Supplemental Materials - Figures
Control Subjects 1-10

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This document contains figures for the model-based analysis described. Figures 1 - 41 display data and model outputs for each data set with the following indicators: (a) electrocardiogram (ECG) trace, (b) measured intrathoracic (ITP) trace, (c) pulse pressure trace with systolic blood pressure (BP) in dark blue, (d) heart rate (HR) calculated from the R-R intervals in the ECG trace with the maximum HR in phase III and minimum HR in phase IV indicated with red dots, (e) ECG-derived respiratory signal, (f) combined thoracic pressure (P_{th}) curve, (g) systolic BP with the line of regression through the increasing portion of the systolic BP curve in late phase II whose slope is α, (h) HR trace overlaid with the optimized model output H, (i) predicted aortic and carotid baroreceptor strains, (j) predicted baroreflex-mediated parasympathetic ($T_{p,b}$) and sympathetic (T_s) outflows, and (k) respiratory-mediated parasympathetic ($T_{p,r}$) outflow. The patients were not part of the study which measured ITP, so a FE of 40 mmHg was assumed in these cases. The ITP plots for the patients in panel (b) are left blank.

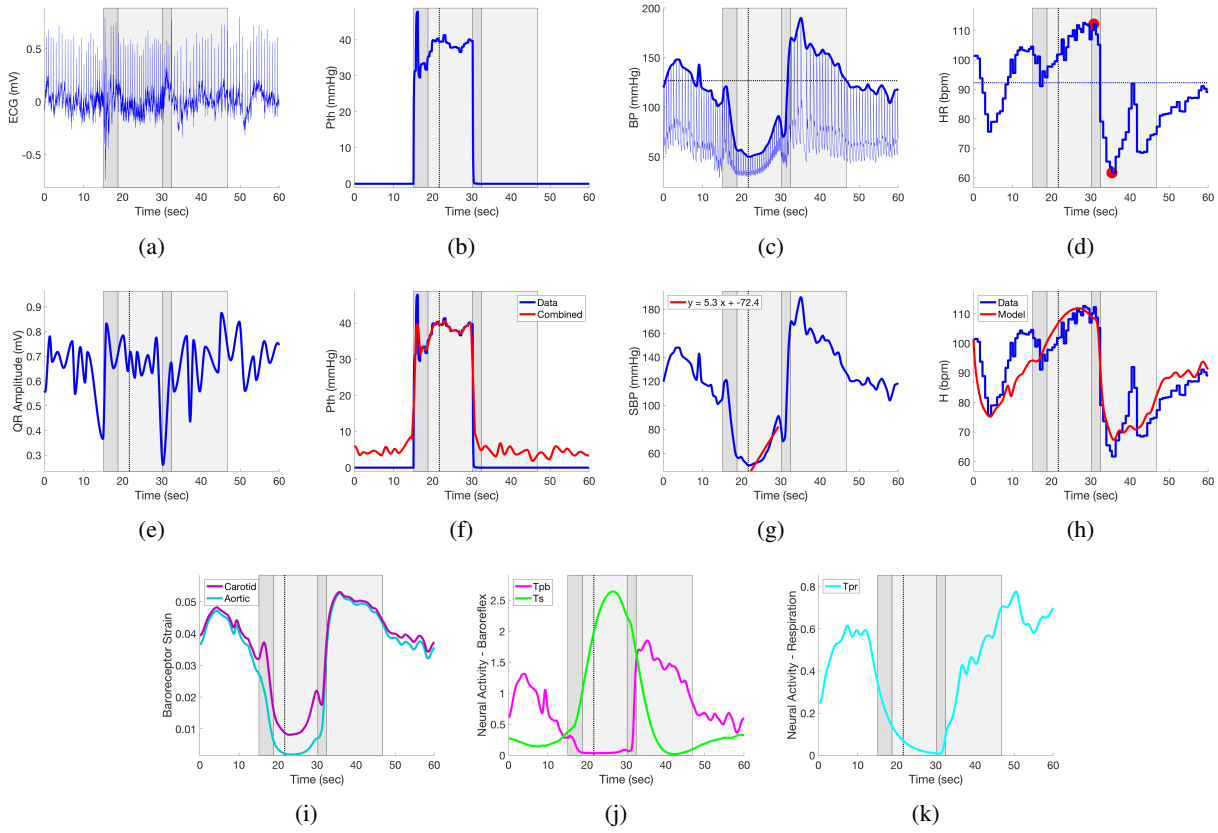


Figure 1: Control Subject 1 VM 2.

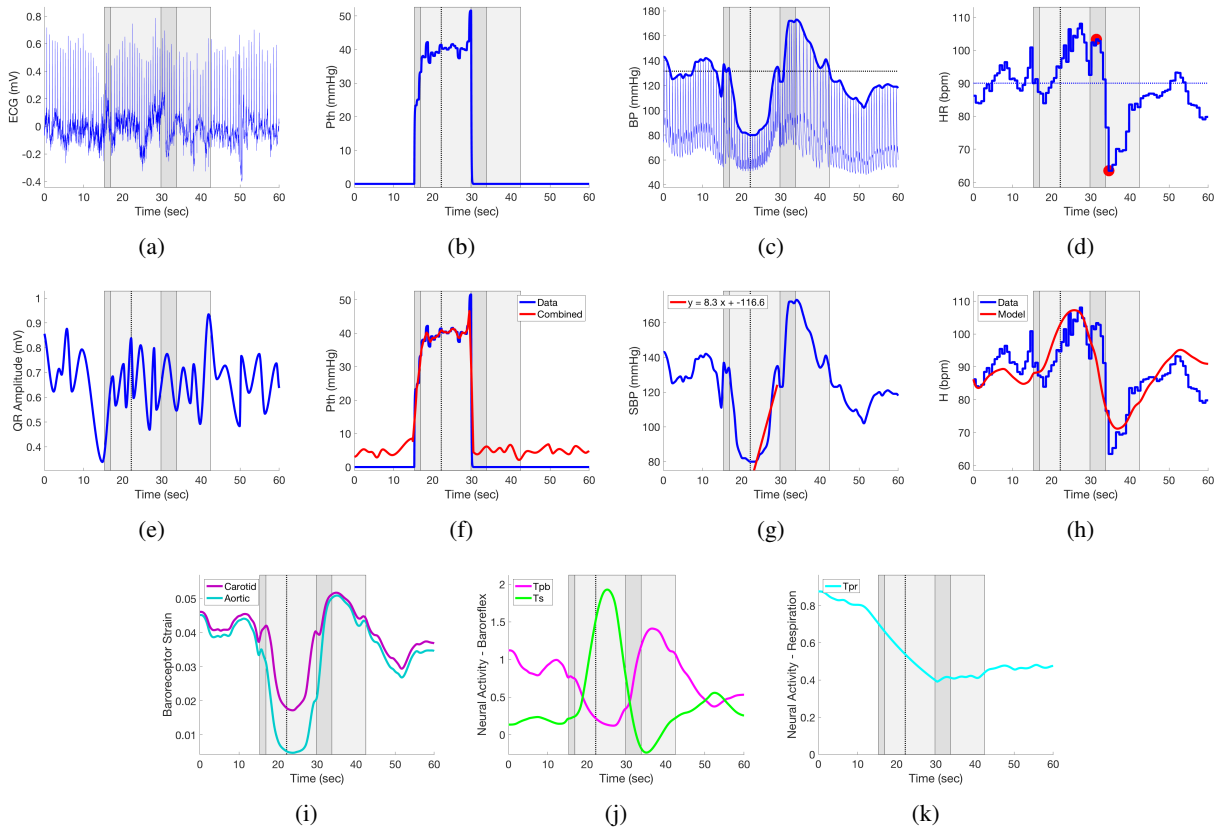


Figure 2: Control Subject 1 VM 3.

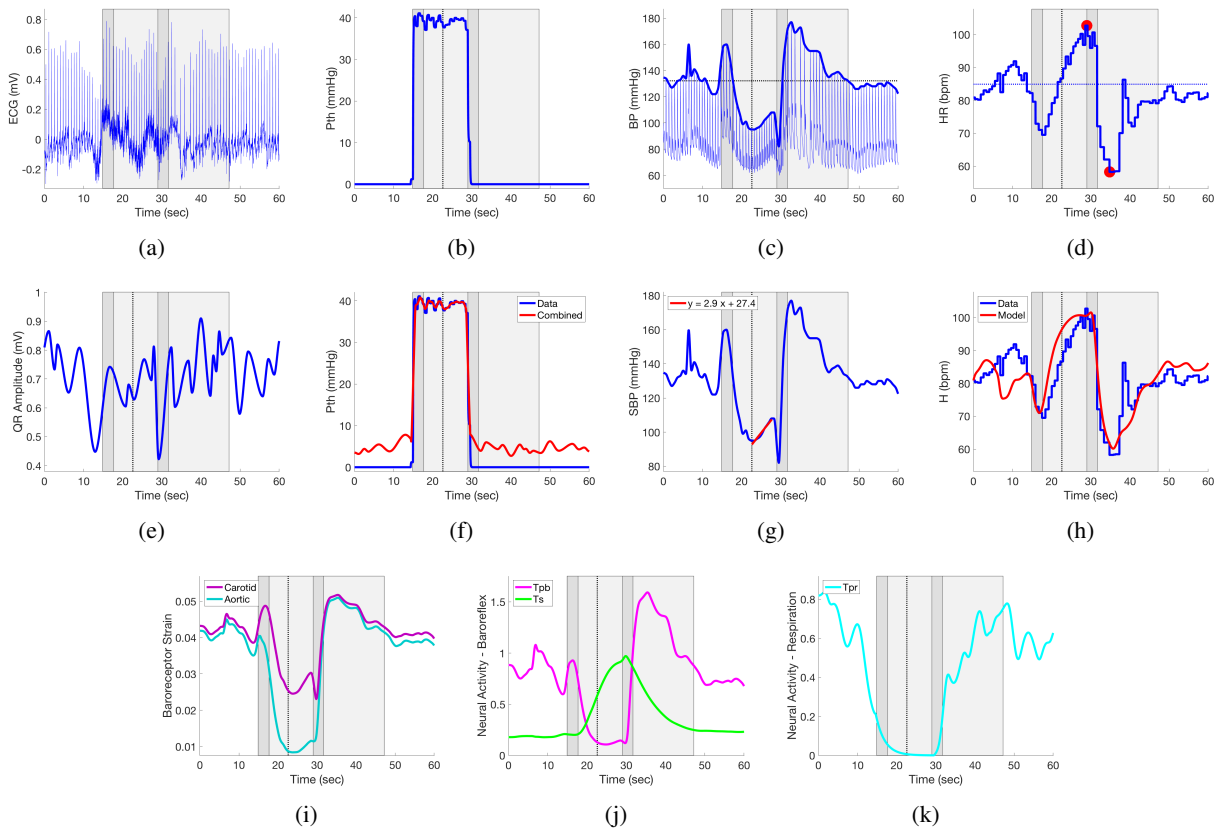


Figure 3: Control Subject 1 VM 4.

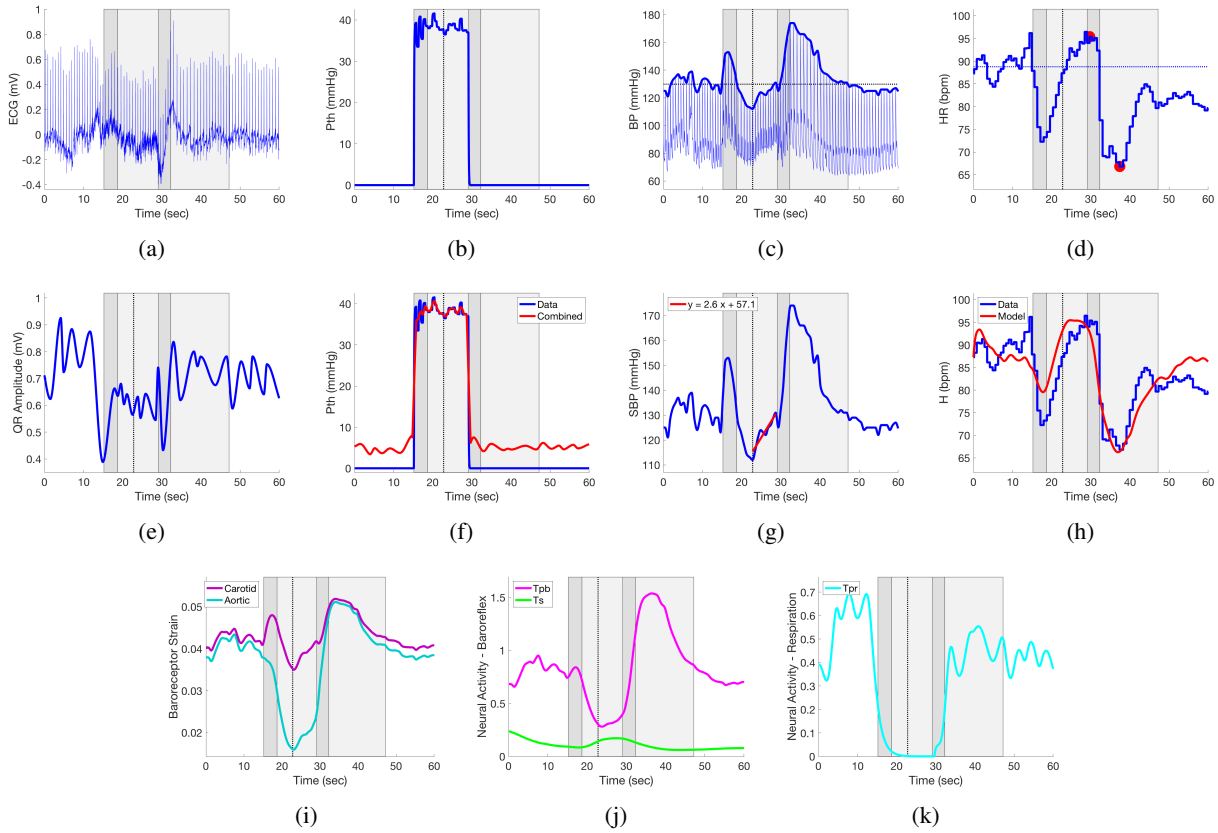


Figure 4: Control Subject 1 VM 6.

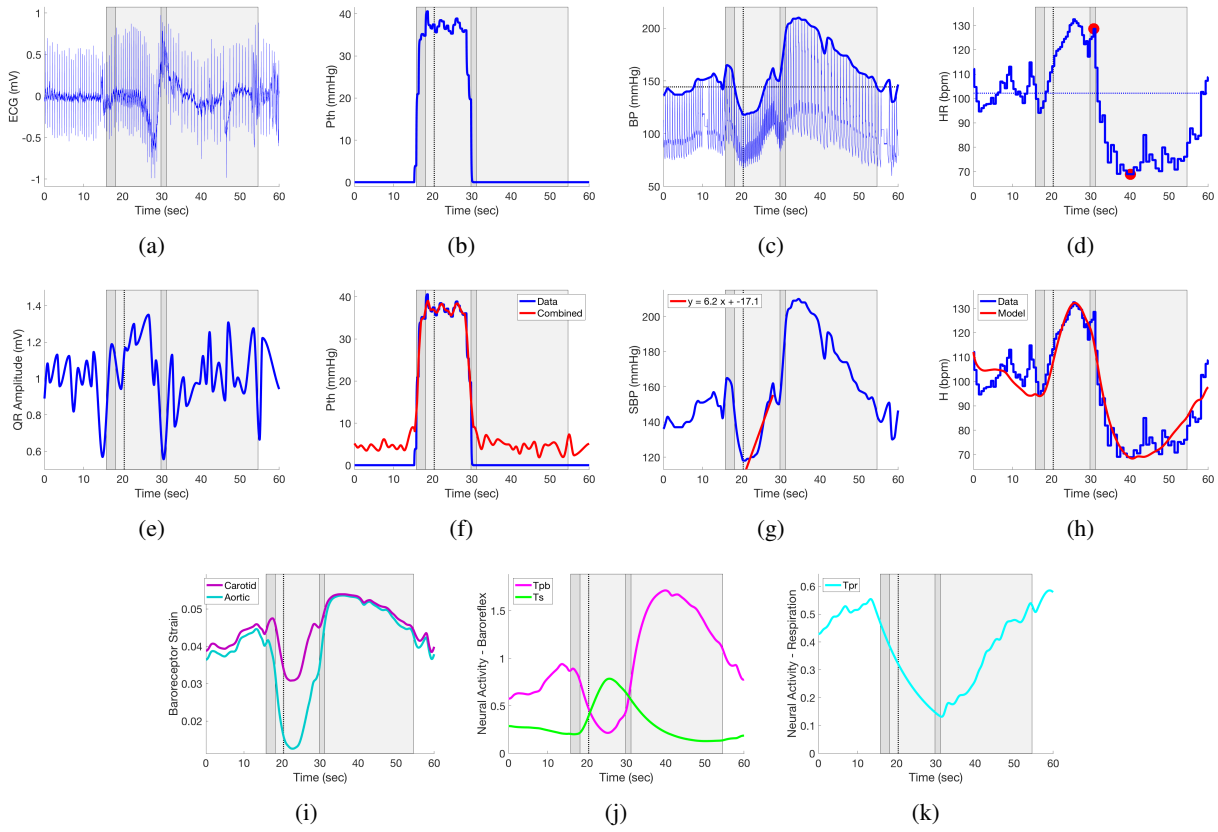
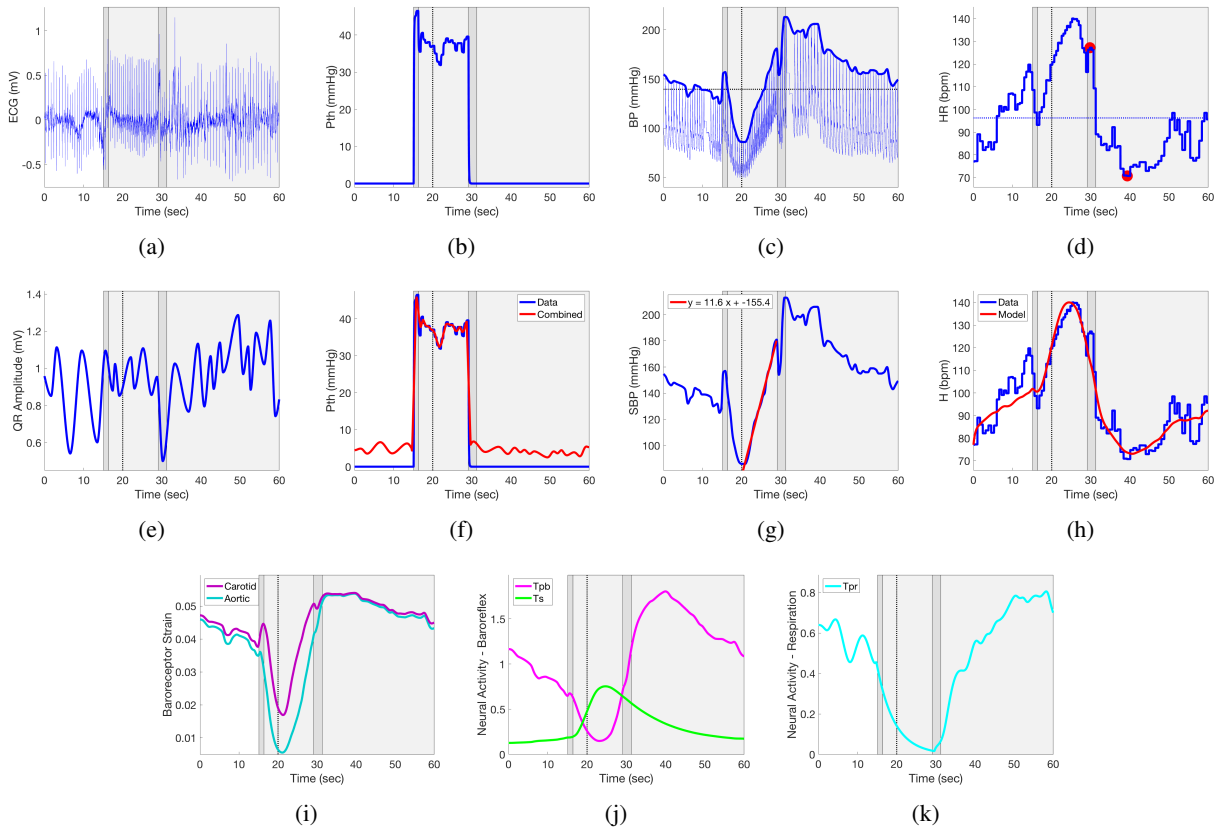


Figure 5: Control Subject 2 VM 2.



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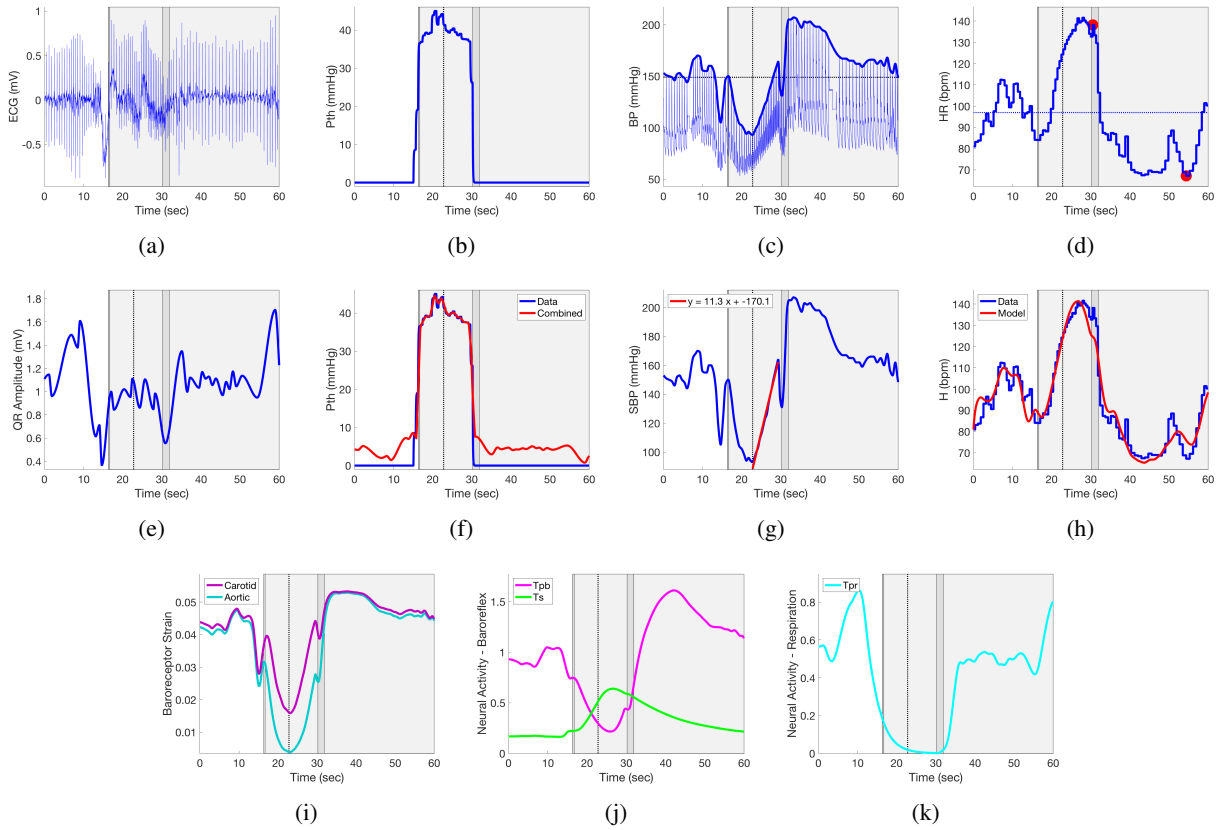


Figure 7: Control Subject 2 VM 6.

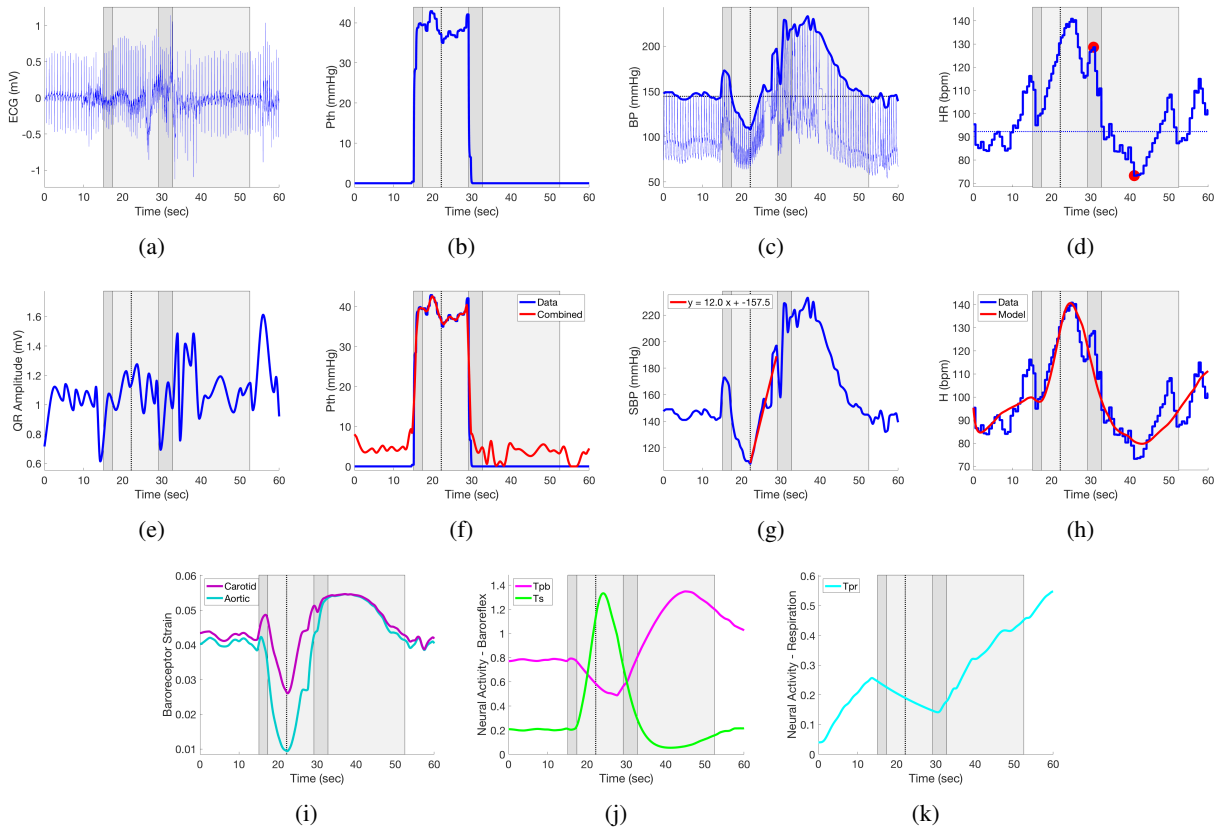


Figure 8: Control Subject 2 VM 7.

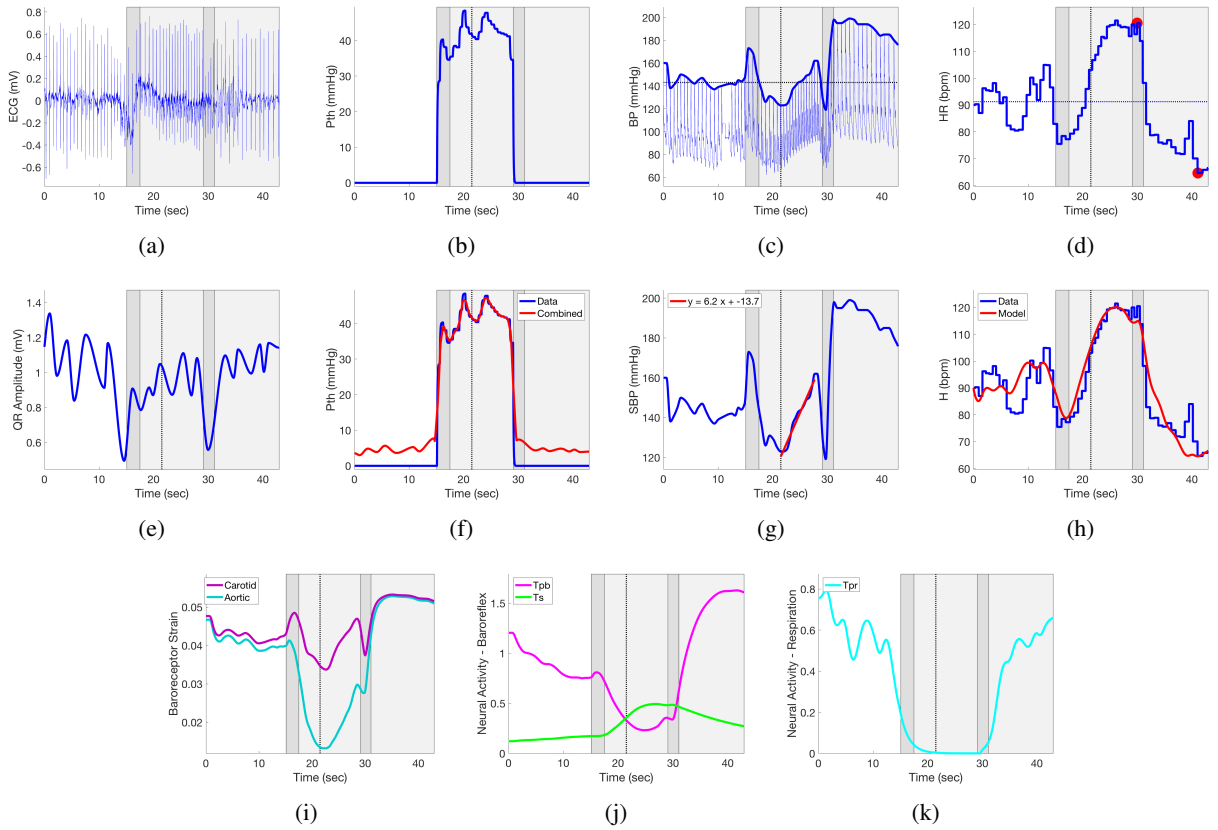


Figure 9: Control Subject 2 VM 8.

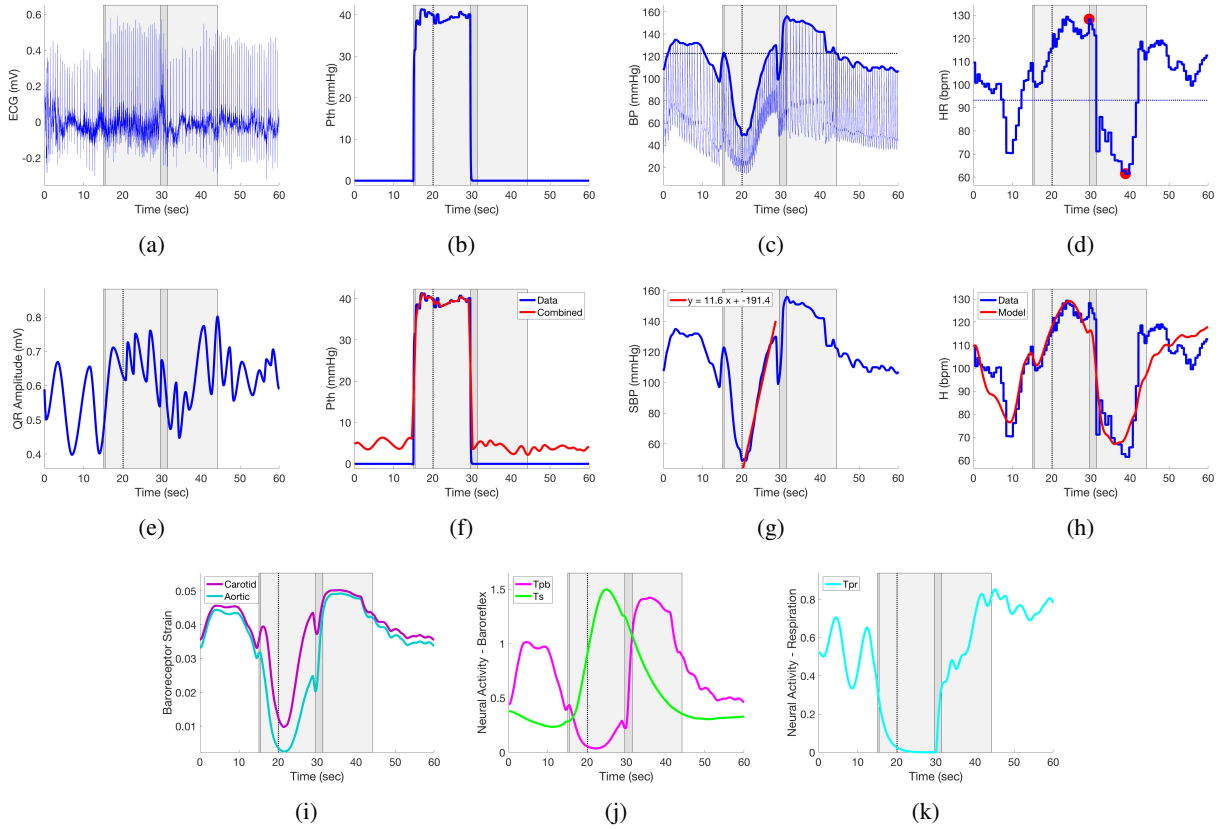


Figure 10: Control Subject 3 VM 4.

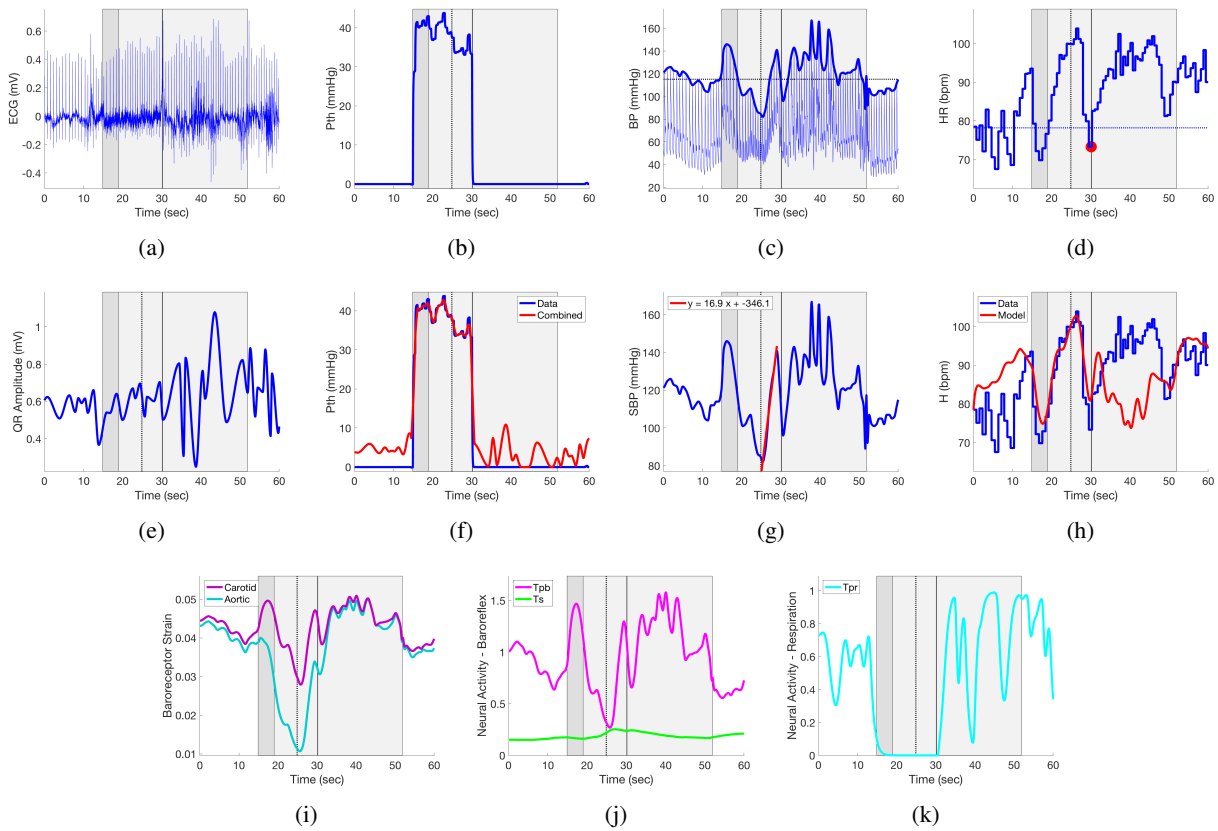


Figure 11: Control Subject 3 VM 8.

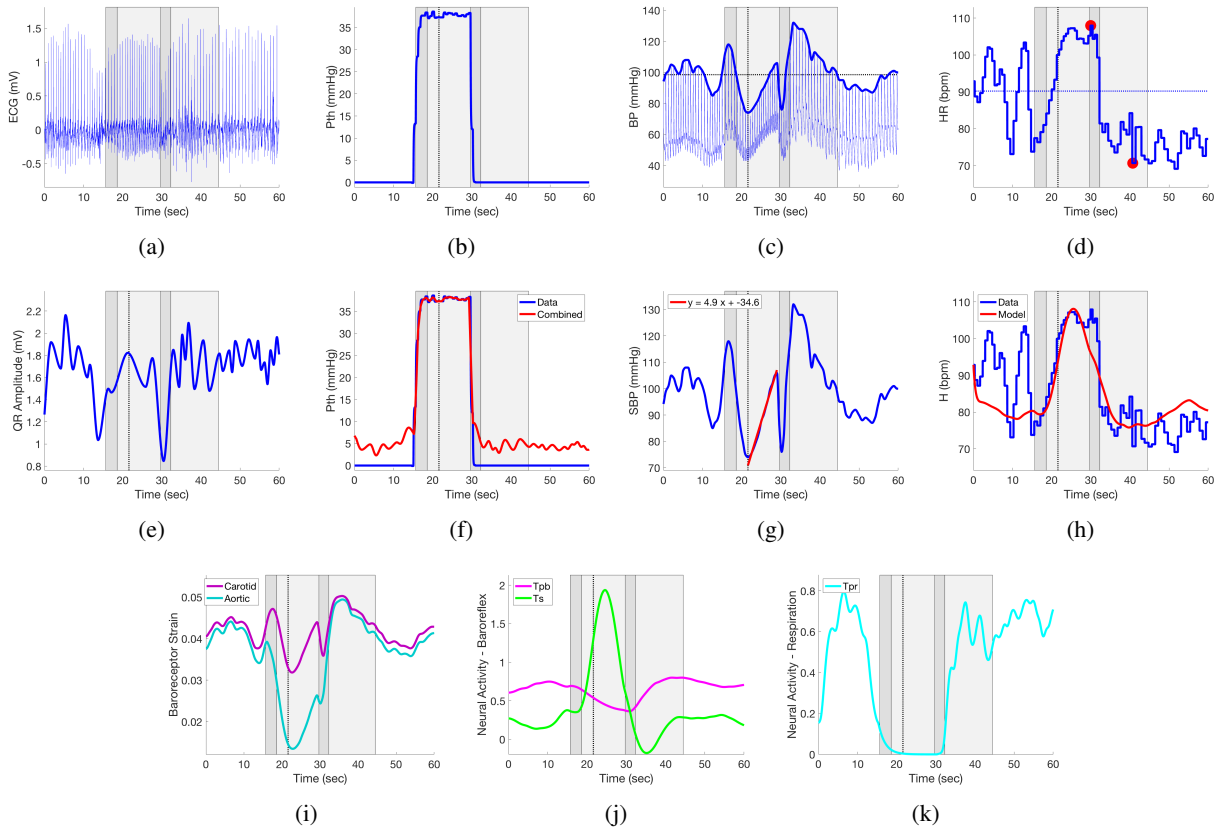


Figure 12: Control Subject 4 VM 2.

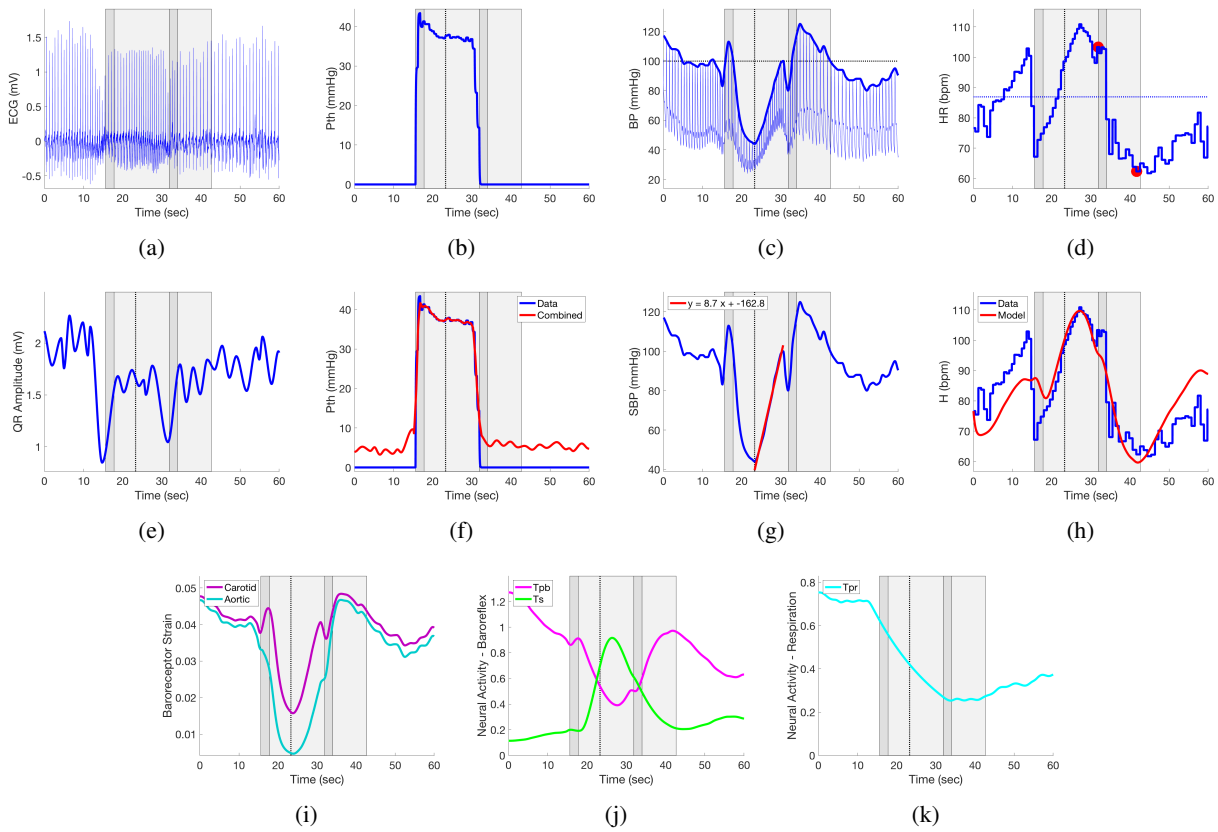
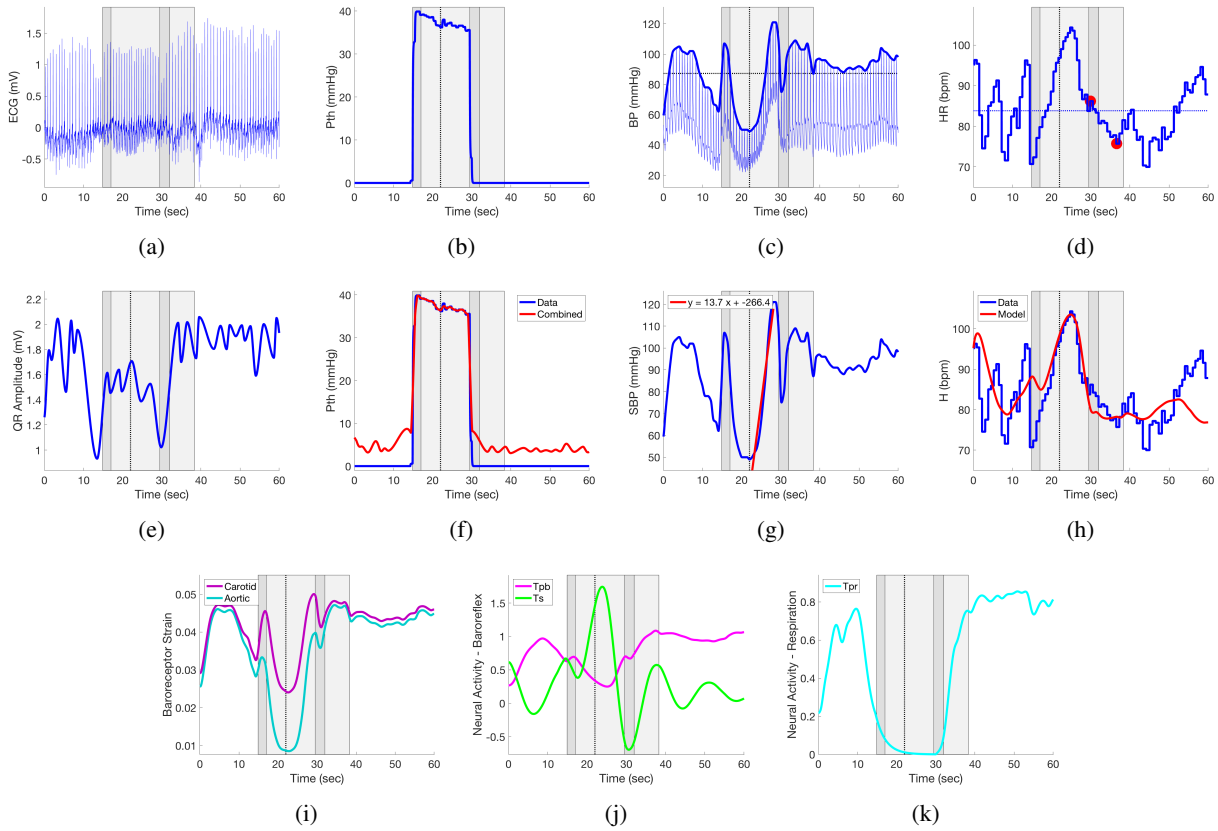


Figure 13: Control Subject 4 VM 3.



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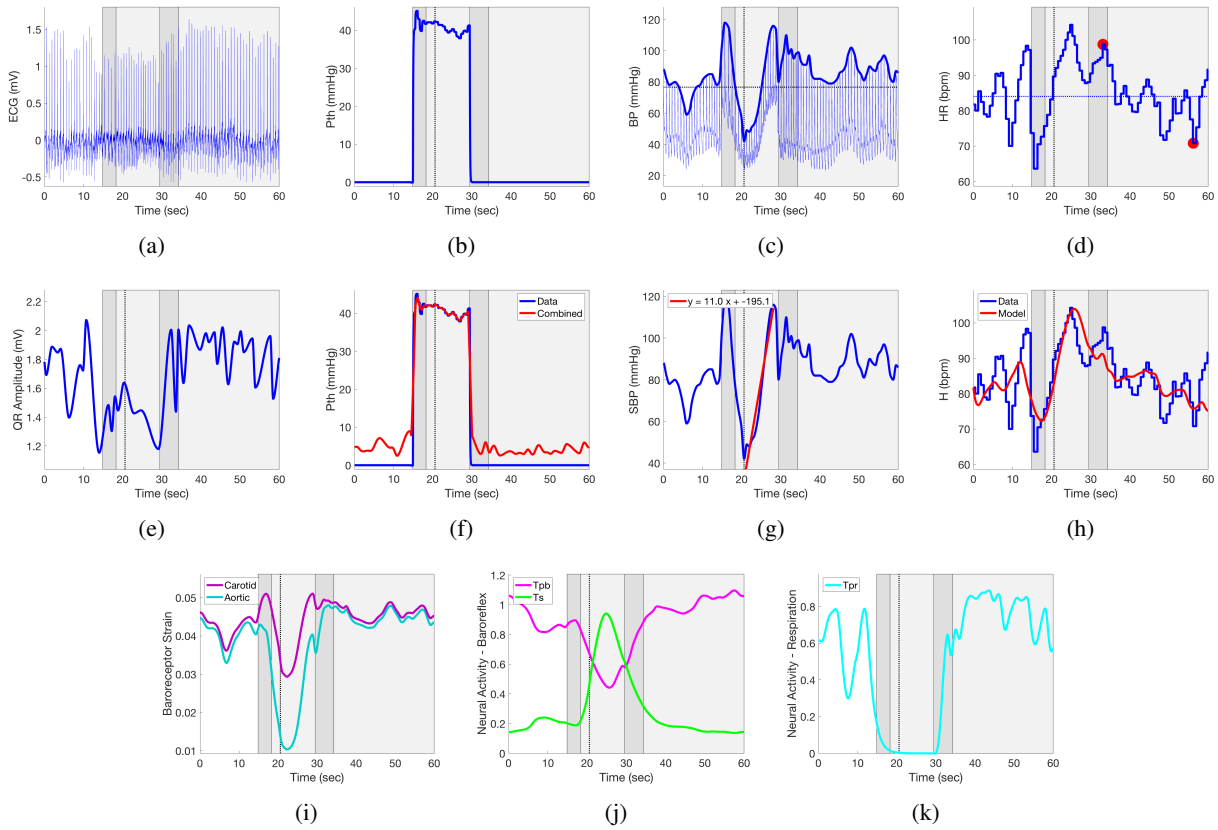
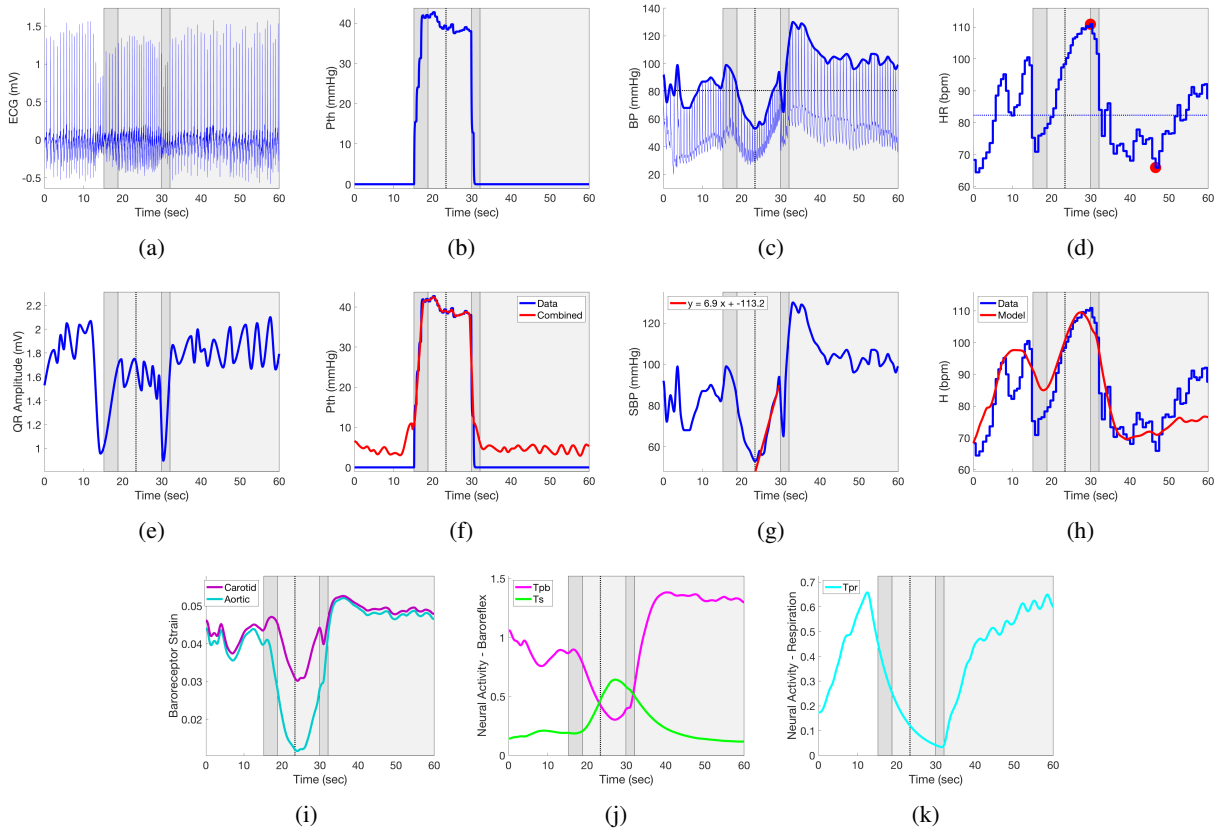


Figure 15: Control Subject 4 VM 6.



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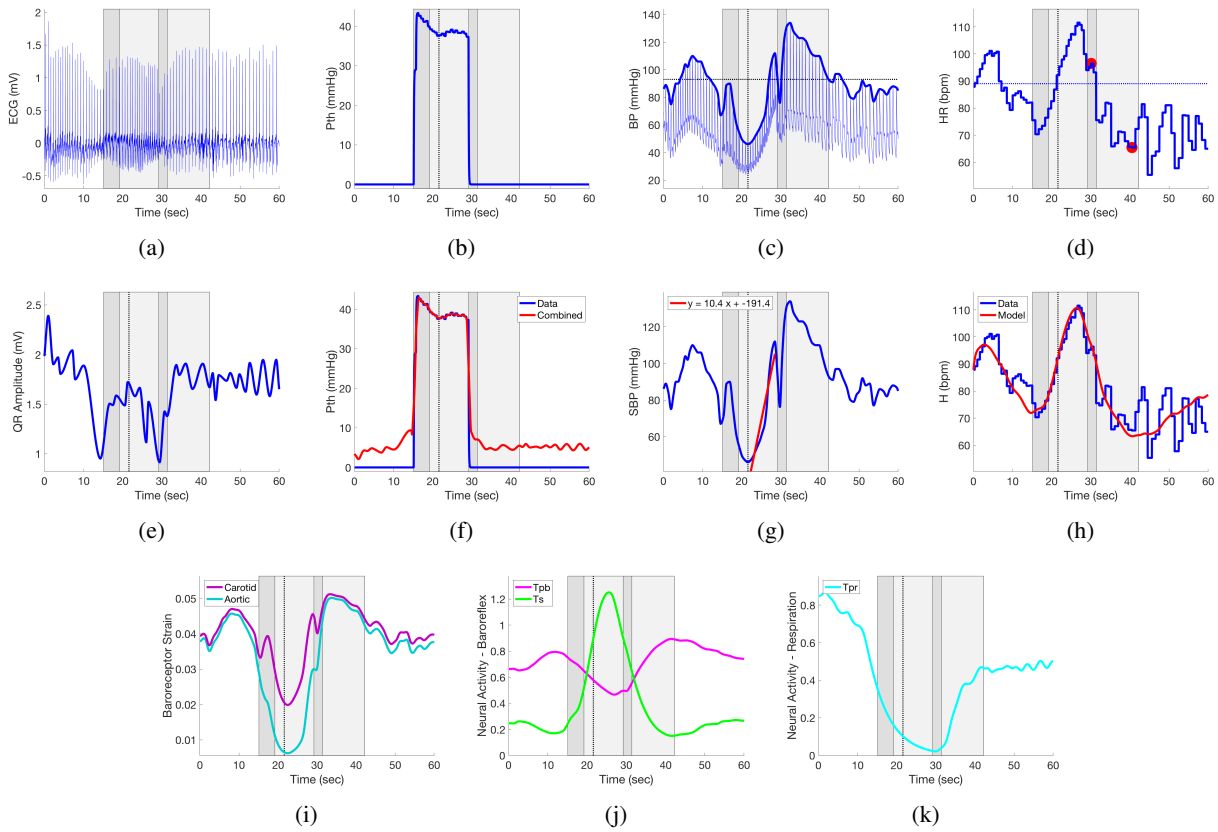


Figure 17: Control Subject 4 VM 8.

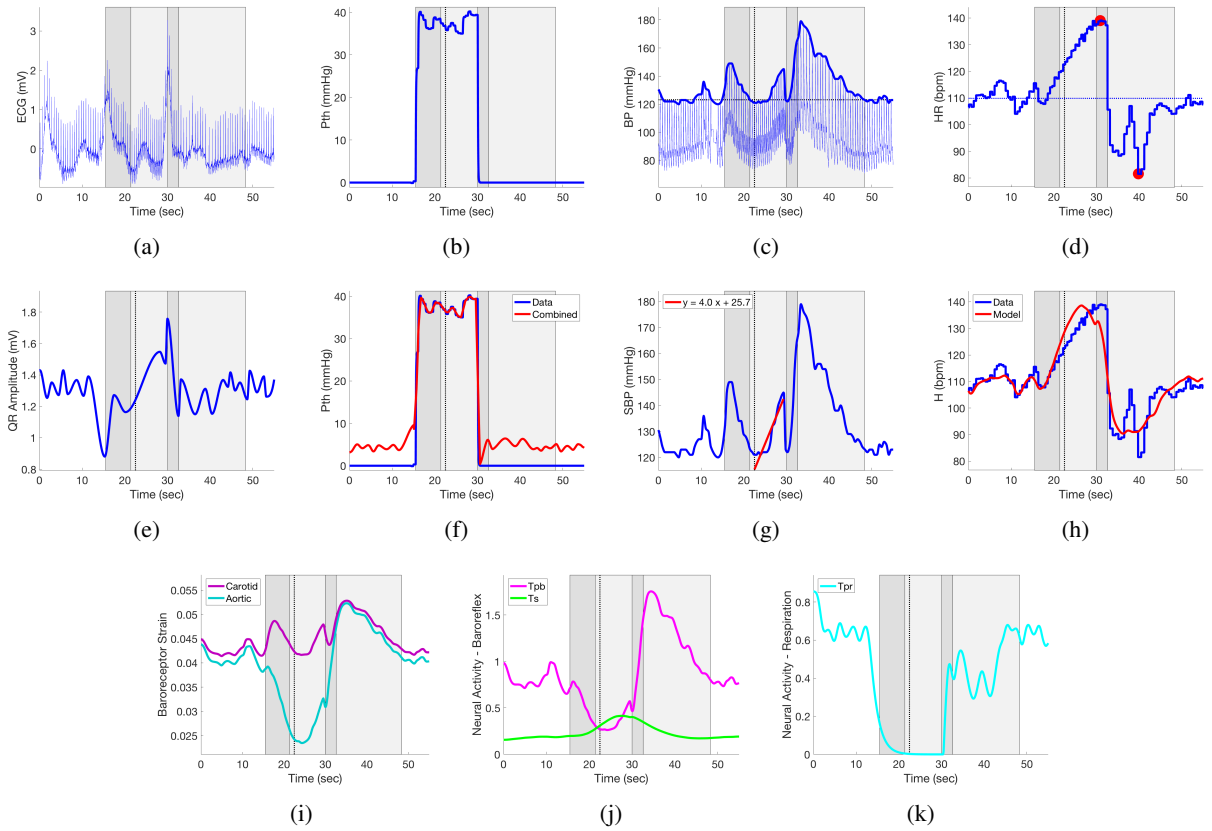


Figure 18: Control Subject 5 VM 1.

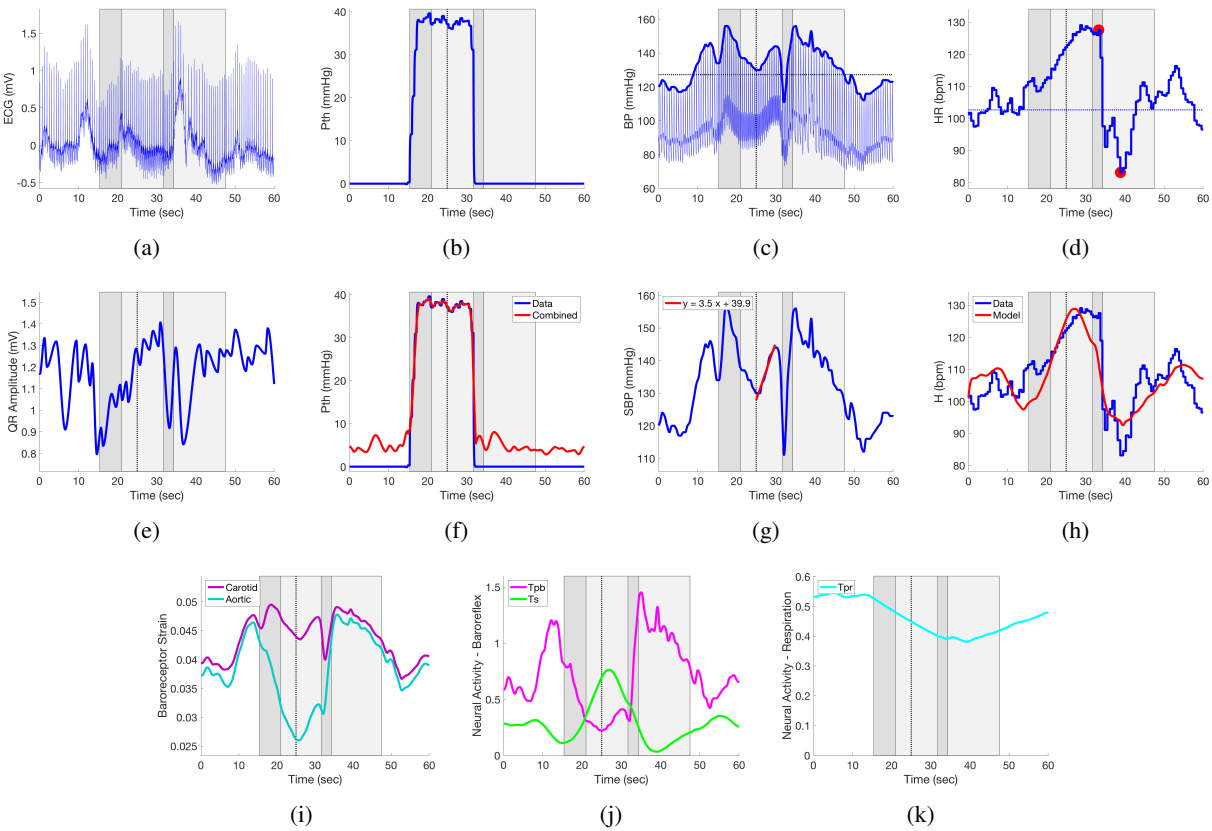


Figure 19: Control Subject 5 VM 3.

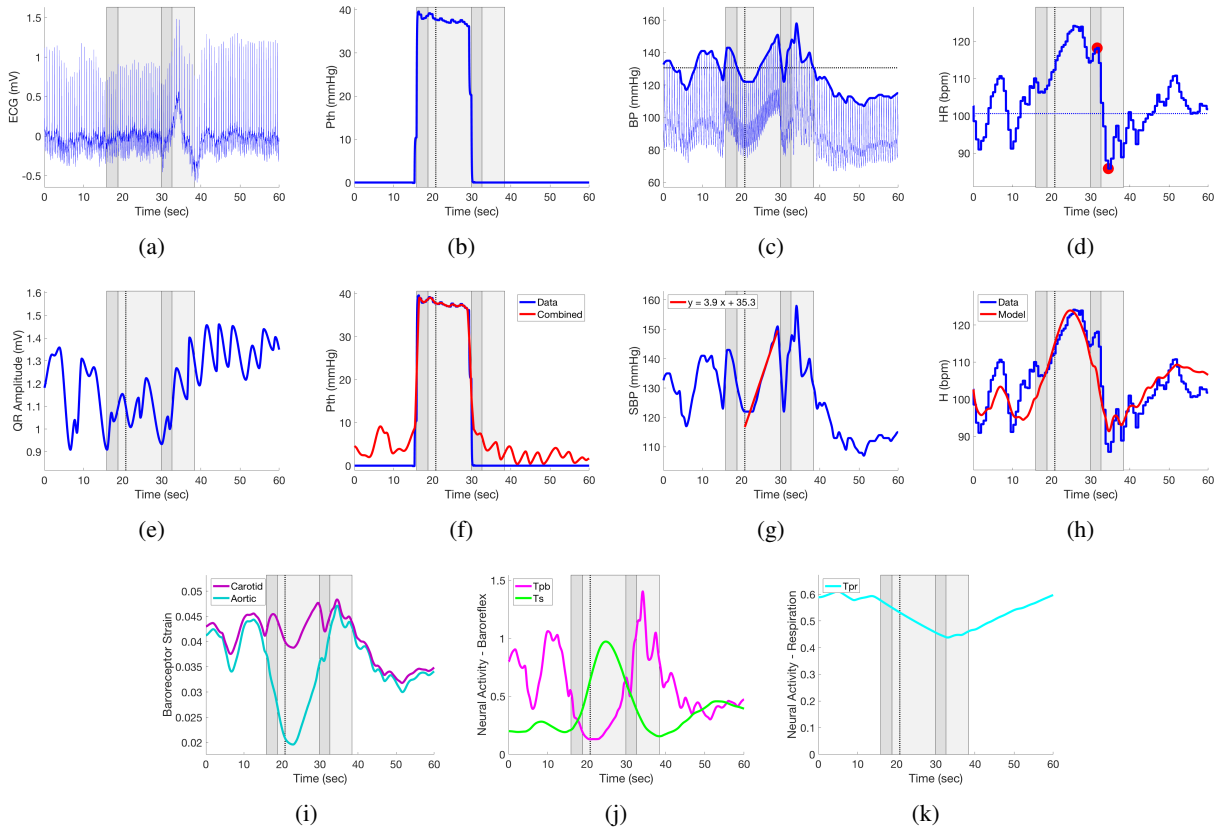


Figure 20: Control Subject 5 VM 4.

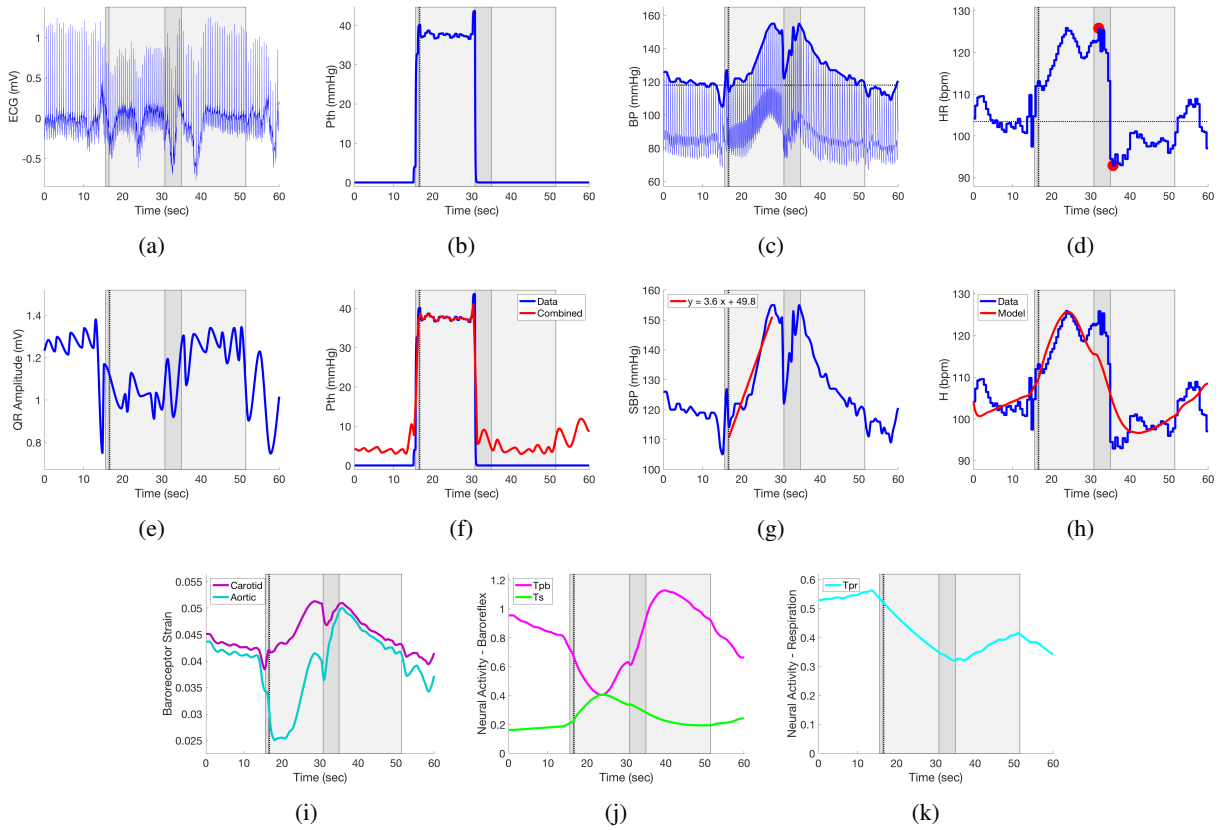
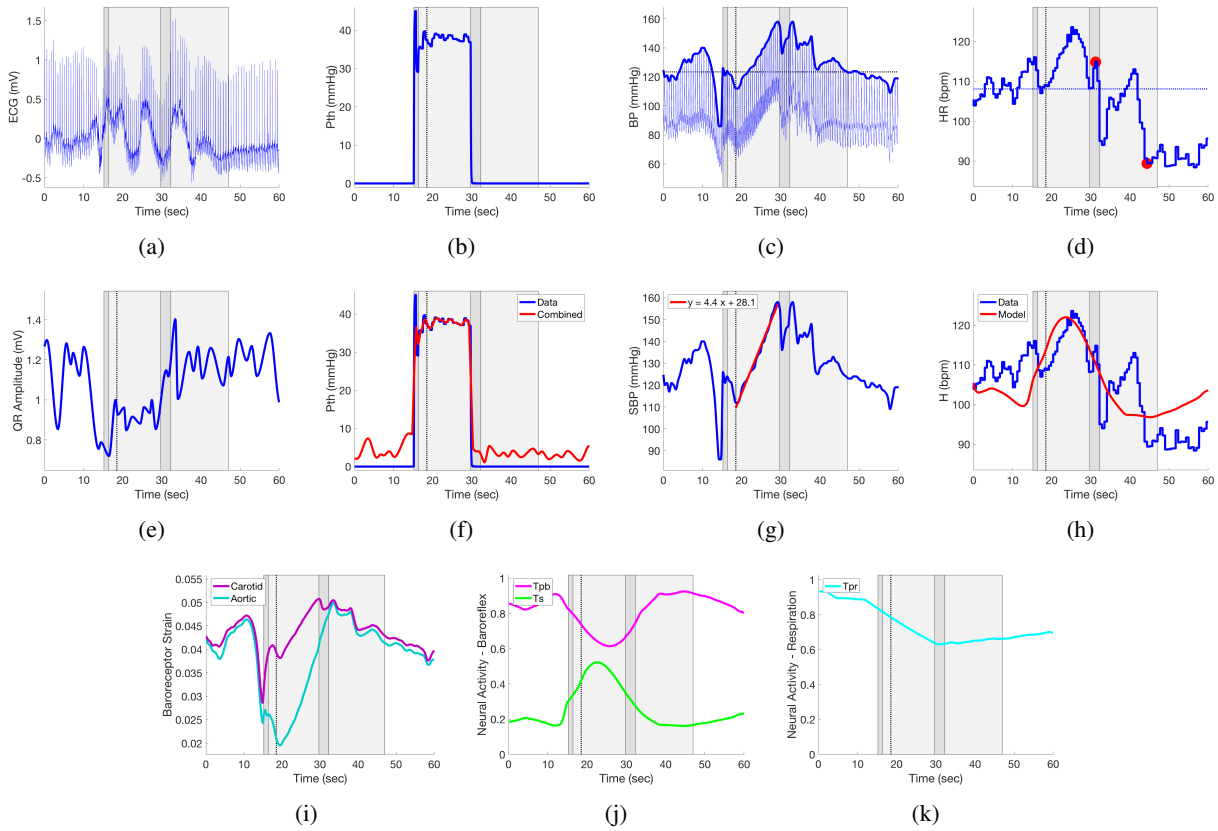


Figure 21: Control Subject 5 VM 7.



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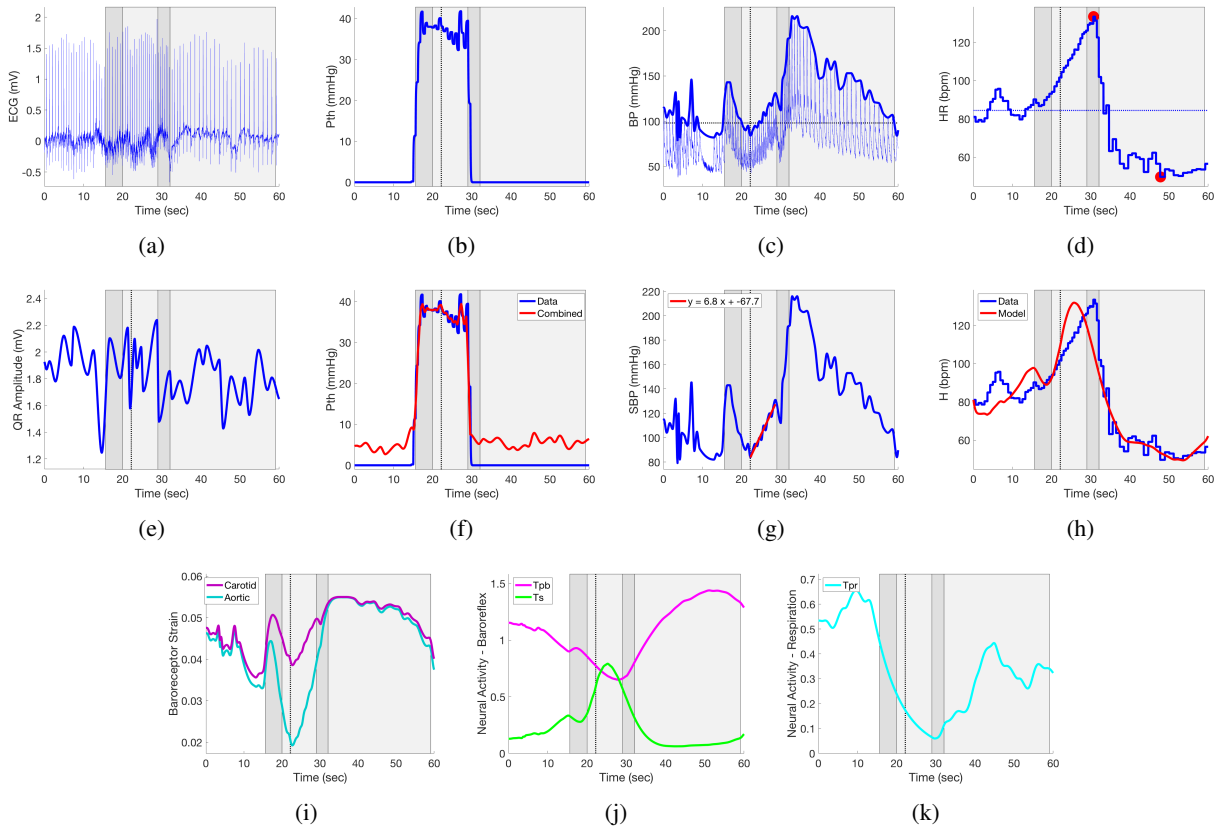


Figure 23: Control Subject 6 VM 2.

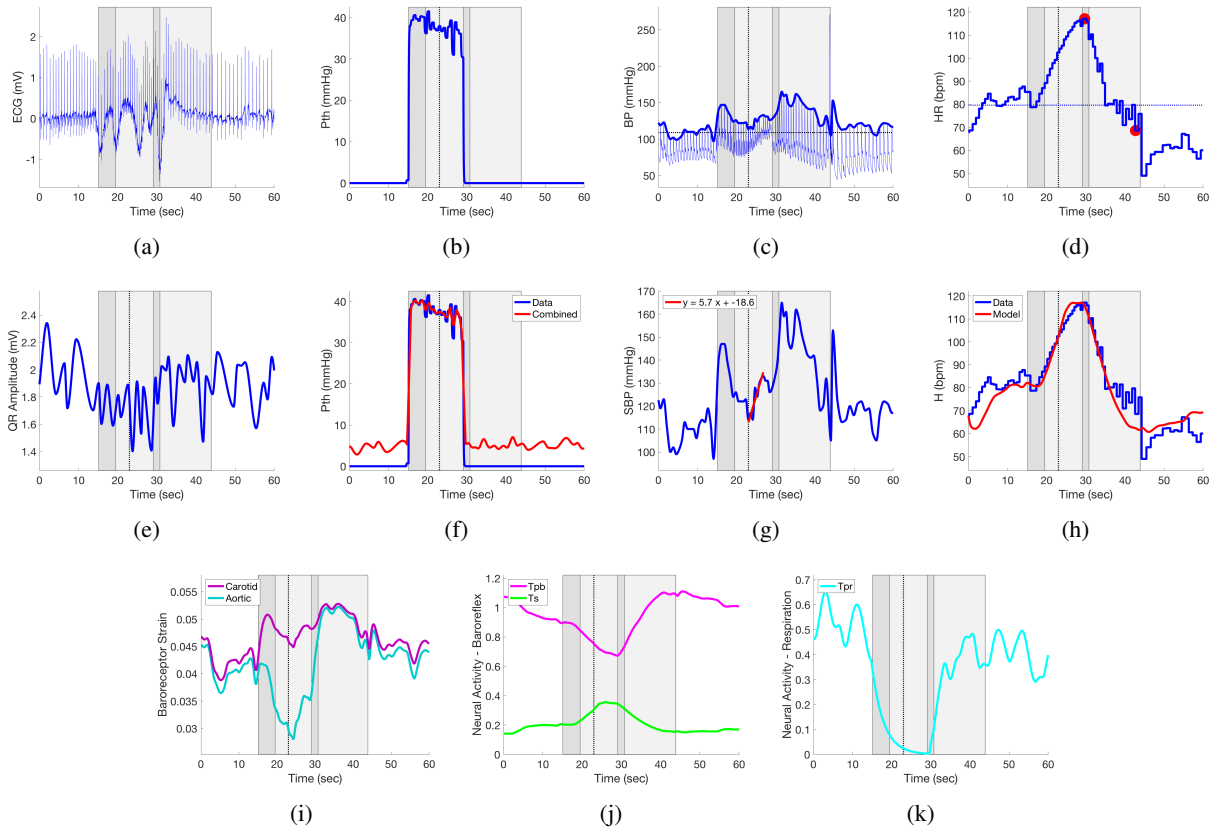
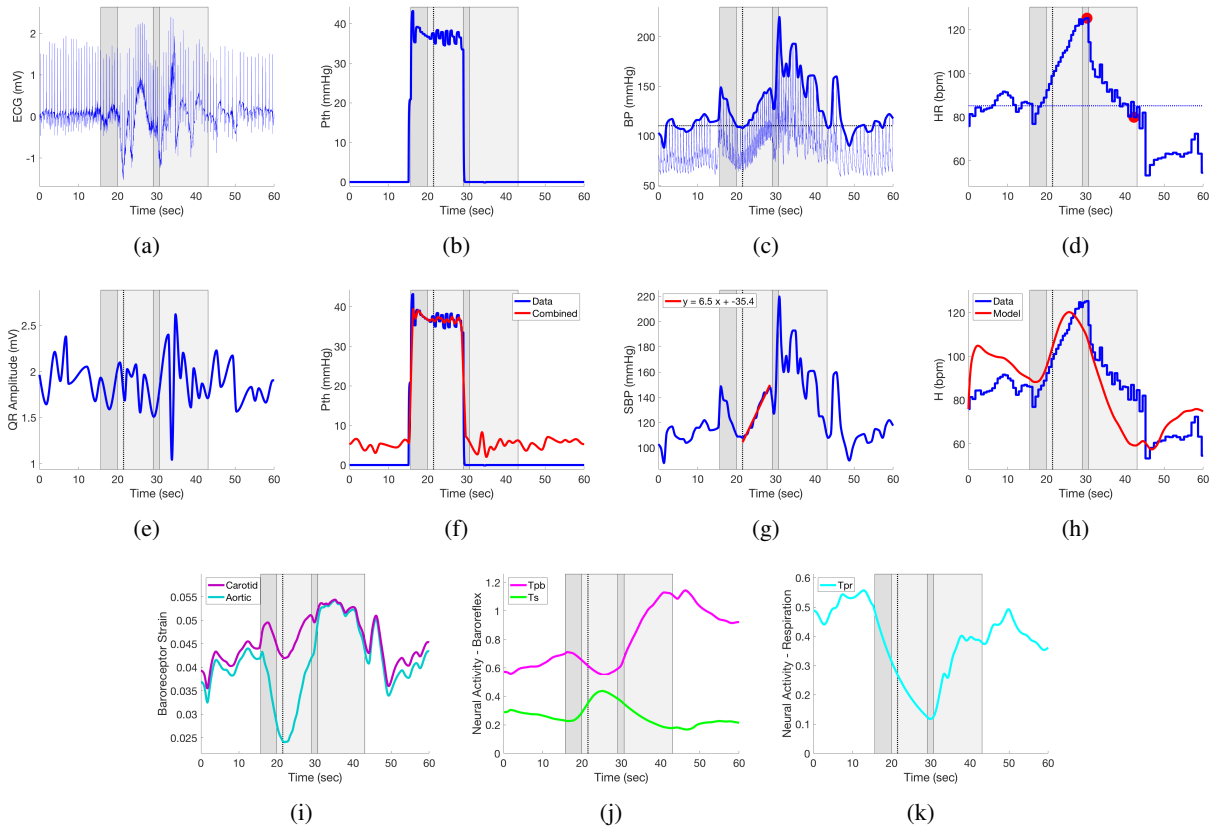


Figure 24: Control Subject 6 VM 5.



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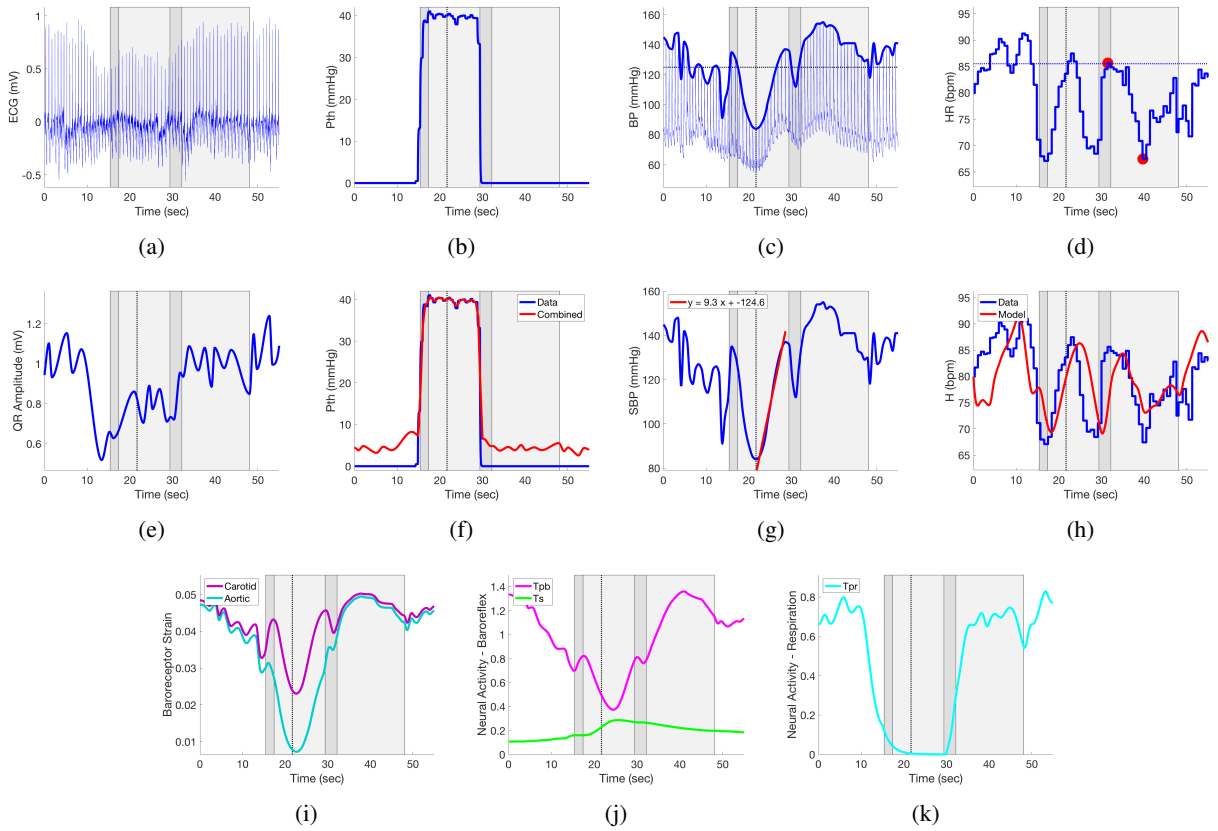


Figure 26: Control Subject 7 VM 3.

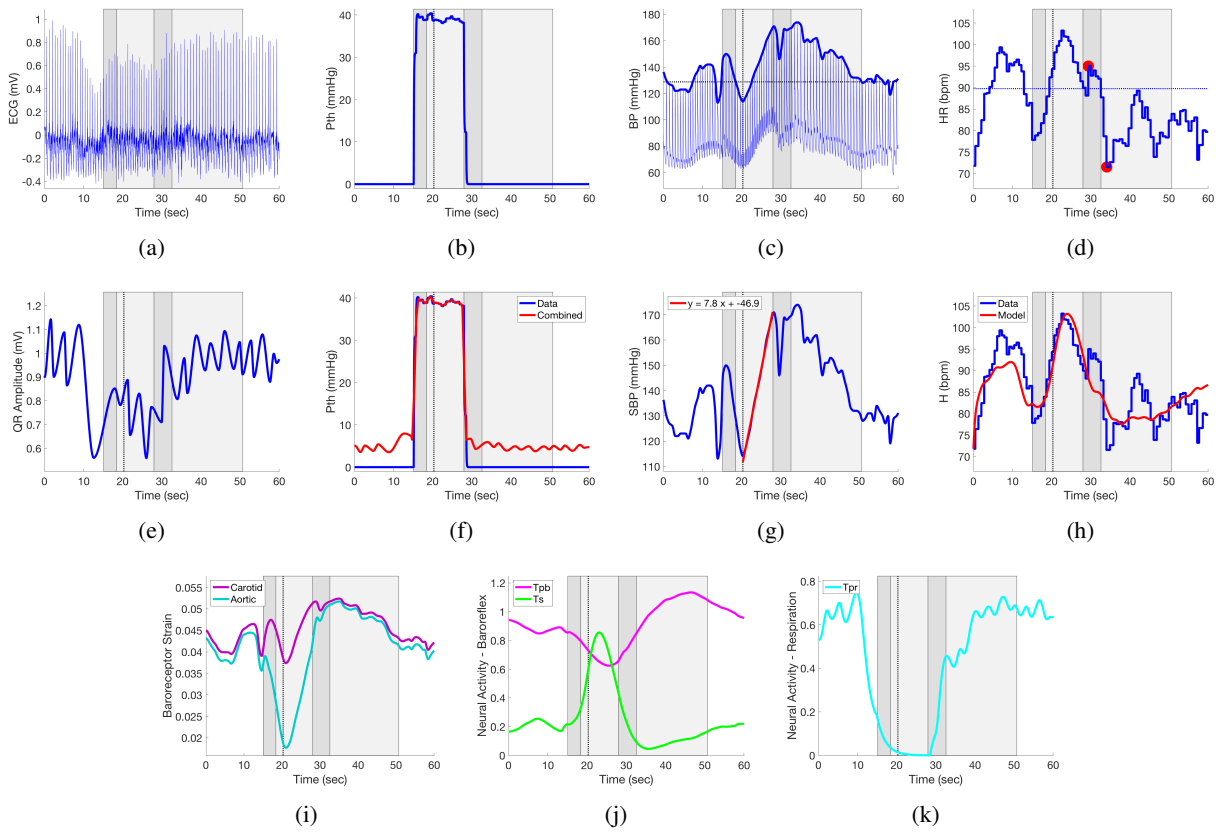
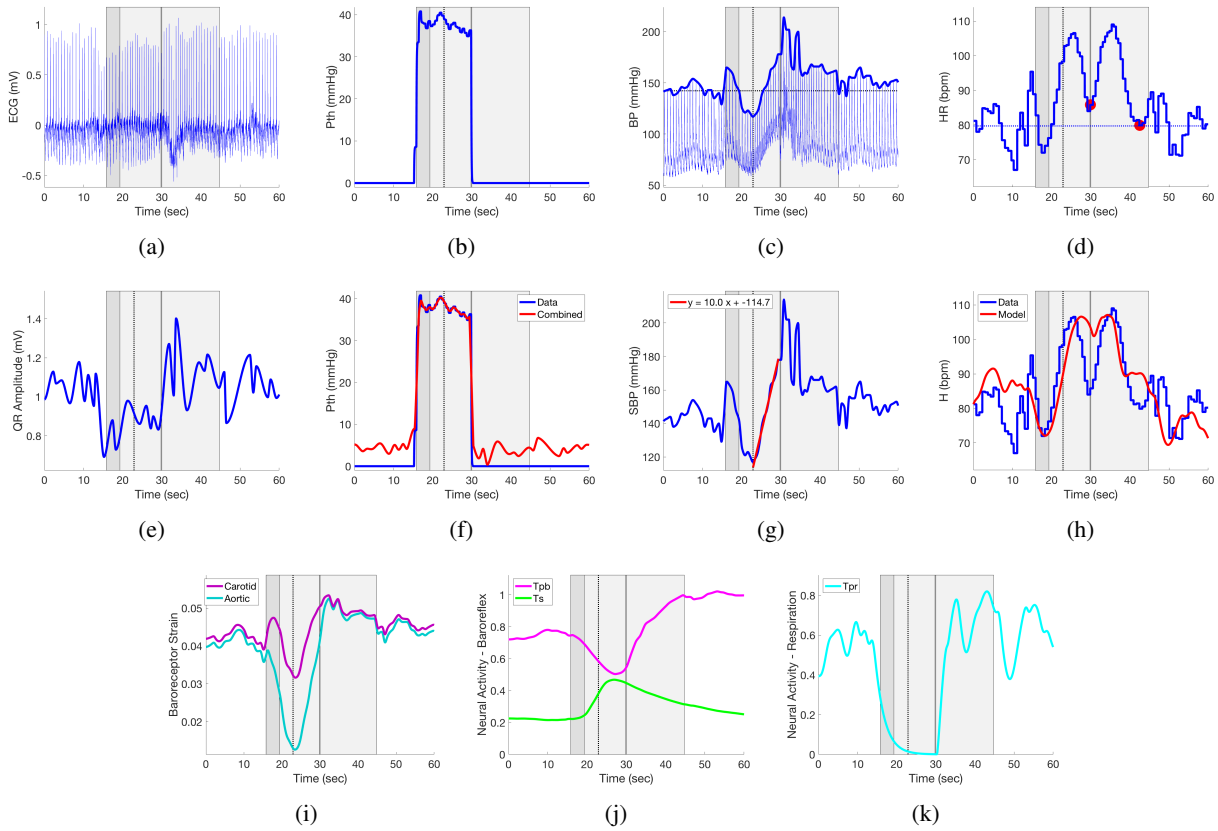


Figure 27: Control Subject 7 VM 4.



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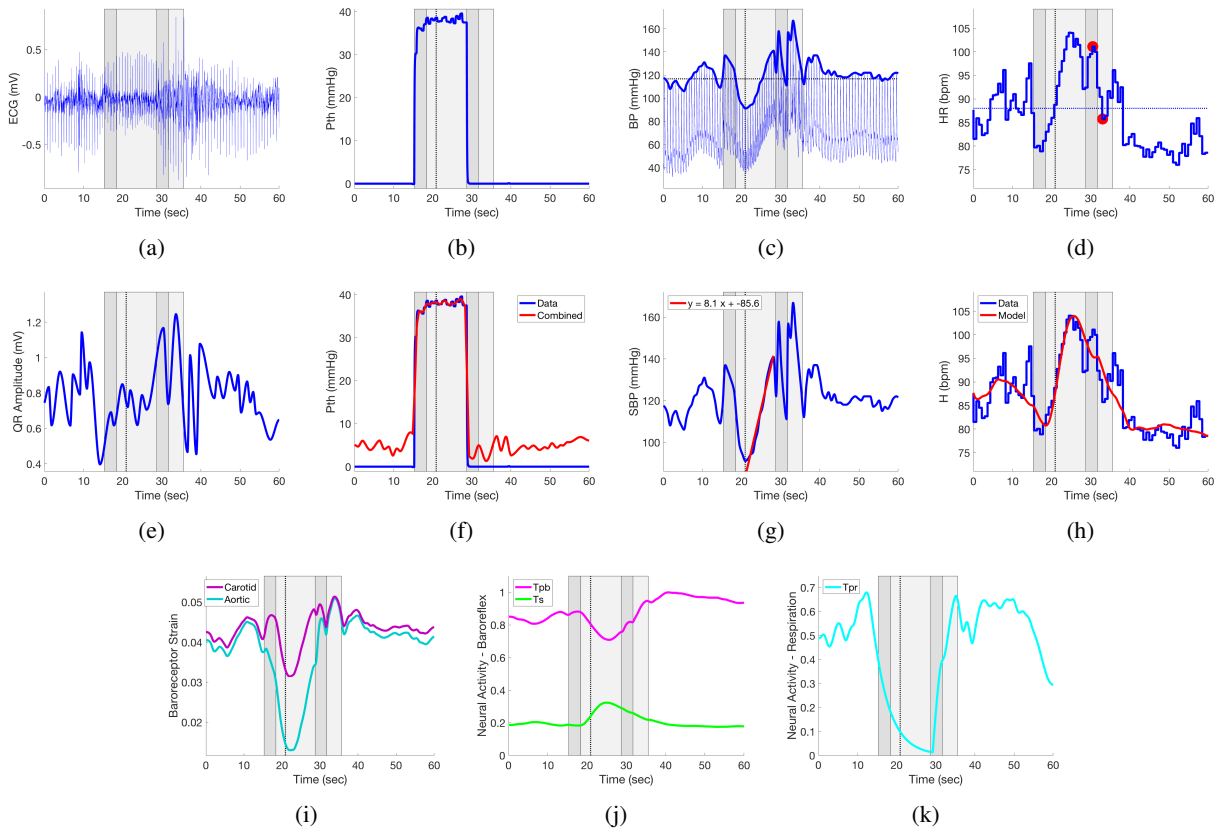


Figure 29: Control Subject 8 VM 3.

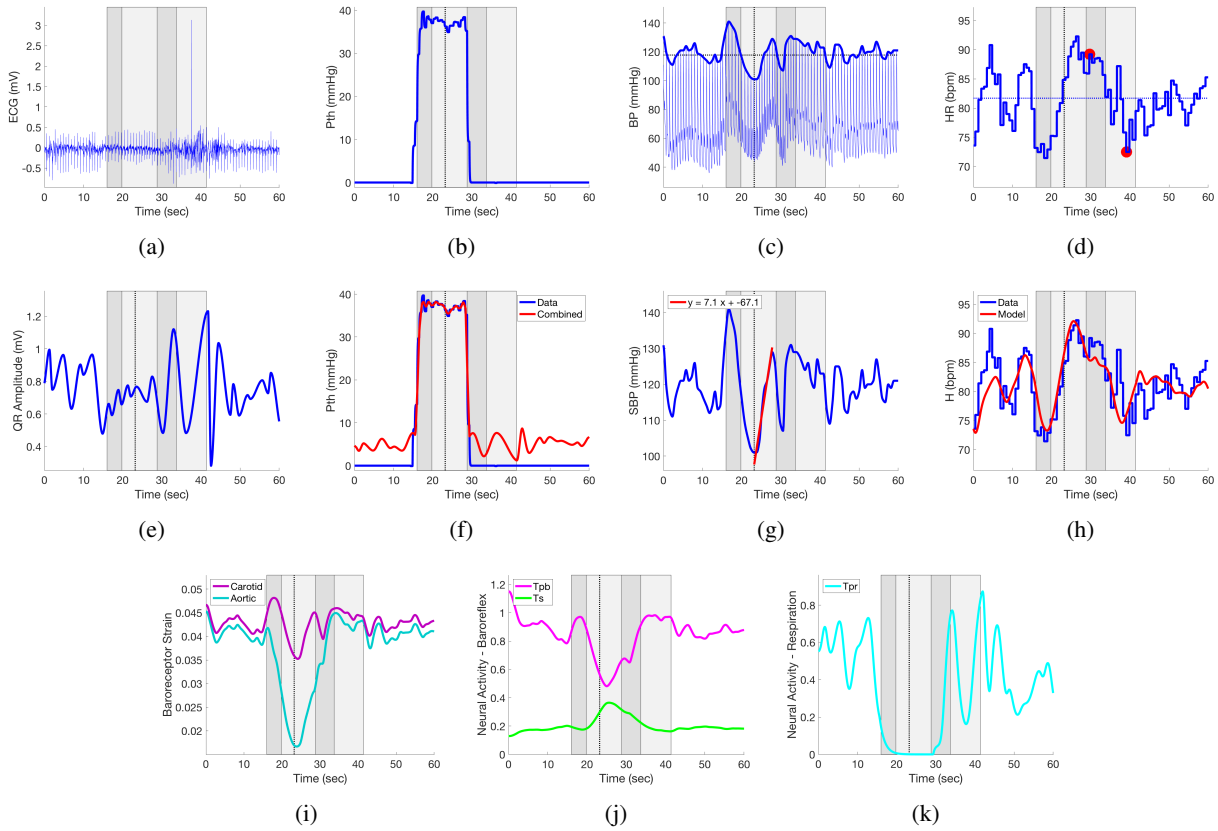


Figure 30: Control Subject 8 VM 4.

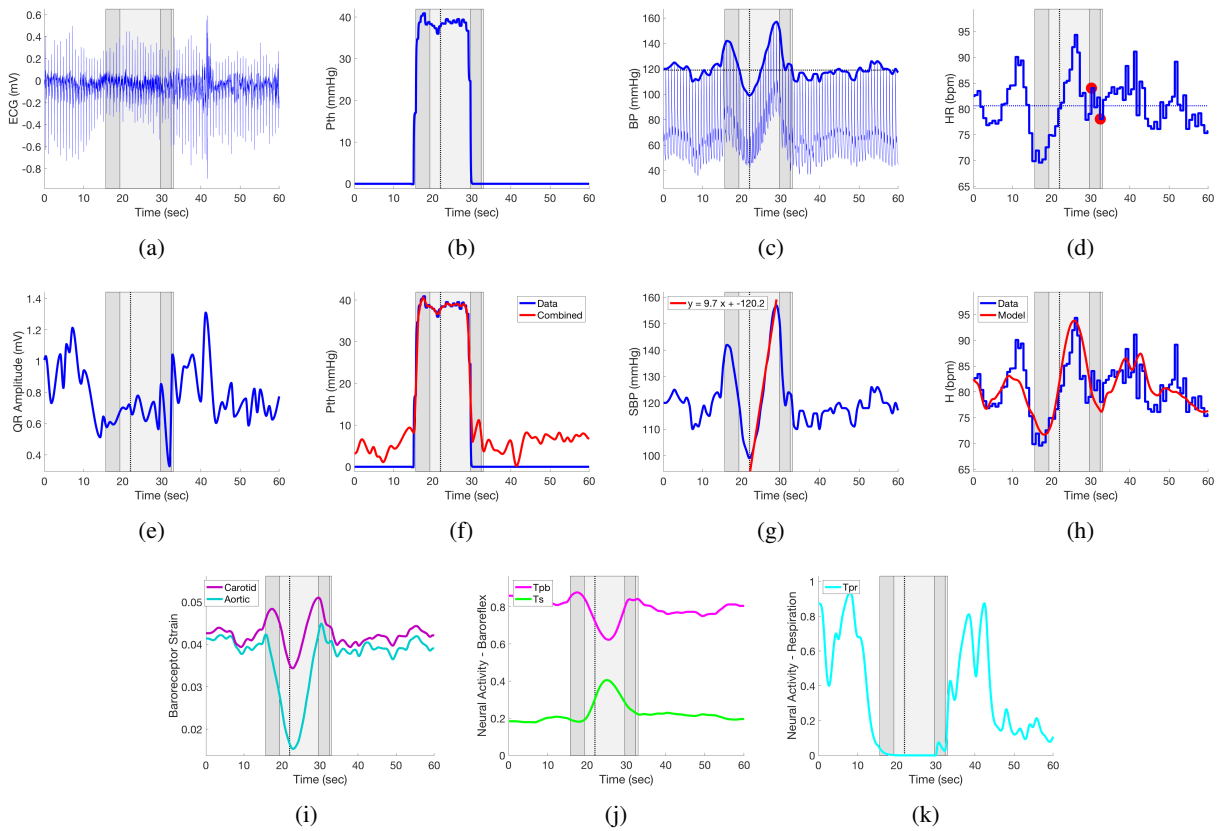


Figure 31: Control Subject 8 VM 5.

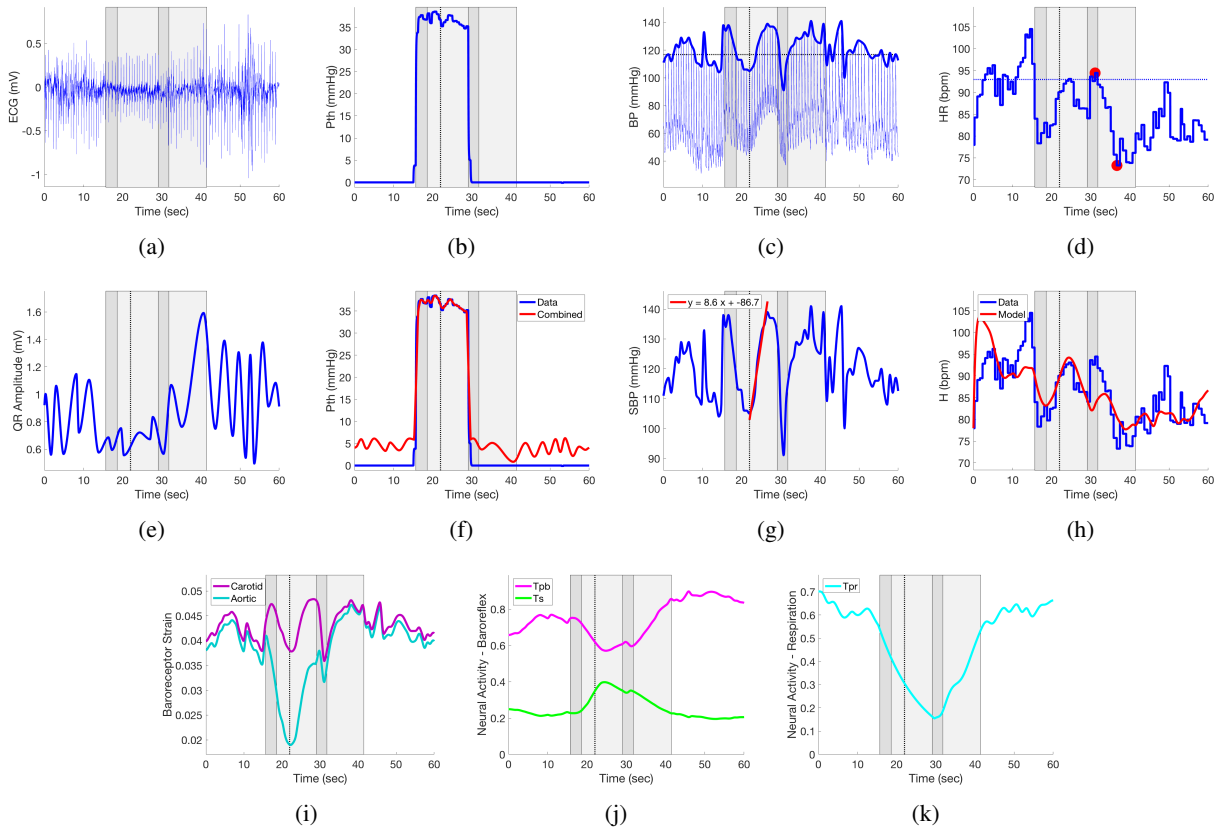


Figure 32: Control Subject 8 VM 8.

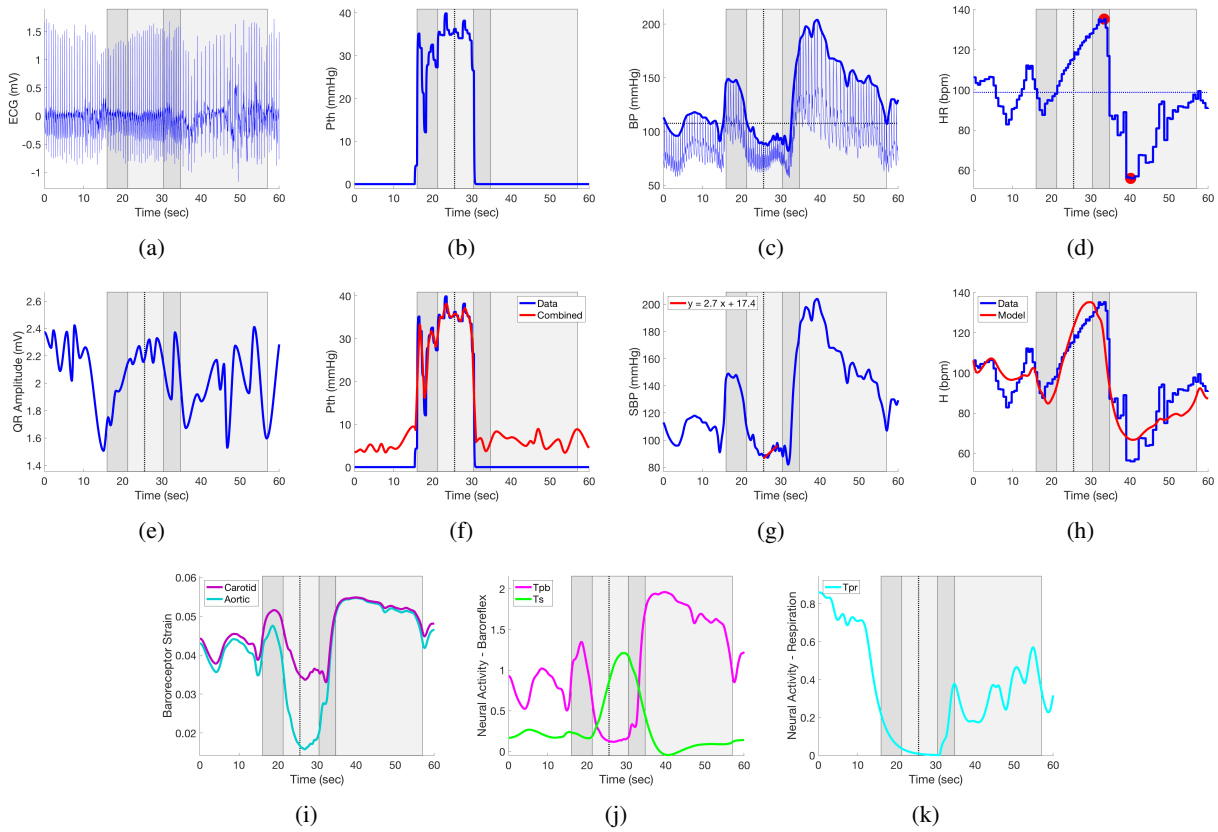
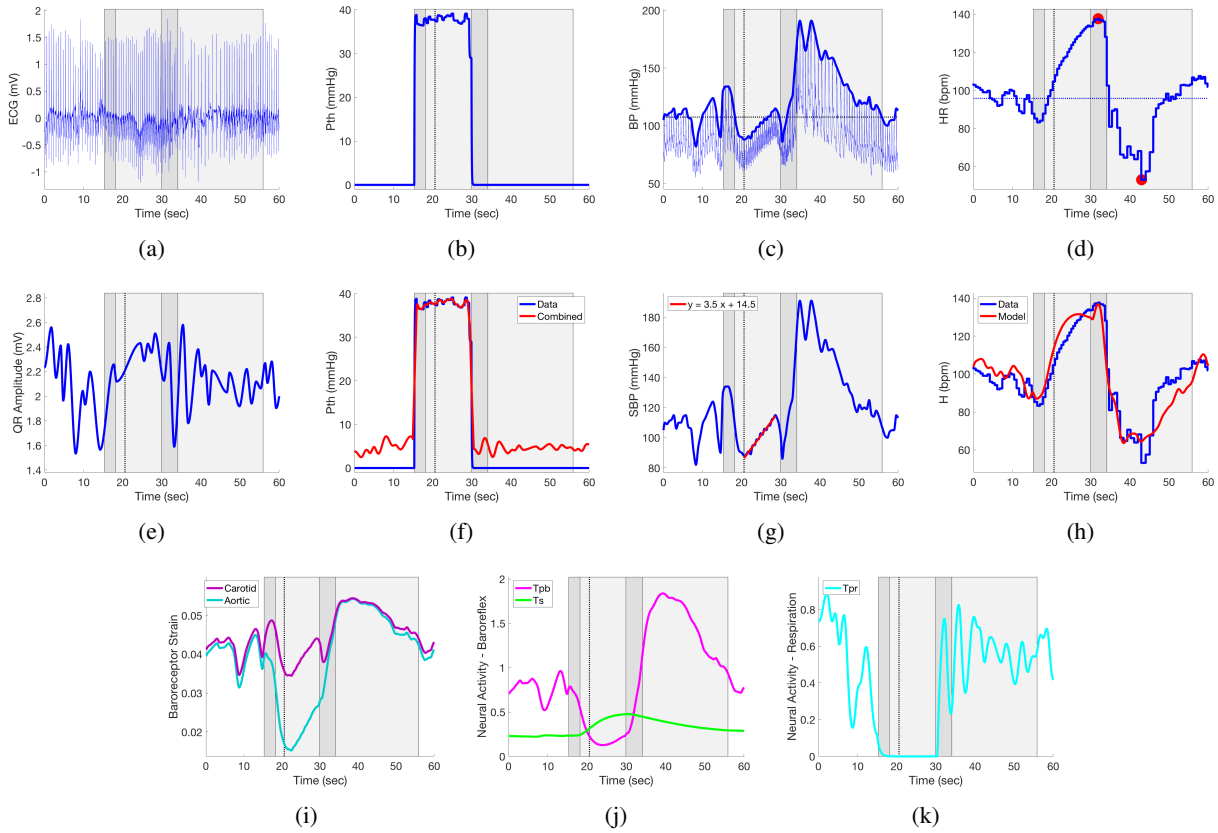


Figure 33: Control Subject 9 VM 3.



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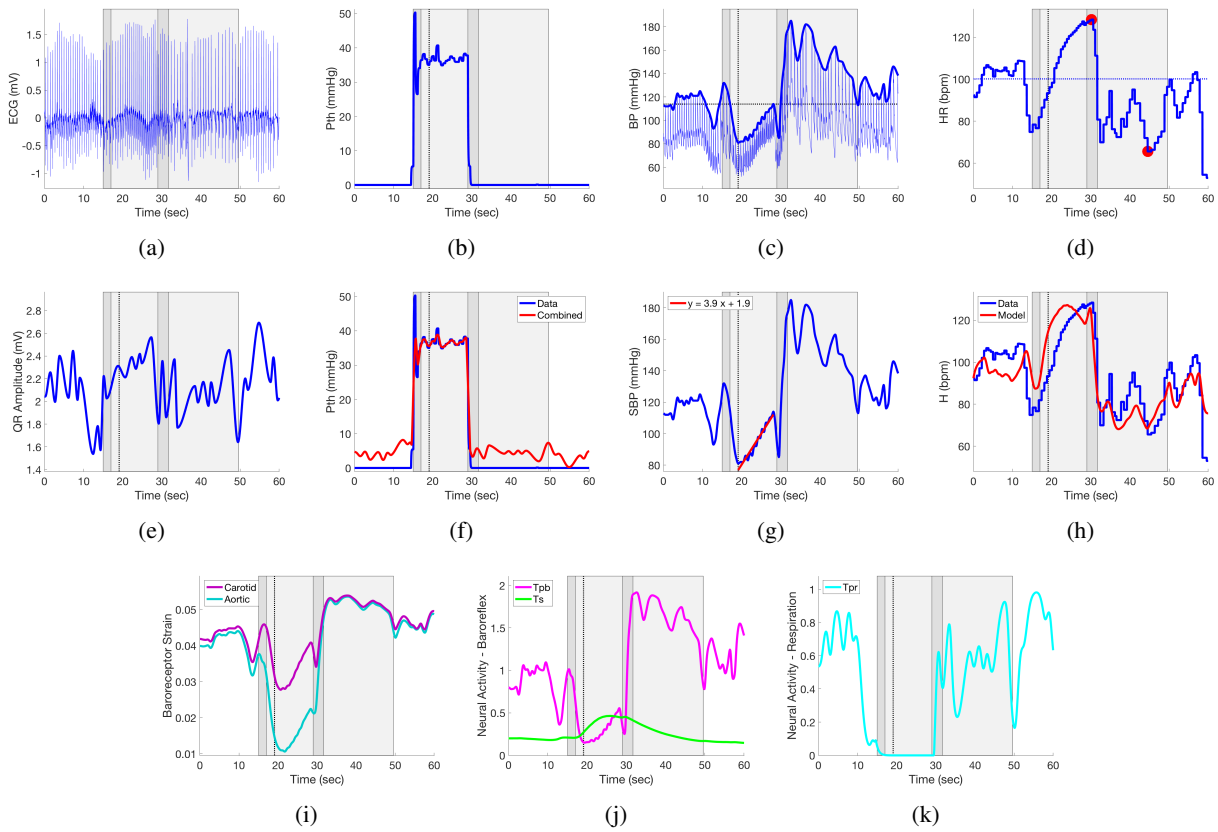


Figure 35: Control Subject 9 VM 5.

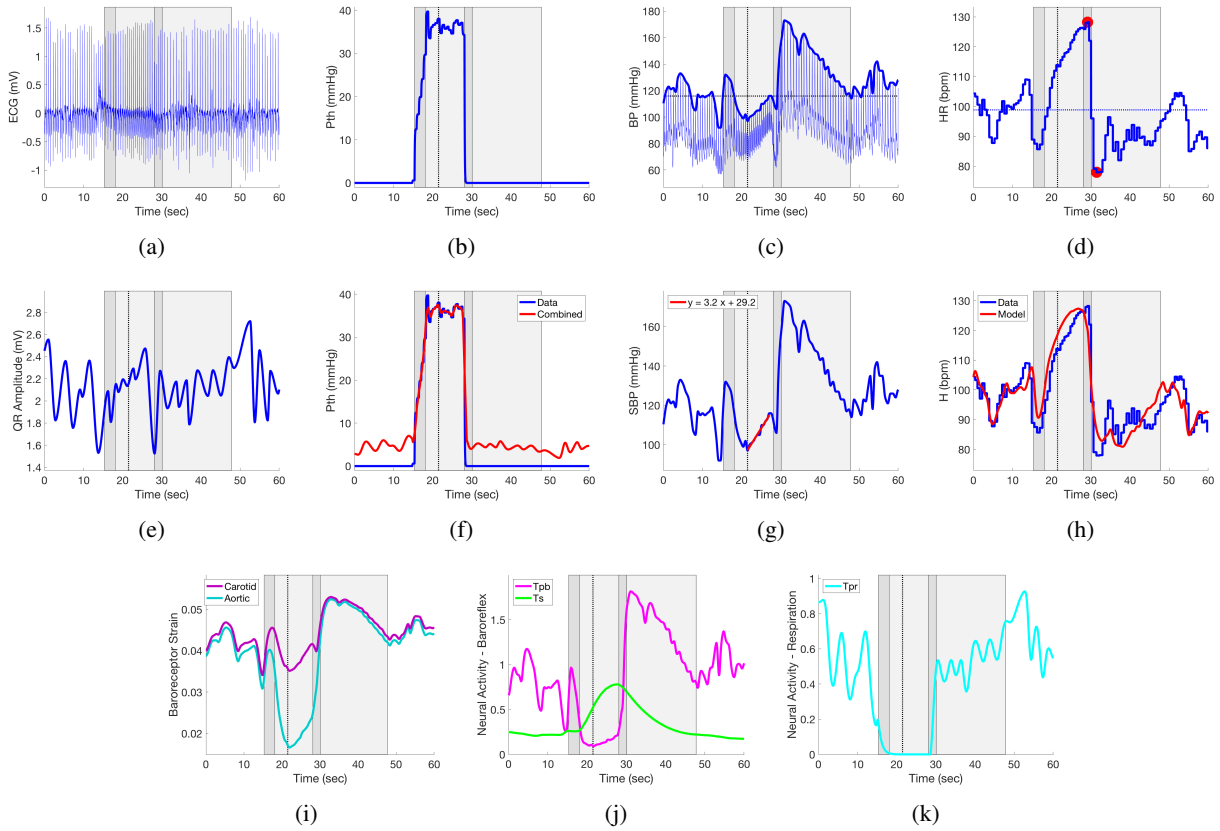


Figure 36: Control Subject 9 VM 8.

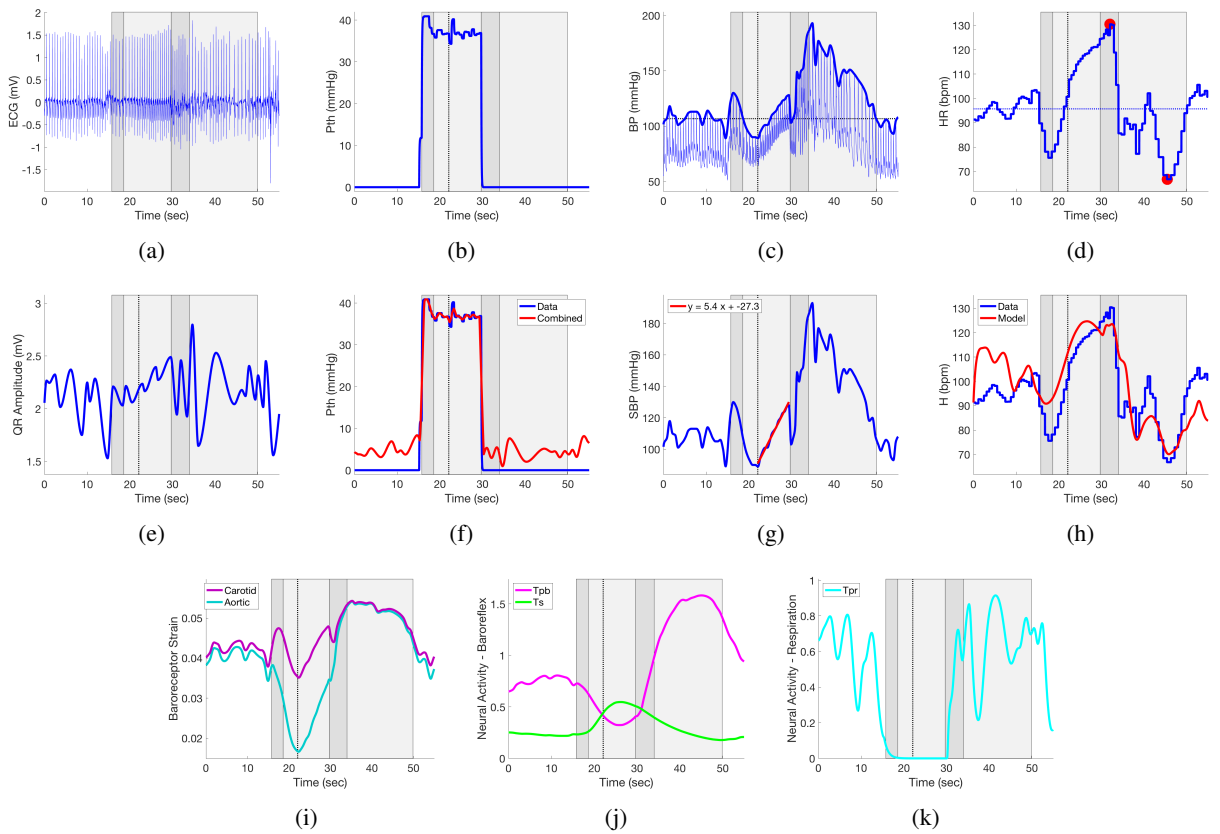


Figure 37: Control Subject 9 VM 9.

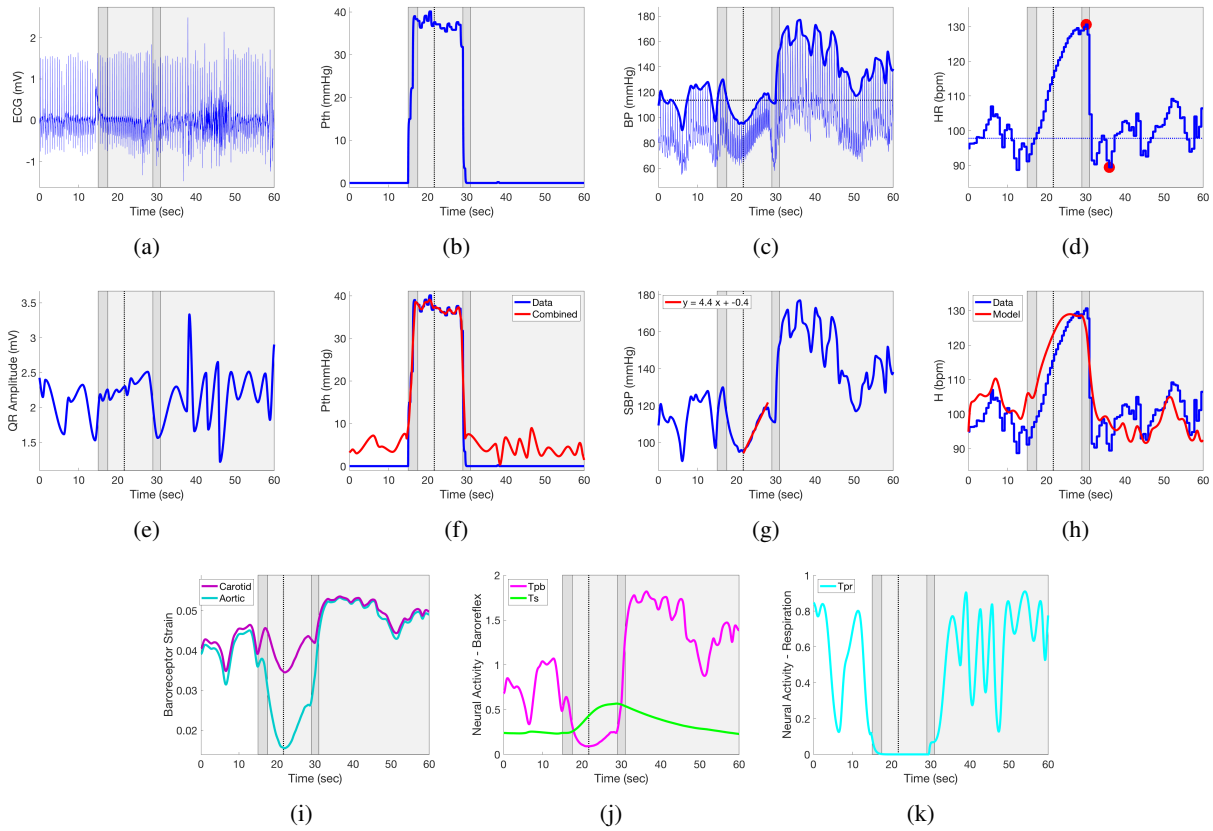


Figure 38: Control Subject 9 VM 10.

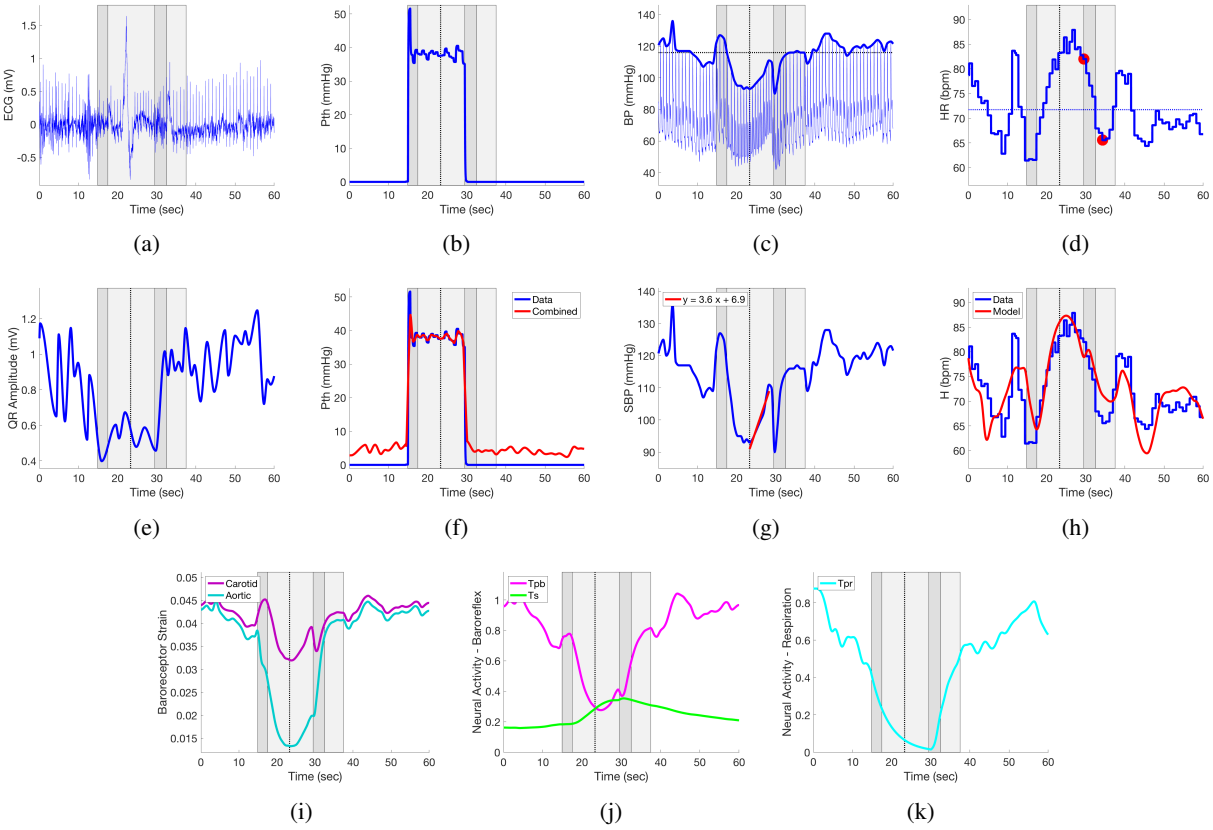
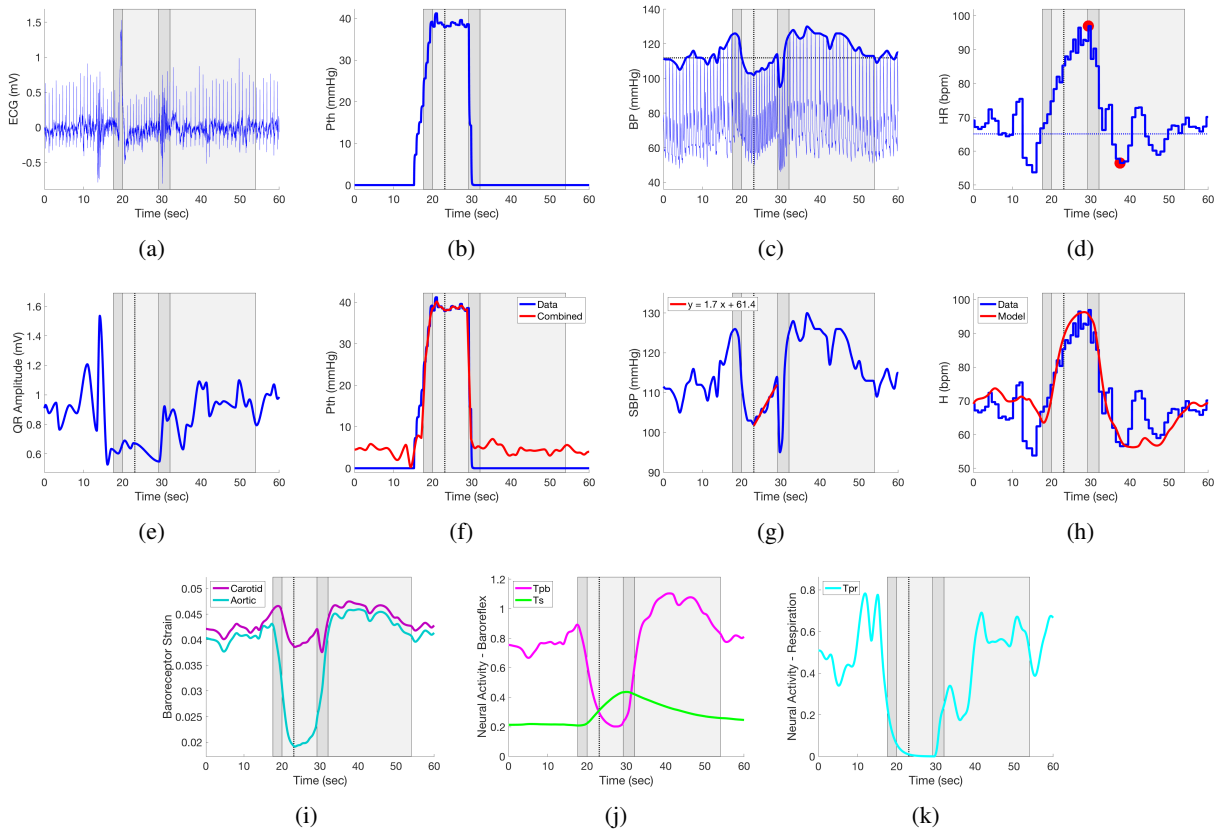


Figure 39: Control Subject 10 VM 4.



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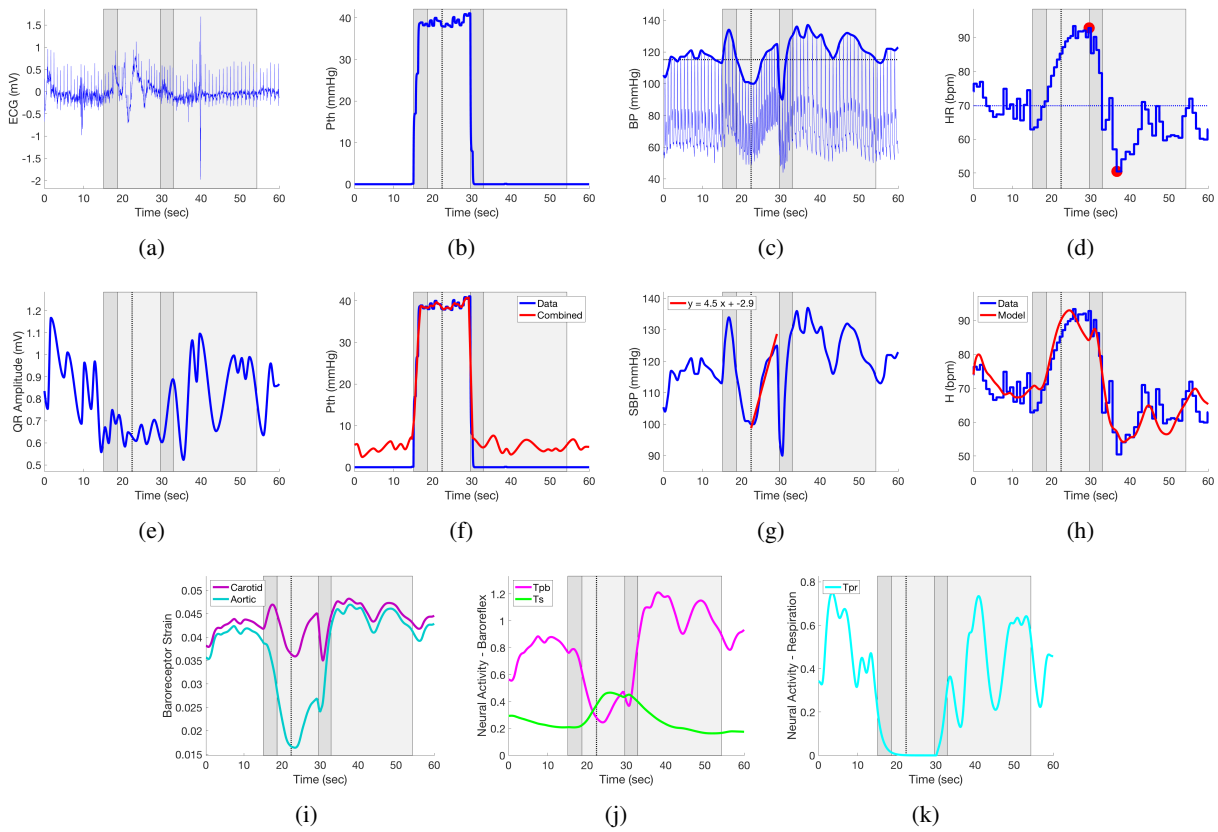

Figure 41: Control Subject 10 VM 7.