

TABLE R-2. (continued)

Summary of Unadjusted Group Contrast Results for Continuous Variables

Clinical Parameter	Reference Chapter	Group Mean		Percent Relative Difference	p-Value
		Ranch Hand	Comparison		
RBC (million/cubic mm)	16	4.939	4.954	-0.3	0.333
WBC (thousand/cubic mm) ^a	16	6.875	6.703	2.6	0.038
Hemoglobin (gm/dl)	16	15.677	15.662	0.1	0.741
Hematocrit (percent)	16	45.201	45.175	0.1	0.850
MCV (cubic micra)	16	91.613	91.315	0.3	0.151
MCH (micromicrogram)	16	31.795	31.686	0.3	0.150
MCHC (gm/dl)	16	34.681	34.672	0.03	0.715
Platelet Count (thousand/cubic mm)	16	265.47	259.62	2.3	0.017
Blood Urea Nitrogen (mg/dl) ^c	17	14.6	14.7	-0.7	0.339
Urine Specific Gravity	17	1.0198	1.0200	-0.02	0.477
T ₄ % Uptake ^a	18	30.5	30.5	0.0	0.930
TSH (mIU/ml) ^f	18	1.01	0.97	4.1	0.099
FSH (mIU/ml) ^a	18	7.85	7.60	3.3	0.289
Testosterone (ng/dl) ^c	18	533.1	526.1	1.3	0.304
2-Hour Postprandial Glucose (mg/dl) ^a	18	110.7	110.3	0.4	0.758
CD2 Cells (cells/cubic mm) ^a	19	1,604.4	1,597.3	0.4	0.857
CD4 Cells (cells/cubic mm) ^a	19	904.0	893.6	1.2	0.683
CD8 Cells (cells/cubic mm) ^a	19	485.7	477.7	1.7	0.632
CD20 Cells (cells/cubic mm) ^a	19	155.2	151.8	2.2	0.576
CD14 Cells (cells/cubic mm) ^a	19	31.2	31.7	-1.6	0.731
CD25 Cells (cells/cubic mm) ^{a,g}	19	12.0	12.9	-7.0	0.362
HLA-DR Cells (cells/cubic mm) ^a	19	435.6	423.4	2.9	0.327
CD4/CD8 Ratio ^a	19	1.84	1.88	-2.1	0.537
TLC (cpm)	19	2,008	1,983	1.3	0.790
IgA (mg/dl)	19	207.29	210.55	-1.5	0.406
IgG (mg/dl)	19	1,036.1	1,048.8	-1.2	0.205
IgM (mg/dl)	19	111.20	110.79	0.4	0.855
Unstimulated PHA Response (cpm) ^a	19	1,965	1,979	-0.7	0.840
PHA Net Responses (cpm)					
Day 1, Concentration 1	19	100,142	100,483	-0.3	0.915
Day 1, Concentration 2	19	160,626	160,741	-0.1	0.976
Day 1, Concentration 3	19	147,511	145,368	1.5	0.538
Day 2, Concentration 1	19	159,602	162,849	-2.0	0.337
Day 2, Concentration 2	19	179,173	181,369	-1.2	0.511
Day 2, Concentration 3	19	127,510	127,034	0.4	0.886
Overall PHA Net Response (cpm)	19	145,509	146,038	-0.4	0.841
Maximum PHA Net Response (cpm)	19	205,322	205,072	0.1	0.506

TABLE R-2. (continued)

Summary of Unadjusted Group Contrast Results for Continuous Variables

Clinical Parameter	Reference Chapter	Group Mean		Percent Relative Difference	p-Value
		Ranch Hand	Comparison		
Fresh MLC Net Response (cpm)	19	87,966	86,693	1.5	0.647
NKCA 50/1 Ratio Net Response (cpm)	19	410.6	420.9	-2.4	0.435
NKCA 50/1 Ratio Percent Release	19	35.2	35.8	-1.7	0.569
NKCI 50/1 Ratio Net Response (cpm)	19	807.5	813.2	-0.7	0.462
NKCI 50/1 Ratio Percent Release	19	66.4	67.1	-1.0	0.270
Unstimulated Fresh MLC Response (cpm) ^a	19	4,067	3,813	6.7	0.221
FVC (% of predicted)	20	96.5	97.0	-0.5	0.368
FEV ₁ (% of predicted)	20	97.3	97.9	-0.6	0.329
FEV ₂ (% of predicted)	20	95.4	96.0	-0.6	0.330
FEV ₃ (% of predicted)	20	95.3	95.9	-0.6	0.336
FEFmax (% of predicted)	20	136.6	137.5	-0.7	0.344
Ratio of Observed FEV ₁ to Observed FVC ^b	20	0.813	0.814	-0.1	0.816

Note: Relative Difference = $100 * (\text{Ranch Hand mean} - \text{Comparison mean}) / \text{Comparison mean}$.

^aTransformed from natural logarithm scale.

^bTransformed from natural logarithm (X+1) scale.

^cTransformed from square root scale.

^dTransformed from square scale.

^eTransformed from natural logarithm (X+0.1) scale.

^fTransformed from natural logarithm (X-0.4) scale; data ≥ 0.5 μIU only.

^gData > 0 cells/cubic mm only.

^hTransformed from natural logarithm (1-X) scale.

TABLE R-3.

Summary of Adjusted Group Contrast Results for Dichotomous Variables

Clinical Parameter	Reference Chapter	Percent Abnormal Group		Adj. Relative Risk (95% C.I.)
		Ranch Hand	Comparison	
Self-Perception of Health	9	6.7	6.7	1.01 (0.72,1.42)
Appearance of Illness or Distress	9	0.9	0.5	1.67 (0.62,4.52)
Relative Age	9	5.5	5.8	0.94 (0.66,1.34)
Percent Body Fat	9	19.3	22.0	0.84 (0.69,1.04)
Sedimentation Rate	9	7.0	4.2	1.70 (1.17,2.48)
Basal Cell Carcinoma (V)	10	8.3	6.2	1.46 (1.04,2.06)
Basal Cell Carcinoma (VS)	10	8.4	6.6	1.39 (1.00,1.95)
Sun Exposure-Related (V)	10	9.4	6.9	1.48 (1.07,2.04)
Sun Exposure-Related (VS)	10	9.5	7.3	1.39 (1.01,1.91)
Malignant Systemic (V)	10	2.1	1.6	1.23 (0.66,2.29)
Malignant Systemic (VS)	10	2.1	1.8	1.11 (0.60,2.06)
Palpebral Fissure	11	1.4	1.4	0.97 (0.47,1.99)**
Neck Range of Motion	11	12.1	10.7	1.13 (0.86,1.49)
Cranial Nerve Index	11	15.5	14.5	1.05 (0.82,1.34)
Cranial Nerve Index Without Range of Motion	11	4.3	4.5	****
Prick	11	6.4	6.2	1.01 (0.71,1.43)
Light Touch	11	4.5	4.5	0.98 (0.65,1.48)
Muscle Status	11	2.4	2.0	1.17 (0.66,2.07)
Vibration	11	1.9	1.3	1.44 (0.73,2.86)**
Patellar Reflex	11	1.6	1.6	0.97 (0.50,1.89)
Achilles Reflex	11	5.8	6.0	0.84 (0.58,1.22)
Tremor	11	3.5	2.5	1.50 (0.91,2.47)
Coordination	11	1.5	0.6	2.49 (1.04,6.00)**

TABLE R-3. (continued)

Summary of Adjusted Group Contrast Results for Dichotomous Variables

Clinical Parameter	Reference Chapter	Percent Abnormal Group		Adj. Relative Risk (95% C.I.)
		Ranch Hand	Comparison	
Gait	11	3.2	2.6	1.21 (0.72,2.01)
CNS Index	11	6.7	5.0	1.34 (0.94,1.93)
Trouble Falling Asleep	12	10.5	11.8	0.81 (0.61,1.08)
Waking Up During Night	12	13.8	14.8	****
Waking Up Too Early and Can't Go Back to Sleep	12	11.4	10.7	1.02 (0.77,1.34)
Waking Up Unrefreshed	12	10.1	8.9	1.07 (0.79,1.44)
Involuntarily Falling Asleep During the Day	12	4.2	3.8	1.09 (0.69,1.70)
Great or Disabling Fatigue During the Day	12	3.8	2.2	1.65 (0.97,2.81)
Frightening Dreams	12	5.0	4.0	1.23 (0.80,1.90)
Talking in Sleep	12	4.8	3.1	****
Sleepwalking	12	2.3	1.5	1.48 (0.78,2.80)
Abnormal Movement/Activity During the Night	12	3.7	3.2	1.16 (0.71,1.88)**
Sleep Problems Requiring Medication	12	2.6	1.8	1.02 (0.55,1.89)
Snore Loudly in All Sleeping Positions	12	7.6	6.9	1.05 (0.75,1.48)
Insomnia	12	23.5	24.1	0.96 (0.78,1.18)**
Overall Sleep Disorder Index	12	35.3	33.9	1.06 (0.88,1.27)**

TABLE R-3. (continued)

Summary of Adjusted Group Contrast Results for Dichotomous Variables

Clinical Parameter	Reference Chapter	Percent Abnormal Group		Adj. Relative Risk (95% C.I.)
		Ranch Hand	Comparison	
SCL-90-R				
Anxiety	12	7.6	5.9	1.20 (0.81,1.77)
Depression	12	9.8	7.6	1.17 (0.83,1.65)
Hostility	12	5.2	4.6	****
Interpersonal Sensitivity	12	6.6	6.4	0.90 (0.61,1.33)
Obsessive-Compulsive Behavior	12	8.4	7.6	1.07 (0.76,1.51)
Paranoid Ideation	12	4.5	3.7	0.99 (0.61,1.61)
Phobic Anxiety	12	6.9	7.0	0.87 (0.59,1.27)
Psychoticism	12	9.3	8.6	1.01 (0.72,1.40)
Somatization	12	10.7	8.2	1.21 (0.88,1.67)**
GSI	12	8.9	6.7	1.20 (0.84,1.73)
PSDI	12	10.0	9.1	0.97 (0.71,1.32)**
PST	12	8.3	6.8	1.13 (0.78,1.62)
Verified Ulcer	13	7.1	7.3	0.98 (0.71,1.35)
Diagnosed Hepatomegaly (Physical Examination)	13	1.1	1.2	0.95 (0.43,2.07)**
AST	13	4.9	4.2	1.23 (0.82,1.84)
ALT	13	12.2	11.2	1.14 (0.88,1.49)
GGT	13	8.4	8.1	1.07 (0.78,1.46)
Alkaline Phosphatase	13	4.9	4.8	1.03 (0.70,1.52)
Total Bilirubin	13	2.8	3.7	0.75 (0.47,1.21)**
Direct Bilirubin	13	3.5	4.4	****
LDH	13	1.2	1.2	0.98 (0.46,2.08)

TABLE R-3. (continued)

Summary of Adjusted Group Contrast Results for Dichotomous Variables

Clinical Parameter	Reference Chapter	Percent Abnormal Group		Adj. Relative Risk (95% C.I.)
		Ranch Hand	Comparison	
Cholesterol	13	14.3	12.3	1.18 (0.93,1.51)
HDL	13	0.9	1.0	1.01 (0.42,2.45)
Cholesterol-HDL Ratio	13	43.8	41.8	1.07 (0.90,1.27)
Triglycerides	13	6.7	5.4	1.28 (0.90,1.82)
Creatine Kinase	13	5.8	7.5	0.76 (0.53,1.08)
Fasting Glucose	13	12.2	13.0	0.93 (0.72,1.20)
Comedones	14	21.4	22.9	0.92 (0.75,1.12)**
Acneiform Lesions	14	10.2	11.2	0.90 (0.68,1.18)
Acneiform Scars	14	11.9	10.7	1.10 (0.84,1.43)
Depigmentation	14	6.6	6.4	1.04 (0.74,1.45)
Inclusion Cysts	14	10.6	10.5	1.00 (0.76,1.31)
Hyperpigmentation	14	14.7	16.8	0.86 (0.68,1.09)
Other Abnormalities	14	76.3	74.6	1.08 (0.89,1.32)
Reported/Verified				
Essential Hypertension	15	33.8	32.3	1.09 (0.90,1.33)
Reported Heart Disease	15	38.7	37.2	1.08 (0.90,1.30)
Verified Heart Disease	15	38.4	37.1	1.07 (0.89,1.29)
Reported/Verified				
Myocardial Infarction	15	4.4	4.6	0.92 (0.59,1.43)**
Systolic Blood Pressure	15	19.4	20.5	0.94 (0.75,1.19)**
Heart Sounds	15	4.0	4.6	0.86 (0.56,1.34)
ECG-Overall	15	15.7	17.8	0.86 (0.67,1.09)
RBBB	15	0.5	0.7	0.66 (0.20,2.21)
Nonspecific T-Waves	15	10.6	11.3	****
Bradycardia	15	4.2	6.2	0.69 (0.46,1.04)

TABLE R-3. (continued)

Summary of Adjusted Group Contrast Results for Dichotomous Variables

Clinical Parameter	Reference Chapter	Percent Abnormal Group		Adj. Relative Risk (95% C.I.)
		Ranch Hand	Comparison	
Arrhythmia	15	4.7	3.4	1.56 (0.98,2.49)
ECG-Other Diagnosis	15	18.0	19.0	0.93 (0.74,1.17)
Diastolic Blood Pressure	15	4.9	4.3	1.12 (0.74,1.72)**
Femoral Pulses	15	2.2	0.9	2.52 (1.15,5.56)
Popliteal Pulses	15	3.4	2.6	1.24 (0.73,2.11)
Dorsalis Pedis Pulses	15	12.4	9.8	1.29 (0.97,1.72)
Posterior Tibial Pulses	15	3.5	2.6	****
Leg Pulses	15	15.3	12.2	1.27 (0.97,1.66)
Peripheral Pulses	15	15.4	12.7	1.23 (0.94,1.60)
All Pulses	15	15.4	12.7	1.23 (0.94,1.60)
RBC (Low vs. Normal)	16	3.7	3.7	1.02 (0.67,1.54)
RBC (High vs. Normal)	16	0.8	1.3	0.77 (0.38,1.55)
WBC (Low vs. Normal)	16	5.5	7.0	0.80 (0.57,1.12)
WBC (High vs. Normal)	16	5.1	5.8	0.87 (0.62,1.24)
Hemoglobin (Low vs. Normal)	16	4.0	3.9	1.08 (0.72,1.62)
Hemoglobin (High vs. Normal)	16	1.4	1.5	1.03 (0.56,1.90)
Hematocrit ^a	16	2.0	2.1	1.03 (0.60,1.75)
MCV (Low vs. Normal)	16	1.2	1.2	1.09 (0.57,2.11)
MCV (High vs. Normal)	16	11.1	10.1	1.10 (0.84,1.44)
MCH (Low vs. Normal)	16	0.7	0.5	1.34 (0.60,3.01)
MCH (High vs. Normal)	16	8.0	7.9	1.01 (0.75,1.37)
Platelet Count ^b	16	2.9	1.6	1.92 (1.08,3.41)
History of Kidney Disease/Stones	17	10.9	11.0	0.98 (0.75,1.27)
Urinary Protein	17	4.7	4.6	1.02 (0.68,1.52)**

TABLE R-3. (continued)

Summary of Adjusted Group Contrast Results for Dichotomous Variables

Clinical Parameter	Reference Chapter	Percent Abnormal Group		Adj. Relative Risk (95% C.I.)
		Ranch Band	Comparison	
Urinary Occult Blood	17	8.3	7.2	1.17 (0.86,1.59)**
Urinary White Blood Cell Count	17	7.1	7.1	1.01 (0.73,1.39)
T ₃ Uptake	18	4.0	3.5	1.14 (0.73,1.77)
TSH	18	2.1	1.9	1.09 (0.60,1.98)
Testosterone	18	1.9	1.5	****
Composite Diabetes Indicator	18	9.3	8.8	1.10 (0.81,1.49)**
Skin Test	19	6.8	4.2	1.73 (1.13,2.64)**
Asthma	20	5.8	4.8	1.29 (0.89,1.87)
Bronchitis	20	18.8	18.5	1.01 (0.82,1.25)
Pleurisy	20	6.0	5.9	1.02 (0.72,1.44)
Pneumonia	20	22.1	24.7	****
Thorax and Lungs	20	7.4	5.0	1.39 (0.97,2.00)
Hyperresonance	20	4.0	2.7	1.36 (0.84,2.20)**
Wheezes	20	3.0	1.9	1.37 (0.79,2.38)
Rales	20	1.4	1.2	1.05 (0.50,2.21)
X Ray	20	4.8	5.5	0.84 (0.57,1.23)**

V: Verified neoplastic conditions only.

VS: Verified and suspected neoplastic conditions combined.

^aLow vs. normal/high.^bHigh vs. normal/low.**Group-by-covariate interaction ($0.01 < p < 0.05$); adjusted relative risk and confidence interval derived from a model fitted after deletion of the interaction.****Group-by-covariate interaction ($p < 0.01$); adjusted relative risk and confidence interval not presented.

TABLE R-4.

Summary of Adjusted Group Contrast Results for Continuous Variables

Clinical Parameter	Reference Chapter	Adjusted Mean Group		Percent Relative Difference	p-Value
		Ranch Hand	Comparison		
Percent Body Fat	9	21.58	21.80	-1.0	0.314
Sedimentation Rate (mm/hr) ^a	9	5.32	5.16	3.1	0.413
Average Sleep Each Night (hours)	12	6.39	6.42	-0.5	0.509
MCMI					
Schizoid Score ^a	12	44.2	43.9	0.7	0.788
Avoidant Score ^b	12	****	****	****	****
Dependent Score ^c	12	46.2	48.3	-4.3	0.020**
Histrionic Score ^d	12	62.4	62.7	-0.5	0.607**
Narcissistic Score	12	57.5	53.9	6.7	0.015
Antisocial Score	12	61.9	59.1	4.7	0.001
Compulsive Score ^d	12	58.6	58.8	-0.3	0.791**
Passive-Aggressive Score ^c	12	46.6	45.5	2.4	0.270**
Schizotypal Score	12	51.7	52.3	-1.1	0.446**
Borderline Score	12	51.1	52.6	-2.9	0.050**
Paranoid Score	12	55.0	53.4	3.0	0.014
Anxiety Score	12	****	****	****	****
Somatoform Score	12	68.6	69.4	-1.2	0.321
Hypomania Score ^c	12	30.7	30.1	2.0	0.646
Dysthymia Score	12	68.6	70.0	-2.0	0.166
Alcohol Abuse Score	12	49.6	49.1	1.0	0.475**
Drug Abuse Score	12	65.3	64.1	1.9	0.131
Psychotic Thinking Score	12	49.7	50.4	-1.4	0.443
Psychotic Depression Score	12	****	****	****	****
Psychotic Delusion Score	12	50.9	49.3	3.2	0.062

TABLE R-4. (continued)

Summary of Adjusted Group Contrast Results for Continuous Variables

Clinical Parameter	Reference Chapter	Adjusted Mean Group		Percent Relative Difference	p-Value
		Ranch Hand	Comparison		
AST (U/L) ^a	13	26.7	26.5	0.8	0.453
ALT (U/L) ^a	13	20.8	20.7	0.5	0.915**
GGT (U/L) ^a	13	37.6	36.7	2.5	0.365
Alkaline Phosphatase (U/L) ^a	13	93.4	89.9	3.9	<0.001
Total Bilirubin (mg/dl) ^a	13	0.778	0.784	-0.8	0.622
Direct Bilirubin (mg/dl) ^a	13	0.156	0.156	0.0	0.985**
LDH (U/L) ^a	13	127.3	127.1	0.2	0.804
Cholesterol (mg/dl) ^a	13	216.2	215.0	0.6	0.437
HDL (mg/dl)	13	48.31	47.71	1.3	0.648**
Cholesterol-HDL Ratio	13	4.77	4.89	-2.5	0.509
Triglycerides (mg/dl) ^a	13	107.8	105.6	2.1	0.459
Creatine Kinase (U/L) ^a	13	145.4	143.4	1.4	0.500
Fasting Glucose (mg/dl) ^a	13	102.5	102.0	0.5	0.534
Systolic Blood Pressure (mm Hg)	15	128.60	128.18	0.3	0.579
Diastolic Blood Pressure (mm Hg)	15	75.19	74.51	0.9	0.100**
RBC (million/cubic mm)	16	4.935	4.952	-0.3	0.284
WBC (thousand/cubic mm) ^a	16	6.567	6.485	1.3	0.214
Hemoglobin (gm/dl)	16	15.556	15.566	-0.1	0.810
Hematocrit (percent)	16	45.086	45.142	-0.1	0.662
MCV (cubic micra)	16	90.502	90.316	0.2	0.342
MCH (micromicrogram)	16	31.170	31.096	0.2	0.305
MCHC (gm/dl)	16	34.484	34.472	0.03	0.588
Platelet Count (thousand/cubic mm)	16	264.77	259.06	2.2	0.018

TABLE R-4. (continued)

Summary of Adjusted Group Contrast Results for Continuous Variables

Clinical Parameter	Reference Chapter	Adjusted Mean Group		Percent Relative Difference	p-Value
		Ranch Hand	Comparison		
Blood Urea Nitrogen (mg/dl) ^c	17	14.1	14.3	-1.4	0.229**
Urine Specific Gravity	17	1.0198	1.0196	0.02	0.497
T ₃ % Uptake ^a	18	30.6	30.6	0.0	0.941
TSH (μU/ml) ^f	18	0.96	0.93	3.2	0.092
FSH (μIU/ml) ^a	18	7.82	7.62	2.6	0.290
Testosterone (mg/dl) ^c	18	532.4	526.2	1.2	0.345
2-Hour Postprandial Glucose (mg/dl) ^a	18	111.1	110.5	0.5	0.643
CD2 Cells (cells/cubic mm) ^a	19	1,621.4	1,602.0	1.2	0.610
CD4 Cells (cells/cubic mm) ^a	19	910.8	891.2	2.2	0.411
CD8 Cells (cells/cubic mm) ^a	19	487.2	476.4	2.3	0.512
CD20 Cells (cells/cubic mm) ^a	19	174.3	170.7	2.1	0.569
CD14 Cells (cells/cubic mm) ^a	19	28.0	28.6	-2.1	0.690
CD25 Cells (cells/cubic mm) ^{a, g}	19	12.0	12.9	-7.0	0.350
HLA-DR Cells (cells/cubic mm) ^a	19	436.2	423.2	3.1	0.268
CD4/CD8 Ratio ^a	19	1.84	1.87	-1.6	0.707
TLC (cpm)	19	2,006	1,982	1.2	0.597
IgG (mg/dl)	19	1,115.3	1,123.3	-0.7	0.406
IgA (mg/dl)	19	216.76	219.52	-1.3	0.499
IgM (mg/dl)	19	108.23	103.91	4.2	0.876
Unstimulated PHA Response (cpm) ^a	19	2,182	2,176	0.3	0.933
PHA Net Responses (cpm)					
Day 1, Concentration 1	19	107,678	106,996	0.6	0.817**
Day 1, Concentration 2	19	169,663	167,524	1.3	0.540
Day 1, Concentration 3	19	152,113	147,780	2.9	0.185

TABLE R-4. (continued)

Summary of Adjusted Group Contrast Results for Continuous Variables

Clinical Parameter	Reference Chapter	Adjusted Mean Group		Percent Relative Difference	p-Value
		Ranch Hand	Comparison		
Day 2, Concentration 1	19	160,389	162,777	-1.5	0.474
Day 2, Concentration 2	19	179,568	180,306	-0.4	0.820
Day 2, Concentration 3	19	136,095	134,758	1.0	0.683
Overall PHA Net Response (cpm)	19	151,983	151,085	0.6	0.720
MLC Net Response (cpm)	19	93,751	92,383	1.5	0.617**
Maximum PHA Net Response (cpm)	19	203,157	203,488	-0.2	0.914
NKCA 50/1 Net Response (cpm)	19	409.5	418.4	-2.1	0.494**
NKCA 50/1 Percent Release	19	35.1	35.5	-1.1	0.710**
NKCI 50/1 Net Response (cpm)	19	****	****	****	****
NKCI 50/1 Percent Release	19	****	****	****	****
Unstimulated MLC Response (cpm) ^a	19	4,971	4,590	8.3	0.116
FVC (% of predicted)	20	91.4	91.7	-0.3	0.580
FEV ₁ (% of predicted)	20	92.9	93.2	-0.3	0.721**
FEV ₂ (% of predicted)	20	90.7	90.9	-0.2	0.652**
FEV ₃ (% of predicted)	20	90.4	90.6	-0.2	0.621
FEF _{max} (% of predicted)	20	137.4	137.7	-0.2	0.778
Ratio of Observed FEV ₁ to Observed FVC ^b	20	0.818	0.817	0.1	0.645

Note: Relative Difference = $100 * (\text{Ranch Hand mean} - \text{Comparison mean}) / \text{Comparison mean}$.

^aTransformed from natural logarithm scale.

^bTransformed from natural logarithm (X+1) scale.

^cTransformed from square root scale.

^dTransformed from square scale.

^eTransformed from natural logarithm (X+0.1) scale.

TABLE R-4. (continued)

Summary of Adjusted Group Contrast Results for Continuous Variables

^fTransformed from natural logarithm (X-0.4) scale; data >0.5 μ IU only.

^gData >0 cells/cubic mm only.

^hTransformed from natural logarithm (1-X) scale.

**Group-by-covariate interaction ($0.01 < p < 0.05$); adjusted mean, confidence interval, percent relative difference, and p-value derived from a model fitted after deletion of the interaction.

****Group-by-covariate interaction ($p < 0.01$); adjusted mean, confidence interval, percent relative difference, and p-value not presented.

APPENDIX S

Glossary of Abbreviations

-A-

AC - adjusted core analyses
 ACA® - automated chemical analyser
 ACD-A - acid citrate dextrose -
 Solution A
 ADL - above detection limit
 Adj. RR - adjusted relative risk
 AE - adjusted exposure index
 analyses
 AFB - Air Force base
 AFHS - Air Force Health Study
 AGE - age at Baseline (in 1982)
 ALC - current alcohol use
 ALT - alanine aminotransferase
 AMDIPHEN - aminodiphenyl exposure
 ANTH - anthracene exposure
 ARS - arsenic exposure
 ASB - asbestos exposure
 AST - asparatate aminotransferase

-B-

BATCH - batch-to-batch variation
 among examination groups
 BDL - below detection limit
 BENZ - benzene exposure
 BENZID - benzidene exposure
 BMDP®-4F - BMDP® log-linear program

BMDP®-LR - BMDP® logistic regression
 program
 BR - base rate
 BSL-2 - National Institutes of
 Health Biosafety Level 2
 BUN - blood urea nitrogen

-C-

C - continuous analysis only
 C>RH - higher mean in Comparisons
 than in Ranch Hands
 CA - dependent variable-
 covariate associations
 CARCIN - composite carcinogen
 exposure
 CBC - complete blood count
 CC - Pearson's product moment
 correlation coefficient
 CDC - Centers for Disease Control
 CHD - coronary heart disease
 CHECO - contemporary historical
 evaluation and combat
 operations
 CHLMETETH - chloromethyl ether exposure
 CHOL - cholesterol
 CHOL/HDL - cholesterol-HDL ratio
 CHROM - chromate exposure
 C.I. - confidence interval
 CMI - Cornell Medical Index

CNS - central nervous system
 COALTAR - coal tar exposure
 CONC - mitogen concentration
 COV - covariate
 CPK - creatine phosphokinase
 cpm - counts per minute
 CREOS - creosote exposure
 CS - Chi-square contingency table test
 CSMOK - current cigarette smoking
 CUSUM - cumulative sum
 CUTOIL - cutting oil exposure
 CV - coefficient of variation

-D-

D - discrete analysis only
 DAY - mitogen harvest day
 DAY(BATCH) - blood-draw day-to-day variation within batch
 DC - degreasing chemical exposure
 D/C - discrete and continuous analyses for dependent variables; appropriate form for analysis (either discrete or continuous) for covariates
 DCH - delayed cutaneous hypersensitivity
 DEP - dependent variable

d.f. - degrees of freedom
 DIAB - diabetic class
 DIFCORT - differential cortisol
 DNA - deoxyribonucleic acid
 DRKYR - lifetime alcohol history

-E-

ECG - electrocardiograph
 EDUC - education
 EEG - electroencephalogram
 Est. RR - estimated relative risk
 ETHBACK - ethnic background
 EXC - exclusion
 EYE - eye color

-F-

FCS - fetal calf serum
 FEFmax - maximum forced expiratory flow
 FEF₂₅₋₇₅ - forced midexpiratory flow rate
 FEV - forced expiratory volume
 FEV₁ - forced expiratory volume in one second
 FEV₂ - forced expiratory volume in two seconds
 FEV₃ - forced expiratory volume in three seconds

FIR CUSUM - fast initial response
cumulative sum

FS - frequency summary

FSH - follicle stimulating
hormone

FT - Fisher's exact test

FTI - free thyroxine index

FVC - forced vital capacity

-G-

GGT/GGTP - gamma-glutamyl
transpeptidase

GLM - general linear model

GRP - group

GSI - global severity index

-H-

H - high exposure index level

HAIR - hair color

HB_{Ag} - hepatitis B surface antigen

HDL - high density lipoprotein

HERB - herbicide exposure

HPF - high-power field

HRB - Halstead-Reitan battery

HRTDIS - family history of heart
disease

HRTDIS50 - family history of heart
disease before age 50

-I-

IC - industrial chemical
exposure

ICD - International
Classification of Disease

ICD-9-CM - International
Classification of Disease
9th Revision, Clinical
Modification

INS - insecticide exposure

IQ - intelligence quotient

-L-

L - longitudinal analyses/low
exposure index level

LAB - 1987 SCRF laboratory
results/1987 SIRL
laboratory results

LAB (1985) - 1985 SCRF laboratory
results

LAT - average lifetime
residential latitude

LBBB - left bundle branch block

LDH - lactic dehydrogenase

LH - luteinizing hormone

LL - log-linear models analysis

LR - logistic regression
analysis

LT - linear trend test in
proportions

LWINE - lifetime wine history

-M-		NS	- not significant
M	- million	NS*	- borderline or marginally significant
MM	- millimolar		
MCH	- mean corpuscular hemoglobin	-O-	
MCHC	- mean corpuscular hemoglobin concentration	OCC	- occupation
MCHI	- Million Clinical Multiaxial Inventory	OMR	- Optical Mark Recognition
MCPA	- (2,4-dichlorophenoxy)-acetic acid	OR	- chi-square test on the odds ratio
MCV	- mean corpuscular volume	-P-	
MIL	- Air Force military records	PACKYR	- lifetime cigarette smoking history
ML	- malignant lymphoma	PBM	- peripheral blood mononuclear
MLC	- mixed lymphocyte culture	PCT	- porphyria cutanea tarda
MMPI	- Minnesota Multiphasic Personality Inventory	PE	- 1987 SCRF physical examination
MUSTGAS	- mustard gas exposure	PE (1985)	- 1985 SCRF physical examination/1985 SCRF physical examination updated with 1987 SCRF information for new/rejoining participants
-N-		XBFAT	- percent body fat
NAPTHYL	- naphthylamine exposure	PERS	- personality type
NIOSH	- National Institute for Occupational Safety and Health	PFU	- plaque-forming unit
NHL	- non-Hodgkin's lymphoma	PHA	- phytohemagglutinin
NKCA	- natural killer cell assay	PMR	- proportionate mortality ratio
NKCI	- natural killer cell assay with Interleukin 2		
NORC	- National Opinion Research Center		
NOS	- not otherwise specified		

PO - proportional odds model analysis

POMS - profile of mood states

ppm - parts per million

PSDI - positive symptom distress index

PST - positive symptom total

PTSD - post-traumatic stress disorder

PWM - pokeweed mitogen

-Q-

QA - quality assurance

QC - quality control

QRC - Quality Review Committee

Q-SR - 1987 NORC questionnaire (self-reported)/1987 Family and Personal History questionnaire (self-reported)

Q-SR (1985) - 1985 NORC questionnaire (self-reported)

Q-V - 1987 NORC questionnaire (verified)

-R-

RAD - ionizing radiation exposure

RACE - race

RBBB - right bundle branch block

RBC - red blood cell count

RH>C - higher mean value in Ranch Hands than in Comparisons

RH^H>C^H - Ranch Hand percent abnormally high greater than Comparison percent abnormally high

RIA - radioimmunoassay

RM - repeated measures analysis

RPR - rapid plasma reagin

RR - relative risk

RVN - Republic of Vietnam

-S-

SAIC - Science Applications International Corporation

SAS®-GLM - SAS® general linear model

SCL-90-R - Symptom Check List-90-Revised

SCRf - Scripps Clinic and Research Foundation

SEA - Southeast Asia

SEAACNE - presence of pre-SEA acne

SGOT - serum glutamic-oxaloacetic transaminase

SGPT - serum glutamic-pyruvic transaminase

SIRL - Scripps Immunology Reference Laboratory

SKIN - skin color

STS - soft tissue sarcoma

SUNREAC - sun-reaction index

SUNREPEAT - reaction of skin to sun
after repeated exposure

SUN2HR - reaction of skin to sun
after at least 2 hours
after first exposure
(assuming several preceding
episodes)

-T-

T₃ % - triiodothyronine percent

T₄ - total thyroxine

TCDD - 2,3,7,8-tetrachlorodi-
benzo-p-dioxin

TCP - trichlorophenol

TIMESEA - time reference of acne
relative to SEA

TLC - total lymphocyte count

TRICLETH - trichloroethylene exposure

TSH - thyroid stimulating hormone

TT - two-sample t-test

-U-

UC - unadjusted core analyses

UE - unadjusted exposure index
analyses

ULTLIGHT - ultraviolet light (not sun)
exposure

USAF - U.S. Air Force

-V-

V - verified neoplastic
conditions only

VA - Veterans Administration

VINCHL - vinyl chloride exposure

VS - verified and suspected
neoplastic conditions
combined

-W-

WAIS - Wechsler Adult Intelligence
Scale

WBC - white blood cell count

WHO - World Health Organization

WINE - current wine use