

TABLE Q-13. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 1: Ranch Hands - Log₂ (Initial Dioxin)

Clinical Parameter	Reference Chapter	Minimal Assumption		Maximal Assumption	
		Adj. Relative Risk (95% C.I.)	p-Value	Adj. Relative Risk (95% C.I.)	p-Value
CNS Index	8	1.25 (0.93,1.68)**	0.145**	1.26 (1.00,1.59)**	0.050**
Psychoses	9	0.57 (0.31,1.04)	0.042	0.91 (0.59,1.39)	0.647
Alcohol Dependence	9	0.94 (0.71,1.24)	0.666	1.03 (0.83,1.27)	0.821
Drug Dependence	9	--	--	--	--
Anxiety	9	1.09 (0.90,1.31)	0.393	1.09 (0.94,1.26)	0.256
Other Neuroses	9	1.03 (0.89,1.20)	0.673	1.06 (0.94,1.19)	0.331
Trouble Falling Asleep	9	0.80 (0.60,1.05)	0.100	0.88 (0.71,1.07)	0.192
Waking Up During the Night	9	0.87 (0.69,1.09)	0.212	0.91 (0.77,1.08)	0.270
Waking Up Too Early and Can't Go Back to Sleep	9	0.91 (0.71,1.16)**	0.432**	0.96 (0.79,1.16)	0.668
Waking Up Unrefreshed	9	1.06 (0.85,1.33)	0.613	1.09 (0.91,1.31)	0.336
Involuntarily Falling Asleep During the Day	9	0.84 (0.58,1.22)**	0.349**	1.01 (0.77,1.32)**	0.940**
Great or Disabling Fatigue During the Day	9	0.74 (0.50,1.09)	0.111	0.89 (0.66,1.19)	0.421
Frightening Dreams	9	1.13 (0.81,1.57)**	0.486**	1.27 (0.98,1.65)	0.072
Talking in Sleep	9	1.02 (0.74,1.39)	0.924	1.09 (0.86,1.38)	0.493
Sleepwalking	9	****	****	1.05 (0.75,1.48)	0.779
Abnormal Movement/Activity During the Night	9	0.99 (0.69,1.42)	0.718	1.08 (0.82,1.44)	0.581
Sleep Problems Requiring Medication	9	0.47 (0.23,0.97)	0.023	0.61 (0.38,0.99)	0.032
Snore Loudly in All Sleeping Positions	9	0.95 (0.72,1.24)**	0.694**	1.16 (0.94,1.42)	0.170
Insomnia	9	0.88 (0.74,1.05)	0.154	0.93 (0.81,1.06)	0.253
Overall Sleep Disorder Index	9	0.90 (0.76,1.05)	0.178	0.96 (0.85,1.08)	0.528
SCL-90-R					
Anxiety	9	1.19 (0.91,1.55)	0.217	1.18 (0.96,1.46)	0.122
Depression	9	1.11 (0.86,1.42)	0.438	1.09 (0.89,1.33)	0.393
Hostility	9	0.95 (0.65,1.38)	0.757	1.04 (0.78,1.37)	0.773
Interpersonal Sensitivity	9	1.14 (0.82,1.58)**	0.435**	1.10 (0.86,1.39)	0.458
Obsessive-Compulsive Behavior	9	1.13 (0.87,1.47)	0.359	1.23 (1.00,1.52)	0.054
Paranoid Ideation	9	0.81 (0.54,1.22)	0.293	0.86 (0.64,1.17)	0.324
Phobic Anxiety	9	0.98 (0.73,1.32)	0.912	1.08 (0.86,1.36)	0.493
Psychoticism	9	1.12 (0.86,1.46)	0.397	1.19 (0.98,1.44)	0.089
Somatization	9	1.03 (0.80,1.32)	0.810	1.10 (0.90,1.34)	0.348
Global Severity Index	9	1.10 (0.85,1.42)	0.467	1.12 (0.91,1.36)	0.294
Positive Symptom Total	9	1.12 (0.86,1.47)	0.398	1.08 (0.88,1.34)	0.454
Positive Symptom Distress Index	9	1.02 (0.80,1.29)	0.896	1.14 (0.95,1.37)	0.164
Viral Hepatitis	10	1.19 (1.02,1.40)	0.028	1.24 (1.10,1.39)	<0.001
Viral Hepatitis ^a	10	1.01 (0.85,1.20)	0.912	1.02 (0.89,1.17)	0.777

TABLE Q-13. (Continued)

**Summary of Adjusted Results for Dichotomous Variables
Model 1: Ranch Hands - Log₂ (Initial Dioxin)**

Clinical Parameter	Reference Chapter	Minimal Assumption		Maximal Assumption	
		Adj. Relative Risk (95% C.I.)	p-Value	Adj. Relative Risk (95% C.I.)	p-Value
Chronic Liver Disease and Cirrhosis (Alcohol-Related)	10	0.76 (0.51,1.13)	0.164	0.85 (0.64,1.12)	0.238
Chronic Liver Disease and Cirrhosis (Nonalcohol-Related)	10	0.59 (0.21,1.69)	0.287	0.79 (0.40,1.56)	0.487
Other Disorders of the Liver	10	1.15 (0.91,1.45)	0.245	1.19 (0.99,1.42)	0.061
Jaundice (Unspecified)	10	1.39 (0.60,3.19)	0.467	0.90 (0.50,1.62)	0.722
Hepatomegaly	10	1.01 (0.62,1.65)	0.954	1.25 (0.87,1.80)	0.248
Ulcer	10	1.14 (0.86,1.52)	0.376	1.18 (0.95,1.46)	0.143
Skin Bruises, Patches, or Sensitivity	10	1.03 (0.87,1.21)	0.753	1.04 (0.92,1.18)	0.508
Current Hepatomegaly	10	0.95 (0.53,1.71)	0.861	1.30 (0.83,2.02)	0.271
AST	10	0.88 (0.62,1.25)**	0.479**	0.96 (0.75,1.23)**	0.737**
ALT	10	1.07 (0.87,1.33)**	0.509**	1.15 (0.98,1.35)**	0.079**
GGT	10	1.10 (0.86,1.41)***	0.437***	1.24 (1.03,1.50)***	0.028***
Alkaline Phosphatase	10	1.16 (0.85,1.58)	0.363	1.19 (0.93,1.52)	0.179
D-Glucaric Acid	10	--	--	--	--
Total Bilirubin	10	0.37 (0.18,0.77)	0.001	0.63 (0.42,0.94)	0.014
Direct Bilirubin	10	0.73 (0.47,1.14)**	0.137**	0.92 (0.68,1.25)**	0.579**
LDH	10	--	--	--	--
Cholesterol	10	0.95 (0.76,1.18)	0.625	0.94 (0.80,1.11)	0.482
HDL	10	1.17 (0.82,1.67)	0.391	1.11 (0.84,1.45)	0.476
Cholesterol-HDL Ratio	10	1.25 (1.07,1.46)	0.004	1.25 (1.12,1.40)***	<0.001***
Triglycerides	10	1.32 (1.04,1.67)	0.026	1.30 (1.09,1.56)	0.005
Creatine Kinase	10	0.74 (0.49,1.10)	0.123	0.79 (0.60,1.04)	0.084
Occurrence of Acne (Lifetime)	11	0.91 (0.78,1.05)	0.188	0.96 (0.86,1.06)	0.406
Acne Relative to SEA Tour (Pre/Post-SEA and Post-SEA vs. Pre-SEA and None)	11	0.93 (0.80,1.08)	0.333	0.98 (0.88,1.09)	0.750
Acne Relative to SEA Tour (Post-SEA vs. None)	11	0.92 (0.79,1.07)	0.292	0.95 (0.85,1.06)	0.353
Acne Relative to SEA Tour (Pre/Post-SEA vs. Pre-SEA)	11	****	****	****	****
Location of Acne (Post-SEA)	11	1.09 (0.81,1.46)**	0.581**	0.94 (0.76,1.16)	0.554
Location of Acne (Pre/Post-SEA and Post-SEA)	11	1.17 (0.92,1.48)	0.207	0.98 (0.82,1.17)	0.808
Comedones	11	1.18 (0.98,1.41)	0.076	1.10 (0.96,1.26)	0.157
Acneiform Lesions	11	0.86 (0.67,1.11)	0.243	1.11 (0.93,1.32)	0.270
Acneiform Scars	11	1.14 (0.91,1.43)	0.273	1.12 (0.94,1.33)	0.200
Depigmentation	11	0.93 (0.69,1.24)	0.606	1.06 (0.86,1.31)	0.581

TABLE Q-13. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 1: Ranch Hands - Log₂ (Initial Dioxin)

Clinical Parameter	Reference Chapter	Minimal Assumption		Maximal Assumption	
		Adj. Relative Risk (95% C.I.)	p-Value	Adj. Relative Risk (95% C.I.)	p-Value
Inclusion Cysts	11	0.93 (0.72,1.19)	0.557	0.85 (0.71,1.02)	0.075
Hyperpigmentation	11	1.15 (0.95,1.40)	0.159	1.25 (1.07,1.45)**	0.005**
Other Abnormalities	11	0.96 (0.81,1.13)	0.616	0.94 (0.83,1.06)	0.308
Dermatology Index	11	1.06 (0.91,1.23)	0.471	1.06 (0.95,1.19)	0.324
Reported/Verified	12	1.04 (0.87,1.24)	0.651	1.02 (0.90,1.17)**	0.738**
Essential Hypertension					
Reported Heart Disease (Excluding Essential Hypertension)	12	0.94 (0.79,1.13)**	0.505**	0.88 (0.78,1.00)	0.052
Verified Heart Disease (Excluding Essential Hypertension)	12	0.95 (0.79,1.13)**	0.532**	0.88 (0.78,1.00)	0.044
Reported/Verified Myocardial Infarction	12	1.05 (0.71,1.55)	0.807	1.24 (0.93,1.66)	0.154
Systolic Blood Pressure	12	0.93 (0.76,1.15)**	0.503**	1.05 (0.90,1.23)	0.524
Heart Sounds	12	1.03 (0.68,1.57)	0.876	1.07 (0.79,1.46)	0.654
Overall ECG	12	1.05 (0.83,1.33)	0.671	1.07 (0.90,1.26)	0.460
ECG: RBBB	12	--	--	--	--
ECG: LBBB	12	--	--	--	--
ECG: Nonspecific T-Waves	12	0.99 (0.76,1.30)	0.948	1.06 (0.87,1.30)	0.542
ECG: Bradycardia	12	0.80 (0.47,1.36)	0.393	0.75 (0.53,1.07)	0.096
ECG: Arrhythmia	12	1.43 (0.96,2.13)**	0.092**	1.23 (0.91,1.66)	0.186
ECG: Other Diagnoses	12	0.90 (0.71,1.15)	0.396	0.93 (0.78,1.09)	0.365
Diastolic Blood Pressure	12	0.85 (0.58,1.25)	0.394	1.04 (0.80,1.35)	0.751
Funduscopy Examination	12	--	--	--	--
Carotid Bruits	12	0.62 (0.16,2.45)	0.446	0.86 (0.39,1.86)	0.686
Radial Pulses	12	--	--	--	--
Femoral Pulses	12	1.01 (0.55,1.86)**	0.984**	1.11 (0.69,1.78)**	0.683**
Popliteal Pulses	12	0.72 (0.40,1.28)	0.230	1.03 (0.71,1.51)	0.865
Dorsalis Pedis Pulses	12	1.20 (0.94,1.53)**	0.153**	1.21 (1.01,1.46)	0.041
Posterior Tibial Pulses	12	1.02 (0.64,1.65)	0.921	1.38 (0.97,1.98)	0.086
Posterior Tibial Pulses ^b	12	1.04 (0.65,1.66)	0.886	1.34 (0.93,1.91)	0.124
Leg Pulses	12	1.13 (0.90,1.42)**	0.289**	1.22 (1.03,1.45)	0.021
Peripheral/All Pulses	12	1.12 (0.89,1.40)**	0.349**	1.22 (1.03,1.44)	0.025
Red Blood Cell Count	13	1.34 (0.88,2.03)	0.193	1.23 (0.88,1.71)	0.234
Hematocrit	13	1.03 (0.59,1.82)	0.910	1.14 (0.75,1.73)	0.556
Mean Corpuscular Volume	13	1.00 (0.80,1.26)**	0.970**	1.17 (0.98,1.39)**	0.087**
Mean Corpuscular Hemoglobin	13	1.13 (0.87,1.46)	0.376	1.12 (0.92,1.36)**	0.261**
Platelet Count	13	1.20 (0.80,1.80)	0.398	1.28 (0.94,1.76)	0.133
Prothrombin Time	13	1.31 (0.85,2.02)	0.245	1.05 (0.75,1.47)	0.789
Kidney Disease	14	0.99 (0.78,1.26)	0.942	1.01 (0.85,1.20)	0.927
Urinary Protein	14	0.93 (0.66,1.31)	0.664	0.95 (0.74,1.23)	0.709
Urinary Occult Blood	14	1.22 (0.94,1.57)	0.138	1.22 (1.01,1.47)	0.047
Urinary White Blood Cell Count	14	1.08 (0.82,1.41)**	0.592**	1.07 (0.88,1.31)**	0.500**

TABLE Q-13. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 1: Ranch Hands - Log₂ (Initial Dioxin)

Clinical Parameter	Reference Chapter	Minimal Assumption		Maximal Assumption	
		Adj. Relative Risk (95% C.I.)	p-Value	Adj. Relative Risk (95% C.I.)	p-Value
Current Thyroid Function	15	0.84 (0.54,1.31)	0.439	0.87 (0.65,1.18)	0.363
History of Thyroid Disease	15	1.13 (0.78,1.64)	0.519	1.05 (0.80,1.37)	0.722
Thyroid Gland	15	0.98 (0.82,1.15)	0.771	1.05 (0.93,1.19)	0.436
Testes	15	1.61 (1.11,2.33)	0.017	1.61 (1.20,2.18)	0.003
T ₃ % Uptake	15	0.79 (0.48,1.28)	0.312	0.80 (0.59,1.10)	0.158
TSH	15	1.23 (0.79,1.94)	0.373	1.05 (0.75,1.48)	0.765
Testosterone	15	0.87 (0.53,1.43)	0.568	1.04 (0.71,1.52)	0.846
Fasting Glucose	15	1.45 (1.18,1.77)	<0.001	1.48 (1.26,1.74)	<0.001
Composite Diabetes Indicator	15	1.46 (1.17,1.82)	0.001	1.48 (1.23,1.77)	<0.001
Composite Skin Test Diagnosis	16	0.78 (0.53,1.15)	0.201	0.85 (0.66,1.10)	0.207
Asthma	17	****	****	0.85 (0.62,1.16)**	0.290**
Bronchitis	17	0.88 (0.70,1.11)	0.277	0.86 (0.73,1.01)	0.062
Pleurisy	17	1.41 (0.96,2.07)	0.090	1.25 (0.93,1.68)	0.158
Pneumonia	17	0.96 (0.72,1.29)	0.791	0.93 (0.75,1.15)	0.489
Tuberculosis	17	0.83 (0.51,1.37)	0.458	0.86 (0.60,1.24)	0.419
Thorax and Lung Abnormalities	17	1.27 (0.97,1.65)	0.088	1.29 (1.04,1.60)	0.022
Hyperresonance	17	1.29 (0.89,1.86)	0.186	1.30 (0.98,1.73)	0.076
Dullness	17	1.93 (0.82,4.57)	0.158	2.52 (0.99,6.42)	0.051
Wheezes	17	1.53 (1.05,2.23)	0.034	1.42 (1.04,1.94)	0.034
Rales	17	1.52 (0.90,2.57)	0.142	1.38 (0.89,2.14)	0.171
X-Ray Interpretation	17	1.04 (0.74,1.47)	0.823	1.06 (0.82,1.38)	0.642

^aAnalysis performed for model including occupation.

^bAnalysis performed for model excluding percent body fat.

**Log₂ (initial dioxin)-by-covariate interaction (0.01<p<0.05); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction.

***Log₂ (initial dioxin)-by-covariate interaction (p<0.01); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction.

****Log₂ (initial dioxin)-by-covariate interaction (p<0.01); adjusted relative risk, confidence interval, and p-value not presented.

Note: Estimated relative risk for a twofold increase in dioxin.

TABLE Q-14.

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Self-Perception of Health	6	****	≤18.6 >18.6	**** ****	**** ****	****	≤18.6 >18.6	**** ****	**** ****
Appearance of Illness or Distress by Physician	6	0.203	≤18.6 >18.6	0.28 (0.01,10.02) 1.71 (0.68,4.30)	0.488 0.253	0.396	≤18.6 >18.6	0.88 (0.16,4.80) 1.88 (0.82,4.30)	0.880 0.138
Relative Age	6	0.039	≤18.6 >18.6	1.73 (1.06,2.81) 0.86 (0.53,1.38)	0.027 0.526	0.026	≤18.6 >18.6	1.42 (0.98,2.05) 0.81 (0.56,1.15)	0.066 0.238
Percent Body Fat	6	0.755	≤18.6 >18.6	1.21 (0.92,1.59) 1.28 (1.02,1.59)	0.176 0.029	0.299	≤18.6 >18.6	1.48 (1.20,1.81) 1.29 (1.09,1.52)	<0.001 0.003
Sedimentation Rate	6	0.337	≤18.6 >18.6	0.93 (0.54,1.61) 1.25 (0.92,1.71)	0.808 0.154	0.263	≤18.6 >18.6	1.10 (0.75,1.62) 1.42 (1.10,1.83)	0.619 0.007
All Skin Neoplasms	7	0.604	≤18.6 >18.6	0.70 (0.48,1.02) 0.80 (0.59,1.08)	0.065 0.142	0.286	≤18.6 >18.6	0.86 (0.67,1.10) 1.02 (0.82,1.28)	0.224 0.835
Malignant Skin Neoplasms	7	0.335	≤18.6 >18.6	0.70 (0.42,1.16) 0.96 (0.63,1.47)	0.167 0.851	0.743	≤18.6 >18.6	0.88 (0.63,1.22) 0.95 (0.68,1.31)	0.433 0.740
Benign Skin Neoplasms (Non-Blacks only)	7	0.985	≤18.6 >18.6	0.89 (0.52,1.51) 0.89 (0.62,1.28)	0.661 0.541	0.165	≤18.6 >18.6	0.80 (0.56,1.14) 1.09 (0.84,1.43)	0.220 0.516
Benign Skin Neoplasms (Blacks Included)	7	0.866	≤18.6 >18.6	0.85 (0.51,1.45) 0.90 (0.63,1.29)	0.559 0.573	0.154	≤18.6 >18.6	0.80 (0.55,1.14) 1.09 (0.84,1.43)	0.213 0.498

TABLE Q-14. (Continued)

**Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time**

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Skin Neoplasms of Uncertain Behavior or Unspecified Nature	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
<u>Basal Cell Carcinoma</u>	7	0.759	≤18.6 >18.6	0.77 (0.46,1.28) 0.86 (0.53,1.39)	0.312 0.526	0.725	≤18.6 >18.6	0.87 (0.68,1.12) 0.95 (0.74,1.21)	0.280 0.623
<u>Ear, Face, Head, and Neck</u>	7	0.349	≤18.6 >18.6	0.69 (0.34,1.39) 0.41 (0.17,0.99)	0.296 0.047	0.776	≤18.6 >18.6	0.82 (0.52,1.28) 0.74 (0.45,1.23)	0.375 0.246
<u>Trunk</u>	7	0.804	≤18.6 >18.6	1.19 (0.57,2.50) 1.05 (0.51,2.17)	0.646 0.901	0.887	≤18.6 >18.6	1.19 (0.69,2.06) 1.13 (0.63,2.01)	0.526 0.687
<u>Upper Extremities</u>	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- 0.15 (0.01,1.81)	-- 0.136
<u>Lower Extremities</u>	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
<u>Other Sites</u>	7	--	≤18.6 >18.6	-- 1.32 (0.58,2.99)	-- 0.509	--	≤18.6 >18.6	-- 1.57 (0.78,3.16)	-- 0.209
<u>Sun Exposure-Related Malignant Skin Neoplasms</u>	7	0.452	≤18.6 >18.6	0.72 (0.43,1.20) 0.93 (0.59,1.45)	0.207 0.739	0.992	≤18.6 >18.6	0.96 (0.69,1.33) 0.96 (0.69,1.32)	0.784 0.782
<u>Ear, Face, Head, and Neck</u>	7	0.854	≤18.6 >18.6	0.65 (0.33,1.29) 0.60 (0.30,1.18)	0.223 0.140	0.954	≤18.6 >18.6	0.86 (0.56,1.31) 0.84 (0.54,1.32)	0.479 0.455

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Trunk	7	0.927	≤18.6 >18.6	0.92 (0.42,2.00) 0.88 (0.42,1.84)	0.833 0.727	0.800	≤18.6 >18.6	1.13 (0.67,1.91) 1.02 (0.58,1.81)	0.649 0.938
Upper Extremities	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- 0.76 (0.33,1.74)	-- 0.516
Lower Extremities	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Other Sites	7	--	≤18.6 >18.6	-- 1.32 (0.58,2.99)	-- 0.509	--	≤18.6 >18.6	-- 1.57 (0.78,3.16)	-- 0.209
<u>Melanoma</u>	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Ear, Face, Head, and Neck	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Trunk	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Upper Extremities	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Lower Extremities	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Other Sites	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --

TABLE Q-14. (Continued)

**Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time**

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Squamous Cell Carcinoma	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Basal Cell Carcinoma by Occupation									
Officer-Ear, Face, Head, and Neck vs. None	7	0.767	≤18.6 >18.6	0.32 (0.00,43.41) 0.69 (0.07,6.71)	0.647 0.751	0.947	≤18.6 >18.6	1.20 (0.31,4.65) 1.27 (0.37,4.42)	0.796 0.705
Officer-Other Sites vs. None	7	--	≤18.6 >18.6	-- --	-- --	0.542	≤18.6 >18.6	0.26 (0.02,4.10) 0.69 (0.12,3.89)	0.337 0.676
Enlisted Flyer-Ear, Face, Head, and Neck vs. None	7	--	≤18.6 >18.6	1.35 (0.41,4.46) --	0.624 --	--	≤18.6 >18.6	0.63 (0.24,1.65) --	0.352 --
Enlisted Flyer- Other Sites vs. None	7	0.017	≤18.6 >18.6	1.19 (0.34,4.20) 37.64 (0.92,1,541.9)	0.781 0.055	0.027	≤18.6 >18.6	1.60 (0.60,4.27) 37.64 (0.92,1,543.3)	0.348 0.056
Enlisted Groundcrew-Ear, Face, Head, and Neck vs. None	7	0.714	≤18.6 >18.6	0.31 (0.09,1.10) 0.42 (0.15,1.20)	0.069 0.107	0.385	≤18.6 >18.6	0.51 (0.23,1.12) 0.80 (0.42,1.53)	0.092 0.492
Enlisted Groundcrew-Other Sites vs. None	7	0.976	≤18.6 >18.6	0.61 (0.23,1.58) 0.62 (0.18,2.13)	0.305 0.448	0.874	≤18.6 >18.6	0.85 (0.42,1.74) 0.94 (0.39,2.25)	0.666 0.883

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
<u>Sun Exposure-Related Malignant Skin Neoplasm by Occupation</u>									
Officer-Ear, Face, Head, and Neck vs. None	7	0.660	≤18.6	0.15 (0.00,22.45)	0.454	0.580	≤18.6	1.55 (0.40,6.01)	0.522
			>18.6	0.48 (0.04,5.50)	0.553		>18.6	0.93 (0.28,3.12)	0.907
Officer-Other Sites vs. None	7	--	≤18.6	--	--	0.811	≤18.6	0.52 (0.07,3.87)	0.527
			>18.6	--	--		>18.6	0.71 (0.15,3.49)	0.677
Enlisted Flyer-Ear, Face, Head, and Neck vs. None	7	--	≤18.6	1.19 (0.39,3.63)	0.764	--	≤18.6	0.62 (0.24,1.59)	0.318
			>18.6	--	--		>18.6	--	--
Enlisted Flyer- Other Sites vs. None	7	0.017	≤18.6	1.18 (0.34,4.12)	0.794	0.026	≤18.6	1.59 (0.60,4.22)	0.349
			>18.6	37.63 (0.92,1,545.8)	0.056		>18.6	37.63 (0.92,1,546.2)	0.056
Enlisted Groundcrew-Ear, Face, Head, and Neck vs. None	7	0.336	≤18.6	0.32 (0.09,1.08)	0.066	0.221	≤18.6	0.54 (0.25,1.18)	0.123
			>18.6	0.63 (0.29,1.37)	0.242		>18.6	0.97 (0.55,1.70)	0.913
Enlisted Groundcrew-Other Sites vs. None	7	0.967	≤18.6	0.61 (0.23,1.58)	0.305	0.866	≤18.6	0.85 (0.42,1.74)	0.666
			>18.6	0.63 (0.18,2.15)	0.458		>18.6	0.94 (0.39,2.26)	0.893

TABLE Q-14. (Continued)

**Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time**

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Basal Cell Carcinoma (One vs. None)	7	0.967	≤18.6 >18.6	0.80 (0.47,1.37) 0.82 (0.49,1.35)	0.418 0.428	0.776	≤18.6 >18.6	0.99 (0.68,1.43) 0.92 (0.63,1.34)	0.949 0.652
Basal Cell Carcinoma (Multiple vs. None)	7	0.911	≤18.6 >18.6	0.66 (0.20,2.22) 0.61 (0.22,1.65)	0.506 0.327	0.772	≤18.6 >18.6	0.79 (0.37,1.68) 0.92 (0.49,1.73)	0.546 0.788
All Systemic Neoplasms	7	0.635	≤18.6 >18.6	1.14 (0.74,1.76) 1.29 (0.95,1.75)	0.565 0.105	0.564	≤18.6 >18.6	1.42 (1.02,1.98) 1.26 (0.99,1.62)	0.036 0.065
Malignant Systemic Neoplasms	7	0.899	≤18.6 >18.6	0.66 (0.22,1.94) 0.60 (0.23,1.59)	0.448 0.302	0.317	≤18.6 >18.6	1.24 (0.63,2.44) 0.78 (0.41,1.47)	0.525 0.440
Benign Systemic Neoplasms	7	0.610	≤18.6 >18.6	1.26 (0.79,2.00) 1.45 (1.04,2.02)	0.340 0.026	0.964	≤18.6 >18.6	1.50 (1.04,2.17) 1.52 (1.15,2.00)	0.030 0.003
Systemic Neoplasms of Uncertain Behavior or Unspecified Nature	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Systemic Neoplasms: Location/Site									
Ear, Face, Head, and Neck	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Oral Cavity, Pharynx, and Larynx	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Brain	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Thymus and Mediastinum	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Thyroid Gland	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Bronchus and Lung	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Colon and Rectum	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Kidney and Bladder	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	0.56 (0.13,2.41)	0.435		>18.6	0.67 (0.27,1.62)	0.372
Prostate	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Testicles	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Ill-Defined Sites	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--
Carcinoma in Situ of Penis	7	--	≤18.6	--	--	--	≤18.6	--	--
			>18.6	--	--		>18.6	--	--

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Carcinoma in Situ of Other and Unspecified Sites	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Hodgkin's Disease	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Leukemia	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Other Malignant Neoplasms of Lymphoid and Histiocytic Tissue	7	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
All Skin and Systemic Neoplasms	7	0.625	≤18.6 >18.6	0.92 (0.68,1.25) 1.01 (0.80,1.27)	0.579 0.953	0.387	≤18.6 >18.6	1.02 (0.82,1.26) 1.15 (0.96,1.37)	0.872 0.132
Inflammatory Diseases	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Hereditary and Degenerative Diseases	8	0.492	≤18.6 >18.6	0.83 (0.45,1.54) 1.09 (0.66,1.78)	0.561 0.736	0.943	≤18.6 >18.6	1.01 (0.66,1.54) 1.03 (0.70,1.51)	0.972 0.887
Peripheral Disorders	8	0.199	≤18.6 >18.6	0.86 (0.59,1.25) 1.14 (0.88,1.49)	0.421 0.315	0.263	≤18.6 >18.6	0.96 (0.74,1.23) 1.15 (0.94,1.41)	0.732 0.186
Disorders of the Eye	8	0.956	≤18.6 >18.6	1.10 (0.81,1.48) 1.11 (0.86,1.43)	0.546 0.423	0.844	≤18.6 >18.6	1.10 (0.89,1.36) 1.13 (0.93,1.37)	0.391 0.225

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Tympanic Membrane Disorder	8	0.419	≤18.6 >18.6	1.14 (0.61,2.11) 0.84 (0.56,1.26)	0.681 0.406	0.817	≤18.6 >18.6	1.05 (0.67,1.65) 0.99 (0.73,1.33)	0.830 0.929
Otitis	8	0.852	≤18.6 >18.6	0.96 (0.54,1.69) 1.02 (0.76,1.35)	0.886 0.905	0.031	≤18.6 >18.6	0.64 (0.43,0.93) 1.00 (0.81,1.24)	0.020 0.973
Hearing Loss	8	0.748	≤18.6 >18.6	1.14 (0.87,1.51) 1.21 (0.95,1.55)	0.347 0.125	0.690	≤18.6 >18.6	1.09 (0.91,1.32) 1.04 (0.87,1.24)	0.345 0.674
Other Neurological Disorders	8	0.453	≤18.6 >18.6	1.35 (1.01,1.79) 1.18 (0.94,1.47)	0.041 0.156	0.082	≤18.6 >18.6	1.58 (1.27,1.96) 1.24 (1.05,1.48)	<0.001 0.014
Other Neurological Disorders ^b	8	0.303	≤18.6 >18.6	1.11 (0.82,1.50) 0.90 (0.70,1.16)	0.518 0.432	0.133	≤18.6 >18.6	1.21 (0.95,1.53) 0.97 (0.80,1.17)	0.116 0.725
Smell	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Visual Fields	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Light Reaction	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Ocular Movement	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Facial Sensation	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Smile	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Palpebral Fissure	8	0.453	≤18.6 >18.6	0.74 (0.18,3.08) 1.27 (0.71,2.26)	0.681 0.423	0.229	≤18.6 >18.6	0.66 (0.24,1.76) 1.22 (0.75,2.00)	0.403 0.420
Balance	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Speech	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Neck Range of Motion	8	0.257	≤18.6 >18.6	1.06 (0.65,1.71) 1.45 (1.07,1.96)	0.824 0.017	0.026	≤18.6 >18.6	0.83 (0.59,1.16) 1.30 (1.03,1.65)	0.270 0.029
Cranial Nerve Index	8	0.225	≤18.6 >18.6	1.00 (0.65,1.52) 1.34 (1.02,1.74)	0.986 0.033	0.023	≤18.6 >18.6	0.84 (0.63,1.12) 1.25 (1.02,1.54)	0.236 0.034
Cranial Nerve Index Without Range of Motion	8	0.612	≤18.6 >18.6	0.87 (0.44,1.71) 1.06 (0.69,1.63)	0.687 0.783	0.509	≤18.6 >18.6	0.92 (0.58,1.44) 1.10 (0.79,1.54)	0.710 0.562
Pin Prick	8	0.184**	≤18.6 >18.6	0.89 (0.55,1.46)** 1.33 (0.91,1.95)**	0.649** 0.137**	0.970**	≤18.6 >18.6	1.12 (0.80,1.57)** 1.13 (0.84,1.52)**	0.500** 0.406**
Light Touch	8	0.048	≤18.6 >18.6	0.62 (0.30,1.30) 1.39 (0.86,2.24)	0.207 0.182	0.397	≤18.6 >18.6	0.85 (0.54,1.36) 1.08 (0.77,1.53)	0.504 0.648
Muscle Status	8	0.710	≤18.6 >18.6	1.28 (0.59,2.79) 1.05 (0.48,2.31)	0.533 0.908	0.422	≤18.6 >18.6	1.55 (0.83,2.90) 1.10 (0.59,2.03)	0.167 0.766
Vibration	8	0.897	≤18.6 >18.6	0.82 (0.25,2.71) 0.75 (0.36,1.59)	0.751 0.457	0.900	≤18.6 >18.6	1.11 (0.50,2.48) 1.05 (0.62,1.77)	0.794 0.862
Patellar Reflex	8	0.738	≤18.6 >18.6	1.19 (0.49,2.93) 0.99 (0.52,1.91)	0.700 0.983	0.535	≤18.6 >18.6	1.52 (0.75,3.11) 1.18 (0.72,1.96)	0.248 0.510

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Achilles Reflex	8	0.064	≤18.6 >18.6	0.61 (0.33,1.15) 1.17 (0.79,1.74)	0.126 0.425	0.243	≤18.6 >18.6	0.99 (0.65,1.50) 1.33 (0.97,1.81)	0.950 0.073
Biceps Reflex	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Babinski Reflex	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Tremor	8	0.409	≤18.6 >18.6	1.35 (0.67,2.75) 0.92 (0.49,1.73)	0.404 0.789	0.102**	≤18.6 >18.6	1.53 (0.89,2.63)** 0.85 (0.54,1.37)**	0.126 0.512
Coordination	8	0.257	≤18.6 >18.6	2.14 (0.94,4.91) 1.14 (0.52,2.51)	0.071 0.748	0.086	≤18.6 >18.6	2.53 (1.16,5.48) 1.11 (0.58,2.11)	0.019 0.758
Romberg Sign	8	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Gait	8	0.901	≤18.6 >18.6	1.14 (0.47,2.75) 1.07 (0.67,1.73)	0.768 0.771	0.949	≤18.6 >18.6	1.21 (0.61,2.40) 1.18 (0.81,1.73)	0.577 0.379
CNS Index	8	0.372	≤18.6 >18.6	1.47 (0.88,2.43) 1.11 (0.75,1.63)	0.137 0.607	0.165	≤18.6 >18.6	1.55 (1.05,2.31) 1.10 (0.82,1.48)	0.029 0.511
Psychoses	9	0.332	≤18.6 >18.6	0.75 (0.37,1.53) 0.37 (0.10,1.41)	0.425 0.146	0.403	≤18.6 >18.6	1.11 (0.65,1.89) 0.75 (0.34,1.65)	0.710 0.470
Alcohol Dependence	9	0.375	≤18.6 >18.6	1.09 (0.69,1.71) 0.83 (0.57,1.21)	0.726 0.329	0.199	≤18.6 >18.6	1.16 (0.82,1.64) 0.87 (0.66,1.14)	0.403 0.320
Drug Dependence	9	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Anxiety	9	0.809	≤18.6 >18.6	1.10 (0.82,1.48) 1.15 (0.89,1.50)	0.522 0.279	0.399	≤18.6 >18.6	1.18 (0.95,1.48) 1.04 (0.85,1.28)	0.131 0.679
Other Neuroses	9	0.282	≤18.6 >18.6	1.15 (0.90,1.47) 0.97 (0.79,1.19)	0.252 0.765	0.112	≤18.6 >18.6	1.18 (0.98,1.41) 0.97 (0.83,1.14)	0.075 0.731
Trouble Falling Asleep	9	0.674	≤18.6 >18.6	0.74 (0.49,1.11) 0.83 (0.56,1.23)	0.148 0.352	0.359	≤18.6 >18.6	0.95 (0.71,1.27) 0.79 (0.59,1.07)	0.743 0.123
Waking Up During the Night	9	****	≤18.6 >18.6	**** ****	**** ****	****	≤18.6 >18.6	**** ****	**** ****
Waking Up Too Early and Can't Go Back to Sleep	9	0.336	≤18.6 >18.6	1.08 (0.75,1.54) 0.85 (0.61,1.18)	0.688 0.327	0.406	≤18.6 >18.6	1.07 (0.82,1.40) 0.91 (0.70,1.20)	0.617 0.518
Waking Up Unrefreshed	9	0.413**	≤18.6 >18.6	0.86 (0.56,1.32)** 1.06 (0.80,1.39)**	0.484** 0.705**	0.428	≤18.6 >18.6	0.96 (0.71,1.30) 1.11 (0.88,1.40)	0.783 0.364
Involuntarily Falling Asleep During the Day	9	0.152	≤18.6 >18.6	1.14 (0.67,1.92) 0.64 (0.35,1.18)	0.627 0.153	0.084	≤18.6 >18.6	1.28 (0.87,1.89) 0.78 (0.51,1.19)	0.208 0.248
Great or Disabling Fatigue During the Day	9	****	≤18.6 >18.6	**** ****	**** ****	0.320	≤18.6 >18.6	1.02 (0.66,1.57) 0.75 (0.49,1.16)	0.945 0.193
Frightening Dreams	9	****	≤18.6 >18.6	**** ****	**** ****	0.528**	≤18.6 >18.6	1.50 (1.03,2.17)** 1.26 (0.85,1.88)**	0.033** 0.247**
Talking in Sleep	9	0.860	≤18.6 >18.6	1.09 (0.68,1.74) 1.03 (0.66,1.60)	0.727 0.904	0.787	≤18.6 >18.6	1.16 (0.82,1.63) 1.08 (0.76,1.55)	0.406 0.662

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Sleepwalking	9	0.111	≤18.6 >18.6	0.66 (0.31,1.37) 1.39 (0.75,2.56)	0.260 0.291	0.941	≤18.6 >18.6	1.03 (0.63,1.68) 1.05 (0.64,1.73)	0.915 0.838
Abnormal Movement/ Activity During the Night	9	0.499	≤18.6 >18.6	1.08 (0.62,1.86) 0.87 (0.50,1.48)	0.791 0.600	0.793	≤18.6 >18.6	1.07 (0.72,1.60) 1.16 (0.76,1.76)	0.732 0.496
Sleep Problems Requiring Medi- cation	9	0.681	≤18.6 >18.6	0.26 (0.05,1.26) 0.38 (0.14,1.04)	0.095 0.060	0.968	≤18.6 >18.6	0.53 (0.23,1.21) 0.54 (0.29,1.03)	0.132 0.064
Snore Loudly in All Sleeping Positions	9	0.692	≤18.6 >18.6	0.99 (0.61,1.59) 0.88 (0.63,1.22)	0.960 0.443	0.653	≤18.6 >18.6	1.20 (0.84,1.71) 1.09 (0.84,1.40)	0.309 0.511
Insomnia	9	0.347	≤18.6 >18.6	1.00 (0.76,1.30) 0.84 (0.65,1.08)	0.978 0.165	0.058	≤18.6 >18.6	1.07 (0.88,1.30) 0.83 (0.68,1.00)	0.502 0.051
Overall Sleep Disorder Index	9	0.274	≤18.6 >18.6	0.99 (0.77,1.28) 0.83 (0.67,1.03)	0.950 0.091	0.147	≤18.6 >18.6	1.05 (0.88,1.26) 0.89 (0.75,1.04)	0.562 0.150
SCL-90-R									
Anxiety	9	0.099	≤18.6 >18.6	0.95 (0.61,1.49) 1.51 (1.05,2.19)	0.827 0.028	0.851	≤18.6 >18.6	1.17 (0.85,1.62) 1.22 (0.92,1.63)	0.335 0.172
Depression	9	0.284	≤18.6 >18.6	0.98 (0.65,1.47) 1.30 (0.92,1.85)	0.918 0.137	0.916	≤18.6 >18.6	1.17 (0.86,1.57) 1.14 (0.87,1.49)	0.315 0.333
Hostility	9	0.803	≤18.6 >18.6	0.89 (0.50,1.60) 0.97 (0.58,1.63)	0.700 0.907	0.510	≤18.6 >18.6	1.10 (0.73,1.66) 0.92 (0.62,1.35)	0.658 0.654
Interpersonal Sensitivity	9	0.354	≤18.6 >18.6	1.38 (0.91,2.10) 1.04 (0.66,1.63)	0.128 0.878	0.260	≤18.6 >18.6	1.36 (0.98,1.90) 1.03 (0.71,1.49)	0.064 0.865

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Obsessive-Compulsive Behavior	9	0.350	≤18.6 >18.6	0.95 (0.61,1.46) 1.23 (0.86,1.74)	0.806 0.253	0.852	≤18.6 >18.6	1.25 (0.90,1.74) 1.20 (0.91,1.59)	0.188 0.199
Paranoid Ideation	9	0.546	≤18.6 >18.6	0.95 (0.57,1.61) 0.72 (0.34,1.54)	0.860 0.402	0.191	≤18.6 >18.6	1.12 (0.77,1.64) 0.73 (0.42,1.27)	0.550 0.263
Phobic Anxiety	9	0.283**	≤18.6 >18.6	0.86 (0.52,1.41)** 1.20 (0.81,1.78)**	0.547** 0.365**	0.705**	≤18.6 >18.6	1.13 (0.79,1.62)** 1.03 (0.76,1.41)**	0.509** 0.841**
Psychoticism	9	0.967	≤18.6 >18.6	1.08 (0.70,1.67) 1.09 (0.76,1.57)	0.731 0.632	0.882	≤18.6 >18.6	1.20 (0.87,1.65) 1.16 (0.90,1.49)	0.272 0.241
Somatization	9	0.025	≤18.6 >18.6	0.73 (0.46,1.15) 1.33 (0.96,1.84)	0.175 0.084	0.608**	≤18.6 >18.6	1.02 (0.74,1.41)** 1.13 (0.88,1.46)**	0.916** 0.349**
Global Severity Index	9	0.338**	≤18.6 >18.6	1.02 (0.67,1.55)** 1.33 (0.93,1.89)**	0.915** 0.122**	0.886	≤18.6 >18.6	1.14 (0.84,1.55) 1.11 (0.84,1.46)	0.405 0.471
Positive Symptom Total	9	0.966	≤18.6 >18.6	1.17 (0.77,1.76) 1.18 (0.81,1.72)	0.462 0.388	0.401	≤18.6 >18.6	1.21 (0.89,1.65) 1.01 (0.75,1.36)	0.233 0.951
Positive Symptom Distress Index	9	0.518	≤18.6 >18.6	0.93 (0.63,1.36) 1.10 (0.79,1.51)	0.705 0.581	0.796	≤18.6 >18.6	1.17 (0.89,1.55) 1.12 (0.87,1.44)	0.254 0.392
Viral Hepatitis	10	0.370	≤18.6 >18.6	1.30 (1.00,1.68) 1.12 (0.91,1.38)	0.046 0.267	0.224	≤18.6 >18.6	1.33 (1.11,1.60) 1.15 (0.98,1.35)	0.002 0.080
Viral Hepatitis ^b	10	0.342	≤18.6 >18.6	1.09 (0.83,1.44) 0.93 (0.74,1.17)	0.531 0.522	0.360	≤18.6 >18.6	1.07 (0.88,1.31) 0.96 (0.80,1.14)	0.503 0.612

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Chronic Liver Disease and Cirrhosis (Alcohol-Related)	10	0.200	≤18.6 >18.6	1.08 (0.57,2.06) 0.64 (0.39,1.06)	0.810 0.082	0.199	≤18.6 >18.6	1.05 (0.67,1.64) 0.72 (0.50,1.05)	0.827 0.087
Chronic Liver Disease and Cirrhosis (Nonalcohol-Related)	10	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Other Disorders of the Liver	10	0.547	≤18.6 >18.6	1.20 (0.78,1.83) 1.02 (0.76,1.38)	0.408 0.873	0.329	≤18.6 >18.6	1.26 (0.92,1.73) 1.04 (0.83,1.31)	0.150 0.716
Jaundice (Unspecified)	10	0.454	≤18.6 >18.6	1.25 (0.31,5.14) 2.44 (0.74,8.09)	0.754 0.144	0.396	≤18.6 >18.6	1.20 (0.46,3.11) 0.69 (0.29,1.62)	0.711 0.390
Hepatomegaly	10	0.964	≤18.6 >18.6	1.17 (0.58,2.38) 1.16 (0.58,2.31)	0.665 0.682	0.298	≤18.6 >18.6	1.67 (0.97,2.87) 1.12 (0.65,1.93)	0.065 0.678
Ulcer	10	0.875	≤18.6 >18.6	1.12 (0.67,1.89) 1.07 (0.74,1.53)	0.661 0.720	0.840	≤18.6 >18.6	1.16 (0.81,1.66) 1.10 (0.83,1.46)	0.430 0.487
Skin Bruises, Patches, or Sensitivity	10	0.569	≤18.6 >18.6	1.12 (0.86,1.46) 1.02 (0.82,1.27)	0.403 0.880	0.741	≤18.6 >18.6	1.16 (0.81,1.66) 1.10 (0.83,1.46)	0.430 0.487
Current Hepatomegaly	10	0.939	≤18.6 >18.6	1.13 (0.51,2.51) 1.08 (0.44,2.67)	0.755 0.861	0.756	≤18.6 >18.6	1.59 (0.86,2.94) 1.37 (0.67,2.81)	0.137 0.389
AST	10	0.368	≤18.6 >18.6	0.65 (0.30,1.39) 0.95 (0.63,1.42)	0.263 0.789	0.922	≤18.6 >18.6	0.88 (0.54,1.44) 0.90 (0.66,1.23)	0.607 0.527

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
ALT	10	0.230	≤18.6 >18.6	1.26 (0.89,1.78) 0.96 (0.73,1.28)	0.197 0.799	0.248	≤18.6 >18.6	1.27 (0.99,1.63) 1.05 (0.85,1.30)	0.062 0.651
GGT	10	0.695	≤18.6 >18.6	1.03 (0.68,1.57) 0.93 (0.67,1.28)	0.888 0.656	0.410	≤18.6 >18.6	1.34 (0.99,1.81) 1.14 (0.89,1.45)	0.061 0.308
Alkaline Phosphatase	10	0.407	≤18.6 >18.6	0.88 (0.46,1.71) 1.21 (0.83,1.75)	0.715 0.318	0.281	≤18.6 >18.6	1.01 (0.65,1.58) 1.35 (1.01,1.82)	0.952 0.046
D-Glucaric Acid	10	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Total Bilirubin	10	0.227	≤18.6 >18.6	0.48 (0.17,1.34) 0.18 (0.05,0.64)	0.159 0.008	0.934	≤18.6 >18.6	0.62 (0.33,1.17) 0.60 (0.34,1.06)	0.139 0.076
Direct Bilirubin	10	0.980**	≤18.6 >18.6	0.74 (0.37,1.47)** 0.75 (0.41,1.38)**	0.388** 0.351**	0.656	≤18.6 >18.6	1.02 (0.64,1.61) 0.88 (0.56,1.39)	0.936 0.586
LDH	10	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Cholesterol	10	****	≤18.6 >18.6	**** ****	**** ****	0.872	≤18.6 >18.6	0.93 (0.72,1.19) 0.95 (0.76,1.19)	0.560 0.672
HDL	10	0.648	≤18.6 >18.6	1.23 (0.64,2.35) 1.02 (0.65,1.60)	0.538 0.936	0.578	≤18.6 >18.6	0.98 (0.61,1.57) 1.16 (0.82,1.64)	0.937 0.413
Cholesterol-HDL Ratio	10	0.119**	≤18.6 >18.6	1.07 (0.84,1.37)** 1.38 (1.11,1.70)**	0.582** 0.003**	0.283	≤18.6 >18.6	1.14 (0.96,1.36) 1.29 (1.11,1.51)	0.132 0.001
Triglycerides	10	0.862	≤18.6 >18.6	1.27 (0.86,1.87) 1.32 (0.97,1.81)	0.238 0.078	0.812	≤18.6 >18.6	1.34 (1.00,1.79) 1.28 (1.00,1.63)	0.050 0.052

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log2 (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Creatine Kinase	10	0.119	≤18.6 >18.6	0.48 (0.22,1.06) 0.98 (0.58,1.64)	0.070 0.925	0.677	≤18.6 >18.6	0.74 (0.47,1.15) 0.84 (0.57,1.23)	0.182 0.363
Occurrence of Acne (Lifetime)	11	0.131	≤18.6 >18.6	1.10 (0.86,1.41) 0.87 (0.71,1.06)	0.447 0.171	0.006	≤18.6 >18.6	1.17 (0.98,1.39) 0.85 (0.73,0.99)	0.078 0.040
Acne Relative to SEA Tour (Pre/Post-SEA and Post-SEA vs. Pre-SEA and None)	11	0.062	≤18.6 >18.6	1.21 (0.95,1.55) 0.91 (0.75,1.10)	0.116 0.318	0.001	≤18.6 >18.6	1.23 (1.04,1.46) 0.86 (0.74,0.99)	0.019 0.043
Acne Relative to SEA Tour (Post-SEA vs. None)	11	0.101	≤18.6 >18.6	1.13 (0.88,1.47) 0.86 (0.70,1.06)	0.340 0.157	0.006	≤18.6 >18.6	1.19 (0.99,1.42) 0.85 (0.73,1.00)	0.058 0.045
Acne Relative to SEA Tour (Pre/Post SEA vs. Pre-SEA)	11	0.184	≤18.6 >18.6	4.81 (0.74,31.46) 1.30 (0.49,3.40)	0.101 0.598	0.072	≤18.6 >18.6	3.56 (1.21,10.43) 1.15 (0.56,2.37)	0.021 0.701
Location of Acne (Post-SEA)	11	0.021	≤18.6 >18.6	0.71 (0.43,1.17) 1.42 (1.00,2.03)	0.177 0.051	0.083	≤18.6 >18.6	0.76 (0.54,1.07) 1.11 (0.85,1.44)	0.113 0.458
Location of Acne (Pre/Post-SEA and Post-SEA)	11	0.037	≤18.6 >18.6	0.84 (0.57,1.24) 1.42 (1.03,1.94)	0.386 0.030	0.141	≤18.6 >18.6	0.84 (0.63,1.11) 1.10 (0.87,1.38)	0.213 0.433
Comedones	11	0.862	≤18.6 >18.6	1.20 (0.90,1.61) 1.24 (0.98,1.57)	0.221 0.074	0.909	≤18.6 >18.6	1.13 (0.92,1.38) 1.11 (0.93,1.33)	0.256 0.263
Acneiform Lesions	11	0.621	≤18.6 >18.6	0.89 (0.61,1.29) 0.78 (0.55,1.12)	0.530 0.179	0.124	≤18.6 >18.6	1.26 (0.96,1.66) 0.95 (0.74,1.23)	0.091 0.709

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Acneiform Scars	11	0.097	≤18.6 >18.6	1.43 (1.01,2.03) 0.97 (0.69,1.34)	0.047 0.833	0.032	≤18.6 >18.6	1.38 (1.06,1.78) 0.94 (0.74,1.21)	0.016 0.644
Depigmentation	11	0.346	≤18.6 >18.6	1.09 (0.70,1.69) 0.82 (0.54,1.24)	0.695 0.344	0.076	≤18.6 >18.6	1.32 (0.95,1.82) 0.88 (0.65,1.19)	0.094 0.414
Inclusion Cysts	11	0.297	≤18.6 >18.6	0.76 (0.49,1.18) 1.01 (0.73,1.39)	0.223 0.943	0.870	≤18.6 >18.6	0.80 (0.59,1.06) 0.82 (0.64,1.05)	0.124 0.111
Hyperpigmentation	11	0.808	≤18.6 >18.6	1.32 (0.96,1.82) 1.26 (0.96,1.64)	0.084 0.090	0.216	≤18.6 >18.6	1.42 (1.13,1.79) 1.17 (0.96,1.44)	0.003 0.123
Other Abnormalities	11	0.872	≤18.6 >18.6	0.96 (0.74,1.26) 0.94 (0.75,1.17)	0.791 0.574	0.864	≤18.6 >18.6	0.93 (0.77,1.13) 0.91 (0.77,1.09)	0.470 0.304
Dermatology Index	11	0.440	≤18.6 >18.6	1.15 (0.90,1.46) 1.01 (0.83,1.24)	0.265 0.892	0.061	≤18.6 >18.6	1.19 (0.99,1.42) 0.95 (0.81,1.11)	0.059 0.540
Reported/Verified Essential Hypertension	12	0.202	≤18.6 >18.6	1.20 (0.90,1.60) 0.94 (0.74,1.19)	0.220 0.600	0.506	≤18.6 >18.6	1.13 (0.92,1.38) 1.03 (0.86,1.24)	0.260 0.763
Reported/Verified Essential Hypertension ^c	12	0.217	≤18.6 >18.6	1.25 (0.95,1.65) 1.00 (0.79,1.26)	0.108 0.991	0.336	≤18.6 >18.6	1.25 (1.03,1.52) 1.10 (0.93,1.30)	0.023 0.271
Reported Heart Disease (Excluding Essential Hypertension)	12	0.867	≤18.6 >18.6	0.96 (0.72,1.28) 0.93 (0.73,1.18)	0.788 0.560	0.670	≤18.6 >18.6	0.89 (0.73,1.08) 0.84 (0.71,1.01)	0.252 0.060

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Verified Heart Disease (Excluding Essential Hypertension)	12	0.852	≤18.6 >18.6	0.97 (0.72,1.29) 0.93 (0.73,1.19)	0.811 0.567	0.628	≤18.6 >18.6	0.90 (0.74,1.09) 0.84 (0.70,1.00)	0.267 0.056
Reported/Verified Myocardial Infarction	12	0.705	≤18.6 >18.6	1.23 (0.62,2.44) 1.05 (0.64,1.72)	0.554 0.859	0.159	≤18.6 >18.6	1.63 (0.98,2.69) 1.04 (0.70,1.53)	0.058 0.855
Systolic Blood Pressure	12	****	≤18.6 >18.6	**** ****	**** ****	0.670**	≤18.6 >18.6	1.00 (0.78,1.29)** 0.94 (0.76,1.15)**	0.978** 0.527**
Heart Sounds	12	****	≤18.6 >18.6	**** ****	**** ****	****	≤18.6 >18.6	**** ****	**** ****
Overall ECG	12	0.105	≤18.6 >18.6	1.39 (0.95,2.03) 0.94 (0.69,1.28)	0.085 0.688	0.249	≤18.6 >18.6	1.21 (0.93,1.58) 0.99 (0.79,1.25)	0.152 0.936
ECG: RBBB	12	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
ECG: LBBB	12	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
ECG: Nonspecific T-Waves	12	0.428	≤18.6 >18.6	1.12 (0.70,1.81) 0.89 (0.63,1.25)	0.636 0.499	0.823**	≤18.6 >18.6	1.08 (0.77,1.52)** 1.03 (0.80,1.33)**	0.645** 0.799**
ECG: Bradycardia	12	0.361	≤18.6 >18.6	1.08 (0.60,1.95) 0.58 (0.15,2.17)	0.802 0.417	0.051	≤18.6 >18.6	1.05 (0.70,1.56) 0.44 (0.19,1.05)	0.829 0.063
ECG: Arrhythmia	12	0.201	≤18.6 >18.6	2.18 (1.15,4.15) 1.28 (0.75,2.21)	0.017 0.366	0.034**	≤18.6 >18.6	1.79 (1.11,2.90)** 0.90 (0.58,1.40)**	0.018** 0.648**

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
ECG: Other Diagnoses	12	0.120	≤18.6 >18.6	1.15 (0.81,1.63) 0.78 (0.55,1.12)	0.428 0.185	0.026	≤18.6 >18.6	1.13 (0.89,1.44) 0.77 (0.59,1.00)	0.305 0.046
Diastolic Blood Pressure	12	0.978	≤18.6 >18.6	0.79 (0.40,1.56) 0.80 (0.49,1.31)	0.502 0.381	0.556	≤18.6 >18.6	0.95 (0.62,1.48) 1.12 (0.80,1.57)	0.832 0.495
Funduscopy Examination	12	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Carotid Bruits	12	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Radial Pulses	12	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Femoral Pulses	12	0.407	≤18.6 >18.6	1.33 (0.41,4.30) 0.71 (0.30,1.67)	0.634 0.429	****	≤18.6 >18.6	**** ****	**** ****
Popliteal Pulses	12	0.723**	≤18.6 >18.6	0.52 (0.15,1.86)** 0.68 (0.33,1.42)**	0.317** 0.303**	0.880**	≤18.6 >18.6	0.94 (0.46,1.95)** 0.88 (0.53,1.47)**	0.874** 0.630**
Dorsalis Pedis Pulses	12	0.129	≤18.6 >18.6	1.50 (1.00,2.24) 1.01 (0.73,1.41)	0.051 0.941	0.355	≤18.6 >18.6	1.34 (1.00,1.78) 1.12 (0.88,1.44)	0.048 0.355
Posterior Tibial Pulses	12	0.762	≤18.6 >18.6	1.05 (0.35,3.15) 0.86 (0.47,1.59)	0.937 0.629	0.297	≤18.6 >18.6	1.88 (0.91,3.88) 1.20 (0.77,1.86)	0.087 0.413
Posterior Tibial Pulses ^c	12	0.866	≤18.6 >18.6	0.98 (0.35,2.72) 0.89 (0.48,1.63)	0.971 0.698	0.414	≤18.6 >18.6	1.65 (0.84,3.26) 1.18 (0.76,1.85)	0.146 0.465
Leg Pulses	12	0.220**	≤18.6 >18.6	1.31 (0.89,1.91)** 0.97 (0.72,1.32)**	0.167** 0.866**	0.460	≤18.6 >18.6	1.30 (0.99,1.71) 1.14 (0.91,1.43)	0.057 0.239

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Peripheral/All Pulses	12	0.172**	≤18.6 >18.6	1.33 (0.91,1.95)** 0.96 (0.71,1.29)**	0.136** 0.790**	0.436	≤18.6 >18.6	1.30 (0.99,1.70) 1.13 (0.90,1.42)	0.062 0.285
Red Blood Cell Count	13	0.066	≤18.6 >18.6	0.29 (0.04,2.22) 1.32 (0.84,2.06)	0.232 0.229	0.011	≤18.6 >18.6	0.50 (0.19,1.32) 1.58 (1.08,2.31)	0.159 0.018
Hematocrit	13	0.358	≤18.6 >18.6	0.14 (0.00,13.94) 0.72 (0.36,1.42)	0.402 0.343	0.300	≤18.6 >18.6	0.47 (0.08,2.76) 1.09 (0.69,1.72)	0.403 0.720
Mean Corpuscular Volume	13	0.978	≤18.6 >18.6	1.06 (0.71,1.58) 1.06 (0.78,1.42)	0.772 0.724	0.972	≤18.6 >18.6	1.20 (0.91,1.59) 1.19 (0.95,1.50)	0.195 0.127
Mean Corpuscular Hemoglobin	13	0.139	≤18.6 >18.6	1.43 (0.92,2.23) 0.94 (0.67,1.32)	0.109 0.725	0.382	≤18.6 >18.6	1.29 (0.93,1.79) 1.08 (0.83,1.40)	0.124 0.585
Platelet Count	13	0.551	≤18.6 >18.6	0.90 (0.38,2.17) 1.22 (0.75,1.97)	0.820 0.428	0.930	≤18.6 >18.6	1.19 (0.65,2.19) 1.23 (0.84,1.80)	0.573 0.291
Prothrombin Time	13	0.089	≤18.6 >18.6	2.79 (1.13,6.88) 1.14 (0.65,2.01)	0.026 0.625	****	≤18.6 >18.6	**** ****	**** ****
Kidney Disease	14	****	≤18.6 >18.6	**** ****	**** ****	0.910	≤18.6 >18.6	1.01 (0.77,1.32) 1.03 (0.81,1.31)	0.961 0.823
Urinary Protein	14	0.204	≤18.6 >18.6	0.80 (0.47,1.35) 1.25 (0.79,1.98)	0.400 0.344	0.657	≤18.6 >18.6	1.05 (0.72,1.52) 0.93 (0.65,1.32)	0.818 0.674
Urinary Occult Blood	14	0.421	≤18.6 >18.6	1.32 (0.83,2.10) 1.05 (0.76,1.44)	0.238 0.765	0.525	≤18.6 >18.6	1.09 (0.78,1.52) 1.24 (0.98,1.58)	0.620 0.076
Urinary White Blood Cell Count	14	0.383**	≤18.6 >18.6	0.93 (0.61,1.41)** 1.18 (0.84,1.67)**	0.732** 0.348**	0.346	≤18.6 >18.6	1.02 (0.76,1.38) 1.25 (0.94,1.65)	0.877 0.123

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*Ta	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Current Thyroid Function	15	0.437	≤18.6 >18.6	0.76 (0.37,1.54) 1.07 (0.62,1.85)	0.447 0.813	0.960	≤18.6 >18.6	0.91 (0.58,1.42) 0.89 (0.59,1.34)	0.669 0.588
History of Thyroid Disease	15	0.341	≤18.6 >18.6	0.77 (0.34,1.73) 1.18 (0.76,1.83)	0.527 0.471	0.883	≤18.6 >18.6	0.97 (0.58,1.64) 0.93 (0.67,1.30)	0.920 0.666
Thyroid Gland	15	0.890	≤18.6 >18.6	0.95 (0.72,1.25) 0.97 (0.78,1.21)	0.697 0.784	0.754	≤18.6 >18.6	1.03 (0.85,1.25) 1.07 (0.90,1.26)	0.783 0.432
Testes	15	0.121	≤18.6 >18.6	2.59 (1.30,5.12) 1.36 (0.83,2.23)	0.006 0.223	0.311	≤18.6 >18.6	2.03 (1.21,3.39) 1.46 (0.99,2.17)	0.007 0.058
T ₃ % Uptake	15	0.718	≤18.6 >18.6	0.92 (0.48,1.74) 0.76 (0.35,1.66)	0.788 0.492	0.477	≤18.6 >18.6	0.91 (0.60,1.39) 0.72 (0.43,1.20)	0.669 0.205
TSH	15	0.520	≤18.6 >18.6	1.48 (0.65,3.36) 1.06 (0.60,1.88)	0.354 0.845	0.423**	≤18.6 >18.6	1.23 (0.67,2.24)** 0.90 (0.58,1.41)**	0.507** 0.643**
Testosterone	15	0.796	≤18.6 >18.6	0.53 (0.17,1.69) 0.63 (0.33,1.19)	0.285 0.154	0.762	≤18.6 >18.6	1.00 (0.44,2.25) 0.86 (0.54,1.37)	0.992 0.536
Fasting Glucose	15	0.396	≤18.6 >18.6	1.33 (0.93,1.89) 1.59 (1.23,2.05)	0.118 <0.001	0.666**	≤18.6 >18.6	1.44 (1.10,1.88)** 1.55 (1.26,1.91)**	0.007** <0.001**
Composite Diabetes Indicator	15	0.723	≤18.6 >18.6	1.46 (0.99,2.13) 1.58 (1.18,2.11)	0.054 0.002	0.512	≤18.6 >18.6	1.62 (1.20,2.19) 1.43 (1.14,1.81)	0.002 0.002
Composite Skin Test Diagnosis	16	0.341**	≤18.6 >18.6	0.64 (0.35,1.16)** 0.92 (0.55,1.54)**	0.143** 0.762**	0.418	≤18.6 >18.6	0.77 (0.52,1.15) 0.96 (0.68,1.35)	0.202 0.814
Asthma	17	0.324	≤18.6 >18.6	1.05 (0.57,1.95) 0.65 (0.28,1.48)	0.866 0.303	0.141	≤18.6 >18.6	1.05 (0.69,1.59) 0.64 (0.36,1.12)	0.811 0.116

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value	C*T ^a	Time (Yrs.)	Adj. Relative Risk (95% C.I.)	p-Value
Bronchitis	17	0.257**	≤18.6 >18.6	0.69 (0.45,1.07)** 0.93 (0.70,1.24)**	0.099** 0.627**	****	≤18.6 >18.6	**** ****	**** ****
Pleurisy	17	****	≤18.6 >18.6	**** ****	**** ****	****	≤18.6 >18.6	**** ****	**** ****
Pneumonia	17	0.947	≤18.6 >18.6	1.00 (0.66,1.53) 0.98 (0.65,1.48)	0.993 0.932	0.773	≤18.6 >18.6	0.91 (0.68,1.24) 0.97 (0.71,1.34)	0.565 0.872
Tuberculosis	17	0.601	≤18.6 >18.6	0.68 (0.28,1.65) 0.91 (0.48,1.72)	0.396 0.769	0.821	≤18.6 >18.6	0.81 (0.46,1.44) 0.89 (0.53,1.47)	0.477 0.640
Thorax and Lung Abnormalities	17	0.396**	≤18.6 >18.6	1.51 (0.92,2.47)** 1.18 (0.85,1.64)**	0.100** 0.335**	0.794	≤18.6 >18.6	1.27 (0.87,1.84) 1.34 (1.03,1.76)	0.216 0.030
Hyperresonance	17	0.902	≤18.6 >18.6	1.46 (0.79,2.70) 1.39 (0.86,2.25)	0.231 0.179	0.574	≤18.6 >18.6	1.29 (0.82,2.05) 1.53 (1.05,2.23)	0.270 0.027
Dullness	17	--	≤18.6 >18.6	-- --	-- --	--	≤18.6 >18.6	-- --	-- --
Wheezes	17	0.409**	≤18.6 >18.6	1.95 (0.93,4.12)** 1.36 (0.87,2.14)**	0.079** 0.179**	0.907	≤18.6 >18.6	1.46 (0.81,2.63) 1.41 (0.97,2.04)	0.203 0.074
Rales	17	0.607	≤18.6 >18.6	1.87 (0.66,5.26) 1.36 (0.68,2.69)	0.236 0.383	0.545	≤18.6 >18.6	1.19 (0.53,2.67) 1.59 (0.90,2.81)	0.680 0.107
X-Ray Interpretation	17	0.536	≤18.6 >18.6	1.19 (0.68,2.09) 0.95 (0.59,1.51)	0.539 0.816	0.455	≤18.6 >18.6	1.20 (0.80,1.79) 0.97 (0.68,1.39)	0.390 0.879

TABLE Q-14. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 2: Ranch Hands - Log₂ (Current Dioxin) and Time

^aP-value for test of significance for homogeneity of relative risks (current dioxin continuous, time categorized); C*T=current dioxin-by-time interaction.

^bAnalysis performed for model including occupation.

^cAnalysis performed for model excluding percent body fat.

--: Adjusted relative risk/confidence interval/p-value not given due to the sparse number of abnormalities.

**Log₂ (current dioxin)-by-time-by-covariate interaction (0.01<p≤0.05); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction.

***Log₂ (current dioxin)-by-time-by-covariate interaction (p≤0.01); adjusted relative risk, confidence interval, and p-value not presented.

Note: Estimated relative risk for a twofold increase in dioxin.

TABLE Q-15.

**Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category**

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Self-Perception of Health	6	0.73 (0.37,1.42) 0.350	1.46 (0.77,2.75) 0.244	1.40 (0.72,2.71) 0.323	0.270
Appearance of Illness or Distress by Physician	6	1.12 (0.20,6.18)** 0.894**	1.10 (0.12,9.98) 0.934	3.12 (0.54,18.12)** 0.204**	0.300**
Relative Age	6	1.05 (0.59,1.07) 0.856	0.71 (0.31,1.61) 0.412	1.31 (0.67,2.56) 0.424	0.638
Percent Body Fat	6	0.44 (0.30,0.63) <0.001	0.99 (0.68,1.43) 0.954	1.38 (0.97,1.96) 0.075	<0.001
Sedimentation Rate	6	1.03 (0.51,2.07) 0.937	2.32 (1.18,4.56) 0.015	3.86 (2.00,7.45) <0.001	<0.001
All Skin Neoplasms (Verified)	7	1.32 (0.92,1.91) 0.134	1.39 (0.89,2.19) 0.150	0.93 (0.55,1.57) 0.778	0.262
All Skin Neoplasms (Verified and Suspected)	7	1.30 (0.90,1.87) 0.162	1.36 (0.87,2.14) 0.184	0.90 (0.53,1.52) 0.694	0.296
Malignant Skin Neoplasms (Verified)	7	1.33 (0.83,2.14) 0.238	1.47 (0.81,2.65) 0.201	0.84 (0.40,1.78) 0.657	0.381

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Malignant Skin Neoplasms (Verified and Suspected)	7	1.33 (0.81,2.09) 0.276	1.44 (0.80,2.60) 0.222	0.83 (0.39,1.75) 0.618	0.374
Benign Skin Neoplasms (Non-Blacks Only)	7	1.26 (0.75,2.11) 0.384	1.21 (0.64,2.31) 0.555	1.21 (0.63,2.30) 0.565	0.808
Benign Skin Neoplasms (Blacks Included)	7	1.35 (0.82,2.22) 0.246	1.25 (0.67,2.33) 0.478	1.17 (0.62,2.22) 0.621	0.680
Skin Neoplasms of Uncertain Behavior or Unspecified Nature (Verified)	7	-- --	-- --	-- --	--
Skin Neoplasms of Uncertain Behavior or Unspecified Nature (Verified and Suspected)	7	-- --	-- --	-- --	--
<u>Basal Cell Carcinoma</u>	7	1.37 (0.84,2.26) 0.208	1.54 (0.84,2.82) 0.124	0.71 (0.31,1.63) 0.478	0.205
Ear, Face, Head, and Neck	7	1.19 (0.68,2.10) 0.541	1.18 (0.57,2.45) 0.662	0.26 (0.06,1.08) 0.063	0.087

TABLE Q-15. (Continued)

**Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category**

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Trunk	7	1.59 (0.60,4.25) 0.351	1.28 (0.35,4.75) 0.709	2.06 (0.62,6.83) 0.238	0.641
Upper Extremities	7	1.78 (0.39,8.07) 0.455	1.10 (0.12,9.98) 0.934	-- --	0.567
Lower Extremities	7	-- --	-- --	-- --	--
Other Sites	7	-- --	13.34 (1.40,127.1) 0.024	3.93 (0.25,62.34) 0.332	0.035
<u>Sun Exposure-Related</u>	7	1.45 (0.89,2.34) 0.134	1.51 (0.84,2.74) 0.171	0.77 (0.35,1.69) 0.515	0.188
<u>Malignant Skin</u>	7	-- --	2.36 (0.15,42.6) 0.511	15.44 (1.39,147.1) 0.017	0.028
<u>Neoplasms</u>	7	1.34 (0.78,2.31) 0.285	1.28 (0.63,2.59) 0.498	0.38 (0.12,1.28) 0.119	0.128
Ear, Face, Head, and Neck	7	1.21 (0.48,3.08) 0.689	0.97 (0.27,3.46) 0.961	1.53 (0.48,4.87) 0.468	0.896
Trunk	7	2.21 (0.54,9.01) 0.267	1.05 (0.12,9.49) 0.969	1.24 (0.14,11.38) 0.847	0.735
Upper Extremities	7	-- --	-- --	-- --	--
Lower Extremities	7	-- --	-- --	-- --	--

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Other Sites	7	--	13.34 (1.40,127.1)	3.93 (0.25,62.34)	0.035
		--	0.024	0.332	
<u>Melanoma</u>	7	0.64 (0.07,6.24)	--	--	--
		0.702	--	--	
Benign Skin Neoplasms	7	1.26 (0.25,2.11)	1.21 (0.64,2.31)	1.21 (0.63,2.30)	0.808
Ear, Face, Head, and Neck	7	--	--	--	--
Benign Skin Neoplasms	7	1.35 (0.82,2.22)	1.25 (0.62,2.33)	1.17 (0.62,2.22)	0.680
Trunk	7	--	13.34 (1.40,127.1)	3.93 (0.25,62.34)	0.035
Skin Neoplasms of	7	--	--	--	--
Upper Extremities	7	--	--	--	--
of Unspecified		--	--	--	
Nature (Verified)		--	--	--	
Lower Extremities	7	--	1.10 (0.15,8.08)	--	--
Skin Neoplasms of	7	--	--	--	--
Uncertain Behavior		--	--	--	
Other Sites	7	--	1.38 (0.32,4.12)	3.06 (0.45,21.82)	0.241
		--	--	--	
Squamous Cell Carcinoma	7	4.35 (0.40,47.57)	4.39 (0.28,69.66)	4.06 (0.26,64.37)	0.546
		0.228	0.294	0.320	
Ear, Face, Head, and Neck	7	1.19 (0.68,2.10)	1.18 (0.57,2.45)	0.26 (0.06,1.08)	0.087

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
<u>Basal Cell Carcinoma by Occupation</u>					
Officer-Ear, Face, Head, and Neck vs. None	7	1.13 (0.52,2.44) 0.757	0.75 (0.15,3.66) 0.719	-- --	0.865
Officer-Other Sites vs. None	7	2.89 (0.85,9.81) 0.087	1.91 (0.21,17.70) 0.569	-- --	0.356
Enlisted Flyer-Ear, Face, Head, and Neck vs. None	7	1.72 (0.39,7.65) 0.472	0.37 (0.04,3.19) 0.358	0.45 (0.05,4.09) 0.472	0.481
Enlisted Flyer-Other Sites vs. None	7	-- --	2.56 (0.15,42.6) 0.511	15.44 (1.59,147.1) 0.017	0.028
Enlisted Groundcrew- Ear, Face, Head, and Neck vs. None	7	1.23 (0.38,4.04) 0.734	2.22 (0.84,5.91) 0.110	0.20 (0.03,1.55) 0.121	0.048
Enlisted Groundcrew- Other Sites vs. None	7	-- --	2.47 (0.67,9.08) 0.171	0.37 (0.04,3.09) 0.354	0.081

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
<u>Sun Exposure-Related</u>					
<u>Malignant Skin Neoplasm</u>					
<u>by Occupation</u>					
Officer-Ear, Face, Head, and Neck vs. None	7	1.32 (0.64,2.74) 0.449	0.71 (0.15,3.45) 0.671	-- --	0.686
Officer-Other Sites vs. None	7	2.34 (0.75,7.31) 0.144	1.51 (0.17,13.40) 0.709	-- --	0.508
Enlisted Flyer-Ear, Face, Head, and Neck vs. None	7	1.81 (0.41,8.10) 0.434	0.75 (0.14,3.97) 0.735	0.45 (0.05,4.12) 0.476	0.668
Enlisted Flyer-Other Sites vs. None	7	-- --	1.20 (0.10,13.75) 0.882	7.29 (1.23,42.71) 0.028	0.055
Enlisted Groundcrew- Ear, Face, Head, and Neck vs. None	7	1.17 (0.36,3.85) 0.792	2.17 (0.82,5.78) 0.119	0.39 (0.09,1.80) 0.230	0.149
Enlisted Groundcrew- Other Sites vs. None	7	-- --	2.47 (0.67,9.08) 0.171	0.37 (0.04,3.12) 0.360	0.082

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Basal Cell Carcinoma (One vs. None)	7	1.13 (0.64,1.98) 0.672	1.18 (0.59,2.36) 0.646	0.60 (0.25,1.44) 0.250	0.515
Basal Cell Carcinoma (Multiple vs. None)	7	2.95 (1.05,8.29) 0.039	3.59 (1.07,12.04) 0.038	0.89 (0.11,7.56) 0.915	0.078
All Systemic Neoplasms (Verified)	7	0.59 (0.35,1.02) 0.057	1.21 (0.70,2.08) 0.488	1.65 (0.96,2.83) 0.072	0.021
All Systemic Neoplasms (Verified and Suspected)	7	0.58 (0.34,1.00) 0.050	1.19 (0.69,2.04) 0.528	1.61 (0.94,2.77) 0.085	0.022
Malignant Systemic Neoplasms	7	0.68 (0.22,2.11) 0.502	3.51 (1.50,8.25) 0.004	-- --	0.002
Benign Systemic Neoplasms	7	0.65 (0.35,1.20) 0.165	0.76 (0.37,1.59) 0.472	2.13 (1.20,3.79) 0.010	0.011
Systemic Neoplasms of Uncertain Behavior or Un- specified Nature (Verified)	7	-- 0.224	-- 0.524	0.70 (0.08,5.84) 0.999	0.253

TABLE Q-15. (Continued)

**Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category**

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Systemic Neoplasms of Uncertain Behavior or Un- specified Nature (Verified and Suspected)	7	-- 0.155	-- 0.418	0.60 (0.07,4.87) 0.999	0.184
<u>Systemic Neoplasms: Location/Site</u>	7	-- 0.449	-- 0.671	-- --	--
Ear, Face, Head, and Neck	7	-- 0.184	-- 1.16 (0.28,5.04)	-- 1.01 (0.24,3.11)	-- 0.508
Oral Cavity, Pharynx, and Larynx	7	-- 0.038	-- 1.31 (0.30,5.08)	-- 1.02 (0.26,3.83)	-- 0.031
Brain	7	-- 0.382 (1.02,8.38)	-- 3.28 (1.03,13.04)	-- 7.29 (1.93,26.71)	-- 0.035
Thymus and Mediastinum	7	-- 1.17 (0.24,5.85)	-- 2.17 (0.82,5.78)	-- 0.39 (0.09,1.80)	-- 0.149
Thyroid Gland	7	-- --	2.47 (0.67,9.08) --	0.37 (0.04,3.12) 0.220	-- 0.272
Bronchus and Lung	7	-- --	-- --	-- --	--
Colon and Rectum	7	-- --	-- --	-- --	--

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Kidney and Bladder	7	1.13 (0.10,12.55)	8.60 (1.55,47.71)	0.11	0.041
	8	0.923	0.014	0.88 (0.25,3.18)	0.539
Prostate	7	--	2.28 (0.40,12.96)	--	--
	8	0.62 (0.11,3.12)	0.353	0.91 (0.11,7.31)	0.660
Testicles	7	--	--	--	--
	8	0.71 (0.10,5.09)	1.39 (0.11,17.01)	1.72 (1.17,2.51)	<0.001
Ill-Defined Sites	7	1.03 (0.12,8.45)	1.53 (0.22,10.38)	1.33 (0.23,7.84)	0.936
	8	1.12 (0.11,11.62)	1.09 (0.11,10.62)	1.06 (0.22,5.38)	0.924
Carcinoma in Situ of Penis	7	1.02 (0.11,9.44)	1.34 (0.24,7.81)	1.32 (0.24,7.81)	0.239
	8	0.37 (0.01,3.09)	2.05 (0.01,3.28)	--	0.193
Carcinoma in Situ of Other and Unspecified Sites	7	--	--	--	--
	8	--	--	--	--
Hodgkin's Disease	7	0.84 (0.22,3.18)	--	1.20 (0.24,5.87)	0.281
Leukemia	7	0.39 (0.01,5.31)	--	--	0.121
	8	0.11	0.11	--	0.121
Other Malignant Neoplasms of Lymphoid and Histiocytic Tissue	7	2.30 (0.14,37.13)	4.27 (0.26,69.08)	0.80 (0.11,6.10)	0.687
	8	0.558	0.307	1.11 (0.23,5.30)	0.671

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Malignant Systemic Neoplasms Conditioned on Systemic Neoplasms (Verified and Suspected)	7	1.17 (0.33,4.13) 0.999	4.53 (1.53,13.42) 0.013	-- 0.047	0.001
All Skin and Systemic Neoplasms (Verified)	7	1.05 (0.77,1.44) 0.757	1.24 (0.84,1.81) 0.276	1.25 (0.84,1.87) 0.267	0.576
All Skin and Systemic Neoplasms (Verified and Suspected)	7	1.03 (0.75,1.42) 0.833	1.22 (0.83,1.78) 0.313	1.23 (0.83,1.84) 0.303	0.629
Inflammatory Diseases	8	-- --	-- --	-- --	--
Hereditary and Degenerative Diseases	8	1.41 (0.78,2.53) 0.254	0.90 (0.39,2.09) 0.813	0.88 (0.36,2.16) 0.777	0.612
Peripheral Disorders	8	0.79 (0.54,1.16) 0.226	0.85 (0.53,1.36) 0.506	1.33 (0.85,2.08) 0.215	0.236
Disorders of the Eye	8	1.05 (0.74,1.48) 0.798	1.09 (0.71,1.66) 0.699	1.24 (0.81,1.91) 0.321	0.801
Tympanic Membrane Disorder	8	0.83 (0.42,1.64) 0.600	1.70 (0.87,3.31) 0.116	1.33 (0.62,2.87) 0.470	0.315

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Otitis	8	1.13 (0.78,1.64) 0.532	1.04 (0.65,1.67) 0.863	0.76 (0.43,1.34) 0.343	0.633
Hearing Loss	8	0.82 (0.60,1.12) 0.211	0.95 (0.64,1.40) 0.787	0.91 (0.63,1.31) 0.600	0.660
Other Neurological Disorders	8	0.71 (0.50,0.99) 0.041	1.39 (0.96,2.01) 0.078	1.72 (1.17,2.51) 0.005	<0.001
Other Neurological Disorders ^a	8	1.12 (0.78,1.62) 0.545	1.09 (0.74,1.62) 0.660	1.06 (0.72,1.58) 0.760	0.924
Smell	8	0.37 (0.04,3.09) 0.359	2.05 (0.51,8.28) 0.317	1.51 (0.3,7.70) 0.114	0.193
Visual Fields	8	4.68 (0.81,25.97)** 0.0013*	3.89 (0.53,28.40)** 0.011*	18.30 (3.2,102.7)** 0.0001*	0.0001*
Light Reaction	8	0.84 (0.22,3.18) 0.794	-- 0.794	1.20 (0.25,5.87) 0.819	0.287
Ocular Movement	8	0.59 (0.07,5.31) 0.636	3.01 (0.67,13.56) 0.150	2.03 (0.41,10.08)* 0.121**	0.170
Facial Sensation	8	1.01 (0.75,1.31)** 0.924	0.80 (0.09,6.87) 0.836	0.80 (0.09,7.10) 0.842	0.313
Smile	8	0.49 (0.11,2.30) 0.369	0.45 (0.06,3.55) 0.445	1.11 (0.23,5.30) 0.898	0.671

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Palpebral Fissure	8	0.90 (0.28,2.88) 0.853	1.63 (0.50,5.25) 0.416	1.45 (0.39,5.42) 0.584	0.803
Balance	8	--	--	--	--
Speech	8	--	--	--	--
Neck Range of Motion	8	0.97 (0.63,1.47)** 0.867**	1.11 (0.66,1.86)** 0.703**	1.28 (0.71,2.32)** 0.413**	0.830**
Cranial Nerve Index	8	0.84 (0.58,1.22) 0.356	1.14 (0.73,1.77) 0.558	0.98 (0.58,1.64) 0.931	0.665
Cranial Nerve Index Without Range of Motion	8	0.53 (0.26,1.09)** 0.084**	1.09 (0.54,2.19)** 0.807**	0.84 (0.36,1.93)** 0.674**	0.277**
Pin Prick	8	0.97 (0.54,1.71) 0.902	0.84 (0.40,1.77) 0.643	1.22 (0.61,2.42) 0.571	0.878
Light Touch	8	1.09 (0.57,2.09) 0.797	0.97 (0.42,2.27) 0.943	0.93 (0.39,2.22) 0.876	0.989
Muscle Status	8	0.77 (0.30,1.99)** 0.586**	0.92 (0.30,2.81)** 0.884**	1.08 (0.34,3.45)** 0.893**	0.945**
Vibration	8	0.63 (0.17,2.29) 0.478	1.21 (0.33,4.46) 0.774	1.99 (0.52,7.57) 0.312	0.584

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Patellar Reflex	8	1.05 (0.32,3.45) 0.935	1.80 (0.55,5.94) 0.332	2.75 (0.89,8.50) 0.078	0.343
Achilles Reflex	8	0.66 (0.35,1.26)** 0.211**	1.39 (0.74,2.60)** 0.303**	1.06 (0.51,2.23)** 0.871**	0.313**
Biceps Reflex	8	--	--	--	--
Babinski Reflex	8	--	--	--	--
Tremor	8	0.90 (0.40,1.99) 0.789	0.71 (0.24,2.10) 0.532	1.51 (0.62,3.70) 0.364	0.657
Coordination	8	4.68 (0.84,25.97)** 0.077**	3.89 (0.53,28.40)** 0.180**	18.30 (3.26,102.7)** 0.001**	0.006**
Romberg Sign	8	--	--	--	--
Gait	8	1.06 (0.45,2.50)** 0.889**	1.50 (0.58,3.88)** 0.399**	2.03 (0.81,5.08)** 0.131**	0.482**
CNS Index	8	1.01 (0.56,1.81)** 0.973**	0.91 (0.43,1.92)** 0.798**	2.08 (1.11,3.89)** 0.023**	0.137**
Psychoses	9	0.50 (0.17,1.47) 0.207	0.73 (0.25,2.18) 0.578	0.46 (0.13,1.60) 0.223	0.385

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Alcohol Dependence	9	1.32 (0.79,2.19) 0.286	0.81 (0.40,1.64) 0.557	1.37 (0.74,2.54) 0.323	0.444
Drug Dependence	9	--	--	--	--
Anxiety	9	0.90 (0.61,1.31) 0.567	1.15 (0.75,1.76) 0.518	1.08 (0.70,1.68) 0.727	0.778
Other Neuroses	9	1.06 (0.81,1.40) 0.661	1.65 (1.19,2.30) 0.003	1.22 (0.87,1.72) 0.251	0.024
Trouble Falling Asleep	9	0.82 (0.53,1.26) 0.360	0.56 (0.31,1.02) 0.057	0.58 (0.33,1.03) 0.062	0.084
Waking Up During the Night	9	0.84 (0.57,1.24)** 0.370**	0.87 (0.53,1.41)** 0.562**	0.98 (0.60,1.60)** 0.928**	0.803**
Waking Up Too Early and Can't Go Back to Sleep	9	0.87 (0.58,1.33) 0.528	0.94 (0.57,1.56) 0.823	0.80 (0.47,1.38) 0.422	0.830
Waking Up Unrefreshed	9	0.63 (0.37,1.06) 0.083	0.94 (0.54,1.65) 0.833	1.19 (0.71,1.99) 0.519	0.230
Involuntarily Falling Asleep During the Day	9	1.08 (0.53,2.20) 0.837	0.77 (0.29,2.06) 0.604	1.43 (0.64,3.17) 0.382	0.736

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Great or Disabling Fatigue During the Day	9	0.90 (0.35,2.29) 0.819	1.85 (0.82,4.21) 0.141	0.95 (0.36,2.47) 0.909	0.475
Frightening Dreams	9	0.80 (0.35,1.80) 0.584	0.85 (0.32,2.26) 0.745	2.54 (1.28,5.02) 0.007	0.035
Talking in Sleep	9	1.03 (0.49,2.15) 0.938	0.67 (0.25,1.78) 0.425	1.45 (0.72,2.92) 0.303	0.532
Sleepwalking	9	1.34 (0.51,3.50) 0.548	0.34 (0.04,2.67) 0.308	1.54 (0.52,4.52) 0.436	0.416
Abnormal Movement/ Activity During the Night	9	0.60 (0.24,1.50) 0.276	1.73 (0.83,3.60) 0.143	0.80 (0.32,2.01) 0.635	0.200
Sleep Problems Requiring Med- ication	9	1.57 (0.60,4.07) 0.355	1.62 (0.56,4.69) 0.376	0.29 (0.04,2.26) 0.237	0.230
Snore Loudly in All Sleeping Positions	9	0.54 (0.29,1.00) 0.050	1.34 (0.76,2.39) 0.316	1.34 (0.74,2.44) 0.330	0.049
Insomnia	9	0.92 (0.67,1.25) 0.581	0.99 (0.68,1.44) 0.944	0.85 (0.57,1.28) 0.435	0.847
Overall Sleep Disorder Index	9	0.89 (0.67,1.17) 0.394	0.99 (0.71,1.39) 0.958	1.09 (0.77,1.55) 0.620	0.751

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
<u>SCL-90-R</u>					
Anxiety	9	0.90 (0.46,1.73) 0.746	1.43 (0.73,2.77) 0.295	1.64 (0.88,3.05) 0.119	0.320
Depression	9	0.92 (0.53,1.61) 0.780	1.10 (0.58,2.10) 0.765	1.70 (0.97,2.98) 0.064	0.286
Hostility	9	0.95 (0.46,1.94) 0.881	1.37 (0.65,2.89) 0.411	0.97 (0.44,2.15) 0.948	0.849
Interpersonal Sensitivity	9	0.70 (0.35,1.40) 0.311	0.83 (0.39,1.77) 0.635	1.11 (0.57,2.16) 0.768	0.681
Obsessive-Compulsive Behavior	9	0.71 (0.37,1.34) 0.291	1.32 (0.71,2.45) 0.378	1.45 (0.80,2.63) 0.221	0.240
Paranoid Ideation	9	0.96 (0.44,2.12) 0.922	1.60 (0.72,3.56) 0.246	0.67 (0.25,1.85) 0.444	0.490
Phobic Anxiety	9	0.45 (0.22,0.94) 0.033	1.19 (0.63,2.22) 0.595	0.90 (0.46,1.77) 0.764	0.092
Psychoticism	9	0.78 (0.45,1.37) 0.391	0.99 (0.53,1.83) 0.962	1.19 (0.67,2.10) 0.555	0.704
Somatization	9	1.05 (0.62,1.77)** 0.857**	1.16 (0.64,2.09)** 0.626**	1.49 (0.84,2.64)** 0.168**	0.597**
Global Severity Index	9	0.92 (0.50,1.71) 0.803	1.22 (0.64,2.35) 0.546	1.66 (0.93,2.97) 0.084	0.333

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Positive Symptom Total	9	0.92 (0.50,1.70) 0.785	1.19 (0.61,2.34) 0.608	1.60 (0.88,2.92) 0.123	0.429
Positive Symptom Distress Index	9	0.66 (0.38,1.15) 0.139	1.50 (0.88,2.54) 0.135	1.29 (0.74,2.26) 0.367	0.076
Viral Hepatitis	10	0.77 (0.58,1.01) 0.061	0.99 (0.71,1.38) 0.935	1.42 (1.01,2.00) 0.047	0.022
Chronic Liver Disease and Cirrhosis (Alcohol-Related)	10	1.51 (0.77,2.96) 0.229	0.96 (0.36,2.58) 0.935	1.72 (0.75,3.95) 0.202	0.449
Chronic Liver Disease and Cirrhosis (Nonalcohol-Related)	10	1.00 (0.26,3.91) 0.997	1.72 (0.44,6.72) 0.434	-- --	0.226
Other Disorders of the Liver	10	0.84 (0.49,1.44) 0.527	1.44 (0.82,2.53) 0.203	1.78 (1.03,3.07) 0.038	0.084
Viral Hepatitis ^a	10	1.01 (0.75,1.35) 0.963	0.82 (0.58,1.16) 0.251	1.03 (0.72,1.47) 0.859	0.667
Jaundice (Unspecified)	10	1.46 (0.67,3.15) 0.339	-- --	0.57 (0.13,2.50) 0.453	0.014
Hepatomegaly	10	0.39 (0.11,1.33) 0.131	1.47 (0.57,3.79) 0.430	1.69 (0.60,4.75) 0.323	0.136

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Ulcer	10	1.03 (0.62,1.69) 0.922	0.62 (0.30,1.28) 0.195	1.24 (0.69,2.25) 0.468	0.408
Skin Bruises, Patches, or Sensitivity	10	1.56 (1.15,2.12) 0.005	1.71 (1.19,2.46) 0.004	2.20 (1.52,3.18) <0.001	<0.001
Current Hepatomegaly	10	-- --	1.11 (0.31,4.04) 0.869	2.42 (0.81,7.29) 0.115	0.006
AST	10	1.05 (0.51,2.15) 0.893	0.93 (0.38,2.30) 0.877	1.22 (0.55,2.72) 0.623	0.959
ALT	10	0.89 (0.58,1.37) 0.592	1.32 (0.82,2.12) 0.256	1.29 (0.81,2.07) 0.282	0.391
GGT	10	0.95 (0.54,1.65)** 0.844**	1.82 (1.03,3.22)** 0.039**	2.00 (1.13,3.56)** 0.018**	0.033**
Alkaline Phosphatase	10	0.88 (0.46,1.69) 0.694	0.91 (0.43,1.94) 0.809	1.11 (0.53,2.32) 0.777	0.950
D-Glucaric Acid	10	-- --	-- --	-- --	--
Total Bilirubin	10	0.77 (0.37,1.61) 0.486	1.05 (0.47,2.36) 0.900	0.11 (0.01,0.81) 0.030	0.018
Direct Bilirubin	10	0.61 (0.28,1.35) 0.224	1.06 (0.47,2.36) 0.891	0.61 (0.23,1.61) 0.317	0.461

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
LDH	10	--	--	--	--
		--	--	--	
Cholesterol	10	1.56 (1.08,2.24) 0.018	1.16 (0.72,1.88) 0.545	1.13 (0.69,1.84) 0.629	0.141
HDL	10	1.01 (0.50,2.02)** 0.978**	1.12 (0.50,2.51)** 0.778**	1.42 (0.67,3.00)** 0.356**	0.834**
Cholesterol-HDL Ratio	10	0.80 (0.61,1.04) 0.091	1.23 (0.89,1.70) 0.202	1.33 (0.96,1.85) 0.087	0.023
Triglycerides	10	0.56 (0.29,1.11)** 0.097**	1.81 (1.01,3.22)** 0.045**	2.55 (1.46,4.45)** 0.001**	<0.001**
Creatine Kinase	10	0.76 (0.43,1.35)** 0.345**	0.56 (0.26,1.20)** 0.134**	0.48 (0.21,1.10)** 0.083**	0.154**
Occurrence of Acne (Lifetime)	11	1.07 (0.83,1.39) 0.596	1.16 (0.84,1.59) 0.357	0.91 (0.65,1.25) 0.552	0.638
Acne Relative to SEA Tour (Pre/Post-SEA and Post-SEA vs. Pre-SEA and None)	11	1.05 (0.81,1.35)** 0.725**	1.18 (0.86,1.63)** 0.295**	0.97 (0.70,1.34)** 0.858**	0.732**
Acne Relative to SEA Tour (Post-SEA vs. None)	11	1.09 (0.83,1.42) 0.554	1.19 (0.85,1.66) 0.300	0.94 (0.66,1.33) 0.727	0.660

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Acne Relative to SEA Tour (Pre/Post-SEA vs. Pre-SEA)	11	0.76 (0.29,1.99) 0.582	1.32 (0.34,5.06) 0.690	4.13 (0.51,33.66) 0.185	0.336
Location of Acne (Post-SEA)	11	1.93 (1.19,3.14) 0.008	1.36 (0.74,2.51) 0.327	1.04 (0.52,2.06) 0.921	0.060
Location of Acne (Pre/Post-SEA and Post-SEA)	11	1.55 (1.02,2.36) 0.039	1.09 (0.64,1.84) 0.757	0.94 (0.54,1.65) 0.840	0.193
Comedones	11	0.92 (0.67,1.25) 0.575	1.05 (0.72,1.52) 0.807	0.92 (0.61,1.38) 0.685	0.898
Acneiform Lesions	11	0.63 (0.39,1.01) 0.055	1.03 (0.63,1.70) 0.893	0.68 (0.39,1.18) 0.170	0.137
Acneiform Scars	11	1.27 (0.82,1.95) 0.284	1.58 (0.96,2.60) 0.070	1.53 (0.92,2.52) 0.098	0.182
Depigmentation	11	0.86 (0.48,1.53) 0.610	0.98 (0.50,1.94) 0.965	1.50 (0.80,2.83) 0.209	0.536
Inclusion Cysts	11	1.19 (0.80,1.77) 0.384	1.51 (0.95,2.38) 0.080	0.63 (0.33,1.18) 0.148	0.070
Hyperpigmentation	11	0.68 (0.46,1.00) 0.052	0.87 (0.56,1.36) 0.541	1.35 (0.89,2.03) 0.157	0.049
Other Abnormalities	11	1.17 (0.86,1.60) 0.324	0.88 (0.61,1.26) 0.477	1.02 (0.71,1.47) 0.922	0.583

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Dermatology Index	11	1.02 (0.78,1.33) 0.900	1.29 (0.93,1.78) 0.122	0.98 (0.70,1.37) 0.896	0.459
Reported/Verified Essential Hypertension	12	0.90 (0.66,1.23)** 0.525**	1.26 (0.87,1.82)** 0.218**	1.45 (0.98,2.15)** 0.065**	0.125**
Reported/Verified Essential Hypertension ^b	12	0.78 (0.58,1.04)** 0.094**	1.27 (0.90,1.81)** 0.178**	1.70 (1.17,2.49)** 0.006**	0.002**
Reported Heart Disease (Excluding Essential Hypertension)	12	1.30 (0.99,1.71) 0.055	0.98 (0.70,1.38) 0.916	0.69 (0.47,1.02) 0.062	0.024
Verified Heart Disease (Excluding Essential Hypertension)	12	1.29 (0.99,1.70) 0.062	0.99 (0.70,1.39) 0.945	0.67 (0.45,1.00) 0.049	0.021
Reported/Verified Myocardial Infarction	12	**** ****	**** ****	**** ****	****
Systolic Blood Pressure	12	**** ****	**** ****	**** ****	****
Heart Sounds	12	0.69 (0.33,1.44) 0.325	0.53 (0.18,1.52) 0.237	1.19 (0.48,3.00) 0.707	0.438
Overall ECG	12	0.72 (0.50,1.05)	1.01 (0.65,1.57)	1.01 (0.61,1.67)	0.342

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
ECG: RBBB	12	0.79 (0.14,4.38) 0.791	1.97 (0.37,10.60) 0.429	-- --	0.649
ECG: LBBB	12	-- --	-- --	-- --	--
ECG: Nonspecific T-Waves	12	0.75 (0.46,1.22) 0.246	1.20 (0.71,2.01) 0.492	1.35 (0.76,2.39) 0.299	0.297
ECG: Bradycardia	12	1.01 (0.56,1.81)** 0.986**	0.57 (0.24,1.39)** 0.217**	0.45 (0.16,1.30)** 0.141**	0.256**
ECG: Bradycardia ^c	12	1.08 (0.61,1.94)** 0.785**	0.56 (0.23,1.36)** 0.203**	0.41 (0.14,1.17)** 0.095**	0.142**
ECG: Arrythmia	12	1.33 (0.68,2.58) 0.404	0.83 (0.31,2.23) 0.712	2.34 (1.00,5.51) 0.051	0.238
ECG: Other Diagnoses	12	0.95 (0.67,1.35) 0.776	1.07 (0.70,1.64) 0.751	0.53 (0.29,0.96) 0.036	0.140
Diastolic Blood Pressure	12	0.78 (0.37,1.62) 0.501	1.61 (0.80,3.22) 0.180	1.17 (0.52,2.63) 0.701	0.413
Funduscopy Examination	12	1.70 (0.37,7.85)** 0.496**	0.94 (0.10,8.57)** 0.953**	1.72 (0.18,16.74)** 0.639**	0.892**
Carotid Bruits	12	2.75 (0.73,10.36) 0.134	2.12 (0.38,11.74) 0.389	-- --	0.234