

## CONCLUSIONS

- CF is a relatively costly disease, although new CFTR modulator drugs will increase costs considerably.
- The pulmonary function and CFTR mutation are related with treatment cost.
- Relationship between treatment adherence and cost should be analyzed in further studies.

