

S1
Appendix A: Summary Report

SpaceLabs ABPM Report Interpretation



Polyclinics
SingHealth

Patient ID: EN-PT01

Test Date: 15 Mar 23 - 16 Mar 23

SUMMARY OF ABPM RESULTS

Category	Status	Reading	Target
Avg 24Hr BP	Normal	114/75	<130/80
Avg Wake BP	Normal	117/76	<135/85
Avg Sleep BP	Abnormal	105/73	<120/70
% Sleep Time Dipping	Normal	10.3%	10 ≤ % < 20

VALIDITY OF READINGS

	Valid	Invalid
Total	☒	☐
Wake	☒	☐
Sleep	☒	☐

CONCLUSION

- This patient has **nocturnal hypertension** as the average sleep time BP was 105/73, which is higher than 120/70 mmHg
- Nocturnal hypertension puts this patient at a high risk of developing cardiovascular events.

RECOMMENDATIONS

- Check for patient's adherence to medication.
- Consider medication titration.
- Ensure adequate anti-hypertensive medication coverage during both wake and sleep time.

DISCLAIMER

- * Please interpret with caution for metrics that are part of the invalid readings.
- * This ABPM Report is only a recommendation. Please correlate the ABPM interpretation with patient's clinical status.

Reconfirmed

Table with patient information: Patient ID, Date of birth, Height, BMI, Physician, Patient name, Gender, Weight, BSA, Ward/Dept.

Recording information

Table with recording details: Start, End, Duration, Successful readings, Systolic > limits, Diastolic > limits, MBP 6:00 AM-10:00 AM, Ambulatory Arterial Stiffness Index (AASI), Morning Surge Index (MSI), Comfort mode max. pressure, Child mode, Serial number.

Comments

en-PT01 15032023

Summary of entire recording - Successful: 94.34 % (50 of 53), Avg.: 114/75 mmHg

Main data table with columns: Hourly avg., Std. dev., Min., Max., Dipping. Rows include Overall summary, Systolic/Diastolic/Map/Pulse pressure/Heart rate, Wake periods summary, Sleep periods summary.

Reconfirmed

Sentinel ABP Report

Daily summaries

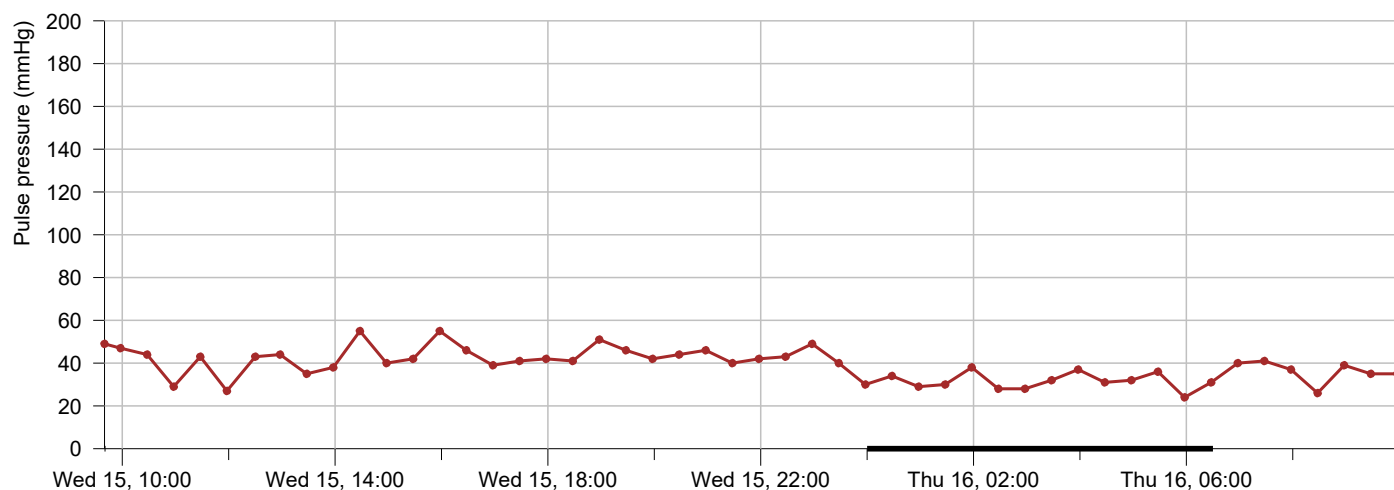
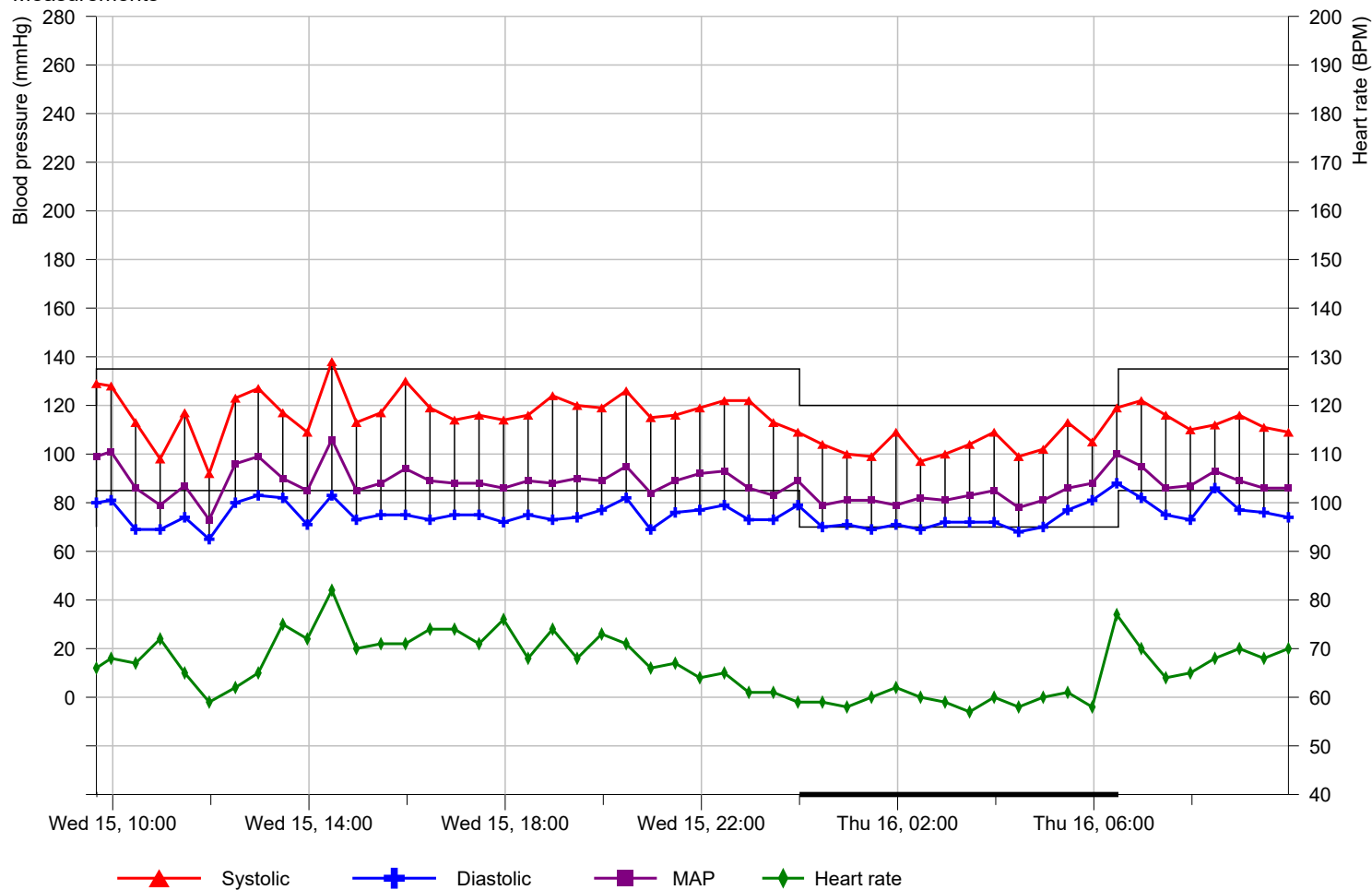
	Hourly avg.	Std. dev.	Min.	Max.	Dipping
Day 1 overall summary, 15/3/2023 9:28 AM - 16/3/2023 8:58 AM - Successful: 96.00% (48 of 50), Avg.: 114/75 mmHg					
Systolic (mmHg)	114	9.83	92 (11:58 Wed)	138 (14:28 Wed)	10.93%
Diastolic (mmHg)	75	5.10	65 (11:58 Wed)	88 (06:28 Thu)	3.67%
MAP (mmHg)	88	6.64	73 (11:58 Wed)	106 (14:28 Wed)	6.94%
Pulse pressure (mmHg)	39	7.54	24 (05:58 Thu)	55 (14:28 Wed)	
Heart rate (BPM)	66	6.13	57 (03:28 Thu)	82 (14:28 Wed)	
Day 2 overall summary, 16/3/2023 9:28 AM - 16/3/2023 10:30 AM - Successful: 66.67% (2 of 3), Avg.: 110/75 mmHg					
Systolic (mmHg)	110	1.41	109 (09:58 Thu)	111 (09:28 Thu)	
Diastolic (mmHg)	75	1.41	74 (09:58 Thu)	76 (09:28 Thu)	
MAP (mmHg)	86	0.00	86 (09:28 Thu)	86 (09:28 Thu)	
Pulse pressure (mmHg)	35	0.00	35 (09:28 Thu)	35 (09:28 Thu)	
Heart rate (BPM)	69	1.41	68 (09:28 Thu)	70 (09:58 Thu)	

Wake period and sleep period summaries

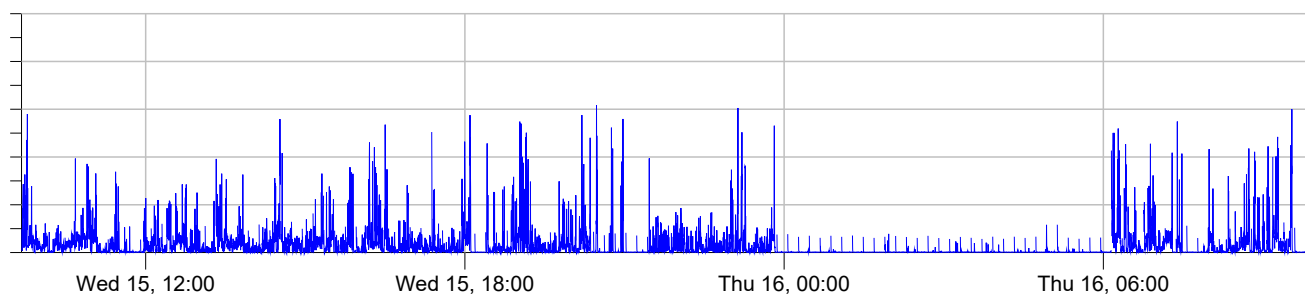
	Hourly avg.	Std. dev.	Min.	Max.
Wake period day 1-2, 15/3/2023 9:28 AM - 16/3/2023 12:00 AM - Successful: 93.75% (30 of 32), Avg.: 118/75 mmHg				
Systolic (mmHg)	118	9.06	92 (11:58 Wed)	138 (14:28 Wed)
Diastolic (mmHg)	75	4.56	65 (11:58 Wed)	83 (12:58 Wed)
MAP (mmHg)	90	6.55	73 (11:58 Wed)	106 (14:28 Wed)
Pulse pressure (mmHg)	42	6.50	27 (11:58 Wed)	55 (14:28 Wed)
Heart rate (BPM)	69	5.42	59 (11:58 Wed)	82 (14:28 Wed)
Sleep period day 2, 16/3/2023 12:00 AM - 16/3/2023 6:30 AM - Successful: 100.00% (13 of 13), Avg.: 106/74 mmHg				
Systolic (mmHg)	106	6.37	97 (02:28 Thu)	119 (06:28 Thu)
Diastolic (mmHg)	74	5.71	68 (04:28 Thu)	88 (06:28 Thu)
MAP (mmHg)	85	5.77	78 (04:28 Thu)	100 (06:28 Thu)
Pulse pressure (mmHg)	32	3.97	24 (05:58 Thu)	38 (01:58 Thu)
Heart rate (BPM)	62	5.09	57 (03:28 Thu)	77 (06:28 Thu)
Wake period day 2, 16/3/2023 6:30 AM - 16/3/2023 10:30 AM - Successful: 87.50% (7 of 8), Avg.: 115/78 mmHg				
Systolic (mmHg)	115	4.57	109 (09:58 Thu)	122 (06:58 Thu)
Diastolic (mmHg)	78	4.72	73 (07:58 Thu)	86 (08:28 Thu)
MAP (mmHg)	90	3.72	86 (07:28 Thu)	95 (06:58 Thu)
Pulse pressure (mmHg)	37	5.05	26 (08:28 Thu)	41 (07:28 Thu)
Heart rate (BPM)	68	2.48	64 (07:28 Thu)	70 (06:58 Thu)

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Measurements



Activity



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Valid ranges

	Systolic	Diastolic	MAP	Pulse pressure	Heart rate
Min.	70	40	40	20	20
Max.	240	150	200	150	200

ABP Raw Data Table

Type	Day	Time	Sys	Dia	MAP	PP	HR	Status	Code	Excluded	Diary event
Manual	1	09:28	0	0	0	0	0	Error	3	X	
Manual	1	09:39	0	0	0	0	0	Error	11	X	
Manual	1	09:40	129	80	99	49	66				sitting down
Auto	1	09:58	128	81	101	47	68				sitting down
Auto	1	10:28	113	69	86	44	67				Driving
Auto	1	10:58	98	69	79	29	72				standing doing light duties
Auto	1	11:28	117	74	87	43	65				desk bound works
Auto	1	11:58	92	65	73	27	59				Sitting
Auto	1	12:28	0	0	0	0	0	Error	70	X	
Retry	1	12:30	123	80	96	43	62				standing light physical activity
Auto	1	12:58	127	83	99	44	65				sitting desk bound work
Auto	1	13:28	117	82	90	35	75				sitting meals
Auto	1	13:58	109	71	85	38	72				sitting reading
Auto	1	14:28	138	83	106	55	82				sitting reading
Auto	1	14:58	113	73	85	40	70				sitting desk bound work
Auto	1	15:28	117	75	88	42	71				standing light physical activity
Auto	1	15:58	130	75	94	55	71				sitting deskwork
Auto	1	16:28	119	73	89	46	74				standing light physical activity
Auto	1	16:58	114	75	88	39	74				sitting deskwork
Auto	1	17:28	116	75	88	41	71				sitting deskwork
Auto	1	17:58	114	72	86	42	76				standing light physcal activity
Auto	1	18:28	116	75	89	41	68				sitting reading
Auto	1	18:58	124	73	88	51	74				standing light physcal activity
Auto	1	19:28	120	74	90	46	68				sitting deskwork
Auto	1	19:58	119	77	89	42	73				standing light physcal activity
Auto	1	20:28	126	82	95	44	71				standing light physcal activity
Auto	1	20:58	115	69	84	46	66				standing showering
Auto	1	21:28	116	76	89	40	67				sitting deskwork
Auto	1	21:58	119	77	92	42	64				sitting deskwork
Auto	1	22:28	122	79	93	43	65				sitting desk bound work
Auto	1	22:58	122	73	86	49	61				sitting desk bound work
Auto	1	23:28	113	73	83	40	61				sitting desk bound work
Auto	1	23:58	109	79	89	30	59				lying sleep
Auto	(2)	00:28	104	70	79	34	59				Sleeping
Auto	(2)	00:58	100	71	81	29	58				Sleeping
Auto	(2)	01:28	99	69	81	30	60				Sleeping
Auto	(2)	01:58	109	71	79	38	62				Sleeping
Auto	(2)	02:28	97	69	82	28	60				Sleeping
Auto	(2)	02:58	100	72	81	28	59				Sleeping
Auto	(2)	03:28	104	72	83	32	57				Sleeping
Auto	(2)	03:58	109	72	85	37	60				Sleeping
Auto	(2)	04:28	99	68	78	31	58				Sleeping
Auto	(2)	04:58	102	70	81	32	60				Sleeping
Auto	(2)	05:28	113	77	86	36	61				Sleeping
Auto	(2)	05:58	105	81	88	24	58				Sleeping
Auto	(2)	06:28	119	88	100	31	77				standing light physcal activity
Auto	2	06:58	122	82	95	40	70				standing doing light duties
Auto	2	07:28	116	75	86	41	64				standing doing light duties

Reconfirmed

ABP Raw Data Table (cont.)

Type	Day	Time	Sys	Dia	MAP	PP	HR	Status	Code	Excluded	Diary event
Auto	2	07:58	110	73	87	37	65				standing showering
Auto	2	08:28	112	86	93	26	68				standing light physical activity
Auto	2	08:58	116	77	89	39	70				standing light physical activity
Auto	2	09:28	111	76	86	35	68				sitting meals
Auto	2	09:58	109	74	86	35	70				Driving
Auto	2	10:28	0	0	0	0	0	Error	42	X	
Retry	2	10:30	0	0	0	0	0	Error	3	X	

S3
Appendix C: Bespoke Empathy App Report
Ambulatory Blood Pressure Report



Patient Profile

Patient ID:	EN-PT01	Indication:
Age:	56	
Gender:	Male	

ABPM Records

ABPM Duration:	25:02:00	No of Readings:	50/52 (96.2%)
ABPM Start Time:	2023-03-15 09:28:00	Morning Readings:	37/39 (94.9%)
ABPM End Time:	2023-03-16 10:30:00	Night Readings:	13/13 (100.0%)
Wake Time:	2023-03-16 06:30:00		
Sleep Time:	2023-03-16 00:00:00		

ABPM Summary

👍 Normal 🚫 Abnormal ⚠️ Undefined

👍 **Average 24HR**

Current	Target
114/75	< 130/80

🚫 **Average Sleep**

Current	Target
105/73	< 120/70

👍 **Average Morning**

Current	Target
115/79	< 135/85

👍 **Average Wake**

Current	Target
117/76	< 135/85

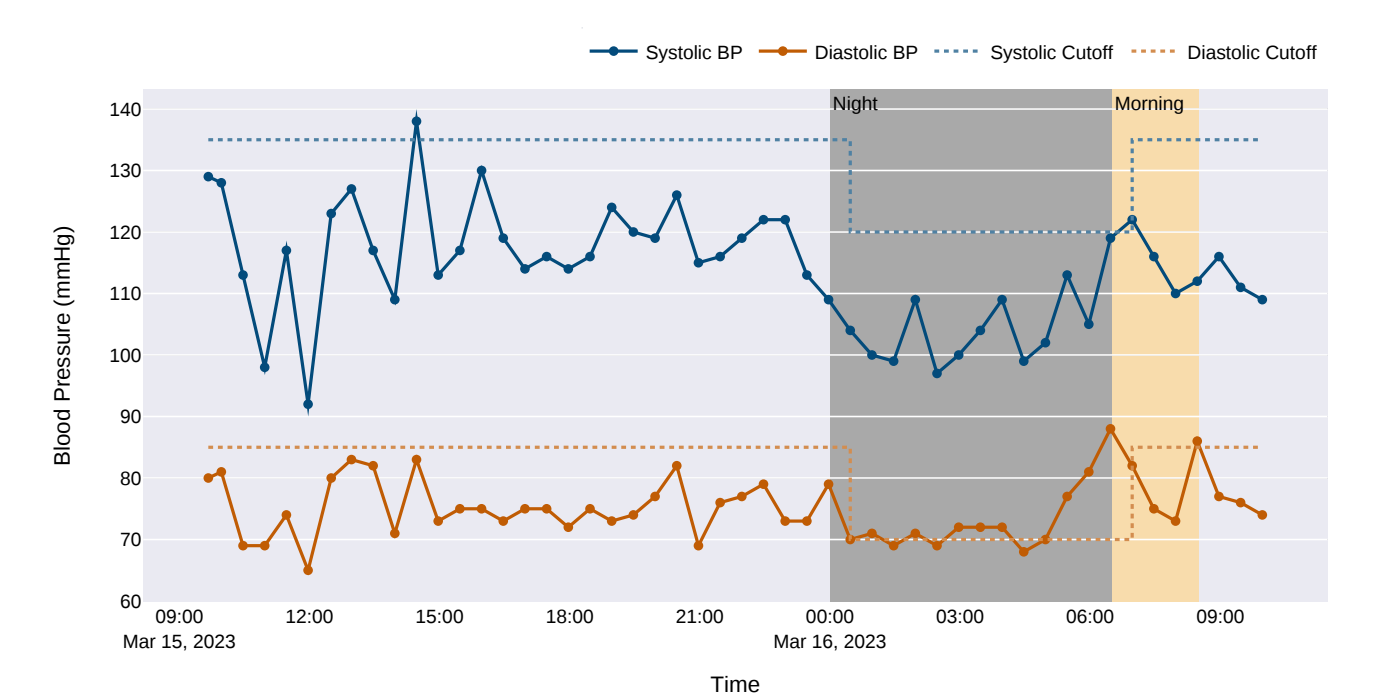
👍 **Dipping % (Status)**

Current	Target
10.3% (Normal)	10 ≤ % < 20

👍 **Morning Surge**

Current	Target
18 mmHg	< 55 mmHg

Blood Pressure Chart



Blood Pressure Data

Date & Time	Systolic BP	Diastolic BP	Heart Rate	Activity
2023-03-15T09:28:00	0	0	0	
2023-03-15T09:39:00	0	0	0	
2023-03-15T09:40:00	129	80	66	Sitting down
2023-03-15T09:58:00	128	81	68	Sitting down
2023-03-15T10:28:00	113	69	67	Driving
2023-03-15T10:58:00	98	69	72	Standing doing light duties
2023-03-15T11:28:00	117	74	65	Desk bound works
2023-03-15T11:58:00	92	65	59	Sitting
2023-03-15T12:28:00	0	0	0	
2023-03-15T12:30:00	123	80	62	Standing light physical activity
2023-03-15T12:58:00	127	83	65	Sitting desk bound work
2023-03-15T13:28:00	117	82	75	Sitting meals
2023-03-15T13:58:00	109	71	72	Sitting reading
2023-03-15T14:28:00	138	83	82	Sitting reading
2023-03-15T14:58:00	113	73	70	Sitting desk bound work
2023-03-15T15:28:00	117	75	71	Standing light physical activity
2023-03-15T15:58:00	130	75	71	Sitting deskwork
2023-03-15T16:28:00	119	73	74	Standing light physical activity
2023-03-15T16:58:00	114	75	74	Sitting deskwork
2023-03-15T17:28:00	116	75	71	Sitting deskwork
2023-03-15T17:58:00	114	72	76	Standing light physical activity
2023-03-15T18:28:00	116	75	68	Sitting reading
2023-03-15T18:58:00	124	73	74	Standing light physical activity
2023-03-15T19:28:00	120	74	68	Sitting deskwork
2023-03-15T19:58:00	119	77	73	Standing light physical activity
2023-03-15T20:28:00	126	82	71	Standing light physical activity
2023-03-15T20:58:00	115	69	66	Standing showering
2023-03-15T21:28:00	116	76	67	Sitting deskwork
2023-03-15T21:58:00	119	77	64	Sitting deskwork
2023-03-15T22:28:00	122	79	65	Sitting desk bound work
2023-03-15T22:58:00	122	73	61	Sitting desk bound work
2023-03-15T23:28:00	113	73	61	Sitting desk bound work
2023-03-15T23:58:00	109	79	59	Lying sleep
2023-03-16T00:28:00	104	70	59	Sleeping
2023-03-16T00:58:00	100	71	58	Sleeping
2023-03-16T01:28:00	99	69	60	Sleeping
2023-03-16T01:58:00	109	71	62	Sleeping
2023-03-16T02:28:00	97	69	60	Sleeping
2023-03-16T02:58:00	100	72	59	Sleeping
2023-03-16T03:28:00	104	72	57	Sleeping
2023-03-16T03:58:00	109	72	60	Sleeping
2023-03-16T04:28:00	99	68	58	Sleeping
2023-03-16T04:58:00	102	70	60	Sleeping
2023-03-16T05:28:00	113	77	61	Sleeping
2023-03-16T05:58:00	105	81	58	Sleeping
2023-03-16T06:28:00	119	88	77	Standing light physical activity

Date & Time	Systolic BP	Diastolic BP	Heart Rate	Activity
2023-03-16T06:58:00	122	82	70	Standing doing light duties
2023-03-16T07:28:00	116	75	64	Standing doing light duties
2023-03-16T07:58:00	110	73	65	Standing showering
2023-03-16T08:28:00	112	86	68	Standing light physiscal activity
2023-03-16T08:58:00	116	77	70	Standing light physiscal activity
2023-03-16T09:28:00	111	76	68	Sitting meals
2023-03-16T09:58:00	109	74	70	Driving
2023-03-16T10:28:00	0	0	0	
2023-03-16T10:30:00	0	0	0	