

GESTIONE DI TRE ESPERIENZE CLINICHE IN BASE ALLA FLOW-CHART DIAGNOSTICO TERAPEUTICA

Caso clinico: Indovina il fenotipo

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Alberto, 84 anni

5 episodi sincopali nei precedenti 2 anni, con prodromi assenti o fugaci (astenia, sensazione di testa vuota), avvenuti in ortostatismo.

Due episodi traumatici (trauma facciale e frattura di femore).

Anamnesi

- Diabete mellito tipo 2
- Ipertensione arteriosa
- Mild cognitive impairment

Terapia antipertensiva

Ramipril 10 mg (la mattina), amlodipina 10 mg (la sera), furosemide 25 mg (1 cp la mattina)



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Esame obiettivo nella norma, non soffi, non segni di stasi

ECG: nella norma

Active standing test: non ipotensione ortostatica

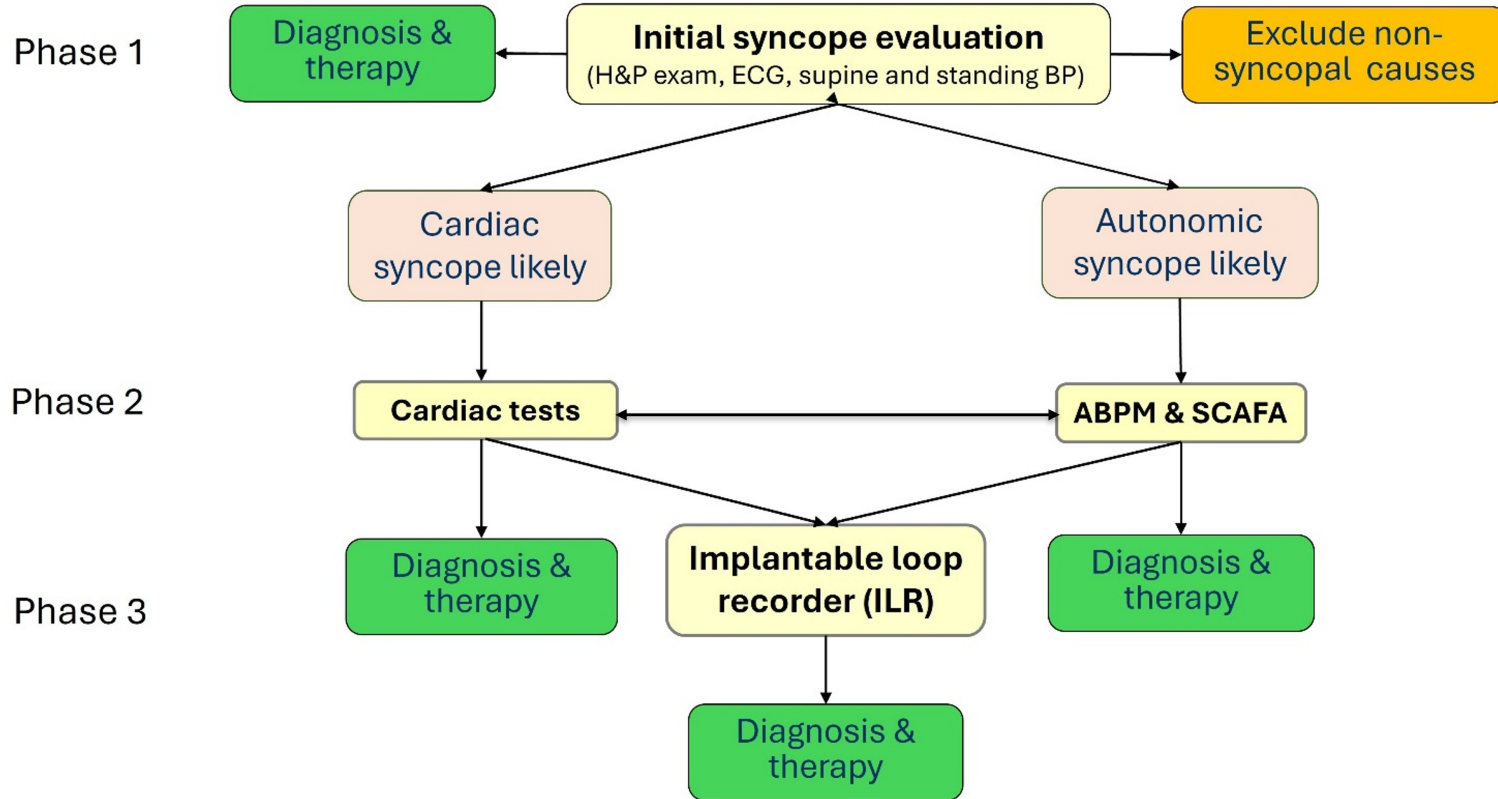
PA clinostatismo 140/75 mmHg

PA ortostatismo T0 135/70 mmHg

PA ortostatismo T1 127/70 mmHg

PA ortostatismo T3 130/77 mmHg





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	Media oraria	Dev. std.	Min.	Max.
Riepilogo complessivo – Riuscito: 82,09% (55 di 67), Media: 113/65 mmHg				
Sistolica sopra i limiti: 16,36%, diastolica sopra i limiti: 1,82%				
Sistolica (mmHg)	113	17,03	84 (07:54 mer)	150 (20:06 mar)
Diastolica (mmHg)	65	8,59	47 (00:06 mer)	81 (19:24 mar)
PAM (mmHg)	82	11,43	59 (00:06 mer)	107 (19:06 mar)
Pressione differenziale (mmHg)	48	11,16	23 (14:06 mar)	72 (20:06 mar)
Frequenza cardiaca (bpm)	68	7,75	57 (22:06 mar)	86 (07:54 mer)
Riepilogo periodi di veglia – Riuscito: 78,43% (40 di 51), Media: 116/67 mmHg				
Sistolica > 135 mmHg: 17,50%, diastolica > 85 mmHg: 0,00%				
Sistolica (mmHg)	116	17,30	84 (07:54 mer)	150 (20:06 mar)
Diastolica (mmHg)	67	8,42	49 (17:06 mar)	81 (19:24 mar)
PAM (mmHg)	84	11,66	62 (17:06 mar)	107 (19:06 mar)
Pressione differenziale (mmHg)	49	11,70	23 (14:06 mar)	72 (20:06 mar)
Frequenza cardiaca (bpm)	71	8,31	57 (22:06 mar)	86 (07:54 mer)
Riepilogo periodi di sonno – Riuscito: 93,75% (15 di 16), Media: 110/62 mmHg				
Sistolica > 120 mmHg: 13,33%, diastolica > 70 mmHg: 6,67%				
Sistolica (mmHg)	110	14,67	86 (00:06 mer)	137 (23:06 mar)
Diastolica (mmHg)	62	7,61	47 (00:06 mer)	77 (06:08 mer)
PAM (mmHg)	79	9,38	59 (00:06 mer)	95 (06:08 mer)
Pressione differenziale (mmHg)	48	9,49	32 (00:36 mer)	67 (23:06 mar)
Frequenza cardiaca (bpm)	64	3,27	58 (23:06 mar)	70 (00:06 mer)

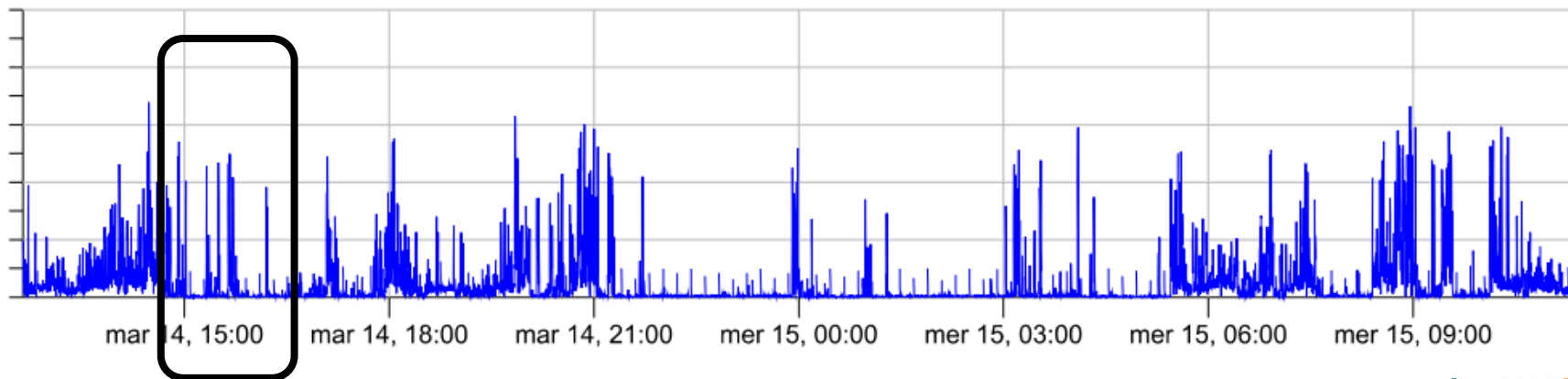
PA media 24h

PA media
diurna



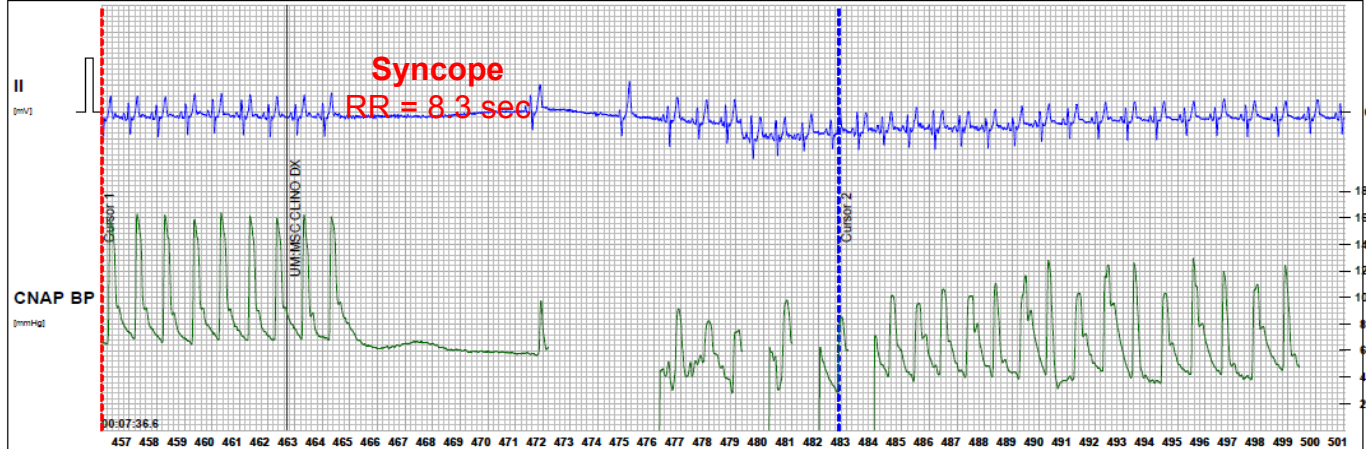
Al diario giornaliero
 riporta pranzo alle ore 14 circa
 (non segnalato riposo post-prandiale)

14:35	101	51	68	50	89
14:50	104	53	72	51	77
15:05	85	37	59	48	68
15:20	100	53	70	47	72
15:35	98	43	62	55	74
15:50	99	51	65	48	72
16:05	95	49	65	46	66
16:20	100	54	71	46	71



Alberto, 84 anni: SCAFA

- **MSC (posizione supina)** negativo
- **3-min standing test** ipotensione ortostatica asintomatica
- **MSC (ortostatismo)** asistolia 8.3 sec (calo PAS a 70 mmHg) con sincope
- **Tilt Testing** negativo



Sulla base degli accertamenti eseguiti, quale diagnosi poni?

- 1) Sincope cardiaca
- 2) Sincope inspiegata
- 3) Sincope autonoma con fenotipo ipotensivo
- 4) Sincope autonoma con fenotipo cardioinibitorio
- 5) Sincope autonoma con fenotipo misto



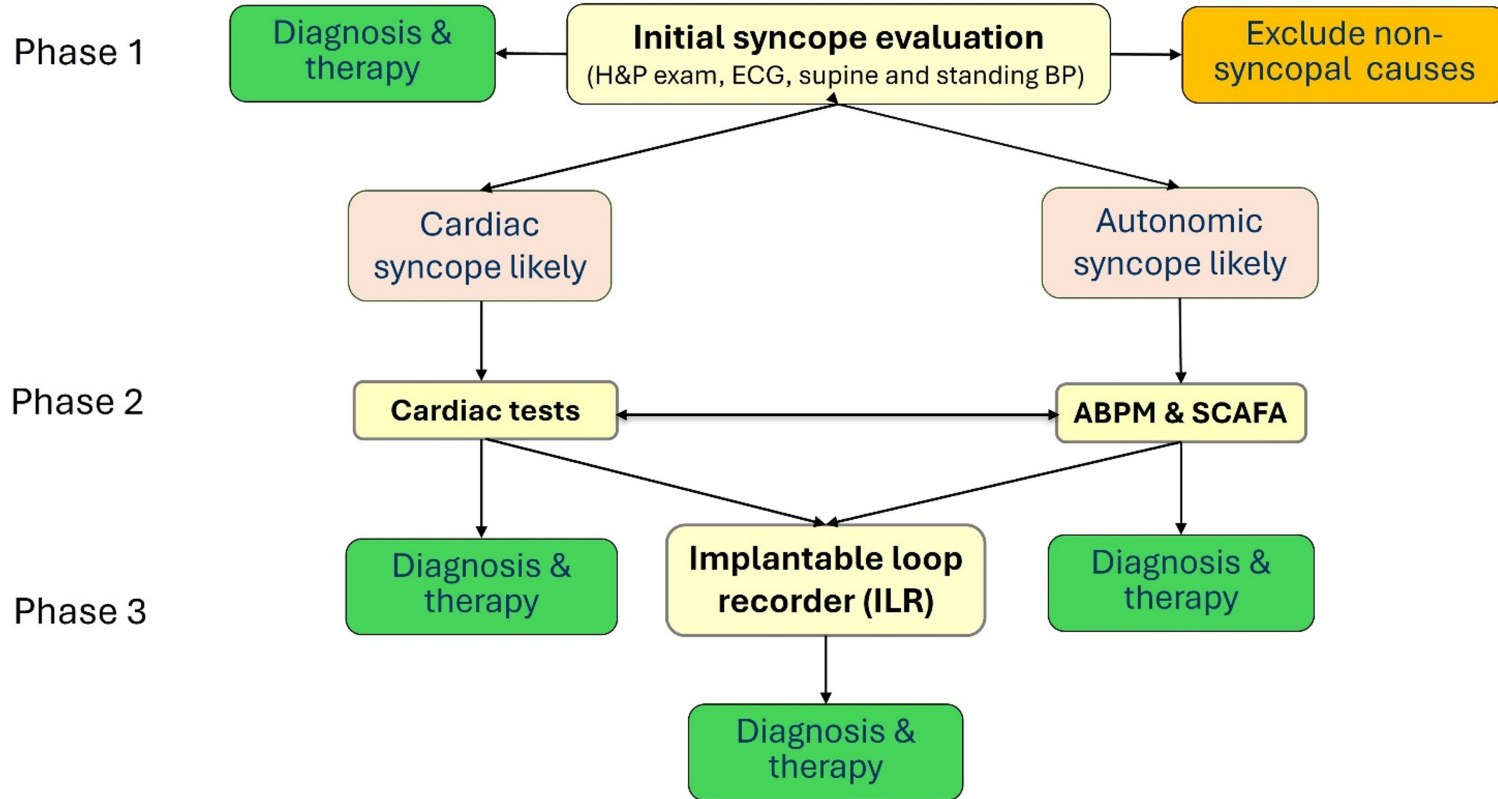
Fenotipo cardioinibitorio: criteri diagnostici

Diagnosis 1	Definition	Test	CI cut-offs
Cardioinhibitory reflex syncope	(1) Reproduction of spontaneous symptoms during CSM (method of symptoms)	Supine and standing 10 s CSM	Induction of (pre)syncope, recognized by the patient itself, with fall in SBP >50 mmHg and asystolic pause/s > 3 s
	(2) Reproduction of spontaneous syncope during tilt table test	Tilt testing	Induction of syncope with the typical ECG pattern of vasovagal syncope during hypotension and asystolic pause >3 s
	(3) Asystolic pauses of likely reflex origin during prolonged ECG monitoring (ILR)	Prolonged ECG monitoring (ILR)	Typical ECG pattern of asystolic (>3 s) vasovagal syncope or documentation of asymptomatic asystolic pause >6 s of likely reflex origin
Idiopathic AV block (low adenosine syncope)	Symptomatic paroxysmal AV block	Prolonged ECG monitoring (ILR)	Typical ECG pattern of idiopathic AV block



Fenotipo ipotensivo: criteri diagnostici

Diagnosis	Definition	Test	Blood pressure cut-offs
Constitutional hypotension	Persistently low BP in the absence of hypotensive medications, independent of triggering events	Office BP 24-h ABPM	Persistent SBP <110 mmHg (males) or <100 mmHg (females) <i>Males</i> 24 h SBP <105 mmHg Daytime SBP <115 mmHg Nighttime SBP <97 mmHg <i>Females</i> 24 h SBP <98 mmHg Daytime SBP <105 mmHg Nighttime SBP <92 mmHg
2 Drug-related persistent hypotension	SBP values persistently below the recommended target in patients receiving hypotensive medications	Office BP 24-h ABPM	Age <65: persistent SBP <120 mmHg Age ≥65: persistent SBP <130 mmHg 24 h SBP <120 mmHg
Hypotensive (intermittent) episodes	Orthostatic hypotension	Office BP and tilt testing	Symptomatic SBP fall ≥20 mmHg or standing SBP <90 mmHg within 3 min of active standing during the initial evaluation or during passive standing while performing SCAFA. This latter includes both the classical form (during the first 3 min of the test) and the delayed form (onset after 3 min of the test) ^a
3 Post-prandial hypotension	Post-prandial hypotension	24-h ABPM	Symptomatic SBP fall >20 mmHg within 75 min of eating meals, compared to the mean of the last three BP measurements before the meal
	Hypotensive drops	24-h ABPM	≥1 episode of daytime SBP <90 mmHg ≥2 episodes of daytime SBP <100 mmHg
Hypotensive reflex syncope	(1) Induction of syncope during tilt testing	Tilt testing	Typical haemodynamic pattern of mixed or vasodepressor vasovagal syncope with hypotension and bradycardia but without asystolic pauses >3 s
	(2) Reproduction of (pre)syncope during carotid sinus massage (method of symptoms)	Carotid sinus massage	Reproduction of spontaneous (pre)syncope, recognized by the patient itself, with fall in SBP >50 mmHg or below 85 mmHg ^b and the absence of asystolic pause/s > 3 s

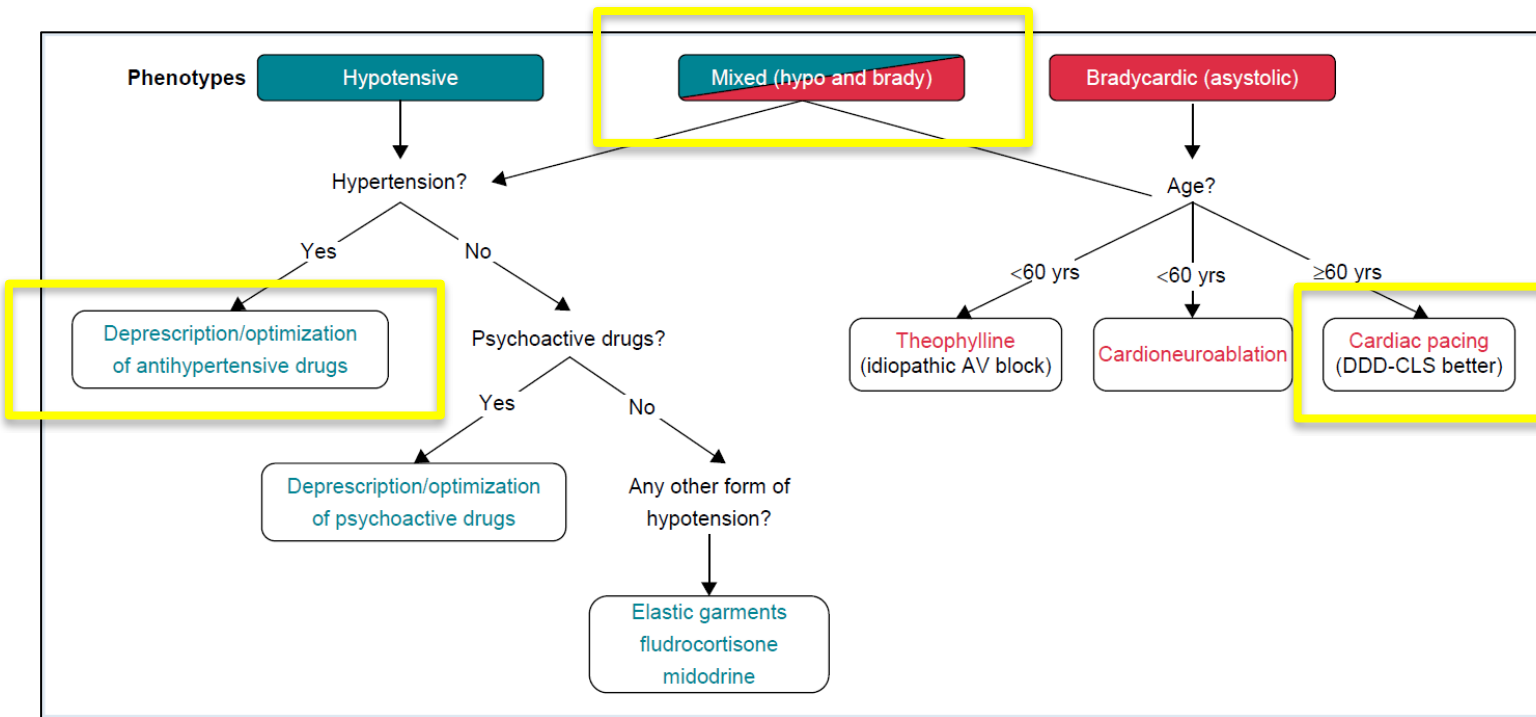


Cosa consigli?

- 1) Misure comportamentali
- 2) Introduzione di fludrocortisone
- 3) Deprescribing dei farmaci antipertensivi
- 4) Impianto di pacemaker
- 5) Impianto di pacemaker e deprescribing
- 6) Impianto di pacemaker e fludrocortisone



Fenotipo misto: trattamento



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☐ **Diagnosi: Sincope autonoma con fenotipo misto**

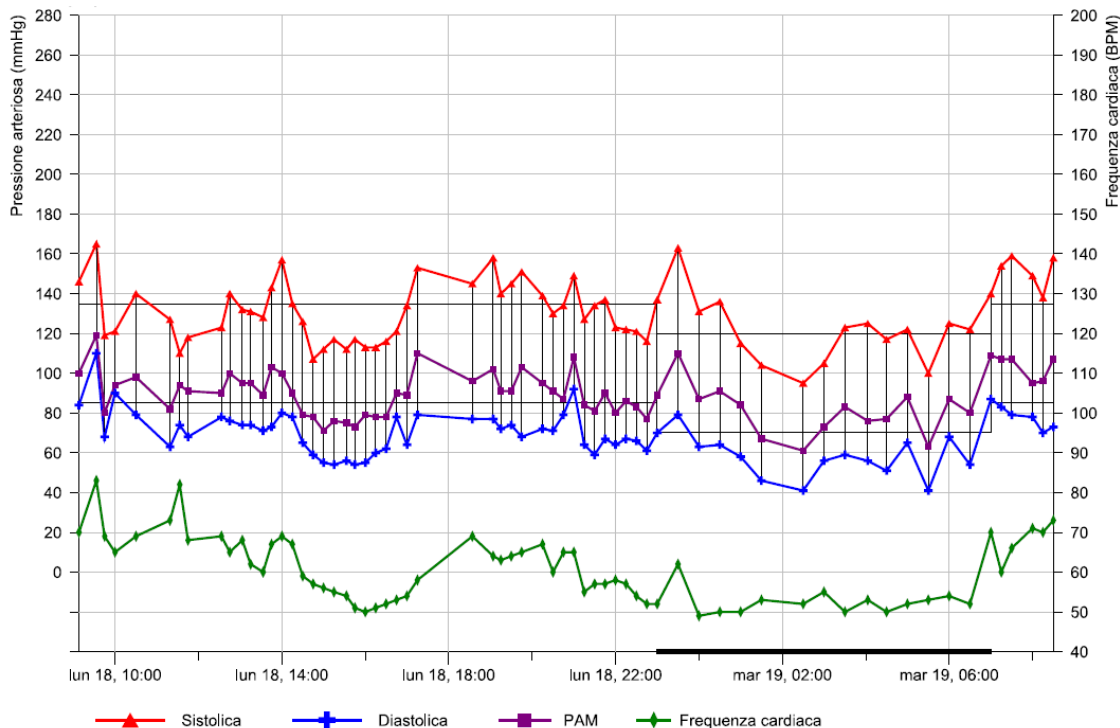
- Ipotensione persistente da farmaci (eccessivo controllo farmacologico dei valori pressori) con episodi ipotensivi / ipotensione post-prandiale
- Sindrome senocarotidea cardioinibitoria

☐ **Trattamento**

- Deprescribing dei farmaci antipertensivi
 - . Sospendere Furosemide
 - . Ridurre amlodipina a 5 mg
- Impianto di pacemaker
- Monitoraggio pressorio per rivalutazione ad un mese



Alberto, 84 anni: rivalutazione



Dopo deprescribing

PA 24h 130/68 mmHg (+17 mmHg)

PA diurna 135/73 mmHg

PA notturna 121/57 mmHg

Non sintomi nè episodi ipotensivi



Take Home Message

- **Implicazioni terapeutiche della diagnosi di fenotipo** con protocollo 2-steps
- Ruolo del **monitoraggio pressorio 24h** nell'identificazione dell'ipotensione, es. postprandiale (spesso sottodiagnosticata)
- Fattibilità del percorso diagnostico nell'**anziano** (con decadimento cognitivo)

- **Duplice approccio di trattamento nel fenotipo misto**
- Necessità di **monitoraggio dei valori pressori** dopo deprescribing, con controllo pressorio non intensivo

