

APPENDIX J-2.

Interaction Tables for the Dermatologic Assessment

This appendix contains results of exposure analyses of interactions between covariates and group or dioxin. Results are presented for separate strata of the covariate and include sample sizes, percent abnormal, relative risks, confidence intervals, and p-values. Chapter 7, Statistical Methods, provides further details on the analytical approaches used in the interaction analyses. The covariate involved in the interaction and a reference to the analysis table in Chapter 14 are given in the heading of each subtable. A summary of the interactions described in this appendix follows.

Appendix J-2 Table	Chapter 14 Table	Dependent Variable	Model	Covariate
J-2-1	14-6	Acne Relative to Time of Duty in SEA (Pre- & Post-SEA vs. Pre-SEA)	1	Age, Occupation
J-2-2	14-11	Other Abnormalities	2	Presence of Pre-SEA Acne
J-2-3	14-12	Dermatology Index	1 3	Age Age

Table J-2-1.
Interaction Table for Acne Relative to Time of Duty in SEA
(Pre- and Post-SEA vs. Pre-SEA)

a) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED (Group-by-Age: Table 14-6)						
Stratum	Occupational Category	Group	n	Percent Pre- & Post-SEA	Adj. Relative Risk (95% C.I.)	p-Value
<i>Born ≥ 1942</i>	<i>All</i>	<i>Ranch Hand</i>	<i>56</i>	<i>92.9</i>	--	--
		<i>Comparison</i>	<i>84</i>	<i>97.6</i>		
<i>Born < 1942</i>	<i>All</i>	<i>Ranch Hand</i>	<i>37</i>	<i>100.0</i>	--	--
		<i>Comparison</i>	<i>48</i>	<i>95.8</i>		
Born ≥ 1942	Officer	Ranch Hand	14	85.7	--	--
		Comparison	20	100.0		
	Enlisted Flyer	Ranch Hand	5	60.0	--	--
		Comparison	10	100.0		
	Enlisted Groundcrew	Ranch Hand	37	100.0	--	--
		Comparison	54	96.3		
Born < 1942	Officer	Ranch Hand	18	100.0	--	--
		Comparison	32	96.9		
	Enlisted Flyer	Ranch Hand	12	100.0	--	--
		Comparison	7	100.0		
	Enlisted Groundcrew	Ranch Hand	7	100.0	--	--
		Comparison	9	88.9		

--: Relative risk, confidence interval, and p-value not presented due to sparse number of participants with pre-SEA acne only.

**Table J-2-2.
Interaction Table for Other Abnormalities**

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED (Initial Dioxin-by-Presence of Pre-SEA Acne: Table 14-11)					
Initial Dioxin Category Summary Statistics				Analysis Results for Log₂ (Initial Dioxin)	
Stratum	Initial Dioxin	n	Percent Abnormal	Adjusted Relative Risk (95% C.I.)^a	p-Value
No Pre-SEA Acne	Low	159	84.9	0.83 (0.65,1.05)	0.113
	Medium	154	85.7		
	High	157	80.3		
Pre-SEA Acne	Low	15	73.3	2.61 (1.23,5.52)	0.012
	Medium	19	57.9		
	High	16	87.5		

^a Relative risk for a twofold increase in initial dioxin.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

**Table J-2-3.
Interaction Table for Dermatology Index**

a) MODEL 1: RANCH HANDS VS. COMPARISONS – ADJUSTED (Group-by-Age: Table 14-12)																																																																							
Stratum	Occupational Category	Group	n	Percent Abnormal	Adj. Relative Risk (95% C.I.)	p-Value																																																																	
<i>Born ≥ 1942</i>	<i>All</i>	<i>Ranch Hand</i>	396	48.2	<i>1.16 (0.89,1.51)</i>	<i>0.269</i>																																																																	
		<i>Comparison</i>	560	44.6			<i>Born < 1942</i>	<i>All</i>	<i>Ranch Hand</i>	556	40.6	<i>0.80 (0.64,1.01)</i>	<i>0.058</i>	<i>Comparison</i>	720	45.8	Born ≥ 1942	Officer	Ranch Hand	79	43.0	1.22 (0.81,1.83)	0.339	Comparison	121	38.8	Enlisted Flyer	Ranch Hand	38	42.1	0.89 (0.53,1.47)	0.637	Comparison	59	52.5		Enlisted Groundcrew	Ranch Hand	279	50.5	1.19 (0.89,1.58)	0.234	Comparison	380	45.3	Born < 1942	Officer	Ranch Hand	288	36.8	0.87 (0.65,1.16)	0.327	Comparison	381	40.2	Enlisted Flyer	Ranch Hand	124	45.2	0.63 (0.41,0.97)	0.034	Comparison	143	53.8		Enlisted Groundcrew	Ranch Hand	144	44.4	0.84 (0.59,1.21)	0.350
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Table J-2-3. (Continued)
Interaction Table for Dermatology Index

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED (Dioxin Category-by-Age: Table 14-12)					
Stratum	Dioxin Category	n	Percent Abnormal	Adjusted Relative Risk (95% C.I.)	p-Value
Born ≥ 1942	Comparison	454	43.0		
	Background RH	128	50.0	1.60 (1.06,2.41)	0.024
	Low RH	85	50.6	1.32 (0.82,2.11)	0.258
	High RH	154	44.2	0.97 (0.66,1.41)	0.856
	Low plus High RH	239	46.4	1.08 (0.78,1.49)	0.638
Born < 1942	Comparison	608	46.2		
	Background RH	246	45.1	1.08 (0.80,1.47)	0.605
	Low RH	175	35.4	0.61 (0.43,0.87)	0.006
	High RH	106	38.7	0.59 (0.38,0.91)	0.018
	Low plus High RH	281	36.7	0.60 (0.45,0.81)	0.001

Note: Model 3: RH = Ranch Hand.
 Comparison: Current Dioxin ≤ 10 ppt.
 Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
 Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
 High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.