PED/PROS IN THE DESIGN OF CLINICAL TRIALS



Group 2. How to overcome the obstacles and limitations in using PED/PROs as measures in CVD Clinical Trials.

- 1. Use PRO and PED in all of your clinical trials (academia and industry).
- 2. PRO / PED are very valuable as secondary outcomes.
- 3. We are behind. So far only one CV PRO proposal for qualification and one for submission (in PAH)
- 4. Early phase: PRO is feasible as primary outcome.
- 5. Have a PRO specialist on your trial committee.
- 6. EMA invites you to get advice from regulators early.
- 7. Predefine your PRO / PED analysis in an analysis plan prior to unblinding / data base lock.
- 8. Combining PRO / PED with biomarkers will improve their interpretation
- 9. Standardised environments are important for validated PROs
- 10. In some diseases (e.g. paroxysmal AF, angina), symptom severity changes over short periods of time. In other diseases (e.g. chronic heart failure, aortic stenosis), the effects of a cardiovascular condition are more stable. Repeated PRO measurements can capture short-term effects.
- 11. Multimorbidity is on the rise. This impacts PROs, e.g. masking of a disease-specific effect by effects due to other diseases. Repeated measurements combined with physiological measurements can potentially overcome this.
- 12. Non-validated PROs and settings (apps) can be validated in your trial. Placebo control will help.
- 13. Can we share the effort of validation of PROs.
- 14. Short questionnaires and intelligent, digital questionnaires will increase return rates.
- 15. Involving patients early may further increase return rates.
- 16. Rules on how to count missing values are important. This remains an important area.