

TITLE: An inhalational swine model for the characterization of physiological effects and toxicological profile associated with cyanide poisoning

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Supplemental Table 1. Arterial blood gas analysis results from swine blood after CN exposure:

	Time (min)	pH	PCO ₂ (torr)	PO ₂ (torr)	FMetHB (%)	K ⁺ (meq/L)	Ca ²⁺ (meq/L)	Glucose (mg/dL)	Lactate (mmol/L)
Animal 64358	0	7.471	41.1	96.9	1.1	4	2.7	121	2.1
	2.5	7.42	37.2	105	1.6	6.4	2.7	97	9.7
	5	7.361	35	110	1	8	2.68	103	16
	7.5	7.303	34	110	1.1	9.7	2.77	172	18
	10	7.292	22.2	116	1.6	9.4	2.75	174	23
	12.5	6.818**	73.5	63	1.5	8.9	3.05	257	24*
	15	6.818**	98.3***	45.4	1.6	7.8	3.14	277	24*
	30								
Animal 64361	0	7.484	35.9	96.6	0.8	4	2.69	104	1.3
	2.5	7.56	29.5	103	0.8	4.6	2.57	96	2.3
	5	7.223	41.1	98.7	1	7.1	2.73	97	18
	7.5	7.044	43.7	96.3	1.1	7.2	2.74	188	24*
	10	6.977	36.9	103	1.3	6.9	2.74	187	24*
	12.5	6.938	33.2	103	1.3	7	2.78	213	24*
	15	6.869	35.2	101	1.5	7	2.84	252	24*
	30								
Animal 64355	0	7.519	36.7	97.1	0.8	3.7	2.48	112	0.9
	2.5	7.501	38.2	84.1	0.8	4.3	2.53	96	2.2
	5	7.187	43.7	103	1	6.6	2.59	104	21
	7.5	7.188	40.2	101	1	6.7	2.56	200	19
	10	7.241	28	114	1	6.8	2.52	217	19
	12.5	7.164	23.1	126	1.2	6.6	2.54	202	24*
	15	7.039	22.4	129	1.4	6.3	2.62	201	24*
	30								

exposed animals not selected as representative specimens.

* Value is above the reportable range of analyzer. Instrument can quantify as high as 24 mmol/L for lactate.

** Value is below the reportable range of the analyzer. Instrument can quantify as low as 6.818 for pH.

*** Value is above the reportable range of analyzer. Instrument can quantify as high as 98.3 torr for PCO₂.

✕ No samples were collected at this time point.

Supplemental Table 1. Arterial blood gas analysis results from swine blood after CN exposure: exposed animals not selected as representative specimens (Cont.)

Animal 64360	0	7.519	37.1	84.7	0.7	3.7	2.68	135	0.6
	2.5	7.408	42.4	100	0.7	5.3	2.7	121	6.6
	5	7.32	30.6	111	0.8	6.4	2.64	139	18
	7.5	7.283	28.4	111	0.9	6.6	2.64	178	19
	10	7.146	34.5	107	1	6.6	2.68	173	23
	12.5	7.097	26	118	1	6.4	2.7	160	24*
	15	6.818**	58.8	75.3	1.3	6.1	2.86	271	24*
	30								
Animal 64354	0	7.478	40.3	88.8	0.8	3.5	2.59	133	0.9
	2.5	7.564	34.1	92.2	0.8	3.6	2.55	109	0.9
	5	7.531	33.7	98.8	0.9	5.1	2.57	107	4.4
	7.5	7.19	41.5	99.6	1.1	6.6	2.62	104	20
	10	7.133	35.9	108	1.2	6.1	2.59	177	23
	12.5	7.103	30.5	109	1.2	6.1	2.58	185	24*
	15	7.061	29.2	109	1.4	6.2	2.61	172	24*
	30								

* Value is above the reportable range of analyzer. Instrument can quantify as high as 24 mmol/L for lactate.

** Value is below the reportable range of the analyzer. Instrument can quantify as low as 6.818 for pH.

*** Value is above the reportable range of analyzer. Instrument can quantify as high as 98.3 torr for PCO₂.

X No samples were collected at this time point.

Supplemental Figure 1. Cardiovascular Monitoring. Animals 64361 and 64355 were instrumented with a DSI telemetry device to monitor HR and blood pressure. Panels A and B represent the data for animals 64361 and 64355, respectively. Left panel: HR; Right panel: blood pressure.

Supplemental Figure 2: Cardiovascular Monitoring. Animal 64355 was implanted with a left ventricular catheter inserted in the apex of the left ventricle. Left panel: LVP; Right panel: dP/dT.

Supplemental Figure 3. ECG Parameters Measured During the Cardiovascular Monitoring for Animal 64361.

RR interval, PR interval, QRS interval, QT interval, and QTcF Fridericia Corrected QT interval, and ST segment elevation (STe) (A-F respectively).

Supplemental Figure 4. ECG Parameters Measured During the Cardiovascular Monitoring for Animal 64355.

RR interval, PR interval, QRS interval, QT interval, and QTcF Fridericia Corrected QT interval, and ST segment elevation (STe) (A-F respectively).

Supplemental Figure 5. ECG Parameters Measured During the Cardiovascular Monitoring for Animal 64357 (L).

RR interval, PR interval, QRS interval, QT interval, and QTcF Fridericia Corrected QT interval, and ST segment elevation (STe) (A-F respectively).

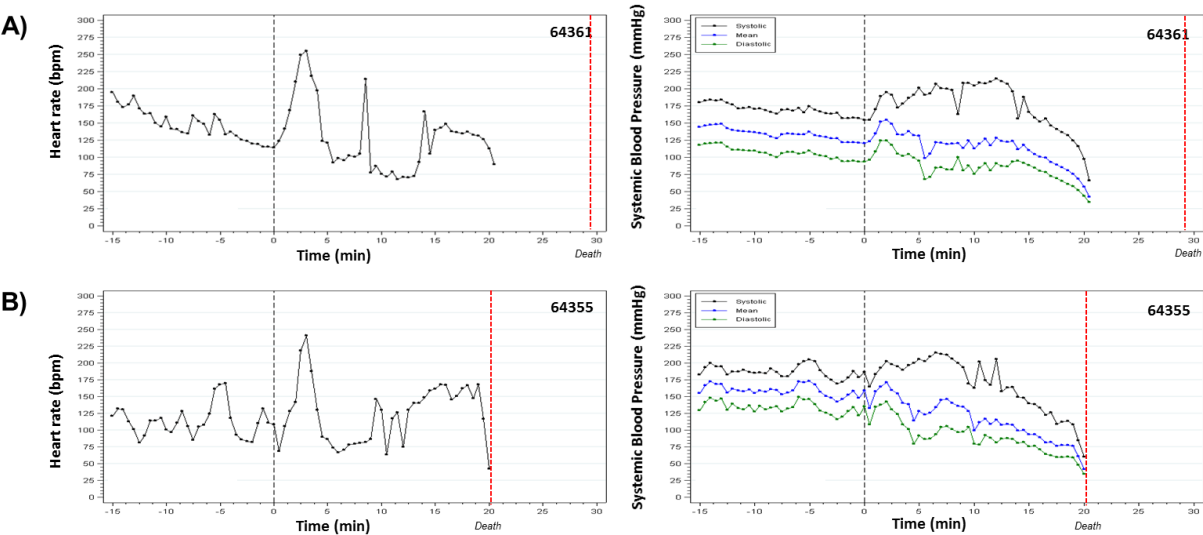
Supplemental Figure 6. ECG Parameters Measured During the Cardiovascular Monitoring for Animal 64362 (M).

RR interval, PR interval, QRS interval, QT interval, and QTcF Fridericia Corrected QT interval, and ST segment elevation (STe) (A-F respectively).

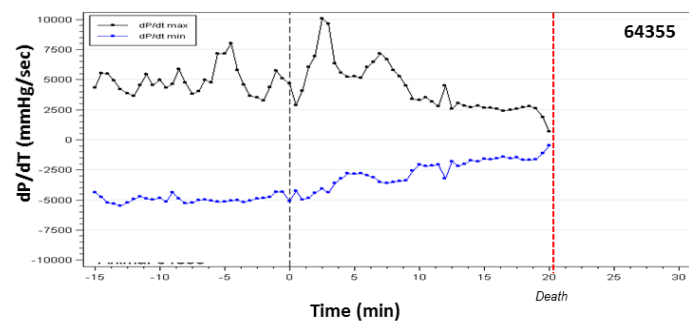
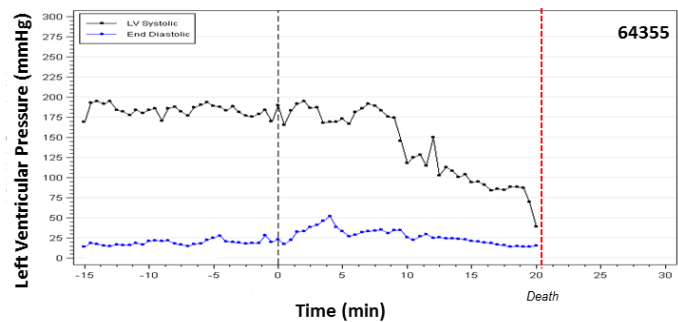
Supplemental Figure 7. ECG Parameters Measured During the Cardiovascular Monitoring for Animal 64359 (H).

RR interval, PR interval, QRS interval, QT interval, and QTcF Fridericia Corrected QT interval, and ST segment elevation (STe) (A-F respectively).

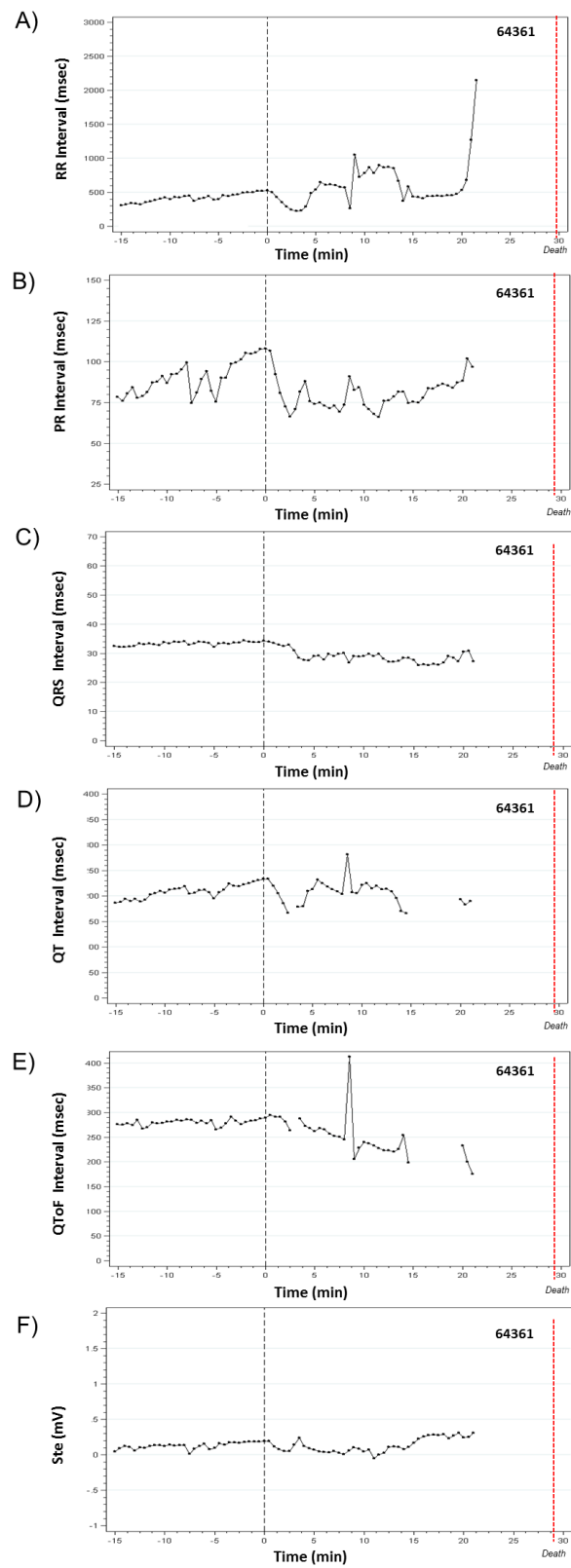
Supplemental Figure 1.



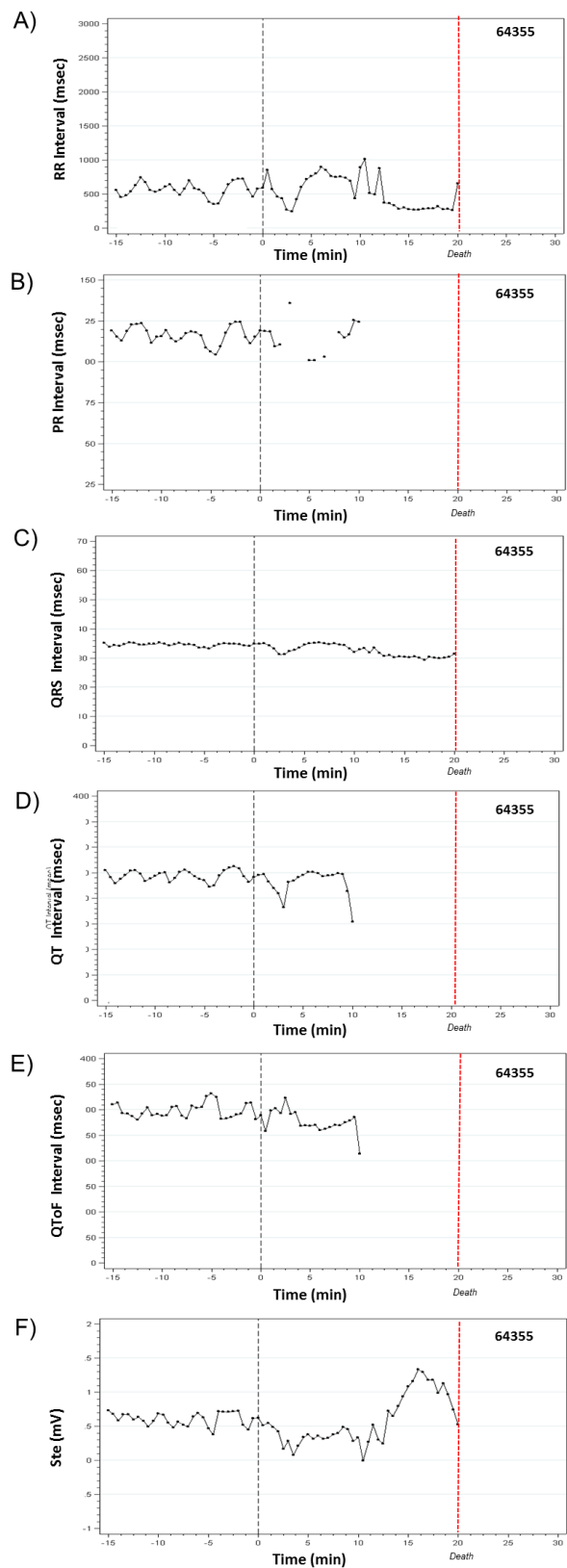
Supplemental Figure 2.



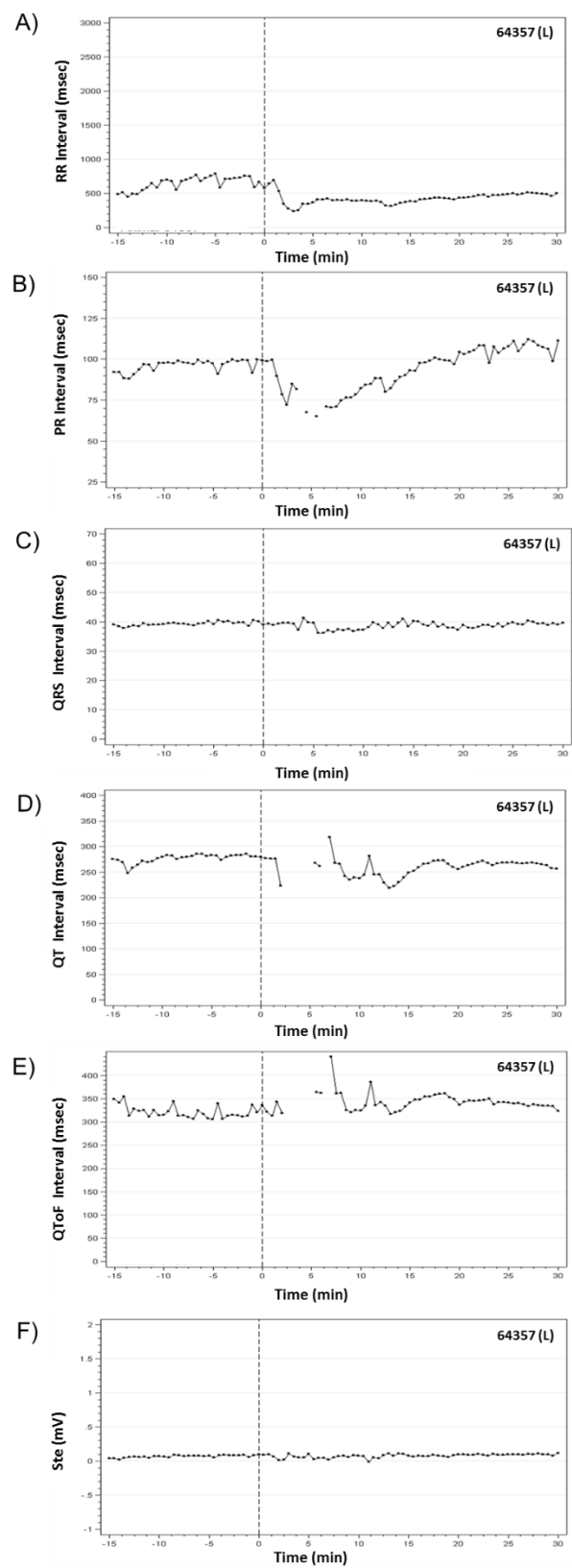
Supplemental Figure 3.



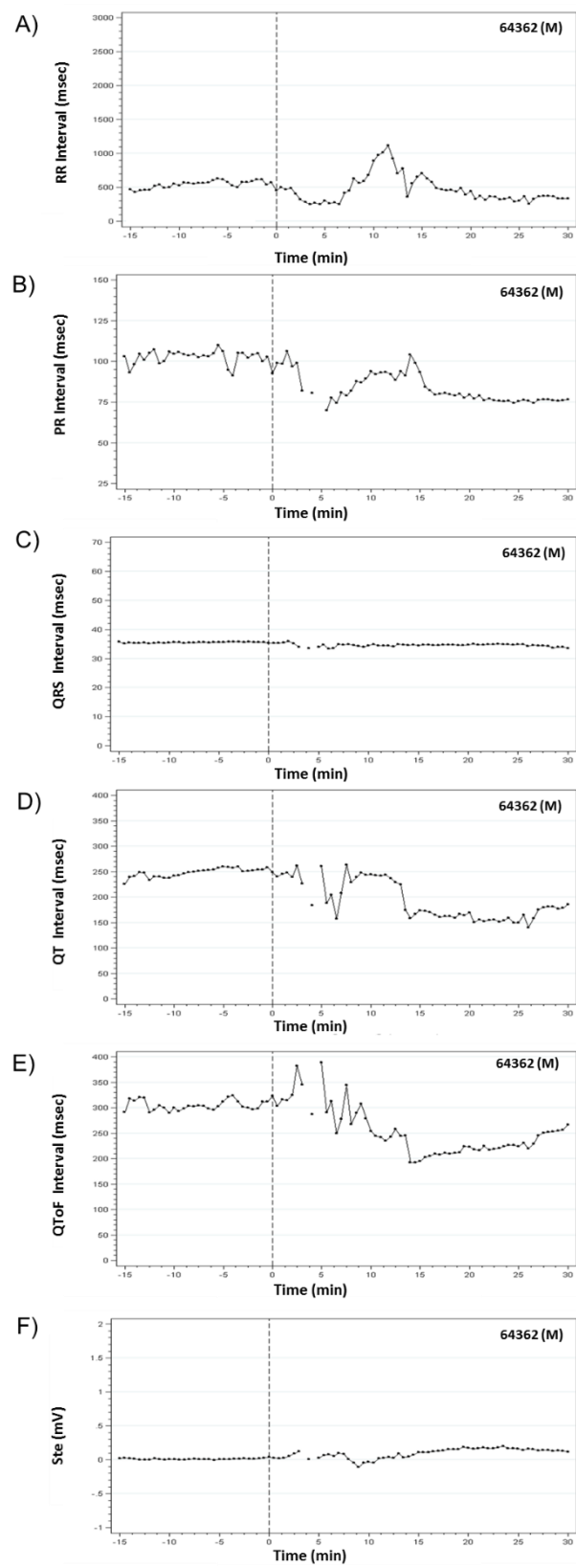
Supplemental Figure 4.



Supplemental Figure 5.



Supplemental Figure 6.



Supplemental Figure 7.

