https://box.medunigraz.at/s/iLqnFjn9DqgAM96?

Questions about excel:

I see that in excel are patient data with some description:

a) Set - how this column is related with folder synkope its look like there should be map 1 to 1 but in excel are 98 records and in folders are 84 files

I double checked the files, there were some missing in the synkope folder, I sorted them again, there are now 97 files in the folder. The one that is missing I could not find, but I will have another look

b) Medication - unfortunately i'm not medicine related person so I will be very glad for some shortcut about medicine and it does (is it standard or higher/lower).

We did not take a closer look at the medication yet, this is basically just a copy from the patient file. I am also not sure, if all the medication is relevant for the analysis, as probably not all of them affect the cardiovascular system. I would need to go through the medication patient per patient together with Nandu someday, as I am also not a medical doctor.

c) Classification - means this shortcuts:

BP = blood pressure
BPS = blood pressure sympathicus
HRBP = heart rate and blood pressure
HRBPS = heart rate and blood pressure with sympathicus
HRPBPS = HRBPS (typo)
HRBPS_Bphoch = same but with a high Blood pressure
BPS_no start mark = blood pressure symphaticus (no start mark in the file)
NMSOH = Neurally mediated syncope (NMS) orthostatic hypothension (OH)
NMSOH_BPHRS = NMSOH, drop in blood pressure, heart rate inkl. Sympaticus
NMSOH_start problem = NMSOH, but a problem with the right marking in the file
And what is difference between them ?

This is a classification of the syncope (fainting), there are different types/mechanisms of synkope, in some only blood pressure (BP) drops, in some BP + heart rate (HR), with or without sympathical acvitivy (S),
orthostatic hypothension (OH) = is defined as a drop in systolic blood pressure of at least 20mmHg

In general there are 3 classifications we choose:

1. Only Blood Pressure Drop
2. Heart rate and blood pressure Drop
3. Neurally medicated syncope (which means a constant drop in BP, not an instant one)

I will send you an example for each classification so you have an idea how it looks like!

d) Presyncope - what exactly tell us this time ?

The time indicated is the time when the syncope (fainting) starts, which means the time when you can see the drop in blood pressure, heart rate or both

Synkope data:

I put lot an afford to analyze and understand this data but I really don't know meaning of this:

1. BPV
2. BPVStatistics
3. BRRSStat0
4. BRRSStat1
5. BRRSStat2
6. BRS_BRS0
7. BRS_BRS2
8. BeatStat
9. BeatStat_OscBP
10. CardiacBeatStat
11. CardiacParams
12. HRVStatistics
13. IV
14. OscBP
15. sBPVStatistics

Concerning this abreviations, I will bring you in contact with my colleague who is an expert in analysing this kind of data in mwatlab, I am sure he will be able to help you. Unfortunately, I am mainly working on collecting the data and not in the detailed analysis.

No finding data:
I see that no finding data has one more parameters called **ans** i also don't know what is meaning of this.

BeatToBeat
My understanding of abbreviations for BeatToBeat data (Hubert):

Acronym	**Relation**	**Description**
BeatToBeat_Beat	Primitive	Heart beat number
BeatToBeat_CI Cardiac Index	**CI = CO / BSA** BSA- Body Surface Area	Haemodynamic parameter that relates the cardiac output (CO) from left ventricle in one minute to body surface area (BSA), thus relating heart performance to the size of the individual. The unit of measurement is litres per minute per square metre (L/min/m2).
BeatToBeat_CO Cardiac Output	**CO = SV * HR**	Term used in cardiac physiology that describes the volume of blood being pumped by the heart, in particular by the left or right ventricle, per unit time.

BeatToBeat_HR Heart Rate	Primitive	Speed of the heartbeat measured by the number of contractions of the heart per minute (bpm)
BeatToBeat_RRI RR-Interval	Primitive	The time elapsing between two consecutive R waves in the electrocardiogram.
BeatToBeat_SI Stroke index	**SI = SV / BSA** BSA - Body Surface Area	The stroke volume indexed to a patient's body size by dividing by the body surface area.
BeatToBeat_SV Stroke Volume	Primitive	Stroke volume is the amount of blood the left ventricle ejects in one beat, measured in milliliters per beat (ml/beat)
BeatToBeat_TPR Total Peripheral Resistance	Primitive	A measure of the total resistance to blood flow provided by the entire vascular system [MPa·s/m3 lub dyn·s/cm5],
BeatToBeat_TPRI Total Peripheral Resistance Index	**TPRI = TPR / BSA** BSA- Body Surface Area	TPRI divided by the body surface area.[MPa·s/m3 lub dyn·s/cm5/m2].
BeatToBeat_Time	Primitive	Timestamp of each beat.
BeatToBeat_dBP Diastolic Blood Pressure	Primitive	The amount of pressure in arteries between beats.
BeatToBeat_mBP Mean blood pressure	**MBP≈ 2/3dBP + 1/3sBP**	Average blood pressure in an individual during a single cardiac cycle.
BeatToBeat_sBP Systolic Blood Pressure	Primitive	The amount of pressure in arteries during the contraction of heart muscle.

BPV (Blood Pressure Variability) and Similarly for:

- **BPVsBP (Blood Pressure Variability - sympathicus)**
- **HRV (Heart Rate Variability)**

My understanding of abbreviations for BPV/HRV data (Hubert):

Acronym	Relation	Description
BPV_Beat	Primitive	Heart beat number
BPV_HF_dBP High Frequency Diastolic Blood Pressure	Primitive	High frequency (HF 0.75 to 2.50 Hz)
BPV_HFnu_dBP Normalized High-Frequency Diastolic Blood Pressure	HFnu=100*HF/(HF+LF+VLF)	
BPV_LF_HF	?????	
BPV_LF_HF_dBP	LF_HF_dBP=LF_dBP/HF_dBP	
BPV_LF_dBP Low Frequency Diastolic Blood Pressure	Primitive	Low frequency (LF 0.20 to 0.75 Hz)
BPV_LFnu_dBP Normalized Low Frequency Diastolic Blood Pressure	LFnu=100*LF/(HF+LF+VLF)	
BPV_PSD_dBP Power Spectrum Density	Primitive ????	

BPV_Time	Primitive	Heart Beat timestamps
BPV_VLF_dBP Blood Pressure Variability Very Low Frequency Diastolic Blood Pressure	Primitive	Very low frequency (VLF 0.01 to 0.20 Hz)

CardiacParams

My understanding of abbreviations for CardicParams data (Hubert). Listed only acronyms not present in BeatToBeat table.

Acronym	Relation	Description
CardiacParams_ACI Acceleration Index	Primitive	[100/s²];
CardiacParams_EDI End-Diastolic Index	Primitive	[ml/m²])
CardiacParams_IC Index of Contractilit	Primitive	[1000/s]
CardiacParams_LVET Left Ventricular-Ejection Time	Primitive	[ms]
CardiacParams_LVWI left ventricular work index	Primitive	
CardiacParams_TFC Thoracic Fluid Content	Primitive	